

READING THE LITERATURE—THE *MATERIA MEDICA* AND *TACUINUM SANITATIS* AS EARLY HERBAL AND HEALTH HANDBOOKS

By

Kali Barrett
University of Western Ontario

Preceptor: Dr. P. Potter

Abstract

Medical texts have played an important role in the practice and delivery of health care for centuries. Today, access to texts, journals and information databases is an integral part of medical education and practice. Many home libraries often include a medical reference book to help in the treatment of minor illnesses. Both types of these medical texts have existed for hundreds of years. The *Materia Medica* and the *Tacuinum Sanitatis* in particular are interesting examples worthy of study.

The *Materia Medica*, first published by Dioscorides some time between 50-70 C.E., was widely translated, copied and circulated amongst physicians throughout the Middle Ages all across Europe and into the Islamic world. The text--with accompanying diagrams--lists the medicinal properties of hundreds of plants, animals and minerals. The *Tacuinum Sanitatis* was written in the eleventh century by Ibn Butlan el Bagdadi, and translated into Latin some time in the thirteenth century in Naples or Sicily. The text describes the health related impact of different foods and environmental factors. Later editions of the *Tacuinum Sanitatis* were illustrated, but unlike the *Materia Medica*, served more to delight the noble consumer of such types of texts rather than to inform the professional.

Surviving copies of the *Materia Medica* and the *Tacuinum Sanitatis* provide insight into historical medical theory and practice. The illustrations found in many versions also provide a wealth of information pertaining to artistic practice, diet, architecture, dress and daily life in the Middle Ages and early Renaissance. Though created for different audiences and with different intended functions, the common subject matter of both texts makes them an ideal pair for study.

To many, the term “Renaissance” conjures ideas of the rebirth of classicism. Out of the darkness of the Middle Ages, it is described, came a period of insight, humanism and great artistic and intellectual activity. Many wrongly believe however, that this period was solely a “rediscovery” of Greek and Roman culture. It has been a weakness of the early art historians, with their emphasis on the canon and the linear progression of one

artist influencing another, to believe that the artists of the Renaissance period could not have been influenced by more recent Medieval artists or works. To them this period was bleak and produced nothing of value. In the Sixteenth century, Giorgio Vasari wrote his *Lives of the Artists*—a book of biographies of artists he deemed important. In it, he describes the beginning of this new era:

“The great flood of misfortunes, by which poor Italy had been afflicted and overwhelmed, had not only reduced to ruins all buildings of note throughout the land, but what was of far more importance, had caused an utter lack of the very artists themselves. At this time, when the supply seemed entirely exhausted, in the year 1240, by the will of God, there was born in the city of Florence, Giovanni, surnamed Cimabue, of the noble family of that name, who was to shed the first light on the art of painting.” (Vasari, 1511-1574).

This prevailing attitude, that the Middle Ages contributed nothing of value to the world of art, is easily observed in this statement.

More recent scholarship has attempted to explore relationships between art of the Medieval Gothic period, and that of the early Renaissance. It is clear that the Renaissance was more complex than simply a rebirth of the Classical. Indeed there were Classical influences, as well as influences from the cultural, social, intellectual and artistic milieu that had dominated in the late Medieval period. It should also be noted that the Middle Ages itself was heavily influenced by the Classical. Thus, Greek and Roman influences can be found in both the Medieval period and the Renaissance, albeit in a much more dramatic way during the later.

Medical texts from the period make excellent case studies for this type of examination. Their illustrations exemplify artistic trends and philosophy, and their textual content shows the evolution of ideas over the centuries from one country and civilization to the next. The *Materia Medica*, a Greek text from the first century is an example of a classical source that both continued to be known during the Medieval period, and then influenced artists during the early Renaissance. The *Tacuinum Sanitatis*, particularly the surviving trecento versions, exemplify the Medieval and the classical influences of the *Materia Medica*.

