

BORGOGNONI, TEODORICO

Also known as Teodorico dei Borgognoni, Teodorico of Lucca, and Teodorico of Cervia, Teodorico Borgognoni was born in Lucca (Tuscany) in 1205. He was the last of the five children of the Luccan surgeon Ugo Borgognoni (d. c. 1259). Teodorico moved to Bologna in 1214 when his father was hired as town physician, possibly at the instigation of count Rodolfo Borgognoni, the city's mayor and a possible relative. He entered the Dominican Order at an early age (c. 1230–1231), probably in the monastery at Bologna. Under the pontificate of Innocent IV (1243–1254) he became a *penitentiarius minor* (confessor) in the Apostolic Penitentiary, a body devoted to the absolution of those sins and censures reserved to the pope. In 1262 Urban IV named him bishop of Bitonto (Puglia). He apparently never resided in his diocese, since documents indicate his presence during that period in Lucca, where he owned a house (1262), and where Clement IV sent him letters urging him to persuade the Luccans to participate in the war against Manfred of Sicily (1265). In 1266 Clement IV transferred him to the diocese of Cervia (Romagna), where he was confirmed *sede vacante* in 1270. However, he resided in the nearby university city of Bologna, where he owned considerable real estate. In 1290 Nicholas IV increased his episcopal income, granting him the rights to the saltworks of Cervia. Borgognoni dictated his last will and testament on October 17, 1298, and died in Bologna at the age of ninety-three on December 24 of that same year.

Teodorico is a good example, still frequent at the time (*Albertus Magnus, *Petrus Hispanus), of the interest in natural philosophy and medicine among the cultivated high clergy. Like some of his siblings, Teodorico learned the art of surgery from his father, an art he exercised with notable success both inside and outside the monastery. Shortly after 1243, while he was still a member of the Apostolic Penitentiary, he composed a short treatise in Latin on the treatment of wounds. In the Roman Curia, Teodorico became the chaplain of the Catalan Dominican, Andreu d'Albalat, who shared his interest in natural philosophy and medicine. After he was named bishop of Valencia (1248), Albalat asked Teodorico for the more extensive version of the treatise that Teodorico had promised to send him. However, dissatisfied with the results, it took Teodorico nearly twenty years to produce the greatly amplified version that incorporated the latest knowledge and his readings of both surgical writings and works in such other fields as alchemy. Although the treatise would later undergo slight modifications, the version (*Cirurgia seu Folia principis*) that he sent to Valencia while he was bishop of Bitonto (1262–1266), with a dedication to Albalat, is considered canonical. This text comprises a prologue (including the aforementioned dedication and the definition of surgery) and four books that discuss: (1) General surgery and diet; (2) Wounds inflicted to different body parts, fractures, and dislocations; (3) Fistulas, abscesses, hernias, and other pathologies that require surgery; and (4) the preparation of medicines used in surgery, along with observations on

certain diseases. Many Latin manuscripts of the *Chirurgia* have been preserved, thus permitting us to reconstruct the various redactions the work underwent. The treatise continued to be consulted until the first years of the printing press (surgical collections were printed in Venice, 1497; Bergamo, 1498; Venice 1499, 1513, 1519, and 1546).

As proof of the interest in Teodorico's treatise outside academic circles, it was soon translated from Latin into the vernacular languages of Western Europe (two Catalan versions as well as Castilian, French, Italian, English, and German versions), and into Hebrew (probably based on the second Catalan translation). The first Catalan translation is of exceptional interest. It was made c. 1302–1304 by the Mallorcan surgeon Guillem Corretger, and was widely disseminated in the Crown of Aragon in the fourteenth and fifteenth centuries, especially among barbers and surgeons. Historians of the Dominican Order rediscovered this translation at the beginning of the eighteenth century, and, ignorant of the author's true identity, attributed it to one "Teodoricus Catalanus," an error that was then widely repeated.

Teodorico's is one of the most prominent treatises of the so-called "new surgery" that arose in northern Italian medical schools in the second half of the thirteenth century. This "new surgery" was characterized by the contextualization of surgical technique within scholastic medicine founded on Galenism, according to Islamic patterns. Teodorico's reading of the *Chirurgia magna* of Bruno da Longobucco (1252–1253), the first text belonging to the "new surgery," was crucial for his intellectual development and was incorporated almost word for word into the expanded versions of his own treatise. This procedure, so typical of medieval authors, clashed with the evolution of compositional techniques—hence *Guy de Chauliac's criticism of Teodorico's borrowings (1363)—and with the ignorance of the *ordinatio partium* shown by many historians. Teodorico's text had a considerable advantage over Bruno's, for it met the social demand, much stronger in his time, of those without academic training who sought in such manuals an instrument of social and professional advancement. Additionally, vernacular translations of Teodorico's treatise enhanced its usefulness.

Teodorico contrasts information received from Bruno and the ancient and Muslim authors (*Galen, *Ibn Sina, *al-Majusi, *al-Zahrawi, etc.) with Ugo's teachings and his own personal experience. Among his contributions we can underscore his defense of the use of wine as a disinfectant, the complete suturing and dry dressing of wounds, in which he follows Ugo, as opposed to the Galenic approach, championed by the Salernitan School and later by Chauliac, which sought to promote suppuration (*pus bonum et laudabile*). Teodorico is also notable for prescribing for convalescents an abundant diet, especially rich in foods productive of blood (meat and wine), once again in accordance with Ugo and in contrast to the traditional advocacy of frugality in the nourishment of the wounded. Teodorico also recommended the use of an ancient method of narcosis (*spongia*

somnifera) to lessen the patient's pain and the suture of intestinal wounds. Teodorico taught surgery in Bologna. The Frenchman *Henri de Mondeville (d. c. 1320), the author of an important *Chirurgia*, was one of his pupils as well as the most famous of his followers.

