

# PARACELSUS: LIGHT OF EUROPE

## A Brief History

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### Part I



**Five hundred years after his birth, Paracelsus remains one of the most influential physicians to have emerged from the European tradition.**

**As a contemporary of Kepler, Copernicus, Michelangelo, Da Vinci and Erasmus, he walked fully in the light of the European Renaissance, illuminating it further with the power of his own personality.**

**Though reviled in his own day by a complacent and elitist medical orthodoxy, his contributions to medicinal chemistry, herbal and mineral therapeutics, epidemiology and psychological medicine continue to reverberate into the present time.**

Phillipus Aureolus Theophrastus Bombastus von Hohenheim, remembered as Paracelsus, was born to the physician, William von Hohenheim and Elsa Oschner on St. Phillip's day, 14th November, 1493.

His father, William had in his possession a remarkable collection of "curious" books. He has been described as a "grand master of the Teutonic Order", and was well-versed in the history of medicine, alchemy and metallurgy, and the gnostic arts and sciences.

His mother, Elsa Oschner was the daughter of the inn-keeper at Einsiedeln, on the Sihl river. The inn was owned by the nearby monastery. She served as nurse at the nearby hospital run by Benedictine monks from the abbey at Einsiedeln.

William set up his medical practice at Einsiedeln, which was situated among dark pine forests and open meadows cut through by the deep gorge of the Sihl river. Einsiedeln was well known as a place of pilgrimage and was visited yearly by thousands who followed the road to the miraculous shrine of the Black Madonna situated at the Benedictine abbey. The abbey itself looked down on the wild torrents of the Sihl.

William von Hohenheim married Elsa Oschner and they settled in the small house alongside the Devil's Bridge, over the Sihl about one hour's walk from the miraculous shrine.

Used to wandering the Etzel forests and Schwyzer valleys in search of the plants he loved so greatly, he named his son Theophrastus, after Theophrastus of Lesbos, the great botanist, and eventual successor of Aristotle.

Paracelsus is ambivalent in his recollection of early childhood experiences. On the one hand, he states: *"In the home of my parents, it was quiet and peaceful."* Similarly, he admiringly describes his father as his *"first teacher"*. In other writings however, he recalled the poverty in which his family lived in Einsiedeln: *"I grew up in great misery, and never was in a position to do what I wanted"*.

His mother Elsa suffered from deep depression and was reported to have jumped to her death from the Devil's Bridge during a depressive crisis when he was nine years old.

Paracelsus was later to teach that the mentally ill should not be treated with exorcisms or the brutal incarcerations and beatings which were so common at the time, but with compassion and understanding.

At the outbreak of the Swabian war, William and his son left Einsiedeln, and proceeded towards the Corinthian town of Villach. After the death of his wife, the elder William could no longer continue in the township. He conferred with the abbots of the nearby Benedictine Abbey and obtained from them a number of letters of passage to abbeys and monasteries along the way.

For two to three years William and young Theophrastus travelled through the Swiss alps. Father and son lived together. At every opportunity, the older William instructed his son in medicine, in botany, and in metals and minerals. This early experience was to fire the young Paracelsus with a passion for travel.

They spent some time at the Benedictine abbey at Ragaz-Pfifers, a salty spring in a great gorge of the river Tamina. The bath house had been built in 1242. It was widely known as a place of healing and regeneration. In his later years, Paracelsus was to return to the same abbey and write a treatise on the medicinal virtue of mineral springs.

*"In nature we find a light that illumines us more than the sun and the moon. For it is so ordered that we see but half of man and all the other creatures, and therefore must explore them further. . . Nor should we become drowned in our daily work, for whoever seeks shall find. . .*

*And if we follow the light of nature, we learn that there exists another half of man, and that man does not consist of flesh and blood alone but also of a body that cannot be discerned by our crude eyesight."*

Swiss Period, 1531-1535

## **VILLACH, 1502 - 1506**

Father and son arrived in Villach, a German outpost and second-largest city in Corinthia in the year 1502. William von Hohenheim resumed his practice of medicine and also

began to teach at the Villach mining school, associated with the nearby mines. The famed "lead mountain" was situated nearby at Doberatsch. This mountain was owned by the powerful Fugger dynasty. The Fugger enterprises included banks, mountains, foundries and laboratories.

Young Paracelsus lived these early years alongside furnaces and mineral ores. Chemical investigations took place in the well-equipped laboratories of the Villach mining school. With his father, he travelled to the Tyrolian mines and villages where he learned much from the old miners.

He was taught by the Benedictine fathers at the nearby monastery of St. Paul at Lavanttal. Young Theophrastus spent much time in the laboratories of the learned monks. His education was not the usual education of that time.

At Lavanttal, his main teacher was Bishop Erhard. The two spent their days in the laboratory and in discussions on new technology, the nature of metals, and the philosopher's stone. Bishop Erhard taught the primacy of knowledge gained through direct experience, that Latin and Greek grammar were merely useful embellishments. Rhetorical skills and logical exposition were not to figure strongly in the character of the emergent Paracelsus.

During 1507, the humanist, Joachim von Waadt, known as Vadianus, came to Villach and met with William von Hohenheim. He was greatly impressed by his young son and strongly urged that he study medicine. Armed with letters of introduction from Vadianus, the young Theophrastus left his father's house in 1507 at the age of 14 years, and began the life of a travelling student. He put aside his leather apron, donned a hat and scarf, the uniform of the travelling student in those times, and took to the roads in search of knowledge.

### **UNIVERSITY STUDIES, 1507 - 1512**

The young Theophrastus von Hohenheim travelled in the manner of the day: by river-boat, on horseback and on foot. Over the next five years, he studied widely at a number of German universities.

He knew much of medicine and alchemy even before beginning his university education. Guided by his father's teachings and those of the alchemist monks of Laventall, he had mastered the works of contemporary adepts at an early age.