Originally a Greek text, the *Materia Medica* existed in many forms throughout the Middle Ages, and eventually influenced later medical texts including the *Tacuinum*. Dioscorides, a Greek physician, wrote it sometime between 60-78 C.E. (Riddle, 1985). During his travels and practice, he meticulously catalogued the uses and effects of various herbs, minerals and plants, drawing on information gathered from other practitioners and from his own experience. Surviving fragments of the early text suggest

that it was illustrated (Riddle, 1985). The text was arranged in books, with each chapter designated to a particular plant, animal or mineral. Information for each item included: its name and synonyms; habitats; botanical descriptions; drug properties or types of actions; medicinal usages; harmful side effects; quantities and dosages; harvesting, preparation and storage instructions; adulteration methods and tests for detection; and finally, veterinary usages (Riddle, 1985). Perhaps the most famous surviving version of Dioscoride's text is the Byzantine 512 C.E. version known as the "Anicia Codex", currently in the national library in Vienna. It was produced for Anicia Juliana, the daughter of the West Roman Emperor Clavius Anicius. She is depicted in one of the frontispieces (fol. 6v.) surrounded by Magnanimity and Prudence. The book changed hands many times, belonging to different owners who made annotations and translations in its margins in several languages including: Greek, Arabic, Turkish, Hebrew and French. The study of these annotations and their importance in understanding the provenance of the volume is quite interesting, but outside the scope of this paper. In 1569 Emperor Maximilian II purchased the text, and it subsequently became a part of the collection of the national library in Vienna.

The book contains 984 parchment pages, with 392 full-page illuminations. The textual description of the plant, animal or mineral is found on the facing page or reverse side of the illustration, while some entries do not have a corresponding illustration. The illustrations depict the herb being described against a plain backdrop with no border or attempt to situate the plant within a time/space construct. The plants are shown from the roots up to the flower, and some are depicted at various stages of growth. John Riddle argues that the illustrations in the 512 Vienna Codex were copied from two sources: an herbal by Crateuas and an earlier version of Dioscoride's text (1985). He suggests that Dioscorides' version provided much simpler and rudimentary guides, while those from Crateuas' were much more detailed and elaborate (Riddle, 1985). This practice of copying older versions was common during the Medieval period to both art and architecture (Krautheimer, 1969). To the Medieval reader, illustrations were not meant to be read literally, but instead served as symbols that triggered the mind to contemplate the true form the image represented (Krautheimer, 1969). Thus, an illustration of a plant in the *Materia Medica* needed not be an exact representation of how it would look in reality, rather, it served as a symbolic representation of the plant for the reader to identify more in the mind than in the eye.

The Anicia Codex also contains several frontispieces. In one, Dioscorides is depicted writing while an artist draws a picture of a mandrake being held by Epinoia (fol. 5v). In another, we see Dioscorides surrounded by other great physicians including: Crateuas, Galen, Nicander, Rufos, Andreas, and Apollonius Mus (fol. 3v). These illustrations provide insight into the context and intended use of the work. Homage is paid to the great physicians of the past, to the original author of the work, and to the person for whom the work was commissioned.

The importance of the *Materia Medica* cannot be understated. It was translated into many languages, and was consulted during the Medieval period in northern Europe, all the way south and east into the Islamic world (Riddle, 1985). When the Greek language fell out of use during the early Medieval period it was translated into Arabic, Latin and Armenian (Riddle, 1985). The work became used in the early medical “schools”, and was the premier source for information related to medicine and pharmacy (Riddle, 1985). The influence of the *Materia Medica* is evident in almost all herbals that followed (Riddle, 1985). During the Renaissance, interest in the work intensified, and the original Greek version was again translated into Latin and Arabic (Riddle, 1985).

