



*Medieval
Manuscripts*

Lehigh University

Western Manuscripts
of the Twelfth through the Sixteenth Centuries
in Lehigh University Libraries
A Guide to the Exhibition

by
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Preface

Some sixteen of Lehigh's manuscripts were included in volume II of Seymour de Ricci and W. J. Wilson's *Census of Medieval and Renaissance Manuscripts in the United States and Canada* (1937), and one of these, the alchemical manuscript of Arnald of Brussels, was studied extensively by Wilson in a monograph published in *Osiris*, II (1936), 220-405, and catalogued as MS. 57 in Wilson's *Catalogue of Latin and Vernacular Alchemical Manuscripts in the United States and Canada*, which was published as volume VI of *Osiris* (1939). I am indebted to all three studies. The only catalogue entries I have recorded are those assigned in the *Census*, and I have not dealt with the provenance of the manuscripts it lists since that information is readily available in the *Census* itself. Further, I have exhibited the manuscripts in roughly chronological sequence, and have so altered the order of the *Census*, which lists Lehigh's manuscripts by acquisition number.

In the time available for the preparation of this guidebook I have incurred many debts. Lehigh's Director of Libraries, Mr. James D. Mack, has given me every possible assistance, and I am indebted to him for much of the information contained in the Introduction. Professors Albert E. Hartung and Frank S. Hook very kindly answered certain questions which arose in the course of composition. Dr. Edna S. De Angeli graciously verified my translations of the *Lignum Vitae*, and Dr. John F. Vickrey read the typescript. But my greatest debt is to my father, Professor Edward L. Hirsh of Boston College, who not only provided me with specialist advice in the field of Medieval and Renaissance literature while my work was in progress, but early taught me how *out of olde bokes, in good feyth, Cometh al this newe science that men lern*.

J. C. H.

Introduction

Lehigh University was founded in 1865 by the Honorable Asa Packer, one of the leading industrialists and capitalists of the day, whose Lehigh Valley Railroad superseded the slower river canals and began to exploit the vast anthracite fields of eastern Pennsylvania. From the beginning the University combined technical and scientific instruction with liberal arts, a relatively new departure among the many universities which were established in the middle of the nineteenth century. But even with the generous financial support and broadly based educational theory which these factors supplied, a collection of manuscripts was not usual for many American universities founded in that period, and it is interesting to note the circumstances under which Lehigh's collection was begun.

There is an entry in the Minutes of the Board of Trustees for 26 June 1878 directing that "There should be formed a collection of a limited number of autographic letters of distinguished persons; a limited number of ancient books and manuscripts illustrating the art of book making, a limited collection of prints and engravings illustrating the progress of the fine arts, a limited collection of coins and medals, as illustrating history, ancient and modern." It was on the second heading of this remarkable directive that the collection was authorized, although the specification that the volumes in question should illustrate "the art of book making" may have been a help in getting the resolution passed by the Board of Trustees of a college that was, in its inception, largely concerned with technological progress. But the moving force was Dr. William H. Chandler, Professor of Chemistry, and, with the reorganization of the university administration which followed Packer's death in 1879, the first Director of the Library.

The Library Committee was given "the control of the library and the management of its finances" by a resolution from the Board of Trustees on June 20, 1880, and held its first meeting on November 22 of the same year. By that time Professor Chandler was already acquiring rare books, and a meeting of the Library Committee on October 13, 1881 recorded the earlier directive authorizing acquisition of the collections, and added "It is hoped that the friends of the University will be inclined to lend their aid in furtherance of these objects, as well as in the increase of the library, by such donations as they are able to make. Before many years have elapsed then will thus be accumulated here a vast fund of knowledge, reflecting the wise forethought of the beneficent Founder and eminently creditable to all concerned in its management."

As Lehigh had acquired its first manuscript, the alchemical compendium of Arnald of Brussels, on March 28 of that year, and added a good many more in

early September, the October meeting's appeal is of interest. Possibly at the meeting the question was raised as to how the manuscripts and rare books should be treated; at any rate, at the next full meeting of the Committee on June 5, 1882, the minutes record that "A small collection of manuscripts of the middle ages and a few early printed books have been secured and placed on exhibition. Among these we mention some beautifully illuminated breviaries of the 14th and 15th Centuries; the first book of travels, printed in German, dated 1508; and a Keruer imprint, Paris 1520: of early American imprints, we have examples from the Ephrata and Franklin presses, and a fine copy of the Aitkin bible, Philadelphia, 1781, [*sic*] the first bible, with an American imprint, and for which the publisher received the thanks of Congress."

Until the stock market crash of 1893 the library's collection grew steadily and besides the manuscripts listed here it obtained some three thousand volumes, including good copies of all four Shakespeare folios. Since then rare book acquisition has been dependent upon outright gifts, and manuscript acquisition has been gradual in the extreme, in spite of the generous gifts of Mr. Robert B. Honeyman, Jr., and Mr. Watson Over, which have added much to the luster of the collection. It is hoped that the exhibition will acquaint many with the present state of Lehigh's collection, and that from this wider knowledge may come continued growth.

A Guide to the Exhibition

No. 1. Reginold of Eichstätt. *Historia of St. Nicholas* with the lections, in Latin. 12th-century manuscript fragment on vellum, probably written in Italy. Part of one f. in double columns. 18 x 14 cm. Acquired by Lehigh in 1931, the gift of Mr. Robert B. Honeyman, Jr. *Census* no. 16.

The fragment was originally bound into the binding of another volume.

Although little is known about St. Nicholas of Myra, the 4th-century bishop of Myra in Lycia which lies in modern Turkey, his cult was one of the most popular in medieval Europe, and the legends about his life are legion. Sometime shortly before 966 a clerk named Reginold who had travelled in the East, and who was known for his knowledge of Greek literature and music, composed a *historia* in honor of St. Nicholas, that is, a series of antiphons and responsories designed to be sung in the Canonical Office during a single day, excluding the psalms and the lections. The *historia* proved popular, and it was probably because of its popularity that Reginold was ordained bishop of Eichstätt in 966. Shortly thereafter a number of lections were adopted, including ones from the 11th-century *Vita* of Nicholas by Otloh. The *historia* exists both by itself and, as in the case of the Lehigh fragment, with the lections of the proper added. Originally part of a larger double column choral manuscript, the Lehigh fragment contains responsories 15, 17, and 29 from the edition published by Charles W. Jones, *The Saint Nicholas Liturgy and its Literary Relationships (Ninth to Twelfth Centuries)*, University of California English Studies 27, (Berkeley and Los Angeles, 1963). All three have musical notation.

No. 2. Anon. Life of St. Nicholas, in Latin. 12th-century manuscript fragment on vellum, probably written in Italy. Part of one f. 18 x 12 cm. Acquired by Lehigh in 1931. *Census* no. 15.

The fragment was originally bound into the binding of another volume.

From the reference in this badly rubbed fragment to Nicholas "pastor" it seems probable that the fragment refers to Nicholas of Myra, and further down on the folio we read "(a)gios agios agios Nicolae cur nos oues pascu..." The fragment is probably from a *Vita* of St. Nicholas, perhaps one used to supply lections for the *Historia*.

No. 3. Anon. Writings on philosophy, in Latin. 12th-century manuscript fragment on vellum, probably written in France. 2 ff., joined, each 16.5 x 26 cm. Provenance unknown.

Anon. Writings on Philosophy. *Incip.* Ipse itaque humane anime mentem dedit unde ratio et intelligentia in infante sopita est quod a modo quasi nulla sit excitanda scit atque serenda etatis accessu qua sit scientie capax atque doctrine

et habilis perceptioni ueritatis et amoris boni qua capacitate huriat sapientiam uirtutibusque.

Little is known about this fragment, and there is not even a record as to when it was acquired by the University. It has been trimmed and folded, and from its physical state it seems certain that it was at one time bound into a book binding, and so preserved. It was catalogued by the library in 1960, although it seems to have been in the vault well before that time, since there is a reference to it in an insurance list of 1950.

No. 4. Robert Holcot, *et al.* Moral and didactic writings, in Latin. 14th-century manuscript on vellum, probably written in northern Italy. 126 ff., the last having been pasted down. Bound in original wooden boards and pigskin. 18 x 13 cm. Belonged to the Carthusians of Treviso, f. 44 signed "per manum Walteri fratris Carth(usiani)." Acquired by Lehigh in 1887. *Census* no. 13.

