ramr
Revista Americana de Medicina Respiratoria

RAMR 2014;4:430-435
ISSN 1852 - 236X

Amedeo Modigliani: Drunken Bohemian or Contagious Consumptive

Author: Henri Colt MD, FCCP
Professor Emeritus, University of California, Irvine
Chair, World association for Bronchology and Interventional Pulmonology

Correspondence to:
422 Glennyre, Suite A. Laguna Beach, CA, 92651 USA
E-mail: henricolt@gmail.com

Our life histories are undeniably affected by changes imposed on us by age and disease, and thus, by the trajectory of medicine which itself is enmeshed in the social order of our times. Each has an effect on our identities, which lingers regardless of our will. In this essay, I illustrate how Amedeo Modigliani's art and illness not only coexisted, but were tragically interwoven in the web of his life. My goal is to describe several aspects of his work and lesser known elements related to the disease that killed him when he was only 35. For Modigliani, as for others, understanding this interplay between art, life, and illness provides insight to the creative spirit where beauty and truth are found.

*

"What is true in a man's life is not what he does, but the legend which grows around him…. You must never destroy legends. Through them we are given an inkling of the true physiognomy of a man." [1]

Oscar Wilde

*

When Modigliani's mother gave him Oscar Wilde's poem, The ballad of Reading Gaol, she may have had the premonition that her son would lead a tumultuous, self-destructive life similar to that of the writer in the City of Lights. (1)Wilde, who probably died from complications of syphilitic meningitis, was a victim of fame and public scrutiny. Modigliani, suffering from advanced tuberculosis, another shamefully contagious and socially ostracizing infectious disease, constructed a respected presence among many artists of his generation. Committing himself not to any particular artistic movement, but to the growing perfection of a stylistic approach to portraiture that transformed his subjects into what now can only be called Modiglianis, he assured himself and his work a place in history.

During the thirteen years before his death at the age of thirty-five, legends about Modigliani flourished. They embellished what was described as a drunken, womanizing, bohemian trajectory marked by poverty and disease. On the evening of January 20, 1920, the destitute Italian-Jewish artist reportedly staggered from the Café de la Rotonde where he had been drinking with friends. Coughing up blood and delirious, he returned to the 4th floor apartment he shared with his lover, twenty-one year old Jeanne Hébuterne, who was eight months pregnant with their second child. Two days later, a Chilean painter named Manuel Ortiz de Zárate, found him nearly unconscious in the woman's arms.

*

"Today, as before, any man entering the arts, without other means of existence than art itself, will be forced to travel a Bohemian path."

Henry Murger

*

Modigliani's death from tuberculous meningitis marked the beginning of the end of a bohemian life style romanticized by Henry Murger's poetic novella, Scenes of a Bohemian Life[2] (2). Written for the theater in 1849, this work became famous through the La bohème operas of Ruggeri Leoncavallo and Giacomo Puccini (3). Bohemian life in Paris had flourished since the mid-eighteenth century. The cabarets of Montmartre were breeding grounds for painters, musicians, poets, and novelists who freely lived passionate and often destructive lives in open revolt against the conservatism and luxury of a growing middle class. Paul Verlaine spear-

[1]Oscar Wilde (1854-1900) was an Irish playwright, poet, novelist and essayist who was tried for gross indecency and condemned to two years hard labor atReading prison, outside London. Two years after leaving prison, he died in Paris, a ruined and broken man.

[2] Henry Murger (1822-1861) was a French poet and novelist.
[3]Italian composers Ruggeri Leoncavallo (1897), and Giacomo Puccini (1896) are also known for their operas Pagliacci and Tosca respectively

headed a new form of poetry that had its roots in Romanticism. The young Arthur Rimbaud, a coming-of-age bohemian par excellence, described himself as an antisocial, violent vagabond refusing ordinary life [3] [(4)]. Writing in the early 20th century, novelist Francis Carco described bohemian life as a perpetual dispersion, with artists drinking their way into oblivion or fame while producing legends of themselves[4].

