Medieval Women Physicians

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By Lady Isobel of Carnewyth

University of Atlantia Session 104 - June 13, 2020

Abella (14th century), Italian physician; Adelle of the Saracens (12th-century), Italian physician; Adelmota of Carrara (14th-century), Italian physician; Rufaida Al-Aslamia (7th-century), Muslim nurse; Maesta Antonia (1386-1408), Florentine physician; Ameline la Miresse (fl. 1313-1325), French physician; Jeanne d'Ausshure (d. 1366), French surgeon; Zulema L'Astròloga (1190-after 1229), Moorish astronomer; Brunetta de Siena (fl. 15th-century), Italian-Jewish physician; Hildegard of Bingen (1099–1179), German natural philosopher; Sibyl of Benevento, Napolitan physician specializing in the plague buboes; Denice (fl. 1292), French barber-surgeon; Demud (fl. ca. 13th century), German physician; Dobrodeia of Kiev (fl. 1122), Byzantine physician; Dorotea Bucca (fl. 1390), Italian professor of medicine; Constance Calenda (15th century), Italian surgeon specializing in diseases of the eye; Virdimura of Catania (fl. 1276), Jewish-Sicilian physician; Caterina of Florence (fl. 1400s), Florentine physician; Jeanne de Cusey (fl. 1438), French barber-surgeon; Antonia Daniello (fl. 1400), Florentine-Jewish physician; Clarice di Durisio (15th century), Italian physician; Fava of Manosque (fl. 1322), French-Jewish physician; Fatima al-Fihri (9th century), born in Tunesia, founder of world's first university in Fez (Morocco); Jacobina Félicie (fl. 1322), Italian physician; Francesca, muller de Berenguer Satorra (15th-century), Catalan physician; Maria Gallicia (fl. 1309), licensed surgeon; Bellayne Gallipapa (fl. 1380), Zaragoza, Spanish-Jewish physician; Dolcich Gallipapa (fl. 1384), Leyda, Spanish-Jewish physician, Na Pla Gallipapa (fl. 1387), Sarah de St Giles (fl. 1326), French-Jewish physician and medical teacher; Alessandra Giliani (fl. 1318), Italian anatomist; Rebecca de Guarna (fl. 1200), Italian physician; Magistra Hersend (fl. 1249–1259), French surgeon; Maria Incarnata, Italian surgeon; Isabiau la Mergesse (fl. 1292), French-Jewish physician; Floreta La-Noga (fl. 1374), Aragonese physician; Helvidis (fl. 1176), French physician; Keng Hsien-Seng (10th century), Chinese chemist; Li Shao Yun (11th century), Chinese chemist; Stephanie de Lyon (fl. 1265), French physician; Guillemette du Luys (fl. 1479), French royal surgeon; Thomasia de Mattio, Italian physician; Margherita di Napoli (late 14th century), Napolitan oculist active in Frankfurt-am-Main; Mercuriade (14th century), Italian physician and surgeon; Gilette de Narbonne (fl. 1300), French physician; Isabella da Ocre, Napolitan surgeon; Francisca da Romana, Napolitan physician; Dame Péronelle (1292–1319), French herbalist; Peretta Peronne, also called Perretta Petone (fl. 1411), French surgeon; Lauretta Ponte da Saracena Calabria, Napolitan physician; Trota of Salerno (fl. 1090), Italian physician; Marguerite Saluzzi (fl. 1460), Napolitan licensed herbalist physician; Sara de Sancto Aegidio (fl. 1326), French physician; Juana Sarrovia (fl. 1384), Barcelona, Spanish physician; Shen Yu Hsiu (15th century), Chinese chemist; Sun Pu-Eh (12th century), Chinese chemist; Raymunda da Taberna, licensed Napolitan surgeon; Théophanie (fl. 1291), French barber surgeon; Trotta da Toya (f. 1307), Napolitan physician; Polisena da Troya (fl. 1335), licensed Napolitan surgeon; Margarita da Venosa (fl. 1333), licensed Napolitan surgeon; Francisca di Vestis (fl. 1308), Napolitan physicians

https://en.wikipedia.org/wiki/List_of_female_scientists_before_the_20th_century

Overview

Humoral Theory - Foundation of Ancient and Medieval Scientific thought

Women in ancient medical history

Persistence of Greek system in Byzantine, Persian, and Arabic regions

Opportunities in the “Dark Ages” of Europe

Women of Salerno including Trota

Outside Salerno: Abbeys and Regional differences

Decline: Impact of Plague, the Reformation, and rise of Universities

Humoral Theory

Origin of the Four Humors

Hippocrates, *On the Nature of Man* (c. 460 – c. 370 BCE)