University students in the 16th century were loud and rowdy. They were free from common law and their pranks were difficult to control. At the University of Paris, students were repeatedly asked not to bring lovers into class. Heavy petting in the classrooms was common practice. The Paris faculty also prohibited the throwing of dung or stones by students during lectures.

Paracelsus had come to the universities to inquire after truth. He found instead the atmosphere of a raunchy drinking-tavern with students and professors enjoying both debauchery and discussion.

He first attended the University of Tübingen, where his father had studied before him. His experiences there had a decisive influence on the development of his character. The university faculty was divided into an "old school" and a "new school" which were continuously at war. Students aligned themselves with one or the other group and swore life-long allegiance to their respective teachers.

The "new school" was so-called as it was supported by reformers such as Luther and Calvin and their followers. The teachings of the Franciscan monk William of Occam were espoused by the "new school". The doctrine of predestination was central to their ideas. Young Theophrastus joined the "old school" which followed the teachings of the Franciscan Duns Scotus (1265 - 1308). The Scotists believed in free will. The ideas of Nicholas de Cusa (1401 - 1464) also informed their perspective.

Theophrastus once again took to the roads and visited the Universities of Heidelberg, Mainz and Treves, the University of Cologne, at which he spent some time, the wild and rough University of Friebourg in the Black Forest, which he later described as being more like a brothel than a university, the austere and prestigious Catholic College of Ingolstadt, the University of Munich, and finally, in mid 1509, the University of Vienna. At Vienna, he was joyously received by his old friend and mentor, the now-famous humanist Vadianus, who had become rector of the university. Vadianus gave him open entry.

At Vienna, he studied the "four higher arts", arithmetic, geometry, music and astrology. These were preparatory subjects for medical studies. Theophrastus graduated with his first degree at the bachelor-examination in 1511 at the age of 18 years.

The bubonic plague broke out in Vienna in the same year. People fled the city. Theophrastus left Vienna and resumed his travels in the company of the "Roll-Brethren", a splinter-group of the "Brothers of the Common Lot". The Roll-Brethren believed in the power of the will and taught that existence is justified through love, and not through faith, as Luther taught. Nicholas de Cusa was their spiritual father, and Erasmus of Rotterdam was their leader. They lived in fraternal communities and developed and served in numerous refuges.

## **RETURN TO VILLACH, 1512**

Even while travelling with the Roll Brethren, and resting in their communities, Theophrastus continued to visit universities or teachers from whom he believed he could learn something. He slowly made his way back to Villach, and his father.

He arrived at Wittenberg where Martin Luther held the chair in theology early in 1511. He proceeded on to the University of Leipzig and then to the great centre of humanitarian

studies, Erfurt University where he met the great German humanist, the brilliant Eobanus Hessus and the wild-living Crotus Rubianus.

Their teacher was Rufus Mutianus, a strong believer in the brotherhood of all men. He held that the spirit of Christ was present in Jews, Greeks, Turks and Germans alike. Paracelsus learned from him *"not to adulate the coat or the beard of Christ. The true living God has neither beard nor coat"*. In his later travels, Paracelsus was to maintain this respect for all cultural sources of spiritual knowledge.

While on his way to Villach, Theophrastus stopped by Wurzburg to receive instruction from the great Trithemius of Sponheim, an alchemical adept and master of the cabbala and the occult sciences. Trithemius was also a noted historian, a patron of the arts and poetry and a teacher of ethics. His abbey at Sponheim was transformed into one of the finest sanctuaries of the arts and sciences of the age. Paracelsus was later to write that Trithemius von Sponheim had "mastered the Kabballah of the spiritual, astral and material worlds".

Trithemius believed that the hidden forces of nature should be known and used, and that God desired man to attain to such knowledge. He denounced the invocation of lesser gods and spirits in order to obtain power, and condemned the abuse of power by sorcerors for their own gain or gratification. He claimed that the invocation of supernatural agents represented an inferior form of magic and was not the way of the true adept who obtained his powers through the grace of God and through knowledge of the laws operating in nature.

Legend records that he re-called the spirit of the deceased Mary of Burgundy at the request of her husband, the Emporor Maximilian. Trithemius claimed that he did not need messengers to communicate with his fellow adepts: he used his thought.

Not surprisingly, his activities aroused the hostility of Church authorities. His cryptic alchemical notations and symbolic writings were seized . Ironically, he was accused of sorcery, the very activity which he shunned. The Abbott Trithemius was banished from his abbey at Sponheim. His notoriety among both the common people and among the lettered men of the time was thereby assured.

From the abbey at Sponheim, the young Theophrastus continued on to his home town of Villach, arriving towards the end of 1512. His father welcomed the young baccalaureate with great pride. He conferred upon him the title "Aureolus", in honour of his achievements.

After a brief stay, Paracelsus once again received his father's blessing and left on a journey which would last over 12 years and would take him through most European countries, through Russia, Egypt and Arabia, and North Africa.

His first objective, however, was to qualify fully as a doctor of medicine. The finest medical teachers of the time were to be found in Italy, so he made his way towards the northern Italian universities.

*"The physician should speak of that which is invisible. What is visible should belong to his knowledge, and he should recognise the illnesses, just as everybody else, who is not a physician, can recognise them by their symptoms. But this is far from making him a physician; he becomes a physician only when he knows that which is unnamed, invisible, and immaterial, yet efficacious."*

Paragranum, 1530

## **FORMAL MEDICAL STUDIES, ITALY**

In 1512, the German emperor Maximilian re-entered Milan from Switzerland. This same route was followed by the intrepid Paracelsus. From Milan, he travelled south through towns held by Swiss troops to reach Padua. The ancient medical school of Padua was said to be one of the best in Europe. Philosophically it followed the system of Aristotle. A rival school in Ferrara was becoming increasingly popular because of its different approach. The school at Ferrara was based more on humanist and Platonist ideas and taught the doctrines of Duns Scotus. Theophrastus lost no time in reaching Ferrara.