1. Robert Holcot, *Moralitates Historiarum*. *Incip.* Theodosius de vita alexandri. ff. 7-24^v.
2. Fulgentius, *De Imaginibus Virtutum*. *Incip.* Apollo dicitur principalis proles Jouis. ff. 25-44.
3. Lucius Annaeus Seneca, *Declamationes XXV Moralitate*. *Incip.* Antiquitus in civitate Atheniensi fuit constituta talis lex. ff. 44-55^v.
4. *Sermones XXXII*, ascribed to Albertus Magnus, prefixed with three tree-diagrams, discussed below. *Incip.* Nota bene tribus arboribus hic depictis. ff. 56-118^v.

A varied collection of moral and didactic writings, ranging from Roman Seneca in the 1st century, through the North African apologist Fulgentius in the 6th, to the near-contemporary sermons and the recent *Moralitates* of the learned Englishman Holcot. The manuscript is a good example of a late medieval compendium, and contains a variety of authors known all across Europe.

The folios exhibited from this manuscript contain an illustration of the *Lignum Vitae*, a common medieval diagram which was didactic in purpose. Tree diagrams were popular from the 12th century on; the preceding page of this manuscript contains a seven-branch tree diagram illustrating twenty-one aspects of the Eucharist. In the exhibited folios, a figure of the crucified Christ on the top of the page pours blood from the wound in his side into a chalice held by an Evangelist on the bottom. The Evangelist, in turn, holds a book in his other hand, above which is imposed a simple line drawing of a cross, thus illustrating the progression of grace from Christ, through the Eucharist, and, by reason of the book and the (unfinished) pastoral chair upon which the Evangelist is seated, through his Church as well. The uplifted arms of the Evangelist are balanced, in the tree of vices, by two uplifted arms which seem to grow out of the trunk of the tree, and which hold two scrolls reading

Chains of sin, and *The stroke of death*. The tree of vices was often shown with a demon or sinner clasping its trunk, about to climb, his arms raised in a similar position.

The scrolls at the foot of each tree refer to the fruits found in the branches above. The one under the tree of virtues, punning on the Latin word *mala* which can mean either fruits or evils, reads: *Here are the xii fruits of the tree of life, that is, the Body of Christ, and here also are the xii evils of man which must be included in the other tree.* The scroll under the tree of vices reads: *The xii individual fruits above express the very great general evils.* The scroll on the trunk of the tree reads *a lack of grace*, and it is to this spiritual condition that the fruits on the tree refer; those on the tree of virtues refer to the benefits to be gained by devotion to Christ. The fruits for the most part balance each other, except the author has confused the parallelism of numbers six and eight. The references to the source for the quotations placed within each fruit, sermons 21, 22, and 23 from the Latin sermons following the diagram, are not included in the following translation which renders the fruits in English in the following order:

		1	2		
		3	4		
5	6			9	10
7	8			11	12

1. Virtues: *inflames the will*
Vices: *against the highest delight*
2. Virtues: *delights the memory*
Vices: *against spiritual taste*
3. Virtues: *illuminates the mind*
Vices: *against our knowledge*
4. Virtues: *confirms man in good*
Vices: *against consummation of good*
5. Virtues: *restores the vital force*
Vices: *rejection of the vital force*
6. Virtues: *pleases God*
Vices: *stains of the soul*
7. Virtues: *rejects the devil*
Vices: *temptation of the devil*
8. Virtues: *purges stains*
Vices: *hatred of God*

9. Virtues: *multiples the merits of a good life*
Vices: *a running away of good life*
10. Virtues: *leads to the native country of life (Paradise)*
Vices: *exile to the miserable world*
11. Virtues: *frees from eternal death*
Vices: *debt of death*
12. Virtues: *revives the heart to eternal life*
Vices: *burning of the material body*

Picture diagrams of this sort often sprang originally from an ecstatic or visionary insight, but as one illuminator modified another this quality was quickly lost. In many, as in the Lehigh diagram, the ability to perceive the passion, or Christ in the world, or to ascend to the heights of spiritual contemplation, was modified by the illuminator's didactic purpose. Here the meditation of Christ on the cross gives way not to a deepening insight into the nature of spiritual realities, but to a studied catalogue of the influence of devotion on the mind and life of man. In defence of the illumination it should be pointed out that in fact the arrangement is far less mathematical, far less tortuous, than many such diagrams, and that in its elaboration of effects it does show both psychological insight and spiritual understanding. But overall it is the diagram rather than the vision which prevails, and what the illumination gains in didactic explanation it may be said to have lost in spiritual insight.

Further information on the history and background of the tree diagrams may be gathered from F. Saxl, "A Spiritual Encyclopedia of the Later Middle Ages," *Journal of the Warburg and Courtauld Institutes*, V (1942), 107-115, which traces the 13th-century growth in popularity of the tree diagrams, particularly that of St. Bonaventurc.

No. 5. John Cassian. *Collationes XXIV*, in Dutch. Vol. II of two vols, Collatio XIII to end. 14th-century manuscript on vellum, written in the Netherlands. 164 ff. lined with two ff. from a 13th-century Dutch manuscript. Bound in original wooden boards covered with brown stamped calf. 18 x 12 cm. Belonged to the convent of St. Cecilia "bynnen Hoern." Acquired by Lehigh in 1881. Census no. 2.

John Cassian, *Collationes XXIV*: Collatio XIII, *et seq.* *Incip.* Cheremons derde collacie, van der bescerminge Gods, die dertiende collacie. Doe wie weder nac een lutelkyn slaeps tot metten desen ouden uader ghevonden hadden.

John Cassian was born in what is now Rumania about the year 360. After coenobitic training in Bethlehem, he travelled with a friend into Egypt where he undertook a seven year study of Antonian monasticism which still flourished there. During this time Cassian came into contact with the custom of Confer-

ences, discussions in which a young man would be instructed by an older one on some aspect of the spiritual life. When he came to write his own conferences in 420, nearly a quarter of a century after having left Egypt, he adopted the old monastic form, and even claimed that he remembered each of the twenty-four conferences from his years there. Though there is reason to doubt this assertion, the conferences do show a broad understanding of the monastic life, and were undoubtedly formulated in Egypt.

Broadly speaking, the conferences fall into three groups: nos. I-X, published about 420, center on the problems confronting spiritual perfectibility, and emphasize the ability of man to reach union with God by seeing through materiality into the essential simplicity of the Divine. Nos. XI-XVII, published about 426, treat related theological problems, and it is chiefly from these that Cassian later derived his reputation as a semi-pelagian, one who upheld too firmly the ability of man to save himself, and who under-valued man's need for grace. The third and final part, nos. XVIII-XXIV, was published before 430, and deal with the types of monastic life, and the ways of reaching perfection.

Lehigh's 15th-century Dutch manuscript is connected with the "Devotio Moderna," the new devotion which sprang up in the low countries and elsewhere in the late 14th and 15th centuries. Part of the work undertaken by the lay communities in the group was the translation and copying of spiritual authors like Cassian. In fact the author was a favorite of Florentius Radewijns, the ascetic who succeeded Gerald Groote as head of the community in 1384, and who was largely responsible for the rules governing the community. Radewijns incorporated selections from Cassian into his *Tractatus de Spiritualibus Exercitiis*, and from there the writings spread into the life of the community, by way of such later writers as Gerard Zerboldt. Thus the existence of a Dutch translation of Cassian is in no way surprising; it is only to be regretted that the two volumes did not remain together.

No. 6. Deed of sale, in Latin. 15th-century manuscript on vellum, written in England, and dated 30 May, 1484. 29 x 9 cm. Acquired by Lehigh in 1931, from the library of A. Bruce Black. *Genus* no. 14.

The deed concerns the sale of a piece of land in Kent (Pluckley) called Stacy, by William Pyx and others. Sealed deeds or "charters" such as this one were the main instrument for conveying land in medieval England. The seals of the concerned parties were what gave the document its legality; such seals could be obtained in England by any free and lawful man, not simply by the nobility, from the 13th century. It will be noticed that in this manuscript one of the three has been lost.