A portrayal of bohemian life in Montmartre, however, is incomplete without a depiction of the contrasting lifestyle of La Belle Époque. Between 1870 and the First World War, this gilded age of peace, prosperity and flourishing arts, was an era for the rich and famous [5]. Members of a growing bourgeoisie would dine at the Folies Bergeres and the Moulin Rouge, visit the 1889 World's Fair, and purchase prestigious items in the salons of Haute Couture. Champagne became the centerpiece of a growing consumer market for luxury goods. Crowds would marvel at the curvilinear art nouveau forms of the new Paris Metro [(5)]. Gathered in concert halls, they could hear music by Stravinsky, Ravel, Saint-Saens and Debussy, or gaze in awe at moving picture sequences [(6)]. They immersed themselves in modernistic writings by Proust, Zola, and Colette. They strolled along Baron Haussmann's grand boulevards in the shadows of a glorious Opera Garnier; elegantly clad, leisurely pedestrians were surrounded by fancy horse drawn carriages, rumbling automobiles, and bicycles with their modern, removable pneumatic Michelin tires. The Parisian literary critic and physician, Sainte Beuve[(7)], used the word flâner, to describe "the very art of doing nothing." Charles Baudelaire [(8)] said that one who strolls was a flâneur : "The crowd is his element," he wrote, "as the air is that of birds and water of fishes … For the perfect flâneur , for the passionate spectator, it is an immense joy to set up house in the heart of the multitude, amid the ebb and flow of movement, in the midst of the fugitive and the infinite" [6].

These were also incredible times of cross-fertilization in the arts, sciences, and literature. Despite poor living conditions, lack of hygiene, and the threat of communicable diseases such as syphilis and tuberculosis, painters, writers and musicians flocked to Paris in search of fame, fortune, intellectual stimulation and themselves. Knowledge spillover, that process by which the sharing of ideas inspires innovation, resulted in a multitude of artistic, technological, political and social changes that defined the first half of the twentieth century. The period of decadence that marked a nineteenth century stained by the Dreyfus affair, the Oscar Wilde trial, a Panama Canal scandal, and the abuse of factory workers resulting from increased industrialization, had come to a close.

Connected by the number 12 North-South Metro, two neighborhoods became home to cafés and artist studios that were watering holes for the new avant-garde. On the left bank of the Seine, painter Jules Pascin entertained European intellectuals in Montparnasse, while from Montmartre on the right, Picasso [(9)] and friends promoted art that would revolutionize the concept of aesthetics [(10)].

Montmartre (mountain of the martyr), is a hill 150 meters high in the northern part of Paris. Its name comes from the martyrdom of Saint Dionysius (Saint Denis), who, as the Bishop of Paris, was decapitated there in 250 AD. In the early 1900s, the area was outside city limits and free of city taxes. With its open wastelands and numerous small vineyards, some of which still exist, it had become an area for inexpensive eateries and

[4] Rimbaud wrote the poem ma vie de bohèmeat the age of 16 (1870). He died from bone cancer at the age of thirty-seven in a Marseille hospital (1891). Verlaine succumbed to the effects of drugs and alcohol at the age of fifty-two (1896). Their scandalous homosexual relationship marked Paris and London in the 1870s.

[5] France had become a republic in 1875, and the 'Marseillaise' was its national anthem. Education was introduced in public primary schools and religious instruction was excluded from state schools. Divorce, which had been illegal since Napoleon, was reinstituted under the Third Republic in 1884. The Eiffel tower was completed in 1889. By 1914, France had become the second largest colonial power in the world, and the largest in Africa.

[6] 7KH /XPLqUH EURWKHUV SURMHFWHG WKHLU Le Bateau Lavoir by Pablo Picasso, because it was shaped like the

[7] &KDUOHV $XJXVWLQ 6DLQWH %HXYH was a French literary critic who used words like a

VXSHG ORYOHU RI 9LFWRU +XJR¶V ZLIH $GqOH, who lent Hugo money and worked as his secretary, and

DQ DUWLVW¶V OLIH LQ RUGHU WR PRUH IXOO\ XQGHUVWDQG WKH DUWLVW¶V ZRUN. For example, Sainte-Beuve

[8] The French poet Charles Baudelaire (1821-1867)added, "To be away from home and yet to feel oneself everywhere at home; to see the world, to be at the centre of the world, and yet to remain hidden from the world."