Ferrara had been lavished by wealthy Renaissance princes. It was a heartland of the finest Italian culture, and attracted many powerful personalities. The Duchess of Ferrara was Lucretia Borgia, daughter of Pope Alexander and sister of the ruthless Cesare Borgia.

Theophrastus soon found powerful new teachers. The head of the school of medicine was the ageing Dr Niccolo Leonico (1428 - 1514). Leonico had spent many years investigating the new and devastating "French disease" and gave it much attention. Leonico had translated the works of Hippocrates and Galen and was outspoken in his criticism of Avicenna and the blind acceptance of unproven doctrines. He emphasized the need for doctors to see for themselves and to learn directly from their own experiences.

Leonico was succeeded by Giovanni Monardi (1462 - 1536) who further developed his work. Monardi also shaped many of Theophrastus' early attitudes towards medicine. Paracelsus' later outbursts against Galen and Avicenna were partly echoes of the teachings of his two Italian mentors at Ferrara.

Ferrara shaped the young mind of Theophrastus. He learned early the shortcomings of medical education and of the medical practices of the time. He felt indifferently towards anatomical studies. He ridiculed the anatomists who stole corpses from the gallows. Although he scorned formal dissection, he was later to gain great skill as a military surgeon. Paracelsus claimed that dissection took apart what belonged together. It did not illuminate function. The system of physiology which developed around the four-humor theory of medicine simply could not be reconciled with anatomical knowledge.

Nor was he particularly impressed with the teachings of medical diagnosis. The most popular and accepted form of diagnosis at that time was examination of the urine. He believed this to be largely useless. He commented: *"Their ignorance cannot justify their fantastic theories. All they can do is gaze at piss."* Nonetheless, Paracelsus continued to examine all the body's products in his own diagnoses.

Ferrara provided him with what were then revolutionary principles of prescribing medicines, based more on the teachings of Celsus than on the teachings of Galen and Avicenna.

Celsus was a disciple of Hippocrates. Unlike his fellow-doctors, he did not use remedies according to their classification in the humoral system, but rather, divided the medicines of the day into groups according to their specific activity or virtue: purgative, diaphoretic, diuretic, emetic, narcotic, and so on. Arab physicians developed and extended this system of classification in preference to the humoral system over subsequent centuries.

The first European physician to develop and make use of this system of classification of medicines significantly was Savonarola, who formally catalogued the specific effects of over 40 medicinally active plants. Savonarola was a teacher of Leoniceno who had in turn taught Paracelsus at Ferrara.

Theophrastus recognised the power of working with plants according to their specific action. He developed the original insight of Celsus further. He asked how these medicines acted in the way that they did. *"It does not matter that rhubarb is a purgative. The question is: What is it that purges? Not the answer, rhubarb purges; but the answer: What is the corpus that purges? Names do not have virtues. Substances do."*

Theophrastus was grappling with an unnameable quality which lay well outside of the conceptual framework of European medicine at that time. He sought to describe the action of plant medicines not in terms of the four humors of classical medicine, but rather in terms of the activity of specific substances within the plant. He recognised that particular constituents within the plant had power to affect the human body. He called this activity or force the "arcanum", or secret power of a substance.

These insights heralded the dawn of the age of chemotherapy.

Young Theophrastus took upon himself the task of developing and perfecting the ideas of Celsus. On his graduation as a doctor of medicine from Ferrara late in 1515, at the age of 22 years, Phillipus Aureolus Theophrastus von Hohenheim took the name Para Celsus in acknowledgement of the influence of the powerful ideas of Celsus on his own development.

This was no arrogant claim that he was "greater than Celsus". This sealed his commitment to perfect his understanding of the true nature of medicines.

*"Every physician must be rich in knowledge, and not only of that which is written in books; his patients should be his book. By them he will never be deceived. But he who is content with mere letters is like a dead man; and he is like a dead physician. As a man and as a physician, he kills his patients."*

Germany, 1525-1526

## Part II



Travel has long been recognised as a powerful way of knowledge by the enduring physicians of humanity.

Hippocrates of Cos travelled and taught in many parts of Asia Minor over the course of his life. Dioscorides, author of *De Materia Medica*, travelled widely throughout the Roman Empire and North Africa as army doctor. Galen experienced deeply the rich cultures of Greece, Rome, Egypt and Judaea as a traveller and physician.

In Part I, the early life and experiences of Paracelsus were examined. In Part II, his extensive travels through Europe, Asia and Africa which influenced his development as medical revolutionary are reviewed.

### THE PEREGRINATION

In 1515, 8000 Swiss soldiers in Maximilian Sforza's army were massacred by French troops at Marignano, near Ferrara. It became increasingly dangerous for Paracelsus, a Swiss national, to remain in Ferrara. He joined his fellow country-men in their flight south, visiting the medical schools at Bologna, Florence, Sienna and Rome before finally settling briefly in Naples.

The new "French disease", syphilis had been spread by the troops and was raging through Naples at that time. Paracelsus had been earlier introduced to the disease by his old teacher Leonicino at Ferrara. He now witnessed the useless fumigations and "treatments" administered by local doctors. He was later to comment: "*You injure ten patients, while saving only one*".

Paracelsus' early experiences as military surgeon dramatically showed him the crudity and futility of the conventional knowledge of the time. Wounds were cauterized with branding irons. Bleeding wounds were packed with moss and dirt, or scalded with boiling oil. Wound dressings were prepared from cow dung, vipers fat, bird feathers and cobwebs. Military doctors believed that infection and suppuration of wounds were a natural part of the healing process. Many of the soldiers who survived the swords and arrows were later cut down by gangrene and wound fever.

Paracelsus cleaned all open wounds, kept them clean and left them alone to heal. He later wrote: "*If you prevent infection, nature will heal the wound by herself*".