No. 7. Anon. *The Brut* in Middle English. Three 15th-century manuscript fragments on vellum, written in England. Fragment A, 9.5 x 26.5 cm.; Fragment B 12 x 29.5 cm.; Fragment C 20.5 x 15 cm., to which has been added a thin strip

of vellum 20.5 x 2.8 cm. The three fragments were uncovered in the course of arranging the present exhibition, and the University has no record of their earlier provenance. When found, they were enclosed in three separate picture frames, and when they were removed it was discovered that the fragments had been backed with newspaper tearings from the London newspaper *The Sun* dated March 12, 1934, and with tearings from a catalogue published from the the Chelsea Auction Rooms, Ltd. dated December, 1933. It seems probable that manuscript was cut up earlier in the present century, and that the folios were sold separately, perhaps in London, so that the private owner could realize a high return.

All three of the fragments are clearly from the same double-column manuscript. Fragment B is marked (folio) 28 (?25), Fragment C (folio) 51. Most regrettable though it is, the destruction of the manuscript is hardly a major catastrophe. There are extant some 121 other manuscripts of the work, and the whole has been published in a satisfactory edition for the Early English Text Society by Friedrich W. D. Brie in 1906 (vols. 131, 136, in the Original Series). I list below the page and line numbers contained in the Lehigh Fragments. All references are to vol. I of Brie's edition, EETS 131.

Fragment A, recto. p. 46 line 31 to p. 47 line 11.
verso. p. 48 line 11 to line 29.

Fragment B, recto and verso. p. 54 line 7 to p. 55 line 9.

Fragment C, recto. p. 127 line 15 to line 26, and p. 127 line 33 to p. 128 line 9.
verso. p. 128 line 16 to line 27, and p. 129 line 6 to line 19.

Fragments A and B are entire columns, Fragment A recto a left hand column, verso a right hand column. Fragment B recto contains a right hand column, verso the next continuing column; thus Fragment B contains the longest continuous narrative of the three fragments. Fragment C contains the top half of the cut folio, with two abbreviated columns on each side. Fragment A contains a miniature in initial of King Constantine on his throne.

The Brut of England or *The Chronicles of England* was a late 14th- or early 15th-century translation from the French *Brut d'Engleterre*, a history of England from the time of Brutus, the great-grandson of Aeneas, who was taken to be the founder of England. Later English versions of the chronicle continue up to the year 1479, and some of these provide valuable contemporary accounts. The translation is written with much vigor, if little art, and it is hardly necessary to conclude with Brie that "as literature the Chronicle is as worthless — except for a few inserted poems — as a mediaeval Chronicle possibly can be." Whatever its intrinsic value, however, it clearly touched a responsive chord in the heroic and increasingly nationalistic imagination of its readers, and Kingsford insists that "the constant writing and rewriting during the fifteenth

century of an original popular history in English carries us much further than any translation of a monastic chronicle, and marks an important stage in the development of our historical literature."

I print below the whole of Fragment B as an interesting excerpt from the chronicle. Readings taken from Bric's edition are placed in round brackets. The passage deals with the return to 5th-century England of Engist, earlier an ally of King Vortyger, but now suspected of trying to overthrow the king in order to seize the land himself. His request for a love day is anachronistic; a love day was a later medieval institution whereby the king would appoint a time and place to meet with an enemy and be reconciled. The source for this story is to be found in Geoffrey of Monmouth's popular 12th-century *History of Britain*, book VI chapter 15, though there are earlier versions of the story, one of the more popular set at a banquet. Needless to say, the etymologies here presented are as incorrect as they are interesting. Britannia was the ancient Roman name for the island, and England meant originally "the land of the Angles," an old tribe, not "Engist's land." But the passage has a certain artless vigor which makes even its fascination with war and heroism palatable.

Fragment B

(Vortyger) herde telle that Engist was come aȝen with a grete power into his lande: he assemblede his Britouns and wente aȝeyn Engist forto haue ȝeuen hym batayle and his folke. But Engist dradde hym sore of the Britouns. For thei had descomfited hym biforehande and dryuen hym out with strengthe. Wherefore Engist praide of a loueday, and seide that he was not comen into the land forto fighte: but to haue his lands aȝeyn of kent ȝif he myghte accorde with the Britouns. and of hem haue price. ¶

The kyng Vortiger thorough counseile of his Britouns grauntede a loueday. and thus it was ordeyned through the Britouns for the same loueday shulde be holden faste bisides salisbury vpon an hille. and Engist shulde come thidre with .iiij. c. knyghtes withouten mo. and the kyng with as manye of the wiseste of this lande. ¶

And at that day the kyng come with his counseile as it was ordeyned. But Engist hadde warned his knyghtes pryncely and hem counseded for eueriche of hem shulde putte a longe knyf in his hoo. and whan he seide faire sires now is tyme to speken of love and pees: enyche of hem anoten shulde drawe his knyf and sle a Britoun. and so they quelledo xxx. M. and .lxj. knyghtes. and with moche sorwe many of hem escapede. And Vortiger hymself was taken and ladde to Thwongcastell. and putte into prison. and some of Engistes men wolde for to be kyng hadde be brende al quyt. ¶

And Vortiger tho to haue his lyf grauntede hem as moche as they wolde aske. and ȝaf vp al the lande tounes and castles Cites and Bourghes to Engist and

to his folke. *and* alle the Britouns fledde thennes. into Wales. and *bere* helde hem stille. And Engist wente thorough the launde *and* seisede al þe lande with Fraunchises. and in euery place lete caste doun chirches *and* houses of religioun. and destroiede cristendome thorough al the lande. *and* lete chaunge þe name of the lande þat noman of his were so hardy after þat tyme to calle this londe Britaigne? but to calle it Engistes lande. And he departede al the lande to his men *and* *bere* made .vij. kynges forto strengthe þe lande þat þe Britouns shulde neuere comen the(r)ynne. ¶

The firste kyngdome was kent there þat Engist hym self regnede *and* was lorde *and* (maystre) ouer al the othere. ¶

Another kyng hadde Southsex where is now (Chichestre) . . .

The later English versions of the chronicle are described in Charles L. Kingsford, *English Historical Literature in the Fifteenth Century*, (Oxford, 1913), 113-139.

No. 8. Roger of St. Albans. Genealogical roll, in Latin. 15th-century manuscript on a vellum roll 20 feet 5 inches x 12 inches (612.8 x 30 cm.), written in England. Bears the 16th-century inscription "liber Robert Ohlund (?) de Stondley (?)." Acquired by Lehigh in 1955, the gift of Mr. Robert B. Honeyman, Jr.

Roger of St. Albans, *Chronicle: Incip.* Considerans prolixitatem chronicorum.

Of of the many English roll chronicles extant from the middle of the 15th century this one, by the Carmelite friar Roger of St. Albans, was one of the most popular. It exists in at least six other manuscripts, and in two versions. Originally the chronicle ended in 1453, but some manuscripts, like Lehigh's, continue to the time of King Edward IV, and terminate prior to the King's marriage in 1465. As they run from the time of Adam through the kings of England, and included such major biblical events as Noah's flood and the coming of Christ, the purpose of the manuscripts was primarily educational, though the later versions, written after the outbreak of the War of the Roses, do give evidence of Yorkist sympathies.

Little is known about the author of the roll, other than that he was born at St. Albans outside of London (coincidentally, the place where the first battle of the War of the Roses took place in 1455), and that he became a friar in the Carmelite house in London towards the middle of the 15th century. In the chronicle, his one extant work, Roger drew upon the *Polychronicon*, a universal Latin history by the 14th-century English Benedictine monk Ranulph Higden, which had been translated into English by John of Trevisa in 1387. Roger's authorship is attested to in only one manuscript, MS. Queen's College Oxford 168.