Galen (129-201 CE), *On the Temperaments*

Avicenna, *The Canon of Medicine* (1025)

The three great ancient teachers of medicine: Galen Roman, Avicenna Persian, and Hippocrates Greek. Woodcut from an early 16th century Latin language medical book. 1511

Summary Descriptions

Humor	Element	Physical Quality	Season	Age of Life	Temper	Description
Phlegm	Water	Cold, wet	Autumn	Maturity	Dull, plodding, calm, unemotional	Phlegmatic
Blood	Air	Hot, wet	Spring	Adolescence	Courageous, hopeful, amorous	Sanguine
Yellow Bile	Fire	Hot, dry	Summer	Childhood	Angry, stubborn, short tempered, ambitious	Choleric
Black Bile	Earth	Cold, dry	Winter	Old Age	Thoughtful, gloomy, introspective, sentimental	Melancholic

- Cold and dry qualities of the melancholic disposition
- old age, retentiveness, and scholarship

- The hot, moist man representing the sanguine temperament
- active wooer embracing a woman.

- A cold, moist phlegmatic couple
- prefer retirement and leisure, signified here by music.

- The hot, dry man of choler
- furiously beats the woman kneeling helplessly at his feet.

Images from Deutsche Kalendar, 1498.
From https://www.nlm.nih.gov/exhibition/shakespeare/fourhumors.html

Humors as building blocks: Impact of food

All humors needed for normal functioning

Phlegm with innate heat gets turned into blood, performs lubrication e.g. joints

- macromolecules of peptides and proteins

Choler is stored in the gallbladder, stimulates the intestine

- lipids (fats, e.g. cholesterol)
- “red choleric” correspondence to fatty blood

Black bile is stored in the spleen and collects excess humors from blood, stimulates appetite

- Black bile: all other residual macromolecules and byproducts of metabolism (e.g. lactic and uric acid)

Imbalance can occur from food or illness

Abnormal humors result from incomplete breakdown or “burning” aggregation and precipitation.

Phlegm: undigested components of food, promoted by heavy, moist, viscous, and cold foods.

Choleric: “burned” yellow bile from hot and sweet, fatty foods.

Melancholic: “burned” black bile from very heavy, dry foods, especially hot.

Observational Medicine and Nutrition

I prescribe a regular diet for all people: I recommend keeping that diet unless it is necessary to change it. Hippocrates attests that disease may result otherwise. A proper diet is one of the foremost goals of medicine; Attend to your diet, or you foolishly direct your other efforts and take care of yourself badly.

What kind? what? when? how much? how often? where to be given? These things a doctor should quickly take note of while prescribing a diet.

Excerpts from the Regimen Sanitatis Salernitanum, late 11th - early 12th c.

Disbalance and treatment

Trotula On Treatments for Women

- “In order that we might make a concise summary of the treatment of women, it ought to be noted that certain women are hot, while some are cold.”
- “Because contraries are cured by contraries, let us place marsh mallows, violets, and roses in water, and we fumigate her with a decoction of these things.”

Hildegarde’s Physica

- “Peas are cold and a bit phlegmatic. They oppress the lungs a bit. Nevertheless, they are good for a warm-natured person to eat.”
- “Licorice is of moderate heat. No matter how it is eaten, it gives a person a clear voice. It makes one’s mind agreeable, and his eyes clear. It soothes his stomach for digestion. It is of great benefit to an insane person. If eaten frequently, it extinguishes the furor in his head.”

