

Trotula, The First Female Physician of Europe: A Historiographical Debate*

Trotula, Avrupa'nın İlk Kadın Hekimi: Tarihsel Bir Tartışma
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ABSTRACT

Objective: Within the scope of this study, it is aimed to evaluate the existence of Trotula, who is claimed to be the first female physician in Europe, as a historical personality and her role in the adventure of European Education History.

Methods: A literature review was conducted on the subject using various databases including PubMed/Medline, Google Scholar, Web of Science, Scopus, Library Genesis, Springer, Jstor Ebsco, ProQuest, and Social Sciences Index Retrospective between October 1, 2017, and May 01, 2021. Additionally, research was done in the libraries of London, Paris National Library, Oxford, and Glasgow universities. The studies on the works attributed to Trotula were evaluated, as well as the most prominent works on women's medicine from the XII. century, including the Liber de sinthomatibus mulierum, De curis mulierum, and De ornatu mulierum.

Results: There is no clear information about whether a person named Trotula lived in Europe in the XII. century. However, in the light of available information, it is highly probable that a female healer named Trotula lived in Salerno. There are three works written in the fields of women's health and cosmetics entitled with Trotula Minor and Major, which are prepared by combining these works.

Conclusion: Despite extensive research, no concrete evidence could be found to confirm the existence of a physician and writer named Trotula during the establishment of the first universities in Medieval Europe. Nevertheless, the books attributed to Trotula were widely circulated and served as an important source of knowledge in medieval European medicine.

Keywords: First Woman Physician, Trotula, Salerno Medical School

Öz

Amaç: Bu çalışma kapsamında Avrupada ilk kadın hekim olduğu öne sürülen Trotula'nın, tarihsel bir kişilik olarak varlığı ve Avrupa Eğitim Tarihi serüveni içindeki rolünün değerlendirilmesi amaçlanmıştır.

Yöntem: Araştırmada konuya ilişkin araştırma için literatür taraması 1 Ekim 2017-01 Mayıs 2021 tarihleri arasında PubMed/Medline, Google Scholar, Web of Science, Scopus, Library Genesis, Springer, Jstor Ebsco, ProQuest, Social Sciences Index Retrospective veri tabanlarından yapılmıştır. Bununla birlikte Londra, Paris Ulusal Kütüphanesi, Oxford ve Glasgow Üniversitelerinin Kütüphanelerinde araştırma yapılmıştır. Trotulaya atfedilen eserlere ilişkin çalışmalar değerlendirilmiştir. Aynı zamanda, XII. yüzyılda kaleme alındığı düşünülen ve the Liber de sinthomatibus mulierum De curis mulierum, ve De ornatu mulierum adlarıyla bilinen ve kadın tıbbı konusunda dönemin en ünlü eserleri arasında yer alan çalışmalar da bu kapsamda incelenmiştir.

Bulgular: XII. Yüzyıl Avrupasında kadın hekimler arasında adı ün kazanan Trotula isimli birisinin gerçekten var olup olmadığı hakkında net bir bilgi bulunmamaktadır. Ancak mevcut bilgiler ışığında Salerno'da Trotula isminde bir kadın şifacının yaşamış olması kuvvetle muhtemeldir. Trotulaya atfen kadın sağlığı ve kozmetik alanlarında yazılmış üç eser mevcuttur. Bu eserlerin birleştirilerek hazırlanan Trotula Minor ve Major isimli kitaplar mevcuttur.

Sonuç: Orta Çağ Avrupasında ilk üniversitelerin kurulduğu dönemde Trotula isimli bir hekim ve yazarın kesin olarak yaşadığına ilişkin somut bir bilgiye ulaşılamamıştır. Ancak bu isimle oluşturulan kitaplar Orta Çağ Avrupa tıbbında önemli birer kaynak olarak kullanılmışlardır.