This section displayed shows the beginning of the roll, with its illuminated border and ornate genealogical tree. It shows the descent from Adam through

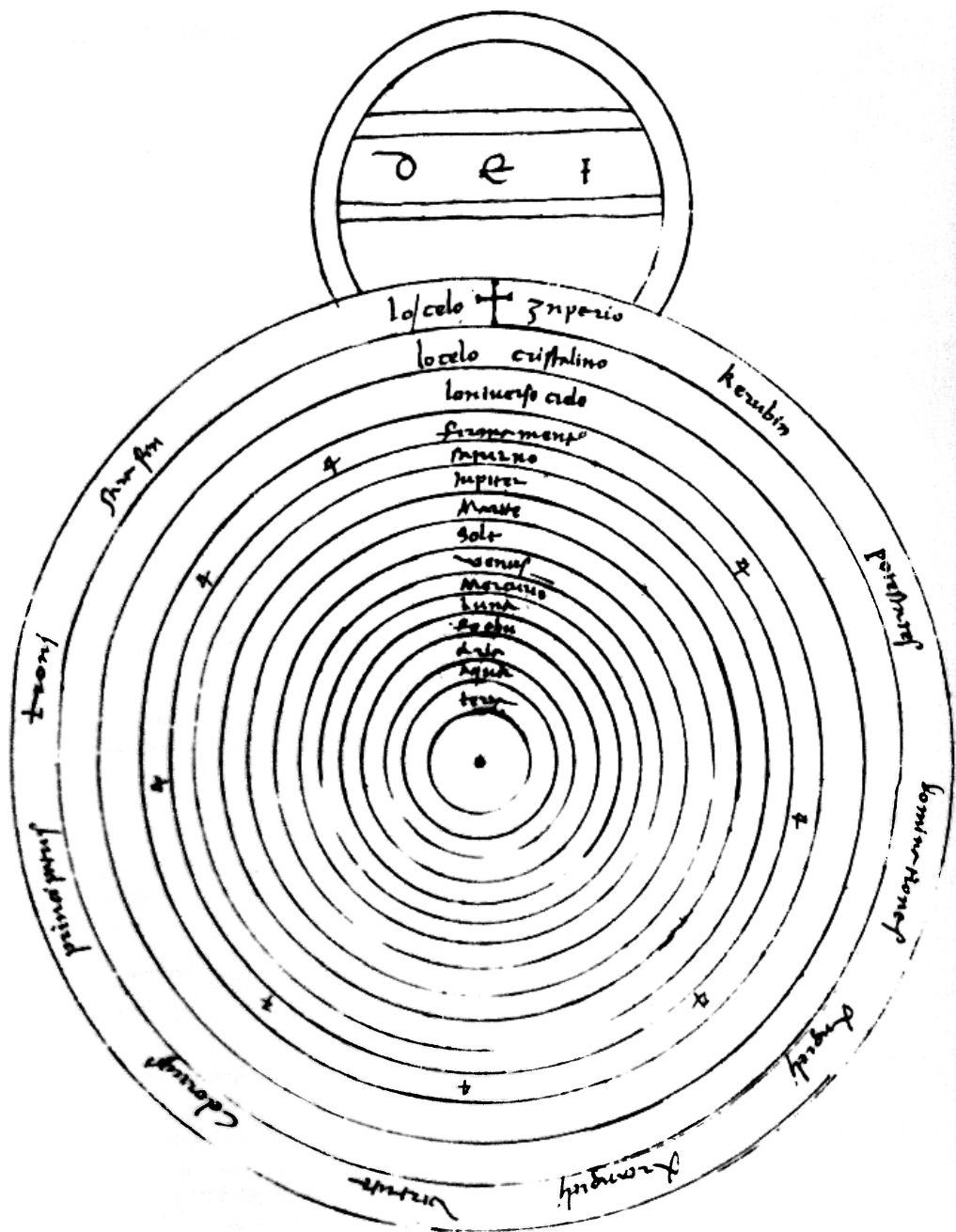
Noah, and beyond. The rolls are briefly discussed in C. L. Kingsford's *English Historical Literature in the Fifteenth Century*, 164-165.

No. 9. Anon. Writings on astronomy, in Italian. 15th-century manuscript on paper, written in Italy between 1480 and c. 1490. 54 ff. Modern vellum binding. 29.5 x 21.5 cm. Acquired by Lehigh in 1963, from the gift to the library of Mr. Watson Over.

The manuscript contains a number of tables, diagrams, and shorthand annotations which fall into the following rough groupings. Often the compiler has made notes on a text rather than transcribe it, or has abbreviated what transcriptions he has made.

1. Easter Calendar, 1391-1585. Solar and lunar computations, illustrated (f. 2^v), with a hand diagram for computing the time of Easter. *Incip.* Chi voles sapere quello che core la pascha. ff. 2-13.
2. Computations of hours, days. ff. 14-18.
3. A Horoscope, f. 18^v.
4. An account of the seven planets, perhaps drawn from John of Sacrobosco, *Tractatus de Sphera*, III, or a commentary upon it. See Lynn Thorndike, ed. and trans., *The Sphere of Sacrobosco and Its Commentators*, (Chicago, 1949), 111-112 and 139-140. ff. 21^v-24^v.
5. Lunar computations, including another diagram in the form of a hand illustrating the "Regole della Luna," and tables associated with the phases of the moon. ff. 24^v-43^v.
6. Diagram of the universe, explained below. f. 44^v.
7. *Misura della Circonfrenzio della Terra...*, drawn from John of Sacrobosco, *Tractatus de Sphera*, I. See Lynn Thorndike, ed. and trans., *The Sphere of Sacrobosco and Its Commentators*, 85 and 122-123. f. 45.
8. Two diagrams with explanations of the relationship the four Aristotelian elements, earth, air, fire and water bear to the earth. (From a commentary on Sacrobosco?) ff. 45^v-46^v.
9. *Della Compresione del Aria e del Tempo*, with subheadings. ff. 47-49.
10. *Regula secondo la cbiesta romana*, begun again from f. 6^v, but broken off after four-and-one-half lines. f. 49^v.

The diagram exhibited from this manuscript shows the old geocentric understanding of the universe; the earth is at the center, and above it are the other three elements water, air and fire, in that order. These constitute what the 13th century astronomer Sacrobosco, among others, called the elementary region



Geocentric Universe from Exhibition No. 9, folio 44^v.

of the universe. Above this is the ethereal region, which consists of the seven known planets, the Moon, Mercury, Venus, the Sun, Mars, Jupiter, and Saturn. Above this lies the firmament, which contains the fixed stars, and beyond that the ninth heaven. To this cosmology our author has added the crystalline heaven, and beyond that the Emperion, the dwelling place of the angels. Within the Emperion he lists the celestial hierarchy of angels, reading, in clockwise position, Cherubim, Powers, Dominations, Angels, Archangels, Virtutes, Celorius, Principalities, Thrones, and Seraphim. Nine of these orders are common enough, though I fail to identify Celorius (perhaps a corruption of an abbreviation for *celestial* carried over from the exemplar as a tenth order?) among any of the more common additions to the hierarchy. Finally, in an attached but altogether separate three-quarter circle, he shows DEI.

The diagram is of interest for its outer rings, and for the relationship that God is made to bear to the whole. Chaucer might project Troilus to the eighth sphere, Milton might view the crystalline as the outer and protecting sphere, and Dante might look with wonder into the Emperion, but rarely were all three collected with quite the same diagrammatic zeal which is evident here. The addition of the three-quarter circle representing God is also of interest. There has been a feeling among some scholars in the present century that the replacement of the Ptolemaic, geocentric universe, with the Copernican, heliocentric universe, brought about a crisis for some intellectuals in the Renaissance period, since it forced them to realize that man's relationship with the cosmos as a whole, and with God, the unifier of the cosmos, must be altogether different than had previously been supposed. While the existence of one highly ideosyncratic manuscript cannot be said to disprove this theory, which has been cogently urged by many, it must be said that the diagram under discussion gives very little support to the position. Here, after all, DEI is altogether set apart from the highly ordered Christian universe that exists below. He is just as much an "addition" to this universe as He would be to a Copernican system, and the disparity between man on the earth and God above it would be in no way altered simply because the relationships among the planets had been changed. And if this understanding is to be found in an author not at all distinguished for philosophical or for literary insight, ought we to expect less from those who have made such matters their chief concern? My own answer will be apparent from the way I have posed the question, but in dealing with the new cosmology, perhaps we should take care not to confuse unnecessarily the physical disorientation it occasioned with concurrent, but often separate, philosophical and theological uncertainties.

No. 10. Arnald of Brussels, compiler. Alchemical writings in Latin, Italian and Catalan. 15th-century manuscript on paper, written mostly in Naples between 1472 and 1490. 229 ff. in double columns, all in Arnald's hand except for ff.

79-101 in an unidentified (German?) hand and some 16th and 17th-century Latin and French annotations. Half leather binding, rebacked. 28 x 21 cm. Acquired by Lehigh in 1881. Census no. 1.