His trust in nature's power to heal was not shared by fellow surgeons. He promoted the use of "weapon salve", a form of sympathetic medicine. Here, it was suggested that surgeons apply their ointments to the weapons which had inflicted the injury rather than to the wound itself. Ointments were applied to swords, arrows and spears, and the wounds were simply kept clean. The soldiers' wounds began to heal more quickly and with fewer complications.

Having seen enough blood, Paracelsus left the army and travelled south to the great medical school at Salerno. It was here that he learned of the existence of the "great fire mountain", Mt. Etna. He hastened to Sicily to experience for himself this great laboratory of creation.

From Sicily, he travelled by sea to Genoa, travelled through France visiting the renowned medical school at Montpellier, before continuing along the ancient Roman highway over the Pyrenees into Spain.

In Spain, he once again returned to the soldiers' camp and travelled as military doctor on a naval ship transporting Spanish soldiers to North Africa. He returned back to Spain with the regiments and travelled on to Granada and Corboda, through Andalusia and into Seville, another university town. Before returning to France, he visited Portugal and Lisbon, sea-port for travellers to the new world found by Columbus.

*"But since such useless rabble befoul the art of medicine with their bungling, and seek nothing but their own profit, what can avail that I admonish them to love? I for my part am ashamed of medicine, considering what an utter fraud it has become."*

Defensiones, 1537-1541

## **RETURN TO FRANCE**

It was on his second trip through France that Paracelsus tasted fully the pompousness of the doctors at the Sorbonne. He declared them to be conceited, arrogant and self-opinionated: *"Parisian learned doctors despise all others and yet are nothing but ignoramuses themselves; they think that their long necks and high judgement reach into heaven itself...They know not what experimentum means, and how experiments are made, neither their origin nor theory."* His harsh judgement echoed long down the hallways of the French medical academy, which remained obstinately hostile to Paracelsian reforms and chemical medicine for the following two centuries.

Thoroughly satisfied that he had little further to learn from universities and medical schools, he wiped the academic dust from his boots, and once again took to the road, a free agent. Life and circumstance were to take him through many remarkable experiences as he ranged out to meet his destiny.

Late in 1518, at the age of 25 years, Paracelsus travelled to England via Calais. On arriving in London, he steered clear of the universities at Cambridge and Oxford and

made his way instead to Cornwall, where he spent time in the tin mines and around the smelters. His unusual knowledge of metallurgy was soon realised and within a short time he found himself in the company of wealthy and influential patrons.

He travelled on to Ireland, the old Hibernia, and also briefly visited Scotland. As he returned towards London, he became fascinated with the newly developing cloth mills. He was later to describe English fabrics and cloths as "unsurpassable" in quality. This new-found interest in fabrics probably determined his next port of call. On returning to London, he met once again with his Cornwall patrons. They introduced him to German and Flemish merchants who traded in fabrics, grain, and metals from London harbour. He undertook a mission on their behalf across the Channel.

Paracelsus sailed directly to Bruges in Belgium, which was at the time the great wool and cloth trading centre of Europe. He then travelled across the north of France to reach Holland, another busy center of commercial activity in Europe. By 1519, the city of Antwerp was a thriving commercial metropolis, as a large number of Guilds had made it their centre of operation over the previous 30 or 40 years.

When Paracelsus arrived, he found Antwerp in chaos. Two Dutch provinces had risen in armed revolt against their foreign sovereign, Charles I of Spain. Paracelsus joined the Dutch fighters as military surgeon, but the peasant army was soon decimated. He fled towards Copenhagen, arriving late in 1519.

#### **APPOINTMENT WITH KING CHRISTIAN II**

In Copenhagen, Paracelsus found great good fortune. He was introduced to the court of King Christian II. The young physician successfully treated the king's mother for melancholia, and the grateful old queen made sure that her son would honour the young foreign doctor. Paracelsus was appointed court-physician and was given the task of re-organising the operation of Danish apothecaries. He soon after joined the inner circle of the king's advisers.

During the successful siege and occupation of Stockholm in 1520, Paracelsus accompanied Christian II as master surgeon in his army. He was awarded a gold chain and high honours by the king for his services.

He visited the famous University of Upsala, and travelled on to the Falun copper mines in northern Sweden. From Falun, he travelled further through the snow to experience for himself the legendary "midnight sun".

On his return to Stockholm in the autumn of 1520, the city was in wild revolt against Christian II who had ordered the massacre of its nobles and chief officials. His close association with the king made him a prime target, so he lost no time in leaving the country. He then made his way to Libau, a strategic post of the Knights of the Teutonic Order. Letters of passage from his father and from his Benedictine mentors gave him open entry into their community.

He accompanied the Knights and their troops to Danzig, where they planned to storm and capture the port. The attempt failed, as did many of their ventures at that time. From Danzig, Paracelsus parted ways with his protectors and made his way to Konigsburg in Prussia.

*“Do not regard yourself as a master at the outset; for no-one can achieve mastery without labour. Also, learn from those who are more experienced than you, for who can pretend to know everything? Who can be everywhere and know where all things lie? Therefore, travel and explore everything, and whatever comes our way, take it without scorn, and do not be ashamed to do so on the ground that you are a doctor, a master.”*

Basle Lectures, “*Antimedicus*”

## **MOSCOW, 1521**

There, he learned that the Court of Moscow had put out a call for men of science and of the arts from Europe. The rulers of Moscow particularly sought to attract architects and doctors. Without hesitation, Paracelsus joined the caravan of adventurers to Moscow. Under the protection of the envoys of the Grand Duke in Moscow, who had entered into an alliance with the Knights, Paracelsus wrapped himself warmly in Russian furs and during the winter of 1520/21 made his way across the snow, eventually arriving in Moscow. He was later to place much importance on the remarkable experiences gained in Russia.