From M. Green’s translation of The Trotula and P. Throop’s translation of Physica

Humoral balance

- Impact of natural causes on illness vs. spiritual
- Disturbance from food or drink, degree of physical exertion, or changes in environment
- Importance of observation of the patient (fever, urine, breathing, headache, posture, etc.)
- Impact of seasons – blood hotter in the summer and so get nosebleeds and dysentery
- Bloodletting persisted through the 19th century

Ancient Women Scholars, Scientists, and Physicians

Women in Ancient medical history

Egypt

- Medical schools of Sais and Heliopolis
- Women's training included gynecology which was seen as a female speciality.
- The female dynasty (queen regents) promoted the sciences and were often physicians.

Queen (Pharaoh) Hatshepsut (reigned 1503 to 1482 BCE) was also a physician

- Started three medical schools and gardens for medicinal plants
- Legacy appropriated by her brothers

Women in Ancient medical history

Agnodice engraving, public domain via Wikimedia Commons

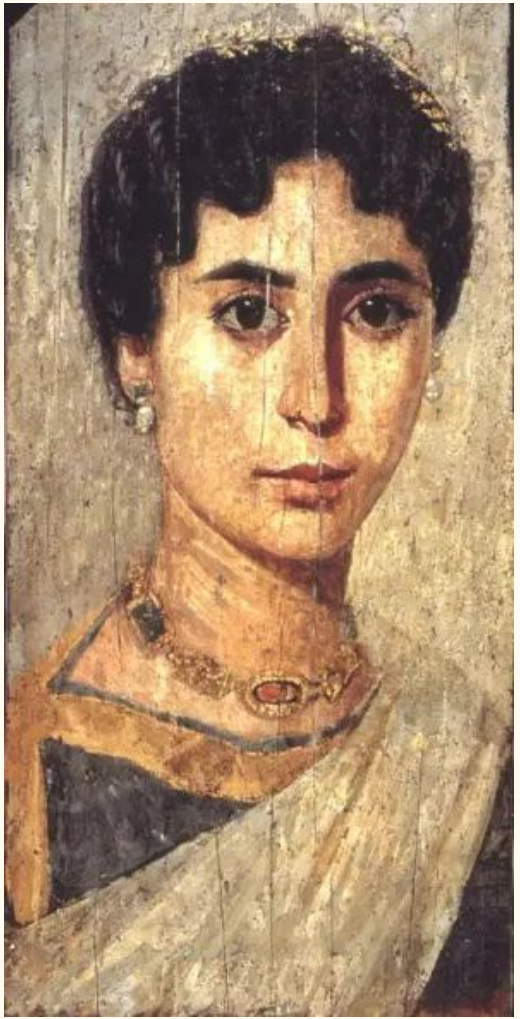
Greco-Roman

- Theano
  - Wife of Pythagoras and ran the school after his death
- Legend of Agnodice in Athens
  - Cross-dressed, argument that women need women doctors
- First known gynecological texts 2nd- 4th c.
  - Metrodora, regarded as first female medical writer
    - *On the Diseases and Cures of Women*
  - Cleopatra of Rome
    - *De Geneticis*
  - Aspasia
    - Prevention of miscarriages and contraceptives, removal of fibroids

Women in Ancient medical history

Alexandrian scientists

- Maria the Jewess and Cleopatra (1st c.)
  - Short period of alchemy as an experimental science
  - Influenced by the perfume traditions of Mesopotamia
  - Invention of the balneum marie (double boiler) and kerotakis-type apparatus
  - Romans began persecution of them in the 3rd c. and much was lost by the time alchemy returned to Europe.
- Hypatia (4th c.)
  - Considered the last pagan scientist, polymath
  - Refused conversion to Christianity and was pulled out of her chariot by political opponents and killed in a gruesome manner. Her murder ended platonic teachings in Alexandria and the Roman Empire



Detail of the death portrait of a wealthy woman, c. 160-170 AD near modern-day Er-Rubayat in the Fayum, public domain via Wikimedia Commons