The manuscript was the subject of an extended monograph by W. J. Wilson, "An Alchemical Manuscript by Arnaldus de Bruxella," which appeared in *Osiris*, II (1936), 220-405. I adopt the following list of contents from Wilson's Appendix II, "Treatises and Poetical Selections in the Lehigh Alchemical Manuscript," 363-375. The list omits the alchemical recipes, lists of symbols and alchemists, later French additions, and miscellaneous matters. It also omits references to published editions and catalogue entries which can be found in Wilson's appendix.

1. Albertus Magnus, *Semita Recta in Alkymia*. *Incip.* Omnis sapientia a Domino Deo est. ff. 1-16^v.
2. *Regimen et ex quibus Componi Debet Lapis Philosophorum*. *Incip.* De resolutione lune et separatione terre ab aqua. ff. 17^v-18.
3. *Relatio de Philosopho Mauro et de Fabro Erario Aurifabro*. *Incip.* Medicina reperta in quodam libro vetustissimo ad convertendum lunam in verum solem. ff. 21^v-22.
4. *Petitiones et Responsiones Facte per Agadinum a Spiritu*. *Incip.* Petitio. Dicas michi tu spiritus: Potest fieri lapis. ff. 24^v-25.
5. Hermes, *Obra de la Alkymia*. *Incip.* Açí comença la obra de la alkymia de Hermes, e parla primerament de la pedra que ell appella adebesi, e comença en aquesta manera. ff. 30^v-32^v.
6. Geber, *Summa Minor*. *Incip.* Cum solerti indagine. ff. 49^v-64^v.
7. Geber, *Testamentum*. *Incip.* Ex omnibus rebus animalibus. ff. 65-68.
8. Geber, *Triginta Verba super Practica Servanda in Arte Alkymie*. *Incip.* Iam tu scis qui hanc queris scientiam nos eam multis modis explanasse. ff. 68-71.
9. Geber, *Duodecim Verba*. *Incip.* Verbum primum super aceto philosophorum. Sume aquam. ff. 71^v-72^v.
10. Hermes, *Secreta*. *Incip.* Septem sunt planete, septem metalla. ff. 72^v-73.
11. Rasis, *Liber Duodecim Aquarum*. *Incip.* Libelli huius seriem 12 capitulis ordinabo. ff. 73^v-74^v.
12. *Qualiter Fit Aqua Fortis et Virtutes eius*. *Incip.* Qualiter fit aqua fortis, et virtutes eius, que possunt operari cum ea. Recipe vitrioli uncias 3. ff. 74^v-76.
13. Raymon Lull, *Tertia Distinctio de Cura Elementorum*. *Incip.* Prima pars. Hec est tertia distinctio huius libri, que est de cura elementorum in compositione lapidis. ff. 79-96^v.

14. Raymon Lull, *Epistola Accurtationis. Incip.* In virtute sancte trinitatis ipsiusque infinite veritatis, amen. Cum ego Raymundus de insula Maioritarum. ff. 99^v-101^v.
15. *De Compositione Lapidis Philosophorum Doctrina Elegans Composita in Inscriptis Centum Versibus. Incip.* Fili, doctrinam tibi nunc porrigo binam. ff. 106-106^v.
16. *Quomodo Mercurius Convertitur in Veram Lunam. Incip.* Mercurius verissima luna fit alacritate. f. 106^v.
17. *De Doctrina Compositionis Medicine ad Rubrum super Argentum Preparatum. Incip.* Prohemium. De hiis autem nullus philosophicus liber mentionem fecit. ff. 102^v-126.
18. Arnald of Villanova, *Flos Regis, (=Epistola super Alchymiam ad Regem Neapolitanum). Incip.* Scias tu rex quod sapientes. ff. 126-127^v.
19. *Dicta XII Philosophorum. Incip.* Sciatis, domini. ff. 127^v-128^v.
20. Arnald of Villanova, *Libellus Septem Propositionum, (=John of Dascia Angelicus, Rosarius Abbreviatus). ff.* 129^v-131^v.
21. Arnald of Villanova, *Duodecim Capitula. Incip.* Aquest xii capitols que se guerxen areu feu e ordena lo gran filosof Mestre Arnau de Villanova. ff. 132-144.
22. John of Roccascissa (=Rupescissa), *Liber Lucis. Incip.* En nom de Deu comens a scrivre. ff. 145-149.
23. *Rigmi in Ydeomate Cathalano circa Compositionem Lapidis ad Rubrum et Deinde ad Albam. Incip.* En nom de Deu lo rey del cel / E del angel sant Gabriel ff. 151-153.
24. *Opus et Magisterium Lapidis Philosophorum Transmissum per Magistrum Guillelmum Reverendo Archiepiscopo Remensi. Incip.* O venerande pater, gratias ago Deo. ff. 154-158. (Often ascribed to Arnald of Villanova).
25. *Questiones Essentiales et Accidentales. Incip.* Hec sunt questiones facte a reverendo archiepiscopo Remensi ad predictum magistrum Guillelmum. ff. 158-162. (Often ascribed to Arnald of Villanova).
26. Haly, *Liber de Secretis Secretorum. Extract, Incip.* Accipe canem masculum coratenum f. 163^v.
27. *Liber Phenicis. Incip.* Cum tanta dierum prolixitate. ff. 164-170^v.
28. *Allegoriae Sapientum supra Librum Turbae. Two extracts, Incip.:* (1) In Dei nomine, amen. Sancti spiritus assit michi gratia. (2) Cum essemus super quendam fluvium. ff. 171-172^v.

29. *Parabola super Lapide Philosophorum. Incip.* Quidam rex volens alios superare. ff. 172^v-173^v.
30. *Visio Senis. Incip.* Vidi senem nimia claritate. ff. 174^v-175. (Sometimes ascribed to Arnald of Villanova).
31. Philip, Duke of Burgundy, *Liber Montis. Incip.* Benedictum enim sit nomen Domini. ff. 175^v-182^v.
32. Hermes, *Testamentum Hermetis (=Tabula Smaragdina). Incip.* Dicit philosophus: Verum sine mendacio. f. 182^v.
33. Ortulanus, *Exposito super Testamentum Hermetis. Incip.* Verum, id est, verum est quod ars est data huius operis. ff. 183-185.
34. Morienus Romanus, *Lsber ad Regem Calid*, translated by Robert of Chester. *Incip.* Dixit Castrensis: Legimus in historiis. ff. 185^v-196^v.
35. Gaius Plinius Secundus, *Historiae Naturalis XXXVII*. Extract, De Virtute Olei Amigdolini, *Incip.* Oleum amigdalinum purgat. f. 197^v.
36. Elias Cortonensis, *Sonetti. Incip.* Sonetti de frate Elia super lapide philosophorum, lo quale se dice fece fabricare San Francisco d'Assisa. ff. 199^v-201.
37. Sarne, *Lilium. Incip.* Naturam circa solem et lunam. ff. 204-213.
38. *Lilium Abbreviatum, Incip.* Cum es nostrum ex tribus constet, scilicet corpore, anima, et spiritu, ex elementis vero nichil fit utile sine comparatione et regimine. ff. 213^v-216.

In many ways this alchemical manuscript written by Arnald of Brussels is the most important in Lehigh's collection. Although it was acquired by the University in 1881, its first manuscript, it was not properly identified until 1933 when W. J. Wilson recognized its author while cataloging Lehigh's manuscripts for the *Census*. Arnald of Brussels was a late 15th-century scribe, printer, and amateur scientist, whose work is preserved in a number of other manuscripts. One of these, Cod. Paris. lat. 10264, is a compendium of geographical, astrological, agricultural, and, in a smaller degree, alchemical information. But apart from the information contained in these manuscripts, little is known about Arnald's life. His interest in Catalan alchemical literature might suggest a residence or sojourn in Catalonia, which might have taken place between the time he left Brussels and the time he took up residence in Naples. But evidence is scarce. The Lehigh manuscript was never published, nor even intended for publication. It contains tracts that were of particular interest to Arnald, and its folios were three times rearranged before assuming their present order.

Although it has been plausibly argued that alchemy was in the vanguard of

modern chemistry, and that the investigations alchemists pursued gave impetus to more scientific experiments while at the same time limiting their scope and effectiveness, still, it would be wrong to think of scientific interests at this time as being primarily, or even largely, experimental. Like Jean Ruel, a slightly later French translator also represented in this exhibition, Arnald was not one to mitigate written fact with empirical evidence. In his botanical encyclopedia *De Natura Stripium* Ruel had declined to correct his Greek source even when it made mistakes about plants with which he was familiar, and in the same tradition of respect for authorities Arnald's manuscript gives evidence that its owner experimented with only two of the many alchemical and other recipes it contains, and both of these are concerned with writing in color; neither is explicitly alchemical.

