

A History of Medicine & Pharmacy: A Historical Introduction

Christopher Wood

This unique tour takes you on a fascinating journey through Italy and France to London, exploring the history of the sciences of medicine and pharmacy and their cultural and social contexts. These histories will be examined through material intimations of the past in the present, such as architecture, painting and early collections of medical and scientific instruments.

Three strands of European medical history form the basis for our program, the first of which is the relentless advance of the 'Black Death' through Europe in the 14th century. Our itinerary follows the Plague's path from the great Mediterranean ports of Venice, Genoa and Pisa north to the cities of Lyon, Paris and London. These were all wealthy, densely populated trading cities, and so became the Black Death's epicentres. It is understandable therefore that in attempting to combat the disease they also played a vital role in the emergence of modern medicine and pharmacy.

The second strand of medical history to be explored is therefore the genesis in northern Italy and France of Renaissance medicine and pharmacy; this saw the beginnings of an analytical approach that gradually took the place of medieval recourse to the supernatural, and created the foundations of modern medical science. We visit the hospitals, universities, dispensaries and the physic gardens that were integral to the evolution of medicine from the Renaissance to the 19th century scientific revolution in Venice, Padua, Florence, Siena, Pisa and Genoa, Montpellier, Lyon, Troyes, Beaune and Paris. In addition we will visit three of the most important collections and medical museums in the world - in Florence, Paris and London.

The third strand of medical history that we address is the emergence of modern scientific medicine in the 19th century, with visits to sites such as the Claude Bernard Museum in St Julien-en-Beaujolais, Louis Pasteur's house in Paris and the Wellcome Library in London.

Medicine, pharmacy and the arts have interacted and enriched each other for centuries. Medieval Florentine painters were members of the doctors' guild, the 'Medici', because they, like apothecaries, mixed substances. Interactions were reciprocal. Sixteenth century architects designed dissection theatres for anatomists, who in turn inspired artists like Michelangelo and Leonardo to dissect corpses in order to understand the mechanics of movement. Leonardo's studies in turn influenced anatomical knowledge. Meanwhile, the anatomist and physician Andreas Vesalius' anatomical illustrations inspired the great Venetian architect, Andrea Palladio, to compose *The Four Books on Architecture* of illustrations of villa designs rather than copious text. His facades, cross sections and plans constituted a type of anatomy of a building that facilitated emulation of his models in British 18th century house design. Meanwhile, botanical illustration, generated by pictorial specialists, was nurtured by the study of medicinal plants and in turn these designs became crucial to transmission of knowledge about them.

Art and architecture also document the gradual transition from medieval faith in God's curative powers to Renaissance and Enlightenment confidence in man's palliative knowledge. During the Middle Ages plagues and epidemics were often considered inexplicable vehicles of the wrath of God brought upon sinners. Monuments like Giotto's Arena Chapel frescoes were seen as good works that atoned for sin; Giotto's patron Giovanni Scrovegni, feared damnation for the sin of usury. When the Black Death was ravaging Florence, the great author of *The Decameron*, Giovanni Boccaccio, wrote:

"In Florence...all human wisdom was unable to avert the onset of the terrible disease. The city had been cleansed and sick folk kept outside the walls...But nonetheless, towards the beginning of spring, the first appalling symptoms of the plague began to appear...Which plague set at naught the skill of the physicians and the virtues of their science."

The incidence of disease, unpredictable, irresistible, bred a kind of fatalism that inclined people to seek relief in the supernatural. In the 11th and 12th century large numbers of pilgrims flocked to the Romanesque shrines of healing saints and, especially in port cities, churches dedicated to saints who interceded to end epidemics proliferated. Everywhere we see images of St Roche (born in Montpellier he is specially invoked against the plague), and myriad pictures of healing miracles like The Raising of Lazarus. A fine example is the Cure of the Lunatic, by the Venetian artist Carpaccio (Venice, Accademia). The transition from faith in God to confidence in human knowledge is documented in the rise of the portraits of great physicians and pharmacists, modelled ultimately upon medieval images of the four evangelists writing their Gospels. In these new intellectual portraits, objects like scientific instruments identify the sitter, taking the place of saints' instruments of martyrdom. This new type of portrait culminates in late 19th and 20th century photographic portraits of scientists like Louis Pasteur. Such images were, however, for the consumption of the Middle Class and elite. Belief in miracles, and images of curing saints, persisted in popular thought and peasant culture as late as the early 20th century in places like Provence.

These examples show how this tour will challenge you to explore new ways of understanding the interaction of the arts and medicine in Western culture.

The journey begins in Venice, the great trading city that both benefited and suffered from its ties to the orient, because the very ships whose cargoes of precious herbs and spices enriched the city also carried diseases, leading to plague and epidemic. Venice attempted to stem this unwanted cargo by forcing ships to anchor in the lagoon for forty days before berthing. The Italian for forty, quaranta, gives us the term quarantine. Venice, moreover, was controlled by a trading aristocracy, which patronised the study of medicinal plants and formed charitable institutions such as the Scuola Grande di San Rocco dedicated the succour of plague victims. We shall explore its decoration, Tintoretto's vast, sumptuous cycle of paintings.

After Venice, the tour moves to nearby Padua, site of the famous university with its 16th century anatomy theatre, the earliest surviving anatomy theatre in the world. A highlight in Padua will be a visit to the recently restored Scrovegni Chapel with its revered Giotto frescoes. We shall also address the relation of garden design, botanical illustration, pharmacy and medicine in Padua's Botanical Gardens, the oldest in the world in its original location.