[9]Pablo Picasso (1881-1973) was a Spanish artist who resided in France for most of his adult life. He was one of the most influential artists of the twentieth century. Known as a founder of Cubism, his art was ever changing; classical, surrealist, abstract, minimalist, geometric, and almost always socially relevant. Among his last works was his self-portrait facing death series of sketches from July, 1972, one year before his death from heart disease at age 90.

[10] Picasso and friends from France and abroad were headquartered in a building at the top of the stairs by 13 Rue Ravignan, near what is now Place Emile Goudeau in Montmartre. The building was named

Z DXOWHU LQ WKH %DWHDX /DYRLU, because it was shaped like the

VWDLUV OHDGLQJ XS WR WKH HQWUDQFH. Other artists who lived and

FRQGXFWHG LQ 0RQWSDUQDVVH, GHSHQGLQJ RQ

VRPHWLPHV QDPHG DFFRUGLQJ WR WKH FDIpV WKH\ YLVLWHG. For example, headquartered at the Café du Dome, across the street from the Café de La Rotonde near the corner of Boulevard Raspail and Boulevard Montparnasse,"Les Domiers" included men like Wilhelm Uhde, a German art dealer and one of the first collectors of Picasso and Braque.

cabarets such as the Moulin Rouge, Le Chat Noir, and Le Lapin Agile. The village's shacks, rundown wooden homes, and makeshift gardens had been untouched by the Haussmann's plans of urbaniza - tion and reconstruction (Figure 1).

Montparnasse was a new urban zone on the left bank of the Seine, just twenty minutes from the Eiffel Tower. The name comes from Mount Parnas - sus, home to the nine muses of Greek mythology. It takes about two hours to walk the 8 km or so from the intersection of the boulevards Raspail and Montparnasse to the white onion dome of the Basi - lique du Sacré Coeur in Montmartre. After real estate investors bought up vacant land around the hilltop village, rising prices drove poets, painters, avant-garde politicians and philosophers to Mont - parnasse[11]. In the years leading up to and after the Great War, everyone gathered for warmth, toilet facilities, conversation, and camaraderie at its ca - fés. At La Rotonde (Figure 2), for example, owner Victor Libion, let impoverished painters work and drink at his tables, collecting drawings and other tokens as payment for their libations [12]. Not far away, at 3 Rue Campagne-Premier, was a modest cremerie that served secondarily as a restaurant. Amidst rows of wooden tables surrounded by backless benches, Rosalie Tobia, an older woman

Figure 1. The Maquis of Montmartre in 1907. From, http://www.paris-unplugged.fr/1890-le-maquis-de montmartre/580029_340654149354401_1900036573_n/

Figure 2.Café de la Rotonde, Early 1900's Montparnasse. From, http://joellek.j.o.pic.centerblog.net/fupoveuo.jpg.

who modeled once for Bouguereau[13], fed wine and pasta to impoverished artists like Moise Kisling, Chaim Soutine, and a frequently intoxicated, occa - sionally raucous yet charming, aristocratic young Italian named Amedeo Modigliani [14].

*

"After the first glass, you see things as you wish they were. After the second, you see things as they are not. Finally, you see things as they really are, and that is the most horrible thing in the world."

Oscar Wilde[7]

*

Amedeo (from the Latin "to love God") arrived in Paris in the fall of 1906. Ambitious, handsome, and charismatic, the twenty-two year old avoided the more expensive yet prestigious neighborhoods like the Latin Quarter, and settled in Montmar - tre. With a small inheritance and money from his mother, he took up residence in a chic hotel, but rapidly squandered his savings and moved into a wooden shed with a corrugated roof in the waste - land between the Rue Caulaincourt and the Moulin de la Galette. In this rustic area called the Maquis, along the north flank of a hill called La Butte, animals grazed in marshlands among flowers and cheaply constructed shacks. The site had once been a construction area for workers preparing the Paris exhibition of 1900. Now, it was a haven for