Anahtar Kelimeler: İlk Kadın Hekim, Trotula, Salerno Tıp Okulu

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Introduction

Historical records of the Salerno Medical School reveal a mysterious name called Trotula (Trocta / Trotta / Magistra operis / alias Eros Juliae / alias Trottus / alias Dame Trot), known as the first female physician of the university.¹ In general, the view is that the Trocta (Trotula) existed as a historical personality and came from Salerno. It is suggested that Trotula lived around the XI. or XII. century, and that in the Late Middle Ages two important works on gynecology which are called as Trotula Major and Trotula Minor, were attributed to her. So how true are all these assumptions? There are various disputes over whether Trotula really existed in the historical process, and if such a personality existed, whether the gynecological works attributed to her belonged to her. Also, there are some allegations on whether Trotula taught as a professor in Salerno, which was considered the foremost medical learning center in Italy at the time, or not. For this reason, it seems important to examine these assumptions in more detail to clarify the issue. So, it would be helpful to briefly review those claims in the light of the works which were thought to have been written in Salerno at the end of the XII. century and attributed to Trotula, and which are accepted as the most common gynecological texts of medieval Europe.¹⁻⁶

Due to the aforementioned reasons, the purpose of this study is to address long-debated questions surrounding Trotula, including whether she truly existed, and if so, whether she authored the widely disseminated gynecological works attributed to her. Furthermore, the study aims to determine whether the medieval gynecologist named Trotula was the first female medical professor at Salerno.

This research includes an evaluation of the establishment processes of the first universities in Europe, as well as an examination of how these institutions functioned during the period in question. The Salerno Medical School was among the most significant healthcare centers of its time in Europe and hosted both female physicians and students. Therefore, this study aims to assess the validity of claims that Trotula was the first female professor of medicine in Europe, and to evaluate the books published under her name.

Methods

The research was conducted via PubMed/Medline, Google Scholar, Web of Science, Scopus, Library Genesis, Springer, Jstor Ebsco, ProQuest, Social Sciences Index Retrospective databases between October 1, 2017, and May 01, 2021, in the form of a literature review on the subject. In addition, research was conducted in the Libraries of London, Paris National Library, Oxford and Glasgow Universities. The objective of this study is to discuss the phenomenon of female physicians in the medieval education world and the various approaches to this perception by examining the literature surrounding the works attributed to Trotula de Ruggerio. Additionally, this study analyzes the most prominent works on women's medicine from the XII. century, including the Liber de sinthomatibus mulierum (Book of the Conditions of Women), De curis mulierum (On Treatments for Women), and De ornatu mulierum (On Women's Cosmetics). Secondary sources such as articles and books were also consulted for this research.

In XII. and XIII. centuries, medicine ceased to be a skill and evolved into a professional occupation in Christian Western Europe. It became a field with degrees, licenses, and sanctions against unauthorized practices, based on education through academic literature. While medical faculties of universities played a role in setting professional standards, they could not graduate enough physicians to meet the growing demand, especially for midwifery. However, women faced greater obstacles in accessing formal medical education and teaching positions at universities than men, except for some regional differences, mostly in Northern Europe.

In southern Italy, women were more prominent, if not more numerous, among the practitioners of medicine. The XIX. century study of Salvatore de Renzi, which will be discussed in more detail below, examined the

famous medical center of the Salerno Medical School and mentioned several female practitioners, known as Salernitane women, who were frequently referenced in XII. century medical texts from Salerno. Additionally, the study mentioned four other women who not only practiced medicine but were also said to have written academic papers. Among them, Trotula, a physician from the XI. or XII. century, has been the subject of an almost futile debate for centuries regarding her existence and authorship.

Findings

Salerno School of Medicine and Women Healers

There are no clear statements about the establishment date or founder of the Salerno Medical School. However, it is generally believed that the school was founded around the XII. century. There is still uncertainty about who founded the school, but according to one claim, it was founded by Benedictine Priests at the Monastery of Monte Casino. In fact, it is reported that medical science was not only practiced, but also taught at the Monastery of Monte Casino near Naples. The work *Collecto Salernita* proposes that the school was founded by a group of four physicians: Jew/Elinus, Arab/Adale, Greek, and Salernitan.^{5,7} The reputation of physicians trained at the Salerno Medical School spread throughout Southern Europe in the X. and XI. centuries.