At that time, Tartar tribes roamed the wide steppes of southern Russia and the Ukraine, often attacking and looting the domains of the Russian princes. In 1520 and 1521 a number of major raids took place. Many Russian villages were plundered and destroyed and their inhabitants enslaved. The raiders eventually sacked Moscow, burning the city and its inhabitants, and carried away whatever they could. Paracelsus and many of his fellow-Europeans were captured by the Tartars in the seige of Moscow.

His medical training and skill saved him from slavery. He taught and treated his Mongolian captors and rapidly gained their respect. The Tartars traditionally regarded the work of healers as sacred, and allowed them to come and go as they pleased.

Tartar physicians and shamans practised a form of physiognomy - the ability to judge the essential nature or inner qualities of a given thing through a careful analysis of its outer form. They used this particularly in studying the human face, but also used these skills to determine the healing virtues of leaves and roots. The ideas developed during his time of captivity with the Tartars were later to find expression in his "doctrine of signatures".

It is probable that Paracelsus participated in the ceremonies of the Tartar shamans and was welcomed by them as a peer. Tartar medicine men attributed their power to the influence of the spirits of their departed ancestors and past carriers of the tradition.

Paracelsus left Russia a free man. He accompanied a Tartar prince on a mission to Constantinople. From Constantinople, he travelled through Lithuania, Poland and Croatia, where he visited the rich quicksilver mines of Idria. His fascination with minerals and metals was to remain a life-long passion.

While travelling through Hungary, he was driven to fury by a plague of body lice. He shortly after formulated a dusting powder for his own benefit and for that of other travellers through the region.

He arrived back in Vienna sometime in 1521. Once again, he joined with fellow Swiss adventurers and enlisted as military surgeon with the Venetian troops of by Francois I, to fight in the Franco-Italian campaign of September 1521. On reaching Italy however, Paracelsus left the army and resumed his independent travels. He passed through the shrine of Loreto, a place of pilgrimage, through Apulia and on to Tarentum, where he boarded a ship as ship's surgeon.

He made his way to Crete, at that time a colony of Venice. From there, he followed the usual route of the maritime Venetians to Alexandria, the great cultural cross-road of North Africa.

*"If you want to become a physician, seek out medicine at its fountainhead. Study all the books that exist on the subject! That which is agreement with the light of nature has force and durability. But that which is in disagreement with it is like a labyrinth that has either sure entrance nor exit."*

Swabia/Bavaria, 1537-1541

## **NORTH AFRICA**

Alexandria had remained a centre for the neo-Platonic and Gnostic teachings which had more recently entered the universities of Europe. These schools had been quietly active in North Africa since early Christian times. In his writings, Paracelsus speaks primarily of the Alexandrian physicians and their medical sciences. Only briefly does he mention "*magical instructions*" obtained in Egypt at that time.

From Alexandria, he continued along the Venetian trade route up the Nile to Cairo. While travelling along the ancient river he encountered "*monsters so fearful that you would jump right back into your mother's womb.*" He was probably referring to crocodiles or hippopotamuses. He spent some time among the "*Nile physicians*" as he called them, and there developed his ideas on medical climatology. He was particularly interested in the influence of the desert heat, so different to the conditions of his native Switzerland and Germany.

He probably joined a caravan across the desert, and crossed the Red Sea to reach Jerusalem, the Holy City. He was later to write of the lack of knowledge and skill of the Judaeian physicians. He learnt little in Palestine and Syria. But he did receive instruction in celestial observation while in Judea. It was there that he was introduced to the physical

reality of the constellations and planets which in Europe were primarily studied and interpreted as agents which affected human activity and destiny. In his later writings, Paracelsus was to go against the prevailing grain and assert that human will and imagination were of more power and influence than one's astrological chart.

From Akka, the former headquarters of the Teutonic Knights, Paracelsus boarded ship once again and travelled on to Rhodes. He saw much fighting with the Turkish fleets, which at that time, patrolled the local waters. All this in the years 1521 and 1522.

## **GREECE**

Paracelsus spent some months on the island of Rhodes, a stronghold of the Knights during the siege of Suleiman II. He tended the wounded and the sick, and carefully observed the effects of infection and fever. He began to collect his thoughts and collate copious notes detailing his observations on various diseases and their method of treatment.

Tired of war and of the misery which it caused, he left the scene and headed towards the island of Kos, then still under the control of the Knights of St. John. Arriving in 1522, he studied the writings of the great Hippocrates, who centuries earlier had walked the island. From Kos, he sailed on to Samos, the birth-place of Pythagoras, and then on to Athens, also held by the Turks at that time.

He visited Eresus, the birth-place of his namesake, Theophrastus, successor of Aristotle and author of a 15 volume series on plants and their uses which was transmitted through the centuries. Having paid homage to the memory of the great physicians of early Greece, he returned to Constantinople. He was there befriended by a group of Greek alchemists, and later wrote that their instructions introduced him to new ways of preparing powerful medicines. In Constantinople, he also acquired the sword that thereafter never left his side. His most treasured elixir, the Red Powder was well-guarded inside the handle.

Armed with his new sword, an expanded and renewed knowledge, and impassioned with travel, he appeared then to retrace the steps of the first Christian missionaries. He left the beaten track, crossing wild and rugged mountains. He passed through Thracia, Bulgaria, Macedonia and Albania. On reaching the Venetian protectorate of Dalmatia, he spent almost twelve months working in the mercury mines which were owned and managed by the Venetians. He returned to Venice in 1523.

## **RETURN TO VENICE**

In the early part of his *Archidoxes*, Paracelsus records some of his experiences of that time: "*Sometimes we remember, dear filii, our plight and loneliness, the miserable inns, hunger, and so much poverty around us.... the miseries and calamities that surrounded us.*"

Venice was full of wild and drunken soldiers from all parts of Europe. The German emperor and the French king were still at war, and Northern Italy was the scene of violent

battles, of rape and of pillaging. By 1523, the Venetians had changed allegiance, and were then fighting on the side of the emperor's troops.