[11] The neighborhood was to become the artistic and intellectual hub of Paris by the roaring 1920s, also known as Les Années Folles

[12] The large Monparnasse-Bienvenu subway station (its name was changed from Montparnasse to Avenue du Maine in 1910, then again in 1933 in honor of FulgenceBienvenu, the principal architect of the Paris Metro) is 500 meters from Le Dôme. Around the corner from La Rotonde is the Rue Vavin, a small neighborhood street which connects the Blvd de Montparnasse with the Jardin du Luxembourg, where the grounds of a seventeenth century palace were transformed into a park. The Metro Vavin (named after statesman AlexisiVavin) is only 20 meters from le Café de La Rotonde. Steps away, at the corner of Boulevard Raspail and Boulevard Montparnasse (now called Place Pablo Picasso), stands Rodin's famous bronze statue of Balzac. It was placed there in 1939.

[13] William-AdolpheBouguereau (1825-1905) was a French traditionalist painter whose work was highly respected before the Impressionists and avant-garde movements forever changed the public's perception of art.

[14] Moise Kisling (1891-1953) and Chaim Soutine (1893-1943) were two other Jewish painters living in Paris at the time. Both became famous modernists; Kisling for his portraits and landscapes, Soutine for his still life paintings of slaughtered carcasses and other images of death.

petty thieves and marginalized members of society yearning to avoid the bustle of a changing urban environment. It was also home to a new breed of artists. Writers and musicians such as Apollinaire and Erik Satie haunted its cafés, while Picasso and Braque held court from their ramshackled building called Le Bateau-Lavoir, just below the Place du Tertre (Figure 3).

Modigliani was a veritable street artist. He sketched constantly, but he also drank absinthe (Figure 4) [15]. With an alcohol content as high as ninety percent, the sweet, tasting emerald green liquor known as la fée verte (the green fairy), was popular since the 1870s [8]. Absinthe's bitter, licorice-like taste and reported effects of "euphoria without drunkenness" was caused by mixing wormwood, a plant used for medicinal purposes since 3000 B.C., with alcohol [16]. The oil extracted from wormwood contains the narcotic thujone, which was known to cause nervous problems and insanity.

Modigliani was known for his excellent draftsmanship, but stories of his excesses flourished. The young Italian bourgeois was rapidly becoming a rebellious bohemian. He was seen staggering drunkenly from place to place with Montmartre native and fellow artist, Maurice Utrillo. He bartered sketches for a glass of wine or a meal. He gave drawings to friends and acquaintances who did not keep them, traded paintings for rent, and had a tendency, unless restrained, to remove his clothes when drunk. His use of hashish [17], wine, and absinthe [18] became the source of a legend that included stories of ill-tempered outbursts, brawls, and countless female companions. By indulging in drugs and alcohol, living beyond his means, and refusing to work at nothing except his art, the twenty-two year artist's descent into poverty was inevitable. His friends began calling called him 'Modi', a play on the French word maudit , which means accursed.

Figure 3. The Bateau-Lavoire, rebuilt, Montmartre 2014 (Colt photo).

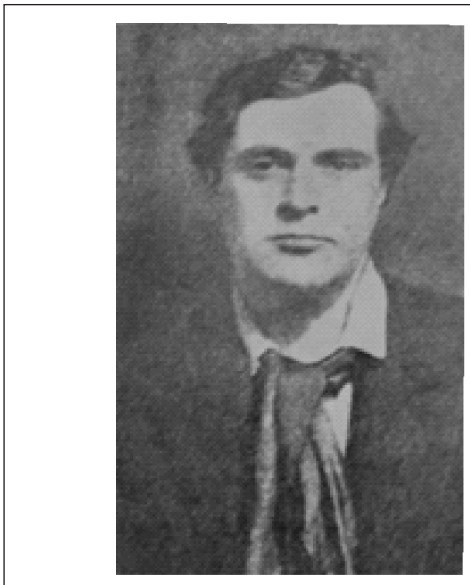

Figure 4.Modigliani with long cravat, 1908. Kulver/Martin archive, from Modigliani: a life , Jeffrey Myers, pg 114.

