

# CHAPTER 40

## Infectious Diseases and Arts

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“When leaving his surgery on the morning of April Dr. Bernard Rieux felt something soft under his foot. It was a dead rat lying in the middle of the landing.”

—*Albert Camus [12]*

### FOREWORD

Treating infectious diseases as the theme of artistic production is attempting a truly impossible task that artists have nevertheless committed to: Art is many-faceted and diverse and references to infectious diseases abound.

In a highly exhaustive sense, any human creation, whether it be material or spiritual, stems from an art, which, however, requires certain aptitude, theoretical or technical knowledge resulting from learning. Often in the introduction, the art historian has claimed that there was no art, but that there were only artists. In other words, through an object or a work of art, individuals express their esthetic feeling—within a religious, social, or cultural context—a work of art sets off an emotion in the person who sees it or hears it or simply perceives it with his or her senses.

How many categories can artistic production be divided into? Let us say that it involves all the modes of expression of beauty and imagination. One art theoretician wrote “An object is a work of art in and of itself only in relation to an interpretation” [15]. Reference works suggest a variety of domains in which art is expressed: the dramatic arts, opera, the fine arts—still referred to as the spatial arts—including architecture, engraving, painting, sculpture, and, for more than 150 years now, photography. We can add to these the temporal arts (music, dance, and cinema, which has become the

seventh art). There are the utilitarian arts (high-technology products), and, more contemporary still, television, or the eighth art, and comics, a ninth art. Reference can also be made more classically to applied arts, the decorative arts, performing arts, and, more specifically, to Art Nouveau, popular arts, the “poorman’s art” (made of objects from daily life) [84].

With this profusion of domains, schools, and interpretations, we probed where our quest, our subject appeared unmistakably in image and text. Indeed, the fine arts, literature, and cinema provide us with a number of exemplary successes where our topic is expressed superbly; other types of artistic work, however, have also captured our imagination for their original interpretation of infectious diseases. Of course, we could have cited the marks of infectious diseases detected in the most recent rock paintings or in the artwork of ancient Egypt; and, at the frontier of history and medical art, we could have consulted the wonderful illustrated works of the sixteenth century used by the practitioners of medicine, who were then at the threshold of the passage from art to science. Finally, cinema—scientific in nature—today proposes beautiful examples of art at the service of medicine with rich and wonderfully human works on themes that have never been explored by the artist, such as onchocercosis with *Mara, the Lion’s Eye* [93]; there are many others.

This text is also an essay; whether in a scattered or targeted manner, it is simply a pioneering look turned to artistic

representations of infectious medicine or the great pestilential calamities. We will take the liberty of a few particular critical comments on one work of art or another, where an infectious disease plays a role or helps to give particular light to the suffering of humanity.

The works of the fine arts—the collection of roughly 20 literary works that we will refer to, and the nearly 100 films that we will cite or comment on—seem to us to provide sufficiently rich light to the entire panoply of these productions, which we hope will incite the reader to further research.

We note that in artistic production, infectious diseases in their epidemic or endemic forms seem to have frightened the artists, some representing their own suffering in disease, conveying visual or auditory expressions to release the audience's emotion. But the relation of the arts to medicine, including what touches infectious diseases, is vast, from the person who suffers to the mystery of an elusive and insidious germ, from the microcosm to the macrocosm, from plants that heal to the imaginary.

Our purpose is threefold, each part concentrating on one domain: The fine arts, essentially drawing and painting, literature, in particular the novel, and cinema, excluding television production that today remains little or poorly referenced, or with little in the way of originality in its inquiry. Infectious diseases and epidemics find frequent representation in the narrative arts: Literature has the very early examples of the ancient texts and rarer illustrations in poetry; cinema begins in the 1930s, with a few even earlier examples from the days of silent films.