Preservation and Transfer of Egyptian and Greek Medical Knowledge

Preservation and continuation of knowledge

Persia, Syria, and Arabic caliphates

- Edessa and Jundishapur schools taught both women and men and preserved Greek learning in addition to the medical school in Baghdad which had 6000 coeds.
- Tawaddud's legend in the 436th to 462nd Arabian Nights
  - Arabic slave girl who was tested against multiple scholars including a physician and quoted Galen
  - Granted freedom and a generous sum by the caliph
- Ibn Sina (Avicenna)'s Canon of Medicine in 1025
  - Likely translated into Latin from Arabic by Gerard of Cremona in the 12th century (an Italian working in the Toledo school of translators)
  - Used the humoral theory framework to explain medical concepts

Preservation and continuation of knowledge

Byzantium

- Anna Comnena
  - Daughter of Emperor Alexius with broad learning
  - Wrote on Psychosomatic disease
    - Connection between envy and gangrene
  - Father built hospital in Constantinople 1081 and Anna became the administor
    - 1096-99 First Crusade
  - Post-politicking for the throne, she was banished to a convent for 35 years where she was able to write *The Alexiad* which contained a first hand account of the crusade including documenting the presence of women and children

12th c. mosaic depicts Alexios I Komnenos (r. 1081-1118 CE), father of Anna Komnene. (Hagia Sophia, Istanbul) Public Domain.

Meanwhile, in the ‘Dark Ages’ of Europe…

Carolingian (7th- early 12th c.) renaissance abbey schools: the rapid growth of monastic life gave opportunities for women physician and scholars. (Radegonde, Hilda of Whitby, Mildred, and others)

Lazy doctors in Italy and elsewhere began outsourcing to female nurses for the sick, barbers for surgery, and apothecaries for medicine.

Translations back into Latin from Arabic were happening in centers such as Toledo, the library of Montecassino, and Salerno.

Monastero di San Vincenzo al Volturno, Castel San Vincenzo, Molise, Italy photo by Abbazia de Vincenzo used under cc by 2.0 via Wikimedia Commons

Constantine the African

Benedictine monk from Carthage, arrived in Salerno in 1077.

Translated Galen's and Hippocrates' works into Latin, including anatomical studies from Galen's time in Alexandria in addition to masters of Arabic medicine.

Image of 16th century woodblock print

School of Salerno & The Women of Salerno

Salerno: cosmopolitan crossroads

Roman colony of Salernum was founded in 197 BCE on the site of an earlier Etruscan town.

Lombard duchy of Benevento from 646 CE, capital of an independent Lombard principality in 839.

Norman control from 1076 until sacked by the Swabian Hohenstaufens in 1194.

Eventually reverted to the Kingdom of Naples.

https://www.themaparchive.com/norman-colonies-and-states-in-southern-italy-to-1085.html
https://www.britannica.com/place/Salerno-Italy

Schola Medica Salernitana

Founded c.900 CE, Closed 1861

Golden period of 11th - 13th c., co-ed students and professors

Source of re-entry of the Greek-Latin knowledge base which had been maintained in Byzantine and Persian traditions, merged with Jewish and Arabic medical knowledge. (Founded by Pontus, Salernus, Helinus, Abdela)

Famous texts include the *Regimen Sanitatis Salernitanum*, *Antidotarium Nicolai* and the *Trotula* texts.

Curriculum studiorum consisted of 3 years of logic, 5 years of medicine

Trota of Salerno

c.late 11th c. - early 12th c. Son Matteo Platearius (*Circa Instans*) emphasized that she was a magistra, not an empiric.

Trotula: 11th- 12th c. collection of three books on women's medicine from Salerno.

Mentioned in Canterbury Tales as being one of the texts compiled in the "book of wikked wyves" in The Wife of Bath's Prologue.

Rutebeuf's late 13th c. travelling herbalist, "she is the wisest lady in all the four quarters of the world."

London, Wellcome Library, MS 544 (Miscellanea medica XVIII), early 14th century (France), a copy of the intermediate Trotula ensemble.

Identity and Authorship

Three books within "*Trotula*," compiled c.1200:

- *On the Conditions of Women*
- *On Treatments for Women*
- *On Women's Cosmetics*

Other works by Trota of Salerno c.1100:

- *Practica secundum Trotam*
- *De egritudinum curatione*

Practica secundum Trotam (Practical Medicine According to Trota) and the Salernitan compendium *De egritudinum curatione* (*On the Treatment of Illnesses)* share passages with each other as well as *Treatments for Women*, suggesting a shared authoritative source of Trota.