During the Medieval period between 1047 and 1068 C.E., an Arabic physician Ibn Botlan of Baghdad produced a book of tables that outlined various herbs, substances, foods and aspects of life (seasons, clothing, activities, etc.) that promoted health, known as the *Tacuinum Sanitatis*. We know that by 1266 his book of tables had been translated into Latin and were being read at the Court of King Manfred, in Palermo (Arano, 1976). At some point between 1266 and the late trecento, the tables were deconstructed into individual descriptions of a plant or food—much like in the *Materia Medica*—and illustrated. Luisa Arano suggests that this format change was likely the result of the influence of Dioscoride’s *Materia Medica* (1976). Indeed, the link between that text and the new pictorial version of the *Tacuinum* is strong. Just as in the *Materia Medica*, the illustrations take on great importance, and dominate the page (Witthoft, 1978). This change was necessary, for the patrons of these types of books—the members of the Northern Italian Courts—demanded a summary of the important facts, presented in a pleasing and easy to read format (Arano, 1976). The introduction to the text states that the purpose of the work is to “shorten long-winded discourses and synthesize the various ideas” (Arano, 1976). This taste for summarized and a highly visual representation is also reflected in pious books like Book of Hours and calendars that were more pictorial than textual.

Several late trecento illustrated versions of the *Tacuinum Sanitatis* have survived in completion, all produced between 1380 and 1410 C.E. (Arano, 1976). In these illustrations the plant or food is now depicted in a contextual setting: plants or animals are shown in fields, gardens, or being prepared or consumed in buildings. No longer do they stand alone against a plain backdrop. Instead, in almost every illustration there is a horizon line that helps to define space and perspective. Most of them contain people engaged in an activity of some sort, and some contextualize better than others. The illustrations of the plants are an attempt to accurately depict both the plant and their environment. The illustrations are no longer confined to the realm of symbolism; instead, they are now depictions of a plant as it would be found in the world. This represents an important shift towards the humanistic approach that is the hallmark of the Renaissance period.

An early example of this transition is found in the illustration for oranges in the Rouen edition (fol. 34v). The tree is centered in the image, with only a semicircular line to denote a horizon line. A few quickly drawn stalks depict other surrounding foliage and denote space and setting. This represents an early step in the transition from the symbolic Medieval depictions found in the *Materia Medica* towards the more realistic depictions found in later illustrations.

The depictions for roses in the versions found in Paris, Vienna and Casanatense libraries illustrate more advanced depictions. The Paris illustration shows a man courting a woman by presenting her with white roses that he has plucked off the bush behind him (fol. 83). In the Vienna version we see a seated woman wearing a head-dress of roses. She is also receiving them from her two companions plucking from the tree behind them (fol. 38). In the Casanatense version two maidens are depicted, with one seated and the other plucking (fol. LXIX). In these settings, both an attempt at accurately depicting the plant is noted, as well as an attempt to portray the roses in a setting that they could be found. There are iconographic similarities in these illustrations, which suggests that they were copied from a similar source, that the artists were aware of the other versions, or that they may have been following from a pictorial tradition related to roses.

Indeed, iconography plays an important role in the illustrations. In the Vienna illustration of summer a harvester with garlands of wheat around his head, waist and in his hands is depicted (fol. 54). It has been noted that this figure appears alone in calendars and in sculpture depicting summer months, of which the harvest is an important event, and is thus an iconographic reference to that time period (Witthoft, 1978). In these illustrations, the artist has taken a previously known late Gothic icon and incorporated it into an outdoor setting with other figures and plants around him. The figure is at once the reuse of a symbol of the harvest, as a personification of the event, as well as a human figure incorporated into an every day scene, which can be read from a more humanistic perspective. These scenes represent the crude beginnings of the independent genre scene, and they gain importance as early prototypes of Renaissance illustrations (Witthoft, 1978).

Tacuinum Sanitatis illustrations of the late trecento also show the influence of other early Renaissance artists. Giotto's fresco cycle of the Lives of the Saints, in Padua's Arena chapel was completed between 1303-1306. These frescos are considered by many to be the beginnings of the Renaissance style, were widely known of, and likely influenced the artists working on the *Tacuinum Sanitatis*. In the scenes of the Visitation, a scene from the Life of the Virgin, and the Last Supper from the Life of Christ, we can see an interest in depicting form and volume. Through the use of highlight and shadow Giotto gives the figures volume and depth. This attempt to accurately depict the human form as a three-dimensional object, and not just symbolically, is also seen in the *Tacuinum Sanitatis*. For example, in the illustration for Pine Cones in the Paris manuscript (fol. 14) we see a

similar use of highlighting and shadow in the drapery to depict volume and form beneath the clothing. This illustrates a shift in paradigm away from the image serving as a symbol for the mind to further develop. Now, the image depicts the figure as it would be seen in life.