Paracelsus gives us insight into some of the surgical practises of the day. He recounts a wild but not unusual incident that he encountered nearby at Udine: "*There, at Friaul, I saw how, in a soldiers' brawl at a public house a whole man's ear was chopped off; a barber came and stuck it on again with some mason's paste. But the ear soon fell off again, dripping with blood and matter.*"

From Venice, Paracelsus sought some needed rest and respite in his home town of Villach. He returned to his father and stayed with him until August 1524. This was the last time he would spend with his first friend, teacher and mentor. He left Villach with its forests and valleys and turned once again toward the towns and cities.

Arriving in Salzburg shortly after, Paracelsus met with a totally changed Europe. During the ten years of his absence, Martin Luther had declared his new dogma. The papal reply to his proclamation had been ceremoniously burned by Luther in 1520.

In Switzerland, Zwingli, Haller and Oecolampadius spread the news of the Reformation. Oecolampadius was a humanist and Brother of the Common Lot, and an old friend of Paracelsus.

At Wittenberg, Carlstadt and Melancthon led a peasant's revolt which saw the closure of monasteries and convents, the abolition of church services and the overturning of clerical celibacy. These increasingly violent uprisings were fueled by warnings of the popular prophets who hailed the time as the approach of the Millennium. The apocalypse was at hand. War, famine and revolution were everywhere to be seen.

All of southern Germany was in turmoil. Peasant armies formed and descended upon the wealthy ruling classes. The princes united forces and retaliated mercilessly. Entire populations were annihilated. A number of the leaders of the peasant revolt retreated towards Salzburg and the Tyrol, but even they were eventually overrun and slaughtered.

The political suppression which followed was devastating. Thousands of Anabaptists were executed. The Duke of Bavaria was particularly violent in his retaliation. Captured peasants were horribly tortured before being killed. Those who recanted were spared the gruesome tortures and simply beheaded.

The well-travelled Paracelsus arrived in Salzburg at the height of these events. He sided with the poor, and spoke loudly and freely in taverns, denouncing the corruption of both the ruling classes and the clergy. He immediately won friends, and was soon attending wounded rebels. Unlike many of the doctors of the time, who derelicted the poor and served only the wealthy, Paracelsus served all who came to him regardless of their wealth or political creed.

He soon came under suspicion and was arrested by local authorities. He was accused of being in active sympathy with the rebellious peasants, and of having consorted with the ringleaders. He refused to inform on the peasants. He was eventually released, having been saved by his title and by the fact that he had at no time actively entered the conflict or carried arms. He commented at the time: "*Thousands are being executed these days.*"

He fled Salzburg not even stopping to gather his belongings. He left behind him a compass, a magnetic needle, a portrait of his father, several oriental garments and fur-lined coats, and a number of ointments and powders. He took with him, however, his sword with the precious Red Powder in the pommel, and the knowledge and experience of ten years of travel.

Later, in 1536, he was to write of his peregrination: "*And in all those countries and places, I was diligently investigating and enquiring into the certain and true art of medicine. This I tried out not only with learned doctors, but also at the hands of barbers, bath-keepers or shearers, and with experienced surgeons; even with old women, with necromancers, with the alchemists and in monasteries; with the nobles and with the common people, with the cleverest and with the simpletons.*"

He had learnt that one did not need to study Galen and Avicenna in order to heal the sick. He had learnt further that university education often produced complacent men of conceit and arrogance. Shortly after however, he was himself to occupy the Chair of Medicine at the University of Basel.

### Part III



**Throughout his peregrination, Paracelsus sought out the principles of medicine from every available source. Ten years of constant travel has broadened his view of medicine far beyond that offered in the schools of Europe.**

**He was now ready to proclaim loudly the renewal of medicine. His work among the people spoke for itself. His proclamations in the academy of European medicine however, soon drew the wrath and prohibition of those in power. Paracelsus remained a driven man throughout his days."**

## THE WELCOME

After leaving Salzburg, a train of seemingly miraculous cures accompanied the movements of Paracelsus. At Ingolstadt, he was called to the sick-bed of a 23 year old girl who had been paralysed since birth. He prescribed three doses of his red powder "Azoth of the Red Lion" to treat her deficiency of *Spiritus Vitae*. After the third dose, the girl walked unaided into her parents bed-room - the first steps she had ever taken. This remarkable cure sparked uneasy speculation within the town. Some viewed him as a saintly miracle-worker. Others claimed such powers could only come from the devil.

He continued further up the Danube to the town of Neuberg where he enjoyed some months at the castle of the Duke of Bavaria with his old friend Hans Kilian, the Duke's librarian and alchemist. It was here that he developed and completed his *Archidoxes* manuscripts, among the earliest manuscripts of iatrochemistry in Western medical literature. Neuberg Castle was later to become an important repository for the writings of Paracelsus.

In the latter half of 1526, he travelled on to the great city of Strasbourg. He sought out publishers for his *Archidoxes* and other manuscripts. Paracelsus quickly re-established contact with old friends from his student days and began to practise medicine.

He was called to the house of Johannes Froben, or Frobenius, a wealthy and influential publisher in nearby Basle. Frobenius had recently suffered a stroke which had left him immobilised. Though gradually recovering from the effects of the stroke, one of his legs had become severely infected, and was not responding at all to any treatment from the local doctors. His leg was about to be amputated when Paracelsus was called. Within a short time of his arrival, old Frobenius was back on his feet again, his infection cured.