Conditions of Women contains more Arabic influence and *Women's Cosmetics* has greater organizational structure, leading Monica Green to conclude that *Treatments for Women* is the most likely written by or on behalf of Trota.

On Treatments for Women

- Contraception, conception, against miscarriage
- Repair of torn perineum with silk thread
- Opiates during childbirth, hormonal treatments
- Constrictives, virginial repair (via leech the day before the wedding)
- Positioning of breech baby
- Importance of hygiene, diet, exercise

For Black Teeth

"For black and badly colored teeth, take walnut shells well cleaned of the interior rind, which is green, and we rub the teeth three times a day, and when they have been well rubbed, we wash the mouth with warm wine, and with salt mixed in if desired."

On Foul-Smelling Sweat

"There are some women who have sweat that stinks beyond measure. For these we prepare a cloth dipped in wine in which there have been boiled leaves of bilberry, or the herb itself or the bilberries themselves."

From M. Green's translation of The Trotula

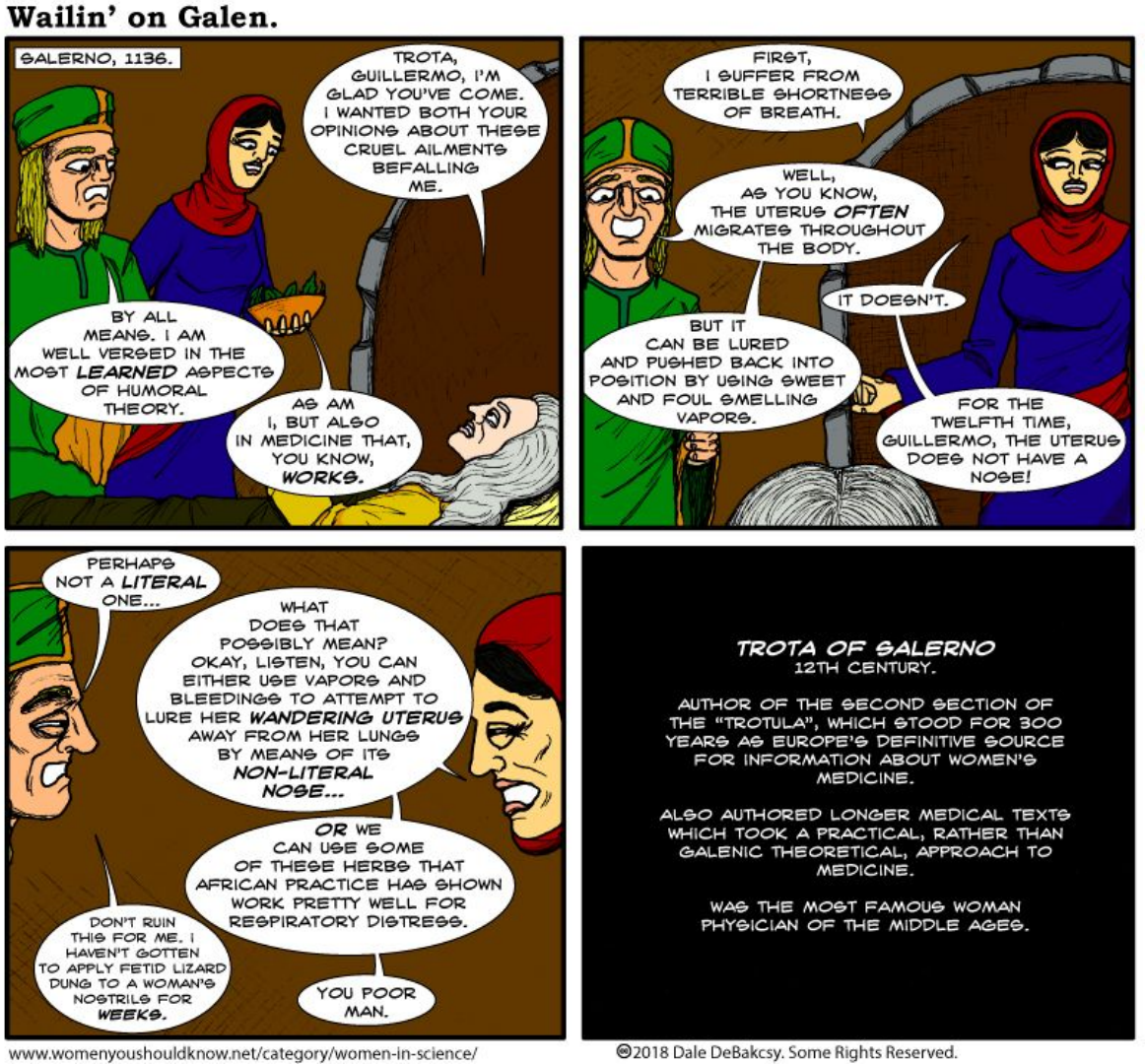
Wandering Wombs

On the Conditions of Women contains sections On Suffocation of the Womb, On Descent of the Womb, and On Movement of the Womb from Its Place.

On Treatments for Women uses the phrase as metaphor [On Pain of the Womb after Birth]:

"For pain of the womb after birth, make a remedy like this. The womb, as though it were a wild beast of the forest, because of the sudden evacuation falls this way and that, as if it were wandering. Whence vehement pain is caused. Therefore, take..."

From M. Green's translation of The Trotula



Women of Salerno- *Mulieres Salernitanae*

Rebecca Guarna

- c.1200, published works *De febrius*, *De Urinis*, and *De Embryone*

Abella

- Mid-14th c., *Black Bile* and *Nature of Seminal Fluid*

Mercuriade (a pseudonym)

- 14th c., *De Curatione Vulnerum*, *De Crisibus*, *De Febre Pestilenti*, and *De Unguentis*

Maria Incarnata of Naples

- Listed as having received a medical license in Naples (first area to issue medical licenses) in 1343 from Queen Giovanna I specifically for surgery and the treatment of women.

Constance Calenda

- Early 15th. c. Salerno