It hadn't always been this way.

*

"He behaves like a spoiled child, but he does not lack intelligence. … Perhaps an artist? "

Eugenia Garsin

*

[15]Absinthe was poured into a glass of cracked ice, over which was suspended a lump of sugar ona perforated spoon. Cold water was dripped over the sugar into the glass until the sugar was almost fully dissolved, and the drink took on a pleasant milky green color. Absinthe was inexpensive and its anise-like fragrance so exquisite it could be enjoyed by men and women alike. Oscar Wilde drank absinthe until hedied, destitute and alone, on November 30, 1900.

[16]The ingestion of wormwood can cause absinthism, a syndrome characterized by digestive disorders, thirst, restlessness, vertigo, trembling of the limbs, numbness of the extremities, loss of intellect, delirium, paralysis, and death. Cognitive enhancement may be related to nicotinic and muscarinic cholinergic receptor activity.

[17]Hashish pills were inexpensive and available in Parisian pharmacies since the 1840s. They were often prescribed as analgesics and cough suppressants. Opium was smoked in homes and coffee houses. It was legal until the 1912 Hague Opium Convention, which established international restrictions limiting opiate use to "legitimate medical purposes". It would not be until the signing of the Treaty of Versailles seven years later, however,that restrictions were implemented on a global scale.

[18] In 1906, alcoholism, especially acute absinthism, was a major health concern in France. Advertisements extolled the qualities of the intoxicating drink, and many writers and artists argued its virtues as well as dangers. Among others, Baudelaire, Rimbaud, Maupassant, Sarah Bernhardt, Apollinaire, Verlaine, and Picasso revered absinthe's effects on mind and body.

Amedeo Clement Modigliani, nicknamed Dedo, was born on July 12, 1884, in the cosmopolitan Tuscan seaport of Livorno [9] [(19)]. He was the youngest of four children, who included Emmanuele, thirteen years his senior and a future Socialist deputy, Margherita, who would become the adoptive aunt of Modigliani's daughter, and Umberto, an engineer who studied at Paris's famous Ecole des Mines. His parents were Sephardic Jews, a heritage of which he was proud; "Modigliani, painter and Jew", he would often say by way of introduction. His father, Flaminio Modigliani, was a businessman with a history of financial difficulties and bankruptcies that prompted prolonged absences from the family home.

Dedo was raised by his mother, Eugenia Garsin, and by his maternal grandfather Isaac (Modigliani's maternal grandmother died from tuberculosis), a well read, aristocratic gentleman who suffered from neurosis. Modigliani's maternal uncle and probable namesake was Amedeo Garsin. Although he lived in France, this resourceful and well educated man had a positive influence on the young boy. He regularly sent money to help with household expenses and travel. He would also pay for Modigliani's schooling in Venice in later years.

The Garsin family was well learned and proud. Needing to keep up appearances as well as earn money, Eugenia and her sisters, assisted by the older siblings, began a home school program for Dedo and other children from the neighborhood. Amedeo learned Latin and was exposed to art, philosophy and literature at a very young age. He became fluent in French. In 1895, however, he suffered from severe pleurisy, an inflammation of the lining of the inside of the chest wall that is often accompanied by a collection of fluid inside the chest cavity. Consistent with medical standards of the time, he was treated conservatively with prolonged bed rest. His chest was taped to limit respiratory movements and painful chest expansion.

Three years later, typhoid fever almost took his life. Although he had been drawing continuously since childhood, it was during one of his typhoid-induced febrile episodes that he supposedly told his mother that he wanted to become an artist [(20)]. She promised that she would take him to Italy's most famous museums[10]. He was fourteen years old.

By April 1899, Dedo had fully recovered. His mother wrote in her diary that he abandoned his studies in order to devote his energies to drawing and painting. He enrolled in a small class with a local artist by the name of Guglielmo Micheli, a follower of the Macchiaioli school. The Macchiaioli (from the word macchia, which means stain or blot), were Florentine and Neopolitan painters who used small patches of color as building blocks for painting in a combination of bright pastel and dark colors. Precursors to French Impressionist and future Modernist movements, the Macchiaoli created a movement that ran against the neoclassical and romantic styles of the time. Giovani Fattori [(21)], one of the more recognized members of the group, occasionally came to Micheli's studio to work with some of the students (Figure 5).