This remarkable healing was witnessed by Froben's friend, the great humanist Erasmus of Rotterdam, who was staying with him at the time. Paracelsus unexpectedly found himself in the presence of the revered teacher and mentor of the "Brothers of the Common Lot" with whom he had travelled, studied and served in his earlier years as a student. Though of totally different natures, Paracelsus and Erasmus developed great mutual respect. In a letter written at that time to the young doctor, Erasmus comments: *"I cannot offer any compensation adequate to your art, but I promise to bear gratitude toward you. You have brought back from hell Froben, who is my other half. If you restore my health too, you will give us back to each other. Let fortune retain you in Basle."*

Erasmus, Frobenius, and their circle of powerful friends pulled strings among the town councillors of Basle. Paracelsus was shortly after invited to take up the role of town-physician and Professor of Medicine at the University.

## THE TEMPEST

Though supported by the Aldermen of Basle, Paracelsus' appointment was not well received by the Medical Faculty itself. He handled this matter in a manner fully



consistent with his character. He simply ignored the Faculty. Without discussion or consultation, Paracelsus published a program and presented it directly to intending students. On the 5th June 1527, he posted his iconoclastic "Intimation" on the announcement board of the University. In it, he proclaimed: *"Few doctors today practice medicine with success, and therefore the time has come to bring it back to its former dignity, to cleanse it from the leaven of the barbarians, and to purge their errors. We shall do so not by strictly adhering to the rules of the ancients, but exclusively by studying nature and using the experience which we have gained in long years of practice.... I bid you, do not pass a premature judgement on Theophrastus until you have heard him. Farewell, and come with a good will to study our attempt to reform medicine."*

He welcomed barber-surgeons, alchemists, apothecaries and others lacking formal qualifications to his classes. From the outset, he put aside the sumptuous academic robes favoured by the Faculty. He often came directly to the lecture theatre from his furnace and crucibles still wearing a heavy leather apron, his hands and fingers glistening with crystalline mineral dust.

Within three weeks of commencing teaching at the University, he ceremoniously cast the *Canon* of Avicenna - the standard medical text of the time - into the flames of a large student bonfire in order that *"all this misery may go in the air with the smoke"*. This dramatic gesture reaffirmed his allegiance to Leonico, his old teacher who, over a decade earlier, had railed against the blind acceptance of old dogma.

The Faculty was outraged. It refused to make its facilities available to him. Paracelsus was forced to conduct his classes in an off-campus hall.

As town physician, he loudly and energetically attacked the profit-sharing "arrangement" popular with the regular physicians and apothecaries of Basle. Seven years earlier, as court-physician to Christian II in Copenhagen, he had undertaken similar reforms. He demanded inspections of apothecary shops and their supplies in order to ensure the quality of prescribed medicines. To the hostility of the Medical Faculty was soon added that of the town doctors and pharmacists.

The final insult came when Paracelsus was called to the sickbed of the wealthy churchman, Cornelius von Lichtenfels. The old Canon had been declared dying by his own doctors - the same professors of the Faculty at Basle. Von Lichtenfels offered one hundred guilders for a successful cure. Paracelsus prescribed three doses of a medicine, purgation and diet, and claimed that the old Canon's condition had been misdiagnosed and not understood by his attending physicians.

Von Lichtenfels was soon free of pain and shortly after was on his feet again, completely cured. He conveniently forgot both his suffering and his promise. He paid Paracelsus the usual six guilder fee claiming that this was sufficient for a single consultation and three doses of medicine.

Knowing the great wealth of the Canon, and ready for a battle, Paracelsus sought justice in the court of law. He sued von Lichtenfels. The Canon had friends in high places, and predictably the court judges ruled in his favour, despite evidence of the Canon's breach of agreement.

In a fury of abuse and invective, Paracelsus now charged the judges and magistrates of Basle not only verbally, but also through a series of broadsheets and pamphlets which he circulated among the townspeople. In them, he attacked the deceit of churchmen and the corruption of the town magistrates.

Not even his friends could protect him from the warrant that was issued for his arrest. On February 15th 1528 on the urging of a loyal and powerful friend, Paracelsus galloped away from the town under cover of darkness, narrowly avoiding imprisonment.

In a short ten months, he had begun and ended a new curriculum in medical education which has since been widely acknowledged as a revolutionary extension of the medical knowledge of the time. Though reviled by the Faculty, his course reawakened great interest in the healing art. In 1526, before his arrival at Basle, five students were enrolled as medical undergraduates. In 1527, the year of his teaching, student numbers rose to 31. In 1528, after the departure of Paracelsus, the student intake dropped to *one* solitary undergraduate.

*"People have neglected to study the secret forces and invisible radiations. They have been satisfied with relating miraculous facts. Nature has, within itself, forces visible and invisible, and all are natural."*

## **OBSTRUCTION**

Three weeks later he was at Colmar, where he re-established himself in private practice and began to collect his thoughts on the nature and treatment of syphilis. As his reputation at Colmar grew, his whereabouts became known, and his enemies at Basle soon made it impossible for him to stay. The town authorities at Colmar refused to grant an extension of his permit of residence and blocked the publication of his writings.

By summer of the following year, he arrived at Nuremberg armed with his writings on syphilis. His infamous reputation however, had preceded him. The Nuremberg doctors closed ranks rapidly and denounced him as an imposter. He demanded an opportunity to demonstrate his skill. He was placed in charge of the lepers' hospital outside of the town precincts. In it were incarcerated fifteen patients who had been abandoned as incurable.

To the astonishment of the town, nine of the fifteen patients were cleared of their symptoms as a result of his treatments. These remarkable cures carried the name of Paracelsus through all Nuremberg. Still, he remained an outcast among the town doctors.

While at Nuremberg he wrote prolifically. His *Hospital Book* was authored there, possibly prompted by his experience at the lepers' hospital. The book detailed

revolutionary ideas regarding hygiene and diet. In it, he intimated the source of his extraordinary commitment and energy. He wrote: "*The highest foundation of medicine is love*".

He also published a pamphlet ridiculing the treatment of syphilis by guaiacum fumigation, a popular but largely ineffective practice used by many doctors at the time. He was no stranger to the treatment, having been alerted to the early outbreaks of syphilis in Italy by his old teachers at Ferrara, Leonicensis and Monardi. He had observed firsthand the effects of its use as a young doctor in Naples 15 years earlier.