The school reached the pinnacle of its renown in the XII. century, thanks to several significant factors. These included its strategic location, which was close to the Eastern world, and its position as a melting pot of Arab, Jewish, Greek, and Roman cultures. Additionally, the translation of works on medicine from Arabic and Greek into Latin contributed to its prestige, as did its popularity among soldiers participating in the Crusades.⁷ Another factor that distinguishes Salerno Medical School from other schools is thought to be the climate of tolerance prevailing throughout the school. As a matter of fact, Salerno Medical School is the only school in Europe that opens its doors to female physicians. It is alleged that there are female students and physicians at the Salerno Medical School. Among these female students there was Sichelgaita (1040-1090), sister of Gisulfus (1052-1077), the Duke of Salerno, who was also a contemporary of Constantine. Sichelgaita had a medical reputation, especially in the science of poisons.⁸ However, it is also claimed that the most famous of these women is the female physician called Trota or Trotula (**Figure 1**). At that time, the anatomy of the genitals was known only via the animal dissections and the written descriptions of Islamic texts (without pictures). It is assumed that female physicians from Salerno, especially Trotula, contributed greatly to the studies on the female reproductive system.



Figure 1. The portrait of Trotula holding a globe.¹⁸

This can be explained by the fact that female physicians used to have more access to female patients than male physicians. Trotula often talks about women writhing in pain because they are ashamed of male physicians and cannot share their complaints.^{9,10} Considering the restrictions on women's education rights in the Middle Ages, it is obvious that these developments regarding women's education in Salerno were revolutionary for that period. Unfortunately, we could not come across any clear information about the number or identities of these female students and faculty members. However, church records and some medieval writers referred to the medical practice of these women in Salerno, called "*Mulieres Salernitane*". For example, the necrology of Salerno cathedral mentions a female healer named Berdefolia who died in 1155.¹¹ In another example, it is mentioned that the mother of Platearius was treated by a noble woman who had a problem with uterine suffocation.¹⁰ Although it is not clear, the number of these women is thought to be around twenty. It is seen that female healers of Salerno generally use herbal methods to treat patients with certain gastronomic disorders, skin problems, gynecological and pediatric disorders. For example, olive leaves had been used for children who had a stroke or have a brain disorder. Similarly, in the treatment of a patient with a problem with her spleen, a plant called spleen was used. However, a source documenting that none of these women carried out an academic study or worked as a teacher in any university could not be found.¹⁰ Therefore, it can be said that these women, known as healers, focused more on experimental studies (practical applications), and were experienced in the properties of plants and in which herbal treatment would be good for which disease.

Debates on Trotula: "Who is she?"

Medieval European gynecological conventions depended intensely on Arabic, Latin, and Greek medicine. Besides, one of the foremost influential treatises circulating within the Middle Ages was the Muscio's *Gynaecia*, a Latin adjustment of the works of Soranus of Ephesus.¹² In any case, numerous common medical texts composed by Ibn al-Jazar, Avicenna, Petrus Hispanus, and Bernard of Gordon included chapters on obstetrics and gynecology. For example, the work called Gilbertus Anglicus' *Sickness of Women* was quite common in medieval England.¹³ In addition, medical texts belonging to Hildegard of Bingen were among these works.¹⁴ It records approximately 175 diverse gynecological writings circulating in medieval Europe. The remedies and medicine within the Trotula and other medical treatises are frequently ascribed to Hippocrates and Galen and different other Greek, Arab and Latin doctors. Texts attributed to Salerno's Trota or Trotula are known among the most common gynecological texts in medieval Europe. The pieces presently alluded to as the Trotula that was perceived as the title of the work or the name of the author, was likely composed in Salerno within the late XII. century. The text was later adapted in different ways and added materials from various sources to become a single text. However, it is claimed that this text was not written by a single author, but a single text was created by bringing together three different works, like a piece of cloth formed with patches from different fabrics, so to speak.¹⁰ Benton has argued that the Trotula text is three different texts rather than a unified whole that circulated widely in medieval and Early Modern Europe.²

It is possible to examine the Trotula, which is attributed as the most important work of the period on gynecological diseases, medical problems, and cosmetics, under two different titles. These are known as Trotula Major and Trotula Minor, respectively. In Trotula Major, also known as *Liber de sinthomatibus mulierum*/book on the conditions of women, beginning with *Cum auctor*, references are made to the work of ancient authorities such as Galen (130 AD-200 AD), Hippocrates (380-375 BC), Dioscorides (AD 40-AD 90).⁶ In the work, medical issues such as gynecology and obstetrics are discussed. The second part, starting with *Ut de Curis*, contains a lot of information on gynecological diseases and cosmetics. Many topics from the *Cum auctor* are repeated here as well. However, no reference was made to the ancient authorities mentioned above. It is the only treatise in which references are made to Copho of Salerno, Magister Ferrarius, the

women of Salerno and Trota. It can be said that both studies mainly deal with medical issues that concern women. The third study, named *De Ornatu*, focused only on the issues in the field of cosmetics. Here, only “Saracen women” or “women of Salerno” are referred. However, no names are mentioned.