Young Modigliani was described as an introverted child who displayed emotional outbursts and frequent displays of anger. He was well read, and able to recite long passages from his favorite authors: Baudelaire, D'Annunzio, and Nietzsche. He admired the work of Macchiaioli artists, focused on improving his technique, and visited museums to copy works from the Italian Renaissance.

Within a year of joining Micheli's studio, two of Amedeo's fellow students contracted tuberculosis and died. Dedo had a recurrent bout of pleurisy that summer, and in September, 1900, his sister wrote that "he suffered a violent hemorrhage followed by a fever, and the doctor's diagnosis held out no hope". Coughing up blood was a fearful sign of advanced disease. Physicians likely told Modigliani's family that he had consumption; the contagious, incurable, and ultimately fatal disease

Figure 5. Giovanni Fattori (1825-1908), Macchiaioli school, 1886 RotondaPalmieri. From http://www.giovannifattori.com/en/giovanni-fattori/periodo-livornese-1860-1867 .

[19] Livorno was relatively unique in Italy because it had attracted Jews from the Levant and from Spain. Its local dialect was a blend of Catalan, Spanish, Portuguese, Roman-Jewish vocabulary, and vernacular Italian.
[20]According to one of Modigliani's biographers, Meryl Secrest, only one self portrait from Modigliani's childhood is recognized as authentic. Most other early works attributed to him are under question.

[21]Giovani Fattori ((1825-1908) is considered one of Livorno's most famous artists, but he died poor and disenchanted with life in 1908. His first wife died from tuberculosis in 1867. Modigliani would study with Fattori in Florence in 1902.

called Tuberculosis [22]. Should he survive, convalescence would require rest, a healthy diet, and a change in climate [11].

*

"Le crachat, c'est donc lui l'ennemi"
Deputé Lionel Amodru

*

To understand the impact of tuberculosis on a boy and his family in the late nineteenth century, some background about the disease is warranted. Tuberculosis has been called Phthisis (Latin, from the Greek word phthinein, meaning dwindling, or wasting away) and Consumption (contrary to rapidly fatal epidemic diseases such as smallpox or the Bubonic plague, tuberculosis slowly consumes its victims). The disease has been with humanity since early civilization. Responsible for the "White Plague" of the 17 th and 18th centuries in Europe, it infected nearly 100 percent of the population and is felt to have been responsible for up to 25% of all deaths. The recent discovery of Mycobacterium complex (using molecular DNA techniques) in the 17,000 year old skeletal remains of an extinct bison from Trap Cave, Wyoming, suggests that bovids were vectors that transported the primordial organism [12].

Mycobacterium Tuberculosis bacillus (MTB) is a large, nonmotile rod-shaped bacterium. It is the etiologic agent for tuberculosis in humans (Figure 6) [23]. MTB was identified in the 9,000 year old skeletal remains from a woman and child at the Atli-Yam archeological site [13] [24]. The disease is biologically different from other infectious diseases because the infecting organism is not spread preferentially through the bloodstream [25]. Instead, it takes up residence in tissues, where it forms a caseous necrosis that protects it from attack [26].

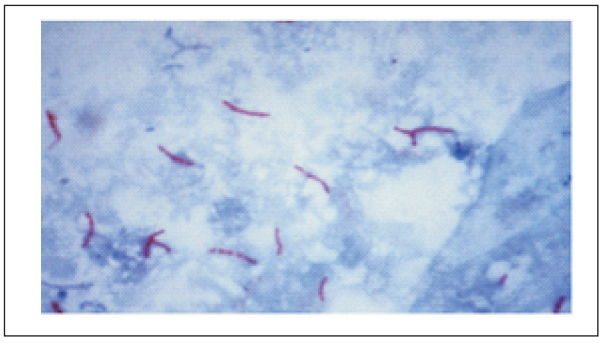

Figure 6. Acid-fast stain of Mycobacterium Tuberculosis (red elongated rods). From, http://textbookofbacteriology.net/tuberculosis.html