The manuscript is open to f. 163 which shows a complicated diagram that purports to reveal "the secret of the philosopher's stone," the substance which alchemists sought in order to transform base metals into gold or silver. The Latin inscription in the center of the circle reads: *To one gazing subtly at this figure of alchemy, it will be possible to recognize the name of the true matter.* Moving out from the center, the third ring has the alchemical representations for gold, *the sun*, silver, *the moon*, and *mercury*. Around these are placed, in the next ring, the four elements; *water* at the top, and, in clockwise position, *air*, *fire*, *earth*. Finally the outer ring locates the feminine and masculine sides of the diagram. The four large and eight small semicircles around this "round circular figure" (as the table of contents describes it) contains directions for the separation of the stone from the four elements in four complicated and obscure stages. The whole is further complicated by the rubric in the upper righthand corner of the folio which reads in part: *There is made from the masculine and the feminine a round circle. And from that circle extract a square. And from that square extract a triangle. And from this triangle extract a round circle. And for certain you will have the philosopher's stone.*

It is possible to identify the source for some of the elements in this remarkable diagram. One of the most frequent explanations of the masculine and feminine sides to the diagram would seem to amplify the inner circle of the sun, moon and mercury. The "Alchemical Marriage" of a male sun (gold) and a female moon (silver) with mercury as a solvent was taken to be an integral part of the alchemical process. In the marriage the figures of gold and silver were thought of as dying, and then being reborn into a higher state, one in which the transmutation would take place. The exact process by which this happened involved the four elements earth, air, fire and water that had been accepted as the physical basis of the universe since the time of Aristotle. Each of these elements contained two properties which governed it: hot and dry properties were assigned to fire; hot and moist properties were assigned to air; cold and moist

properties were assigned to water; cold and dry properties were assigned to earth. These concepts were brought to bear on medieval alchemy in the 12th century when Gerard of Cremona translated into Latin *The Seventy Books* of the Islamic alchemist Jabir Ibn Hayyan, who was subsequently known in the west as Geber. The tract suggested that metals were formed in the earth under planetary influence which combined two chemical compounds which were most nearly approximated by sulphur and mercury. This mixture fixed their substance, which differed for each metal, but which was constituted of properties associated with the four elements. Gold, for example, is elemented externally with the hot and moist qualities associated with air, internally with the cold and dry qualities associated with earth. The alchemist's task was to rearrange these properties so as to reconstitute a base metal into a precious one. Later alchemists would modify some of these findings. The 13th-century Catalan alchemist Raymon Lull, for example, developed the idea that the inter-relationships among the four elements are best expressed by the figures of a circle, a square, and a triangle, and it is undoubtedly to this understanding that the rubric quoted above makes reference. Lull develops the concepts in his *Arbor Scientiae* and in his *Tractatus de Astronomia*, and remarks that they "contain the whole secret of my art." Briefly, he envisions the four elements placed on each of the four corners of a square. The lines that make up the sides of the square show the properties that the elements have in common; the lines that make up the sides of the triangle show the contrasting properties, and the overall circle shows the ability of the elements to "enter into one another." These could bear other interpretations. Elsewhere, Lull tells the allegory of Lady Quantity forced to choose among her sons Circle, Square, and Triangle to decide which of them should receive a golden apple. She chooses Triangle, because he is more like a man than a circle, more like God than a square, but is reproved by Aries and Saturn, among others, for neglecting Circle, who, like God, is without beginning or end. But Triangle defends his mother, reminding all that he is more like the soul of man, and more like God in the Trinity, than either of the others; he only blames her for giving him a round apple, which was not his proper form.

The purpose of the diagram, then, is to illustrate the relationships among these largely Lullian concepts, and to make clear the basic structure of matter. It is reproduced as Plate II (facing page 347) in Wilson's monograph.

The interested reader could do no better for a general history of alchemy than F. Sherwood Taylor, *The Alchemists, Founders of Modern Chemistry*, (New York, 1949), or E. J. Holmyard, *Alchemy*, (London, 1957). In my identification of the circle, square, and triangle with Lull's theory of the elements I have drawn upon Frances A. Yates, "The Art of Raymond Lull, An Approach to it through Lull's Theory of the Elements," *Journal of the Warburg and Courtauld*

Institutes, XVII (1954), 115-173. See also the same author's "Raymond Lull and John Scotus Erigena," *Ibid.*, XXIII (1960), 1-44.

No. 11. Antonio Guaineri. *De Artetica et De Calculosa Passione*, in Latin. 15th-century manuscript on vellum, written in Italy. 96 ff. Bound in original wooden boards covered with stamped brown leather. 22 x 15 cm. Miniature in initial on f. 2, 46 illuminated initials. Acquired by Lehigh in 1881. *Census* no. 10.

1. Antonio Guaineri, *De Artetica. Incip.* Artetica est juncturarum dolor. ff. 1-61.
2. Antonio Guaineri, *De Calculosa Passione. Incip.* Summe calculosa passio. ff. 61-95.

Although ascribed in the Lehigh manuscript to Pope Nicholas V (1397-1455), the medical tracts contained in this manuscript are the work of the 15th-century Italian Professor of Medicine Antonio Guaineri, who is recorded as lecturing at the University of Pavia in 1412-13, and again in 1448. In the intervening years he may have spent some time in Savoy and Liguria, as certain of his tracts identify him with these localities. He is perhaps most remembered for his work on the plague, *De Peste*, which he finished before 1440, the date of the earliest extant manuscript.

Guaineri was an academic physician at a time when Italian medicine was beginning to lead all Europe. His residence at Pavia put him in close contact with the Aristotelian scientific traditions that allied with medicine and flourished in northern Italy, since Pavia, with its strong medical school and relative freedom from theological dogma, stood, after Padua, in the first line of the newer scientific schools. Widely disseminated medical tracts like this one in Lehigh's collection were both a cause and a result of the new scientific consciousness that touched many in Italy, and that would receive lasting expression in an achievement like Galileo's.

Yet like other scientists represented in Lehigh's collection, Guaineri was not yet research oriented. Although in his plague tract he refers with evident approval to one physician who, though illiterate, was "a great experimenter," he himself still relied in no small part on the academic traditions that stood before him, and even allows that certain charms may be of help in warding off the plague. Yet for all of this he was careful to maintain the lasting ideals of learning and synthesis, and undoubtedly put into circulation, in such tracts as the one at Lehigh, a wealth of information that contributed much to the new science.

The ascription of the work in Lehigh's manuscript to Pope Nicholas V is interesting, since the work may have become identified with Nicholas either while the Pope was building up the Vatican library, a task in which he employed some hundred-and-seventy-five scribes to reproduce important manuscripts, or earlier, when the work was first published, some copies may have

been dedicated to him. In his study "Vatican Latin Manuscripts in the History of Science and Medicine," (*Isis*, XIII (1929-30), 63-64), Lynn Thorndike identifies another medical tract by Benedict of Nursia which is dedicated to the Pope. As Nicholas, a judicious if unsuccessful diplomat and a foremost patron of art and science, was widely identified with the new learning, it would not be at all unusual for an author or scribe to attach his name to a particular volume.

In order to understand something of the diversity of scientific manuscripts in this period Guaineri's tracts should be compared with another Italian scientific manuscript of roughly the same period, the alchemical manuscript of Arnald of Brussels (No. 10). Arnald's manuscript, written for the most part in the compiler's own secretary hand, with its rearranged paper folios, eclectic design, and idiosyncratic organization contrasts starkly with the humanistic miniscule of the professional scribe, the ornate capitals, and the ordered vellum folios of the Guaineri manuscript. Unlike Arnald's manuscript, Guaineri's was intended not for the use of one man only, but for the broadly based, specialized, and still developing scientific community at large.

The tracts are identified as Guaineri's in Appendix 46 of Lynn Thorndike's *A History of Magic and Experimental Science*, (New York, 1934), IV, 670-674. See also his chapter on Guaineri in the same volume, 215-231.

No. 12. Anon. Portulan charts. 16th-century manuscript on vellum, written in Italy. Three maritime charts bound in contemporary vellum, each 40 x 30 cm. Acquired by Lehigh in 1959, the gift of Mr. Robert B. Honeyman, Jr.