The works named *Ut de curis* and *De ornatu* were combined in the manuscripts and named as *Trotula Minor*.¹ The contents of these works reveal that all three were either composed in Salerno, the foremost vital center for the introduction of Arabic medication (and so Galenism) into Western Europe, or under the impact of Salernitan masters. Also, according to Benton, two further claims concerning their origins can be made based on the existing manuscripts.² First, no manuscripts of these texts dated well before 1200 have been found, a fact that, if not definitive, strongly refutes composition before the second half of in the XII. century. Second, some of the early manuscripts show that the three tracts appear separately, usually anonymously, with no common author or even identifiable author. When Benton examines three different texts from a paleographic perspective, he argues that together with *Ornatu*, *cum auctor* emerged in the early XIX. century (or late XII. century), without the involvement of *Ut de Curis*.¹⁵ He defends this claim with the following theses. Benton argues that this manuscript titled *Liber de sinthomatibus mulierum*, which comes from Southern France, does not mention “Trotula” either in the title or in the text.² In another manuscript written about the same time, only *Ut de curis* was included, while the other two texts were not included. In another manuscript written about the same time, only *Ut de curis* was included, while the other two texts were not included. Benton emphasizes that this text is the oldest manuscript in which the name *Trotula* is mentioned in the titles.² The general opinion might be that all three of the contents of these works were written in Salerno, the center of acquaintance with the West's Arabian medicine or were written under the influence of the masters from Salerno. However, these manuscripts were influential in the emergence of two different claims regarding the origins of the texts. The first of these strong claims concerns that none of these artifacts were discovered before the late 1200s. The second is that in the oldest manuscripts, these three works are separate from each other, and their authors are anonymous. It is also among these claims that these works do not belong to a co-author. It is even claimed that there is no information that these works belong to any identifiable author.² Thus, it can be concluded that the current text of “Trotula” which is commonly attributed to a single woman author is actually a compilation of three distinct works. The later versions of the text were created by adapting and combining materials from these works in various ways.

Medical texts circulating in medieval Europe are mostly in Latin, and local texts are mostly translations and adaptations of Latin versions. Similarly, the work attributed to Trotula and shown as the most qualified source on women's medicine, has been translated into many different languages, including English, in the period between XII. and XV. centuries. Since the work was written in Latin, which was used as a common language (*lingua franca*) by the intellectuals of the period, it found the opportunity to reach many different parts of Western Europe. This work, on this occasion, addressed a very wide audience.^{10, 15-16} There are several prose and verse versions of the work “Trotula” in Latin. 122 local Latin manuscripts as well as different local translations are available in 58 copies in 22 different local versions.¹⁰ Of course, the various levels of editorial interventions applied to the text during the centuries of its circulating in Europe have caused considerable confusion as to Trotula's origins and textual history. Therefore, it can be said that the various additions and falsifications made during these translations caused the text to move away from its original source and to undergo changes.¹⁷

It is seen that this situation continued until 1544. Finally, this year, George Kraut brought together three different works which were *Cum auctor*, *Ut de curis* and *De ornatu*, into a single work and rearranged the work under one title.² This study was published by Kraut in *Experientiarious Medicinæ* (“Book of Information about Medicine in 1544 under the title of *Trotulae curandarum aegritudinum muliebrium ante*

and *post-partum liber* (Trotula Prenatal and Postpartum Gynecology Treatment).¹⁷ Therefore, it can be said that this work of George Kraut is the basis of all the claims about Trotula, both for and against, during this period, which lasted from approximately 1544 to the 1970s. All subsequent editions following Kraut became known as *De Passionibus mulierum / Diseases of Women*.² Therefore, it can be said that this work by Kraut is important in that it removes the last marks that Trotula was compiled from the works of three different authors.