Active tuberculosis is contagious and can be found in small microscopic droplets spread through the air by coughing, laughing, sneezing, talking, or singing [27]. Its presenting symptoms are cough, weight loss, fever, chest pain, loss of appetite, and night sweats. Once inhaled, the organisms usually cause a lung infection that can be fatal. They can also lie dormant and not cause symptoms for many years. Disease latency means the person is infected but not infectious (i.e. contagious). Reactivation (i.e. the disease becomes active), which occurs in five to ten percent of infected individuals over a lifetime, affects the lungs or other organs.

Tuberculosis was, and still is a feared and often deadly disease. Today, one third of the world's population is infected with MTB, and 8 million people develop the disease each year. An attack rate of at least 5 percent is reported among infected individuals. While medical treatment is usually successful in controlling the disease, the emergence of multiple drug resistance has prompted concerns in the global health communities [14, 15].

Years ago, consumptives would live out their days with dire expectations. At first considered a random killer of individuals in the flower of their youth, MTB has since been shown to affect persons of any social class, gender, age group or profession. Frequently romanticized, its victims were described as having a gaunt, ghost-like appearance with a feverish glitter in their eyes, rosy cheeks, and a pale almost transparent color to their skin. Hemoptysis, or the spitting of blood, was a sign of eminent death. Shamed, shunned, and sequestered, there was no hope for a cure.

The earliest written record of consumption dates from the Assyrian empire in 600 BC. In around 400 BC, Hippocrates proposed a hereditary predisposition to the illness in patients who

[22]Many famous persons contracted tuberculosis; American writers Henry David Thoreau (1817-1862), Percy Shelly (1792-1822), John Keats (1795-1821), Ralph Waldo Emerson (1803-1882), Edgar Allen Poe (1809-1949), Emily (1818-1848) and Charlotte Bronte (1816-1855), Robert Louis Stevenson (1850-1894), and Anton Chekhov (1860-1904).
[23]Humans are the only reservoirs for MTB.
[24]Ten miles off the coast from Haifa, Israel, the Atli-Yam site is from 6900-6300 BC.
[25]In order to detect MTB in sputum, more than 10,000 organisms per ml of sputum are needed to visualize the bacilli with a 100X microscope objective.
[26]Dead proteinaceous tissues have a soft, white, cheese-like appearance.
[27]TB is at historic lows in North American and Europe, but remains prevalent in Sub-Saharan Africa and Southeast Asia. The reality is that its overall incidence continues to rise, even if its global incidence percentage wise is in decline (the increase in numbers of cases is offset by an even greater increase in population growth). The World Health Organization's Stop TB Partnership was therefore initiated in 2001.

were tall, thin, and pale, providing an opinion that would be shared by much of the medical commu - nity for centuries to come. Even the inventor of the stethoscope, French Professor Ren é Laennec, believed for a time that tuberculosis arose from internal causes and constitutional predisposition, including sorrowful passions (passions tristes) and occasional causes (causes occasionelles) such as unhealthy sexual activity [16] [28].

In 1546, however, the Italian physician Gi - rolamo Fracastoro [29] wrote that phthisis was contagious and not necessarily from a hereditary predisposition. He argued that patients warranted isolation measures similar to those recommended for patients with the plague. Physician groups in Italy and other European countries decreed that tubercular patients, called "lungers" in the United States, were dangerous. Consequently, thousands of thin, pale-skinned, coughing, feverish patients with known or suspected consumption were iso - lated in their homes or grouped in hospital wards to await the grim, white ghost of death [17].