Although a weakness of the early art historians in that it ignored the work of some artists, the practice of placing art in a progression and looking for influences has its merits. Indeed, I have based my thesis above on these influences, and at times it has its place. It is also important to evaluate both what influenced an artist and the subsequent influence the artist had on others. The *Tacuinum Sanitatis* are no exception to this—their influence was great. The most obvious is that on the Limbourg brothers, who worked for Jean Duc de Berry in c. 1416, and created his famous *Tres Riches Heures*, also known as the *Book of Hours*. The illuminations in this book contain pictures of both the upper class and peasant class engaged in activities appropriate for the month. They are mostly outdoor scenes with integrated architectural, botanical and animal elements. In the example of April, we see a similar emphasis on realism, and the accurate depiction of volume and form in the figures. Both the influence of format, style, and approach of the *Tacuinum Sanitatis* can be seen with this example.

The *Tacuinum Sanitatis* evolved from a scientific book of tables to a picture book that served to delight at the Courts of the Lombard region. It is interesting to note that at the dawn of the Renaissance—a period in which great emphasis was placed on knowledge—there would be a market for scientifically based texts that could be consumed and enjoyed by the noble lay person. Luisa Arano argues that it was the cultural climate of the time, which resulted in the influence of Medieval books like the *Materia Medica* on both new pictorial genres like the *Tacuinum Sanitatis* and more scientific genres like the herbals (1976). The noble at the courts had physicians at hand, and were not reading these books to self-diagnose or cure. Instead, they represented a familiarity with the body of knowledge, which instantly garnered them respect and admiration for their learnedness. The illustrations further served to delight and entertain.

The relationship between the *Materia Medica* and the *Tacuinum Sanitatis* is complex. The early Greek *Materia Medica* evolved during the Medieval period to become a quintessentially Medieval text with dense text and symbolic imagery. It is important as a pictorial, literary and stylistic predecessor to the *Tacuinum Sanitatis*. The Medieval text itself of the *Tacuinum Sanitatis* served as the basis of a book that would incorporate the pictorial aspects of the Medieval herbal, the influences of the early Renaissance movement and the changing ideals regarding symbolism and realism. Through examination here of only one early Renaissance text and its corresponding Medieval precursors, I have clearly illustrated how the Renaissance was a natural evolution from the Medieval, and not purely a rebirth of the classical ideals as they existed in their original form.

References

1. Arano, Luisa Cogliati. *The Medieval Health Handbook: Tacuinum Sanitatis*. New York: George Braziller. 1976.
2. Krautheimer, Richard. "An Introduction to an 'Iconography of Medieval Architecture'". *Studies in Early Christian, Medieval and Renaissance Art*. New York: New York University Press. 1969.
3. Riddle, John M. *Dioscorides on Pharmacy and Medicine*. Austin: University of Texas Press. 1985.
4. Vasari, Giorgio. 1511-1574. *The Lives of the Artists*. Translated by Julia Conaway Bondanella and Peter Bondanella. Oxford; New York: Oxford University Press. 1991.
5. Witthoft, Brucia. *The Tacuinum Sanitatis: A Lombard Panorama*. *Gesta*. XVII/I. 49-60.

Primary Sources

6. Paris, Bibliotheque Nationale, MS n.a. Lat. 1673.
7. Roma, Biblioteca Casanatense: *Theatrum Sanitatis*, MS 4182.
8. Rouen, Bibliotheque Municipale, MS Leber 1088.
9. Vienna, Nationalbibliothek, *Materia Medica*, MS med.gr.1.
10. Vienna, Biblioteca Nazionale: *Tacuinum Sanitatis*, MS S.N. 2644