The Fugger merchant dynasty had acquired a monopoly on the import of guaiac wood from the Americas. It had also ensured the promotion and use of the drug through a profit-sharing arrangement with influential professors and doctors associated with the medical faculty.

The Nuremberg town council was persuaded by the Fuggers and by their retainers on the Medical Faculty at Leipzig to prohibit the publication of any further writings on syphilis by Paracelsus. Under further pressure from those whose profits were threatened by his disclosures, a standing order was declared which prohibited the publication of any other of his manuscripts in Nuremberg without the "approval" of the town authorities.

Being barred from publication, he left his writings with friends in Colmar and Nuremberg, and departed towards Regensburg in the winter of 1530.

The documents that he left behind were the culmination of many years of observation and practical experience. They would take their final form in his *Paragranum* essays. In the *Paragranum*, Paracelsus outlines his "*four pillars of medicine*": natural sciences (philosophy), metaphysics (astronomy), iatrochemistry and pharmacology (alchemy) and ethics (virtue). The *Paragranum* revealed the extraordinary breadth of his understanding of the meaning of medicine. Its appearance signalled the closure of one phase of his activities and pointed ahead to an increasing interest in the metaphysical and theological dimensions of life.

*"My accusers complain that I have not entered the temple of knowledge through the right door. But which one is the truly legitimate door – Galen and Avicenna, or Nature? I have entered through the door of nature. Her light, not the lamp of an apothecary's shop, has illuminated my way."*

## **RETURN TO SWITZERLAND**

At Regensburg, he received an unexpected visit from a group of cloth merchants from Switzerland. They had come on behalf of the Mayor of St. Gall, Christian Studer who was seriously ill and had called for Paracelsus. He arrived at St. Gall early in 1531, and was met by his old friend and mentor, Vadianus - the same Vadianus who had urged him to study medicine as a boy, and who had later welcomed him as a young student at the University of Vienna.

Vadianus had taken over the post of Mayor from the ailing Studer. Paracelsus was offered full citizenship and the freedom to practice his art and publish his writings. Vadianus welcomed him into his own household and supplied him with a fully equipped alchemical laboratory. Whilst at St. Gall, Paracelsus was to mark his deep respect and gratitude to Vadianus by dedicating his *Opus Paramirum* to his faithful old mentor and friend.

While at St. Gall, Paracelsus underwent a remarkable transformation. His explosive radiance was softened and tempered by fasting, prayer and contemplation. His interests moved more strongly towards the metaphysical and the theological. He chose solitude rather than the stimulation of tavern life. He wrote prolifically during this time, authoring over one hundred religious treatises.

For a period of three years he wandered through the Canton and beyond, preaching, meditating and healing those in need. He was later to write: *"If we are firm in the art of meditation, we shall be like Apostles. We shall not fear death, prison, martyrdom, pain, poverty, toil, hunger. We shall be able to drive out the Devil, heal the sick, revive the dead, move mountains. The practice of the art is based on speculation and meditation."*

His time in Switzerland had a powerful renewing effect on the old traveller. He once again took to the roads, but was often judged to be a useless vagabond rather than being recognised as one of the most powerful healers of the time.

In the latter part of 1534 he arrived at the city gates of Sterzing. The city itself was devastated. Carts full of rotting corpses were everywhere. Those who were still on their feet were fleeing the city. Those touched by the Plague were left to their miserable fate. Paracelsus was no stranger to this disease. He had witnessed the full fury of the Plague whilst a student in Vienna in 1511. He now boldly entered the city and ministered to those in need until the epidemic had subsided. Despite his work, he was driven out of the town by its doctors once they returned to their practices. Before the year was through however, he had written a treatise on the plague and dedicated it to the City of Sterzing.

*"There are two kinds of physician – those who work for love, and those who work for their own profit. They are both known by their works. The true and just physician is known by his love and by his unflinching love of his neighbour; the unjust physicians are known by their transgressions against the commandment. For they reap although they have not sown, and they are like ravening wolves. They reap because they want to reap, in order to increase their profit, and they are heedless of the commandment of love."*

Defensiones, 1537-1541

## LAST DAYS

Paracelsus entered the final stages of his journey. He finally gained some recognition from the world for his extraordinary accomplishments. In 1536, he succeeded in having printed the manuscript of his monumental work *The Great Book of Surgery*. This proved to be the one and only publishing success that he enjoyed during his lifetime. It was

widely praised by the European medical fraternity and was used as a standard text in a number of university medical courses of the time.

The following year he was received with great honour in Vienna. He obtained audience with Ferdinand I who acknowledged his genius and offered royal patronage. Yet again, enemy-physicians rose against him and blocked the publication of his treatise, *On Tartaric Diseases*.

Towards the end of 1538, the ageing Prince of Medicine left Vienna on his final pilgrimage. He returned to the mountains, lakes and valleys of Corinthia. He was now 45 years old, and breaking down rapidly as the effects of traveller's diseases and metallic poisoning resulting from his alchemical researches began to take hold. He was clearly bidding his farewells. It was during this time that he composed his *Defensiones*, a record to posterity defending his life and his actions.

Over the last two years of his life, he undertook small journeys on horseback whenever his health permitted. He continued his work of healing to the end.

Paracelsus died on 24th September 1541 at the age of 48 years. In his last will and testament dictated three days before his death, he appointed as his spiritual heirs "*the poor, the wretched, and the needy people who have no stipend or other provision made for them*".

Paracelsus lived and walked in the light, and this was the source of his power, charisma with the people, and endurance. *The Light of Nature* was his constant referent.

The light of the great spirit within this man merged once again with the light of nature. Though the length of his physical existence was relatively brief, his memory continues to reverberate through the centuries as a call to courage and to action for those whose constant mission is the renewal of medicine.

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