The general public was seized by fear of the dis - ease. Fines were levied against anyone, including physicians, who broke isolation policies. Diseased individuals were cared for by loved ones and good friends, many of which would contract the illness. People with signs of tuberculosis were refused lodg - ing or asked to vacate properties [18]. Tavern keepers could not rent out rooms if they were suspected to have harbored a consumptive; ceilings and walls needed to be whitewashed, and sometimes, doors, window settings, and personal belongings were burned [30]. Examples of the emotional, physi - cal and psychological strains resulting from such practices are described in works by nineteenth century travelers such as consumptive poets John Keats and Percy Shelly, as well as by Alphonse de Lamartine, whose wife died from tuberculosis, and in George Sand's letters about composer Frederic Chopin [31]. Chopin's pulmonary symptoms were suggestive of tuberculosis, prompting Sand and others to assume he had the disease[19]. The com- munity in Majorca, Spain shunned him, and forced him to leave. In one letter, he wrote, "These two weeks, I was sick as a dog, I got a chill despite the temperature of 70, amidst roses, oranges, palms and fig trees. Of the three most famous doctors on the island, one sniffed at what I spewed up, the other tapped at the place from where I spewed it, the third poked and listened while I spewed. The first said that I was dead, the second that I was dying and the third that I would die."

Attitudes began to change in the middle of the 19th century. The French physician, Jean-Antoine Villemin [32] proved without a doubt that tuberculo - sis was a transmissible, infectious disease in 1865, but its origin remained a mystery until the evening of March 24, 1882 when a German physician and microbiologist named Robert Koch [33] announced to the Berlin Physiological Society that he had identified the tubercle bacillus [20] [34]. At the time, tuberculosis was thought to be responsible for one of every seven deaths in Europe. Microbiologic diagnosis was aided by Paul Erlich's [35] discovery of the acid-fast nature of the bacillus that same year[36]. Clinical suspicions of diagnosis based on symptoms and findings from chest inspection, per -

[28] In the second edition of his masterpiece Traité de l"auscultationmédiate , published just before his own death from tuberculosis, Laennec(1781-1826) notes that "phthisis has long been thought contagious, and it is still thought to be so by the common people, by magistrates, and by some doctors in certain countries, especially in the southern parts of Europe. In France, at least, it does not seem to be."

[29] GirolamoFracastoro (1483-1553) was also famous for his poignant Latin poem SyphylissiveMorbusGalicus and his displays of sympathy for anyone who might have contracted the disease.

[30] In almost every way, the history of HIV infection in the 1980s and 1990s recalls the tuberculosis scourge of the 19 th and early 20th century. Both were diseases of uncertain etiology, with an eventual ability for diagnosis without effective treatment, and an expectation of death after diagnosis. They were both accompanied by devastating societal misunderstanding, individual and social discrimination, and fear of contagion. Patients harbored shame, a fear of intimacy and sexual con - tact, and need for secrecy. Both diseases prompted health care policies that encouraged isolation, creation of disease-specific wards in some public and private hospitals. Furthermore, both had deleterious effects on young, productive working people (the flower of youth), and were responsible for emotional and spiritual afflictions that had significant social and political repercussions.

[31] Chopin (1810-1849) may actually have had cystic fibrosis or another pulmonary disorder such as Alpha-1 Antitrypsin deficiency. Tuberculosis was never proven, even after autopsy.

[32] Jean Antoine Villemin (1827-1892) was a French army surgeon who demonstrated the transmissibility of tuberculosis from animal to animal, and also from man to animal by injecting rabbits with caseous material and fluid from a man who had died from tuberculosis. The rabbits went on to form tubercles in their lungs and other organs.

[33] Robert Koch (1843-1910) also isolated Bacillus anthracis, and cholera vibrio using a new technology called a microscope. He received the Nobel Prize in physiology or medicine in 1905.

[34] After decades of research, Louis Pasteur initiated the germ theory of disease in the 1870s and 1880s.

[35] Paul Erlich (1854-1915) was one of the early founders of immunology. This German physician and self-taught chemist was eventually offered a position in Robert Koch's Institute for Infectious Diseases. In 1908, he received the Nobel Prize in physiology or medicine. In 1910, he discovered Salvarsan, an effective treatment for syphilis. He is often called the "father of chemotherapy."

[36] MTB is classified as acid-fast bacteria because it will retain certain dyes (the Ziehl-Neelsen stain will cause the acid-fast organisms to appear pink).