The exhibited chart, the first of three, shows the 26th to the 51st northern gradations, the coasts of England and Ireland south to Madeira and the Canary Islands, including the coasts of Spain and France. The other two show the whole of the Mediterranean, including the coasts of the Levant, and the Mediterrean from Gallipoli to Dakar, Africa, including part of the Atlantic and the coasts of Spain and Portugal. All have rhumb lines, and were used for navigation. Although written in Italy, the place names on the manuscript show Portugese influence.

No. 13. Publius Vergilius Maro. *Aeneid*, in Latin. 15th-century manuscript on paper written in Italy and dated 22 February 1462. 278 ff. Many textual corrections, annotations and drawings in a slightly later hand. Bears the inscription "Michael Bone." Bound in contemporary vellum. 29 x 21 cm. Acquired by Lehigh in 1959, the gift of Mr. Robert B. Honeyman, Jr.

Publius Vergilius Maro. *Aeneid*. *Incip.* Ille ego qui quondam.

Although always esteemed as a poet, in the medieval period Vergil enjoyed a variety of reputations, including that of a necromancer. But for most it was his literary reputation that prevailed, and the near-worship that Dante felt for

him, born of a literary, no less than of a philosophical, understanding, is probably as central to the poet's reputation as the neoplatonic allegories of Macrobius and Bernard Silvester, or such popular romances as *Vergil the Sorcerer*. Lehigh's manuscript is a good example of the sort of readily produced volume which the invention of paper and the industry of professional scribes made possible.

No. 14. Jean Ruel, editor and translator. *Varii Artis Veterinariae Scriptores Graeci*, in Latin. 16th-century manuscript on vellum, written in France by John Helewaert sometime after 1530. 137 ff. Bound in original wooden boards covered with stamped calf. 34 x 23 cm. Many illuminated initials. Acquired by Lehigh in 1881. *Census* no. 9.

Jean Ruel, editor and translator. *Varii Artis Veterinariae Scriptores Graeci*. *Incip.* Cum militans.

This sumptuous manuscript is a translation into Latin of the writings of several ancient and medieval Greek authors on the subject of veterinary surgery. Included are such writers as Hierocles, the 10th-century author of a treatise on the subject, Pelagonius, Theomnestus, Tiberius, Varicosis, and some writings ascribed to Hippocrates. Very little is known about most of these authors, and Ruel's edition, which was published by Louis Blaublom for Simon de Colines in Paris in 1530, put most of them into general circulation for the first time. The manuscript is of interest as its exemplar was probably a printed copy of Ruel, though the manuscript is divided into three books, not two as in the edition. The manuscript is open to the beginning of the third book.

Jean Ruel was born in Soissons in 1474, and educated in Paris. Although a practicing physician himself, he is remembered mainly for his scholarship. In 1516 he published a Latin translation of Dioscorides, and in 1530 the writings mentioned above. He is perhaps most famous for his extensive botanical compendium drawn from many Greek and Latin authors, principally Theophrastos, *De Natura Stirpium*, which was published in Paris in 1536. Ruel was a transmitter rather than an experimenter. He does not correct his authorities, but it was his translations that made them available to an increasingly experimental scientific community. Towards the end of his life Ruel took up a canonry at Notra Dame. He died in 1537.

This manuscript should be compared with the Italian Vergil manuscript (No. 13) as two interesting examples of manuscripts manufactured just before and just after the invention of printing. Although some liturgical manuscripts, like the antiphon and the gradual, continued to be written well into the seventeenth century, the production of manuscripts by professional scribes declined sharply in the sixteenth century, and manuscripts like the two in question represent in some ways the final development of the professional manuscript tradition. The Vergil, with its inexpensive paper folios, simple illumination,

readily available text, and humanistic miniscule could have been written at any time in the later fifteenth or earlier sixteenth centuries. The Ruel scribe, on the other hand, curiously transcribed the popular text into a lush volume of vellum folios, ornate illumination, and modified humanistic script. Both are preeminently professional productions, probably written for private buyers of very different means. And although both contained the sort of text that would be disseminated shortly in print, they are good representatives of a scribal tradition which would soon be no more.

No. 15. Book of Hours of the Roman use, in Latin. 15th-century manuscript on vellum, probably written in France. 122 ff. Some 17th-century Dutch marginalia. Bound in modern stamped calf. 14.5 x 10 cm. Many illuminated initials. Acquired by Lehigh in 1959, the gift of Mr. Robert B. Honeyman, Jr.

Books of Hours were prayerbooks used by the laity for private devotions. Already popular at the end of the 14th century, they were produced in vast numbers in the 15th century, particularly in France and in the low countries. Basically, the books contained a calendar of Saints' feasts (the names differed with the locality for which the particular Book of Hours was intended): a selection of one or more quotations from the Gospels; prayers to the Blessed Virgin; an Office, usually to the Virgin, which was divided into the nine canonical hours whence the book took its name; the Seven Penitential Psalms; the Office for the Dead; and a selection of private prayers. Other Offices included those of the Holy Cross and of the Holy Ghost, though by the 15th century there were circulating certain prayerbooks which were influenced by the Books of Hours, but which omitted the Office. The Hours themselves were often illustrated richly. Pictures of the Nativity and the Passion were most popular, (usually these were attached to the Offices of the Virgin and the Holy Cross), and often the calendar was illustrated with a scene associated with the month in question. Thus there was a conscious attempt to make each Book of Hours rich and ornate, as it was in demand as an *oeuvre* no less than as a devotional prayerbook. The quality of the illustrations of the Hours differ greatly, and it must be said that as fine as some of the Lehigh manuscripts are, there is none that is among the very finest examples of the art. Still, there are good examples here of the miniaturist's art, and many of the illuminated initials are of a high quality indeed.

Although there are no miniatures in this manuscript, the initials, including the one shown here, are of a particularly high quality. The facing folio contains the last calendar month.

No. 16. Book of Hours of Paris use, in Latin. 15th-century manuscript on vellum, probably written in France. 161 ff. Bound in 18th-century tooled black moroccan. 17 x 12 cm. 4 miniatures and many illuminated initials. Acquired by Lehigh in 1881. *Census* no. 6.

The miniature exhibited from this manuscript depicts the annunciation of the coming of Christ to Mary. The scroll in the picture reads *Hail, full of grace, the Lord (is with thee)*, and the picture itself depicts the exact moment in which Christ was conceived. According to some medieval theories Mary literally conceived through her ear, and she is often represented as half-turned towards the angel. In some miniatures, in fact, the scroll is shown running from the angel's lips to Mary's ear; here the Holy Spirit is represented as coming down from above. The sacredness of the scene is further enhanced by the drawn curtains, connoting either the temple, or, in some cases, a marriage bed, and by the book Mary touches, which connotes the fulfillment of the promise under the Old Law which God made through his prophets.

No. 17. Book of Hours of the Roman use, in Latin. 15th-century manuscript on vellum, written in France. 151 ff. Bound in modern red velvet. 20 x 13 cm. 13 large and 5 small miniatures, many illuminated initials. Acquired by Lehigh in 1881. *Census* no. 7.

The miniature exhibited from this manuscript shows St. John writing, probably, from the water in the background, on the island of Patmos where it was thought he composed the *Book of Revelations*. Beside him is his symbol, the eagle, holding an anachronistic 15th-century inkstand. The eagle was associated with John because of the soaring quality of his gospel, particularly in the prologue.

No. 18. Book of Hours of the Roman use, in Latin. 15th-century manuscript on vellum, probably written in Flanders. 141 ff. Bound in 19th-century red velvet with Italian filigree work. In the middle of the front cover are the coat of arms of a prelate. 21 x 13 cm. 12 large and 33 small miniatures, and many illuminated initials. Acquired by Lehigh in 1881. *Census* no. 3.

At the end of the Book of Hours there is added a hymn in a 16th-century hand *Incep.* Illumina oculos meos.

The illumination exhibited from this manuscript shows the meeting of the three living and the three dead, a theme which originated in the thirteenth-century French *Dis des Trois Morts et des Trois Vifs* of Baudouin de Condé, and which was later absorbed into the Dance of Death cycle. In the original *dis* three noble youths go hunting, and in the course of the chase meet the cadavers of a Pope, a cardinal, and a papal notary who lecture them on the vanity of honor, power and riches. The story was a popular one throughout the medieval period, and illustrations of the meeting are to be found in many Books of Hours, both printed and in manuscript, prefixed to the burial office, as here. In our miniature, all three cadavers wear crowns, and in the picture below Christ is shown raising Lazarus from the dead, thus illustrating his power over death.