- Father was the Dean at Salerno and then Naples
- Specialized in diseases of the eye, Professor at University of Naples

Women outside of Salerno and Naples

Hildegard von Bingen- The Sibyl of the Rhine

- Mystic, composer, abbess, healer, 1098-1179
  - Visions circumvented obstacles to education and allowed criticism of the Church
  - Invented a unique language and alphabet for her nuns and at Rupertsberg the nuns wore tiaras or crowns in celebration of celestial divinity
  - Wrote multiple biographies, religious texts *Scivias*, *Liber vitae meritorum*, and *Liber divinorum operum simplicis hominis*
- Medical writings:
  - *Physica* - “Subleties of the Diverse Qualities of Created Things”
  - *Causae et Curae* - five books, medical starts in the third with much overlap in content with *Physica*
    - Recipes to counter “retention of the menses”
    - Infertility as both male and female issues
    - Labor pains as curse of Eve
    - Importance of hygiene and diet, rest, and exercise

Physica - humoral characteristics

Nine books

1. **Plants**
2. Elements
3. Trees
4. Stones
5. Fish
6. Birds
7. Animals
8. Reptiles
9. Metals

LXXXIX. Radish

Radish (retich) is more hot than cold. After it is dug up, it should be placed underground in a damp place for two or three days. This tempers its energy, so that it is much better for eating. When it is eaten it cleanses the brain and diminishes noxious humors in the intestines. If a strong and fat man eats radish, it cures him and cleanses him internally, but it will harm a sick, lean body. If a sick person wishes to eat it, he should first dry it over a hot tile and reduce it to a powder. He should add salt and fennel seed, and eat it thus with bread. It purges the foulness inside him and strengthens him. One who has much phlegm should pulverize radish in the same way. Then he should cook honey and wine and put the powder into it. When it has cooled a bit, he should drink this, with or without food. The powder purges the phlegm and the honey keeps him from becoming lean. It is thought that eating it expels a person's evil humors and stenches. One who eats radish should eat galingale afterward. This checks the stench of his breath and does not harm him.