That same year, in 1544, Johannes Schottus published a new edition combining the works attributed to Trotula with texts by Hildegard of Bingen.¹⁹ The text was edited several more times during the XII. century, but all subsequent editions focused solely on Kraut's work.¹⁶ In the XX. century, the interest in Trotula was revived by Kate Campbell Hurd-Mead. Therefore, it is possible to say that the modern history of Trotula was shaped by Kate Campbell Hurd-Mead.¹

Kate Campbell Hurd-Mead received her diploma from the Women's Medical College of Pennsylvania in 1888. Doctor Mead, the President of the American Medical Women's Association and also a gynecologist, published an article on "Trotula" in 1930.¹ Another remarkable academic study of Mead on Trotula was published in 1938. Mead devoted an extensive section in this work, entitled *A History of Women in Medicine from the Earliest Times to the Beginning of the Nineteenth Century*, to Trotula.¹⁹

She tried to eliminate all speculations about Trotula and to reveal the true historical personality of her, by saying that the works belongs to Trotula whom she described as "*the most remarkable female doctor of the Middle Ages*" carries the gentle touches of a woman on every page".² In 1940, Mead succeeded in attracting the attention of the modern world to women's achievements with the translation of *Trotulae Curandorum aegritudinum muliebrium ante et post-partum liber*-Book of Trotula on the treatment of diseases of women before and after delivery.^{2,20} Mead's work inspired surgeon Elisabeth Mason-Hohl from Los Angeles. Mason-Hohl named her Presidential address to the American Medical Women's Association as *Trotula: Eleventh-Century Gynecologist*. In the same year, Mason-Hohl translated many of the works attributed to Trotula into English.² *De Ornatu Mulierum* (about women's cosmetics) is one of the important works attributed to Trotula, which includes a set of rules that teach women to maintain their beauty and treat skin diseases naturally. The therapeutic effects of some of the treatment content and methods mentioned in the work are still valid today. For example, Trotula explains the formula she developed for a more colorful skin by applying blush to the cheeks as follows: "*Take root of red and white bryony, clean it, and chop it finely and dry it. Afterward, powder it and mix it with rose water, and with cotton or a very fine linen cloth, we anoint the face, and it will induce redness*".^{4,21}

In another formula, Trotula advises women on what to do to change their hair color to blonde. A dye prepared from a mixture of elderberry bark, broom flowers, saffron and egg yolk is recommended for women who want to have hair according to this recipe. Another recommendation is an ointment consisting of bees which is burned in a pot and mixed with oil and goat's milk. Trotula suggested using an ointment obtained by boiling the head of a chicken and the tail of a green lizard in oil to lengthen the hair and dye it black.⁴ Care habits of beauty belonging to *mulieres salernitanae* are reported below (**Table 1**).

Table 1. The active ingredients used by the noble women of Salerno for beauty and care habits (XII. century).²¹

Hair	Shampoo	Liquorice
	Dye (black, blonde and gold)	Dragon tree
	Increase length	Ivory
	Make curly and soft hair	Olive oil
	Perfume	Musk
Skin	Improve growth	Agrimony
	Cleaning	Rosewater
	Bath for softening	Bath
	Depilate	Orpiment
	Cleanse	Walnut
	Whiten	Eggs in vinegar
	Redden the face	Red and white bryony
Mouth	Protect from sunburn	Pork fat
	Soften lips	Honeybee
	Whiten teeth	Soda
	Redden lips	Mastic
	Against cheilitis	Rose essential oil
	Against bad breath	Marrow

Most of these plants, believed to have medicinal properties and used for experimental preparations by the members of the Salerno Medical School, initially grew spontaneously in the region. Later, they began to be cultivated in the Minerva Garden, also known as the first botanical garden in history. The garden was established under the leadership of Doctor Matteo Silvatico from Salerno in the XIV. century. It is estimated that about 300 plant species were grown in this garden for preparing the medicines used in those days.⁴