No. 19. Book of Hours of the Roman use, in Latin. 15th-century manuscript

on vellum, written in France. 179 ff. Bound in modern stamped calf. 12 x 9 cm. Border of front folio illuminated. Acquired by Lehigh in 1939, the gift of Mr. Robert B. Honeyman, Jr.

The border-decoration exhibited from this manuscript differs markedly from the calligraphic spiral decorations, mixed with naturalistic and other floral patterns, which may be observed on many of the other Books of Hours exhibited here. In this manuscript the border-zone is treated as an area in itself, in a way that would become popular in the Ghent-Bruges school of painting, following such exemplars as those supplied by the Master of Mary of Burgundy in the late 15th century.

No. 20. Book of Hours of the Roman use, in Latin. 15th-century manuscript on vellum, written in France. 130 ff. Bound in modern boards and tooled calf. 20 x 14 cm. 5 miniatures and many illuminated initials. Acquired by Lehigh in 1881. *Census* no. 4.

The crucifixion scene exhibited from this manuscript begins the Hours of the Cross, and shows Mary and St. John in affective poses under the crucified Christ.

No. 21. Doge Lionardo Loredano. *Dogale*, in Latin. 16th-century manuscript on vellum written in Italy, dated 19 October 1502. 26 ff. Modern marble-paper binding. 24 x 16 cm. Illuminated front folio. Acquired by Lehigh in 1881.

Census no. 5.]

At the end of the manuscript there are two folios with accounts in a 16th-century hand.

The illustrations on the opening folio of this document are executed in a style which has been called the International Gothic, a term generally designating north Italian court art after 1400 which developed under the influence of such artists as Gentile de Fabriano and Antonio Pisanello. The style emphasized a variety of new forms, including, under the influence of Pisanello, the kind of heraldic bestiary represented in Lehigh's manuscript. Note also that the area within the border is drawn to look like a torn sheet of vellum.

No. 22. King Philip II. *Carta de Hidalguia*, in Spanish. 16th-century manuscript on vellum, granted at Granada and dated 9 July 1588. 130 ff. Bound in original brown gilt moroccan, with seal attached. 33 x 22 cm. 3 illuminated front pages, 18 illuminated initials. Acquired by Lehigh in 1881. *Census* no. 8.

The picture of the Virgin Mary standing on the moon with the rays of the sun emanating from her, on the second folio of this court document, is known as the *Mulier Amicta Sole* type, the Woman Dressed in the Sun, from Rev. xii 1. The scriptural reference was originally understood to mean the church, although as early as the 6th century the woman had been identified with Christ's mother, and by the late medieval period this identification had become universal. From the 15th century on the type was further identified with the Immaculate Con-

ception, and as such it was widely used in ecclesiastical art in Baroque Spain. Below her is Ortiz and his family in the traditional donor position, and on the next page are representations of the family's patrons, St. John the Baptist shown pointing to a lamb representing Christ, and St. Augustine holding a church. Note too the rosaries that the infant Christ holds; the cartouche below his picture reads "Don Philippi," a reference to Philip II, the one below the patrons "Por la Gratia de Dios," by the grace of God.

No. 23. Gradual, in Latin. 15th-century manuscript on vellum, written in Italy. Originally 188 ff., now 175 ff. Bound in original wooden boards and brown leather. 44 x 30 cm. 3 miniatures, many illuminated initials, musical notation. Acquired by Lehigh in 1881. *Census* no. 11.

Lacks ff. 21, 65, 104, 105, 159 through 166 (a complete gathering), and 187.

Antiphons and graduals are the chant books of the Roman rite. Antiphons are used in chanting the holy office, and contain the minor hours, Lauds, Vespers and Compline, and Graduals are used in the mass, and contain both propers and ordinaries. Thus both contain musical notation, and since frequently they were read by more than one person at the same time, they were generally of a large size, and with clearly legible script. Because there were a great number of these books in circulation, and because they were often illuminated with miniatures set in initials, many manuscripts lack one or more folios, which were often torn out for the miniatures they contained. This has happened to all three Lehigh manuscripts.

The miniature exhibited from this manuscript shows simply a tree, a common motif in late medieval art, since, in Donne's words, "Christ's cross and Adam's tree stood in one place." In fact, there was a belief that not only did the cross stand on the site of the tree from which Adam plucked the forbidden fruit, but that Adam was buried underneath, and that he was physically baptized by Christ's blood pouring from the cross onto his skull. The purpose of the belief, of course, was to emphasize the way in which Christ's death expiated Adam's sin, and for this reason, among others, Christ's cross was often represented as a tree in medieval art, as in the diagram exhibited from the 14th-century compendium of moral and didactic writings, (No. 4). Thus the iconic representation of a tree, even one as naturalistic as this, could evoke a variety of associations.

No. 24. Antiphon, in Latin. Vol. II of two vols. 15th-century manuscript on vellum, written in Italy. Originally 234 ff., now 226 ff. Bound in original wooden boards covered in brown leather, half the front board now broken off. 43 x 32 cm. 5 miniatures, many illuminated initials, musical notation. Acquired by Lehigh in 1881, but omitted from *Census*.

Lacks ff. 1, 34, 82, 108-109, (in the center of a gathering), 121, 159, 234.

The miniature exhibited from this antiphon shows the descent of the Holy

Spirit at Pentecost. Notice that there are twelve heads shown, one for each of the Apostles (less Judas) and one for St. Paul, who can be seen with a sword in the front row. The illuminator has also distinguished St. Peter who is shown with keys, and St. John, who carries a book.

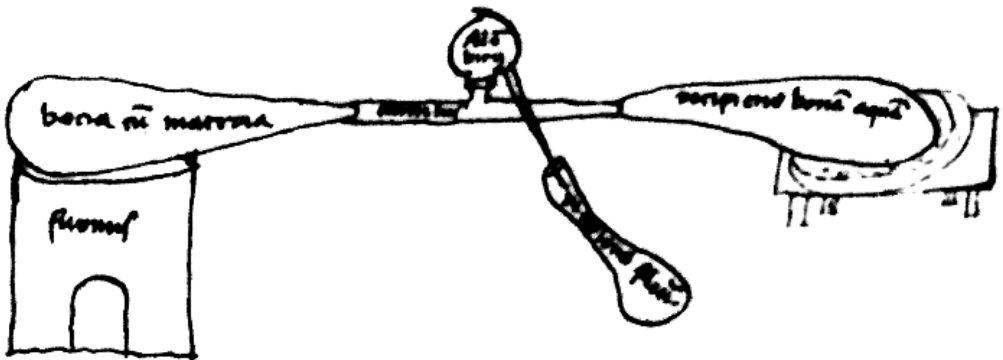
No. 25. Antiphon, in Latin. 15th-century manuscript on vellum, written in Italy. Originally 148 ff., now 145 ff. Bound in original wooden boards and brown leather. 63 x 44 cm. 3 miniatures, many illuminated initials, musical notation. Acquired by Lehigh in 1881. *Census* no. 12.

Lacks ff. 92, 112, 141.

The miniature of David playing before Christ exhibited from this manuscript is of interest both for the unusually fine figures of seated Christ and kneeling David, and for the depth perspective which the three steps at the foot of Christ's throne provide. Crowned and bearded, David is shown holding a multi-stringed psaltery, not his usual harp, looking up towards an impressively realistic Christ.

Although the steps in front of Christ's throne do not have such visual complexity as, for example, the 13 steps in the famous Presentation of Christ miniature in the Book of Hours of the Duke de Berry, they do suggest a concern with depth and perspective typical of many miniatures in Books of Hours and Antiphons of the later periods. All told, the miniature in this manuscript is as fine an example of the art as will be found in Lehigh's collection.

The text following the miniature is taken from Psalm VI, and begins: "Domine ne in ira tua arguas me, neque in furore tuo corripias me. Miserere michi, Domine, quoniam infirmus sum." *Lord, punish me not in thy anger, do not chastise me in thy rage. Have mercy on me, Lord, because I am weak.*



Alchemical instruments from Exhibition No. 10, folio 20.

Front cover: David playing before Christ from Exhibition No. 25, folio 11.

Medieval Manuscripts at Lehigh University