Excerpt from P. Throop's translation of Physica

Physica - humoral characteristics

Nine books

1. Plants
2. Elements
3. Trees
4. Stones
5. Fish
6. Birds
7. **Animals**
8. Reptiles
9. Metals

V. Unicorn

The unicorn (unicornus) is more hot than cold. Its strength is greater than its heat. It eats clean plants. In moving it has a leap, and it flees humans and other animals, except those that are of its kind, and so it cannot be captured. It especially fears a man, and shuns him. Just as the serpent in the first fall shunned the man and got to know the woman, so this animal avoids a man but follows a woman....

Pulverize the liver of a unicorn and put this powder in fat prepared from the yolk of an egg, making an ointment. There is no leprosy, of any kind, that will not be cured if you often anoint it with this ointment, unless death is present for the one who has it, or God does not wish to cure it. The liver of this animal has good heat and cleanliness in it, and the fat in the egg yolks is the most precious thing in an egg and is just like an unguent. Leprosy very often is from black bile, and from overabundant black blood....

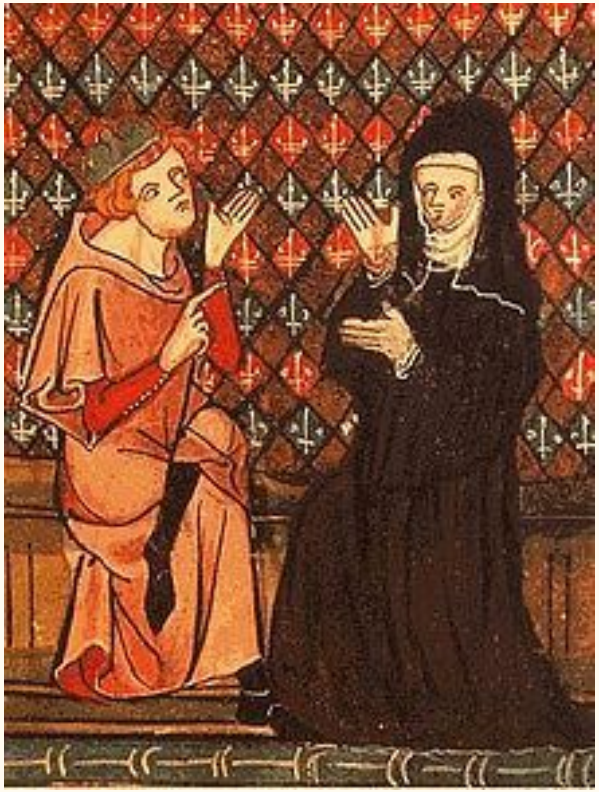
Excerpt from P. Throop's translation of Physica

Sanctuary and Opportunity of Abbeys

Abbess Héloïse
c.1100-1164

Scholar known for her letters and her secret marriage to her teacher, Peter Abelard.

She returned to the convent where she was raised for her safety (Abelard was then castrated in retaliation by her uncle) and she eventually worked as a physician while abbess at Paraclete.



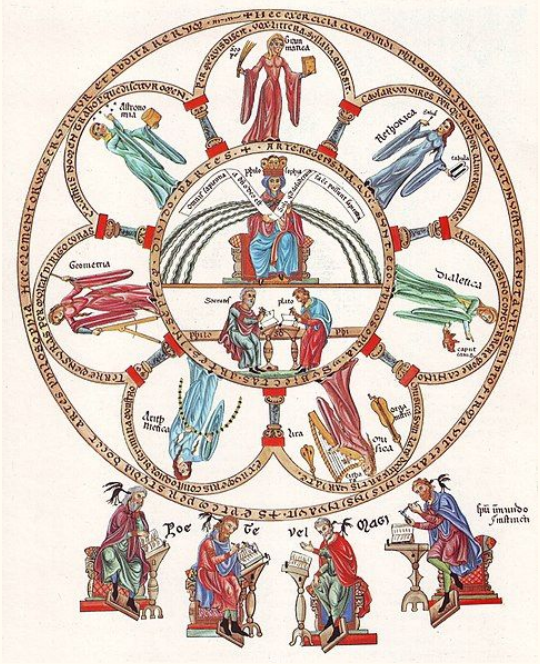
Abaelardus and Héloïse in the manuscript Roman de la Rose (14th century), public domain via Wikimedia Commons