As mentioned above, the publication of the work “Trotula”, which includes cosmetic information as well as the methods for the treatment of gynecological diseases, which still maintains its importance even today, by different editors in different periods, brought along various claims about the work. Let us briefly examine these claims. Italian historian Anthonio Mazza, in his work *Historiarum Epitome de rebus salernitanis* ("Epitome of the Histories of Salerno") written in 1681, claimed that Trotula had a chair at the University of Salerno. At the same time, in this study, Trotta is praised for giving lectures at the university with names such as Abella, Mercuriadis, Rebecca Guarna, Costanza Calenda. This study is important as for the first time, Mazza referred explicitly to “Trotula” as holding a professional chair at Salerno University.²² A woman named Elena Cornaro having a doctorate in philosophy in Padua may have had an impact on making this claim. Previously, such a degree has not been awarded to any woman. Thus, according to Green, Mazza, who has endeavored to document the glorious history of Salerno, may have tried to show that Padua cannot claim priority in training female professors.²³ Also, Green suggests that, apart from Trota, there are other female healers in Salerno called the "Women of Salerno" (Mulieres Salernitane), as we mentioned earlier. However, she mentions that there is no reference that any of them, except Trota, wrote a medical book or held a "chair" at the university. The simplest way to understand that this claim is unfounded is in the early period in the XII. century the University of Salerno did not yet exist; therefore, it does not seem possible to talk about the existence of any professor, male or female, at the university.^{10,23}

Another claim about Trotula was made by De Renzi. He claimed that only a fragment of her work remained, and that most of her clinical and medical writings had been lost. De Renzi also presented a convincing argument in support of the legend that Trotula was the wife of John Platearius I since there were likely three professors with that name at that time.⁵ According to this theory, Trotula was the mother of the second Platearius and the grandmother of the third, both esteemed members of the faculty at Salerno. De Renzi made a compelling case for the tradition that Trotula was the wife of John Platearius I, who was so-called because there were likely three professors of that name at Salerno.⁷ Known as the *Magistra Mulier Sapiens*

(Wise Woman Teacher), Trotula is married to Platearius, a physician like herself, and has two sons, Matteo and John, who are also physicians.⁴

Green disputes Renzi's claim and argues that very little is known about Trotula. She maintains that the speculations about her marital status or whether she had children are baseless.²⁴ Kleinhez, on the other hand, argues that, unlike many universities in the Latin West, Salerno has a community of physicians who do not belong to the clergy, and that this extraordinary situation strengthens the possibility of Trotula becoming a professor at this university.²⁵

The claims about the Trotula are not limited to what we have mentioned above. Yet another view is that Trotula never actually existed, and that Trotula, then a common name in Southern Italy, was a general term for midwives or women knowledgeable in women's affairs.^{2,26}

The *Canterbury Tales* by Chaucer is among the sources cited by those who claim that Trotula existed as a historical personality. In this work, Chaucer referred to Trotula as “Ma Dame Trot” in the “Book of Wicked Wives”, which belongs to the fifth husband of the Wife of Bath, Jankyn and where all the stories of cheating women in history are collected. The husband of the Wife of Bath describes the book her husband read when he had the “leyser and vacacion”; it was a volume containing Tertullum, Trotula and Helowys (**Figure 2**).²⁷⁻³¹



Figure 2. To commemorate Trotula, the medal given in Naples at the beginning of the XIX. century on which XI. century is written.³²

Discussions about the Trotula are not just about whether such a person existed in the historical process. There is also some disagreement as to what the gender of this person is. For example, until 1566, everyone agreed that the author of Trotula was a woman. The first questions about the identity of Trotula appeared together with the work *De Passionibus mulierum* written by Kaspar Wolf (1566) of Basel in the XVI. century. Kaspar Wolf attributed the *De passionibus mulierum* to a Roman freedman of the first century AD.^{2, 32-34} It can be said that the making of this claim, which is not based on any source, was the first event to ignite the ongoing debate about the existence or gender of Trotula.^{2,18} The question of Trotula's identity continues to be debated, although Wolf's claim is not taken seriously by medical historians, who have always placed Trotula on the list of female physicians.^{16,34} Another claim supported by members of the Sudhofl School is that the author of the works attributed to Trotula was a male named Trottus. This assumption was based on a very famous manuscript of Salernitan medical texts in which an unknown author is identified by abbreviations such as Tt, most probably assumed as Trot and abbreviation marks which are followed by were interpreted as representing the masculine *-us* ending by Hierseman.^{2,35}

As can be seen, the different claims about Trotula can be examined across a wide range. To summarize the discussions on this subject without going into more detail, Trotula, might be the name of a female doctor who lived in the XII. century or more likely in the XII. century (as the term *physician* was used in the first manuscripts).²