Professor Donatella Lippi, Director of the Centre of Medical Humanities, University of Florence, introduces her city's fascinating medical history to us. She will give a lecture followed by site visits to such venerable institutions as the Hospital of Santa Maria Nuova (founded 1288). Exploring the city with its leading authority on medical history promises to be a once in a lifetime opportunity. Florence abounds in ancient pharmacies and museums dedicated to medical history. The Santa Maria Novella Pharmacy, a perfume and pharmaceutical workshop famed in Dante's time for its rosewater and herb distillation is one of the world's oldest functioning shops. Meanwhile, Florence's Museo della Specola reveals what few know, that the Medici were not only great art patrons, but also collected a wide range of natural treasures and had a strong interest in the physical and mathematical sciences. The Museo Galileo displays the Medici collection of microscopes, thermometers and meteorological instruments.

In order to emulate the Roman ideal of retreat from city cares, as well as to escape the city during epidemics, wealthy Tuscans built magnificent villas in the Florentine countryside. Bocaccio's Decameron,

which inspired Chaucer's *Canterbury Tales*, recounts stories told by a group of citizens to amuse themselves in a suburban villa whilst the plague raged in the city. At the palace of Princess Georgiana Corsini, an enthusiastic plant collector, we shall encounter both Renaissance villa life and the plantsman's historic contribution to medicine and pharmacy.

From Florence we visit Siena before moving on to Pisa, Genoa and France. In Siena we visit the hospital of Santa Maria della Scala, a medieval hospice for pilgrims taking the Via Francigena to Rome. It evolved into a wealthy hospital. In Pisa, another great port, we have managed to gain access to the University's Botanic Garden and priceless plant collection, which played a crucial role in the evolution of pharmaceutical studies. This institution, not open to the public, will complement our similar encounters in Padua and Montpellier.

In Venice's great trade rival, Genoa, we explore the role of the Knights of Malta, whose history is intimately intermingled with that of medicine. Merchants from Amalfi founded a hospice in Jerusalem to give succour to pilgrims visiting the Holy Land. Their confraternity was transformed into a religious fighting Order during the Crusades. In its later life in Rhodes and Malta, however, the Order combined its martial and medical roles; hence it is also known as the Knights Hospitaller.

In Provence we address another key element in the history of medicine and pharmacy. Since the last Ice Age, the Mediterranean region has nurtured a growing proliferation of herbs whose diversification has been a stratagem for survival in its drought prone, unpredictable climate and poor soils. Perfume, for which the Occitane region is justly famous, was a bi-product of the distillation of Mediterranean medicinal herbs. Our journey through the South of France therefore highlights the landscapes and flora that contributed to the development of medicine and pharmacy. You will visit the Abbey Notre-Dame de Sénanque, founded in the early 12th century, which was a major producer of medicinal lavender oil.

This region also boasts one of the greatest institutions in the history of medicine, the medical faculty and gardens of the ancient University of Montpellier, which we visit. Here we also trace the development of the Cote d'Azur from a place of convalescence for English tuberculosis sufferers (hence Nice's Promenade des Anglaises), to a wealthy art resort; we visit delights such as the Villa Ephrussi and the Matisse Museum.

Travelling north to Paris we stop in Lyon, the great riverine port that suffered dreadfully at the time of the Black Death and therefore played a key role in the development of palliative care. Nearby we visit the birthplace of Claude Bernard, universally regarded as the founder of experimental physiology. Further north we explore one of Europe's few remaining intact Renaissance hospitals, the 15th century Hospice de Beaune, which functioned as a hospital and then a hospice for the aged until 1971. Burgundian lawyer, Nicholas Rolin, chancellor to the fabulously rich Burgundian court, built this complex whose largely untouched dormitories give a vivid understanding of early hospitals' layout and decoration. At Troyes, another city hit hard by the plague, we visit the Apothecairerie de l'Hotel de Dieu La Compte, a replica of an early 17th century pharmacy.

In Paris, the emphasis of our tour switches to modern science-based medicine. We will visit the important Musée Pasteur in the Institut Pasteur in Paris. Pasteur, perhaps more than any other, laid the foundations of modern scientific medicine, by providing an understanding infection-immunity.

In the 19th century Europe's population rocketed due in large part to a better diet, better sanitation, and advances in medicine. Cities across Europe burst through their medieval and Renaissance walls and began to take on the shape and size they have today; Paris' population grew from around 1 million in 1835 to 4 million in 1905! Cities not only grew, they became immeasurably more intricate. Specialist institutions and

transport systems proliferated, and the pace of change quickened, a basic fact of modern life which distinguishes our world from that before 1800. How did art and medicine respond to this urban revolution? The Impressionists documented modern life in a totally new way, and governments invested in public health. Our time in Paris will therefore look at the genesis of the archetypal modern city, its art and its medicine; for Paris and later New York created the quintessential image of the modern metropolis. We explore the 19th century drains designed by the man who made modern Paris, Baron Haussmann, visit key public health museums, and watch the city develop in the art of Manet, Monet, Pissarro and their contemporaries.

The tour concludes in London where an extraordinary treasure trove of both British and international medical history will be explored. Medical developments that have culminated in modern surgical practice (asepsis, anaesthesia and scientific method) will be illuminated by visits to the Hunterian Museum at the College of Surgeons and the St Thomas' Hospital Operating Theatre - Britain's oldest. In addition to the marvellous 'Science and Art of Medicine' exhibition at the Science Museum, we have arranged a special tour of the Wellcome Library for the History and Understanding of Medicine. We will discover 'medical' London on a walking tour and will drink to the science of epidemiology (the key to the control of infectious pandemics) at the site of the famous Broad Street pump - the John Snow pub.