Sanctuary and Opportunity of Abbeys

Abbess Herrad of Landsberg
c.1130-1195

Hortus Deliciarum

- Latin and German
  - Used to teach the nuns Latin
- Encyclopedia of religion, history, astronomy, geography, philosophy, natural history, medical botany
- Computus table for determining festival days from 1175 to 1706



Philosophia et septem artes liberales and Herrad of Landsberg Self-portrait, from Hortus deliciarum, c. 1180. Public domain via Wikimedia Commons

Regional differences

Moors trained Spanish (often Jewish) women in midwifery and alchemy due to the belief that women should not have a male physician. Despite being barred from the Church to treat Christian women, many Jewish women were physicians from the 12th to 15th c. and used techniques from Salerno.

Arab ophthalmology, surgery, and ob/gyn were seen as the purview of women in Germany.

Jacobina Félicie de Almania was a woman practicing medicine in Paris. Jealous colleagues had her indicted in 1322 because she had not studied at the schools of Paris and was not licensed. She cured people others couldn't and didn't take money until cured. The defense argued that it was more seemly for a woman to be tended to by another woman rather than a male physician, but she was still fined.

"Her plea that she cured many sick persons whom the aforesaid masters could not cure, ought not to stand and is frivolous, since it is certain that a man approved in the aforesaid art could cure the sick better than any woman."

The Decline of Women Physicians and Scholars

Universities and the Reformation

- Science centers moved from Italy to N. Europe where there was less equality
- Abelard and Heloise scandal
- Black Plague, mid-14th c.
    - Women had up to 7x rate of recovery
- Threatened status quo of returning soldiers
    - Allowed to pursue obstetrics, surgery, pharmacy, and teaching (low status of women's work) only if not too successful
- Universities outside of Italy were closed to women and Jews by the 13th c.
    - University of Paris allowed only male faculty by 1220 and Montpellier by 1239
- Loss of convents during Reformation as an option for women to avoid marriage and gain education, mid 15th - 16th c.
- By the 16th c. even midwives were under attack

Recommended Resources

- Hypatia's Heritage by Margaret Alic
- Women Healers by Elisabeth Brooke
- Hildegard von Bingen's Physica translated by Priscilla Throop
- The Trotula by Monica Green
- The Women of Salerno: Contribution to the Origins of Surgery From Medieval Italy by Zoë Alaina Ferraris and Victor A. Ferraris
  - https://doi.org/10.1016/S0003-4975(97)01079-5
- Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology by Monica Green
- Women, Science, and Myth: Gender Beliefs from Antiquity to the Present by Sue V. Rosser

Contact information

Lady Isobel of Carnewyth, Barony of Stierbach

isobelofcarnewyth@gmail.com
https://carnewythapotheca.wordpress.com/
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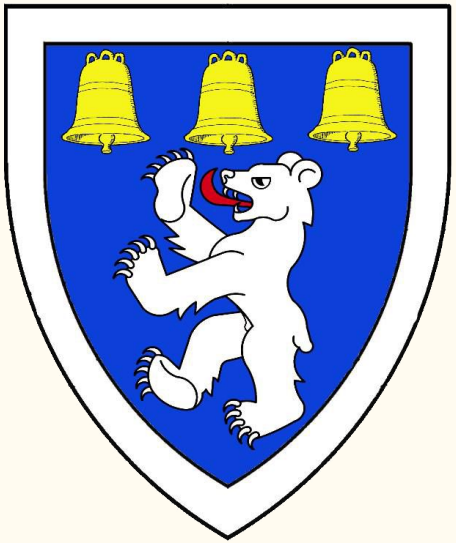

Hortus Sanitatis

Delousing

Late 15th - early 16th c. woodcut

“And there was much rejoicing”
-- Monty Python