Terms such as "little Troia", "dear Troia" or "old Troia" have been used for Trotula (Figure 2). According to Benton, the three different works mentioned above (Cum auctor of Trotula major and Ut de curis and de ornatu of Tortula minor) were written by a male author or writers at the end of the XII. century or at beginning of the XIII. century. According to Benton, the attribution of these works on women's medicine to a female doctor known as Trotula can be considered as an attempt to give her more credibility. However, Benton mentions the existence of another work that may have been written by Trotula herself. He mentions two manuscripts, one in Madrid and the other in Wroclaw (Breslau). The Madrid manuscript includes, among other works, Practical Medicine according to Trot (secundum trotam "Practical medicine according to Trota"); The Wroclaw manuscript contains The Treatment of Diseases, which is thought to have been written by Trot (De aegritudium curatione "cure of diseases"). According to Benton, comparison of these two texts shows that they are part of a larger work written by Trotula that was later lost. Consequently, Benton claims that a female doctor named Trota or Trotula lived in Salerno in the XII. (not XI. century and was the author of a medical work that is now lost. It seems that the works Secundum trotam and Aegritudium curatione are part of this lost work.²

While some earlier scholars have noted inconsistencies between the Renaissance edition of the Trotula and the text(s) found in medieval manuscripts, it can be said that Benton is the first name proving that the "Trotula" is not a single text but rather consists of three different texts and is not attributed to a single author. Hence, it can be said that he also removed many myths related to "Trotula" produced by scientists in the XIX. century and at the beginning of the XX. century. However, Benton's most important contribution is his assertion that the work Practica secundum Trotam ("Practical Medicine According to Trota") was written by Trota.

Discussion

The opening of the Salerno Medical School in Italy can be considered one of the important factors that enabled the development of education during the Middle Ages. While the Salerno School of Medicine was instrumental in the development of medical sciences in the Medieval Western world, it also laid the groundwork for the establishment of a new infrastructure that supported scientific communities. Of course, all these developments appear as important factors in the acceleration of intellectual movements in medieval Europe.

One of the most significant developments in establishing a scientific foundation was undoubtedly the presence of female physicians and students at the Salerno Medical School during the Middle Ages. This feature was revolutionary for both the Eastern and Western worlds, and it positioned the Salerno School in a unique position compared to other schools. As a result of this study, it can be argued that it is not entirely correct to describe the Middle Ages as a completely dark period, given that women are still at a disadvantage when it comes to accessing education today. However, it should be noted that there is no clear information about whether a female physician named Trotula, who gained the most fame among these female physicians, actually existed. Discussions on this issue have been ongoing for many years. However, it is highly probable that a female healer named Trotula lived in Salerno, which was an intersection point of different cultures and knowledge due to its location and geopolitical importance in terms of the penetration of Arab medicine into Western Europe. Nevertheless, the information that this woman was indeed a physician and that she wrote the works attributed to her goes no further than a claim. It is not possible to reach a clear conclusion on this subject in light of the available resources. In fact, the name Trota was quite common at that time. Therefore, it is entirely possible that one of these women, named Trota, was a healer during that period. Thus, when we refer to Trotula, we should consider a collection of works consisting of three works written in the field of women's health and cosmetics, rather than a person's name. These works, which combine three different

texts that emerged in Salerno at the end of the XII century, are known as Trotula Major and Trotula Minor, in other words, *Ut de curis mulierum* and *De Ornatu mulierum*. No concrete information has been encountered to prove the claims that the aforementioned works were written by a single author.

Conclusion

This study sheds light on the origin of Trotula, a compilation of three distinct works that were attributed to different authors rather than a single writer. While the investigation did not yield concrete evidence supporting the existence of a female professor named Trotula at the Salerno School, it did suggest the presence of female students and instructors in the institution. The research also suggested that a skilled healer named Trota likely lived during that period.

Despite the unknown identity of the author(s) of the *Liber de sinthomatibus mulierum*, *De curis mulierum*, and *De ornatu mulierum*, attributed to Trotula, these works circulated widely throughout Europe for many years and were regarded as an important source on women's medicine. The attribution of prestigious positions such as "physician, academician, and writer" to Trotula contributed to a positive perception of women in the Middle Ages, often referred to as the "dark ages." Moreover, Trotula's influence helped to establish the University of Salerno as a reputable institution.

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