Teodorico was also the author of a *Mulomedicina* (also known as *Practica equorum* or *De medela equorum*), a veterinary treatise in Latin dedicated to Pope Honorius IV (1285–1287). Divided into three books (generalities, pathology, antidotary), the treatise is based on the works of Vegetius, Giordano Ruffo, and Albertus Magnus. It is notable for its inscription of veterinary practice into the context of Galenism. It is preserved at least in nine manuscripts (but never printed), and was translated into Occitan, Catalan (lost), and Castilian. It served as the source of the Castilian *Libro de los caballos*, written at the court of Alfonso XI of Castile (1325–1350), one of the most important veterinary treatises in the medieval West. On the other hand, the traditional attribution to Teodorico of a treatise on falconry (*De cura accipitrum*) appears to be erroneous. Some manuscripts copy at least two alchemical treatises (*De sublimatione arsenici* and *De aluminibus et salibus*) attributed to Teodorico. These yet to be studied texts would help to explain Teodorico's intellectual evolution—manifest in his surgical treatise—towards an acceptance of medical-surgical possibilities in alchemy. Lastly, some of Teodorico's sermons have been preserved.

See also **Medicine, theoretical**; **Nature: diverse medieval interpretations**

Bibliography

- Campbell, Eldridge C. and James B. Colton. *The Surgery of Theodorico, ca. A.D. 1267*. 2 vols. New York: Appleton-Century-Crofts, 1955 and 1960.
- Cifuentes, Lluís. "Vernacularization as an Intellectual and Social Bridge: the Catalan translations of Teodorico's *Chirurgia* and of Arnau de Vilanova's *Regimen sanitatis*." *Early Science and Medicine* (1999) 4: 127–148.
- Fernández de Viana y Vietes, José Ignacio, Luis García Ballester and Ascencio Gallego Gómez. "Una traducción castellana del siglo XVI de la *Chirurgia* del dominico Teodorico Borgognoni." *Arquivo Histórico Dominicano Português* (1986) 3: 111–118.
- Keil, Gundolf. "Thiederik von Cervia (Teodorico dei Borgognoni) OP." In *Die deutsche Literatur des Mittelalters. Verfasserlexikon*. 10 vols. New York: Walter de Gruyter, 1977–1999, 9: 792–793.
- McVaugh, Michael. "Alchemy in the *Chirurgia* of Teodorico Borgognoni." In *Alchimia e medicina nel Medioevo*. Edited by Chiara Crisciani and Agostino Paravicini Bagliani. Florence: SISMEL-Ed. del Galluzzo (Micrologus Library, IX), 2003, 55–76.
- Pouille-Drieux, Yvonne. *L'hippiatrie dans l'Occident latin du XIIIe au XVe siècle*. In Guy Beaujouan, Yvonne Pouille-Drieux and Jeanne-Marie Dureau-Lapeyssonnie. *Médecine humaine et vétérinaire à la fin du Moyen Age*. Geneva-Paris: Droz-Minard, 1966, 9–168, in 22–24.
- Tabanelli, Mario. *La chirurgia italiana nell'Alto Medioevo*. 2 vols. Florence: Leo S. Olschki, 1965, 1 (Ruggero-Rolando Teodorico): 198–495.

Thomas, Antoine. "Traduction provençale abrégée de la *Mulomedicina* de Teodorico Borgognoni, suivie de recettes pour le vin." *Romania* (1911) 40: 353–370.

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BOTANY

Plant knowledge in the Middle Ages was deeply rooted in the legacy of classical antiquity and was mainly of a practical nature, particularly the uses of plants as medicines. Theoretical botany was not totally absent, however, even though works in the field had a complex destiny. *De plantis* by Aristotle (384–322 B.C.E.), which dealt with the genesis and growth of plants, their parts, properties and qualities, and their classification, has been soon lost and was known only in the commented version by Nicholas of Damascus (first century B.C.E./C.E.). This work, in turn, was translated several times during the Middle Ages from one language into another successively: from Greek into Syriac (sixth century [?]), Arabic (late ninth century), and Latin (c. 1200). In Byzantium, it was lost and was not recovered until the fourteenth century, when its Latin version was translated into Greek by the Calabrese bilingual monk Barlaam of Seminari (c. 1290–1348). The *Enquiry on plants* and *Causes of plants* by Theophrastus (372/370–288/286 B.C.E.), respectively dealing with the parts of plants and their classification on this basis, and plant physiology and reproduction, did not circulate widely, either in the East (Byzantium and the Arabic World) or in the West.

In Byzantium, botany was mainly represented by *Dioscorides' *De materia medica* (first century C.E.). The work deals with all the natural products used as medicines (plants, animals, and minerals), and contains one chapter for each such substance with a total of more than one thousand chapters. Plants constitute the large majority (seventy percent). With the exception of the most common ones, they are described so that herb gatherers, physicians, and practitioners could recognize and collect them in the field. Descriptions do not proceed in a systematic way, but by main characteristics according to Theophrastus's method, which had been further developed, possibly in Alexandria. Several manuscripts of *De materia medica* also contain color representations of the plants, whose authenticity and origin are still debated. The work includes an implicit classification of plants, of a cosmogonic nature: the sequence of chapters corresponds to the gradual appearance of the plants during the mythological creation of the universe, with several ages from gold to iron. The paradigm of decline underlying such classification is also present in the description of the single species where the wild varieties are usually credited with superior botanical features and medical properties to the cultivated ones. In such classificatory system, plant names played a certain role, be it to group or distinguish species with similar names according to the cases. The work, supposedly divided into five books (which might correspond in fact to five papyrus rolls at the origin), was widely distributed and used through the entire Mediterranean basin as the