Art—it must be said again and again—expresses and transforms emotions and feelings; and the representation of death is present in all the arts. Even medical illustration, which is meant to be descriptive and informative, outside of emotion and feeling, often achieved the status of art in past centuries before the existence of photography. We have also taken a few examples in music and dance, often accompanied by a booklet referring to a literary work: For example, *La Dame aux Camélias* and its tearful (tragic, romantic) ending with the heroine's death from consumption; she would inspire a number of artists [5]. In addition, the extremely rapid progress of today's imagery techniques at times draw near artistic creation.

After the great themes of love, war, human life, and death, medicine, and especially disease, is an inspiration for artistic expression, such as tuberculosis during the romantic period and the diverse plagues that fed all fears.

Although illness, as the object of inspiration, did not greatly tempt the artist, it became imperative to the artist's creation by the drama it generated in society (e.g., syphilis), and when the artist himself suffered in his body and soul (e.g., through a handicap of traumatic origin as for Henri de Toulouse-Lautrec or even Frieda Khalo, or a chronic disease such as Vincent Van Gogh's epilepsy or his lead poisoning from the use of toxic pigments brought about by his passion for colors). In 1880, Pierre Auguste Renoir broke his right arm and painted with his left hand: He continued to paint until his death handicapped by repeated bouts with chronic arthritis. Paul Gauguin, afflicted

with a heart condition and syphilis, never stopped producing. Infectious diseases are even more rarely treated, but some of them so profoundly marked the suffering populations as victims that they became the subject of artistic expression (e.g., the plague and its many representations in the dances of death).

For centuries, art and science—and philosophy—were confounded, and medical art referred to knowledge acquired by learning, a gift from he who exercised it. This confusion between science and art endured until the middle of the nineteenth century, at least in the West. Pasteur and Koch, among others, were the founders of a true medical science that the technology and progress of biology refined incessantly. As such, at the end of the twentieth century, doctors who believed they had finished with infectious diseases—and artists with their morbidity—found themselves plunged in yet another confrontation, which they did not expect: the emergence of new diseases, unheard of syndromes, new germs. These emerging diseases have imposed themselves on medical thinking and have awoken the ancestral fears of the great plagues that we believed forever buried.

Our conclusion will attempt to draw a few lessons from this endeavor: The meaning of infectious events in the collective unconscious and how art has used them to sensitize its audience. Beyond this use by the world of art, we propose a reflection on the use that is made of the infectious phenomenon in communications and the media, in today's economic stakes, in politics, and in beliefs.

## 40.1 THE FINE ARTS: PICTORIAL REPRESENTATIONS

Art is the essence, preserved for eternity, of the history of the human soul. Through the violence wreaked by the great epidemics of the past—and now those of the present—on the psyche of our populations, it is not surprising to find quite a rich pictorial representation of this theme in the history of art: works inspired by illness, religious images, historical paintings, medical painting, self-portraits of diseased artists, memorial plaques, and photographic documentaries.

Major catastrophes caused by the great infectious diseases resounded with particular force in each era, pushing artists to elude traditional artistic values in favor of an art closer and closer to reality, in perfect harmony with the intimate suffering of the human being.

Images intended to terrify, lure, mark the day's events, provide knowledge, exorcise evil, rebel, or immortalize: Representations of infectious diseases were organically transformed over the centuries, echoing human history. From the Middle Ages to the present, despite the extreme changes in the status of artistic works and of the artist, the myriad images inspired by epidemics are echoed in society in political, commercial, and even religious terms. In our contemporary epoch, AIDS is emblematic of this with its procession of false certainties based on ignorance as much as discrimination and stigmatization of the ill or social, ethnic, or geographical

group, access to health care a function of social injustice, the business stakes of medicines, the race to patents of every sort, the repeated failure of uncompleted vaccines, the punishment of the gods of believers.

The creation of the diseased artist, produces without curing but helps live and die. The body plunged into dis-ease becomes the location and the enterprise whose inhabitants are not life and death but death in life and life in death. A purgatory that purges nothing, disease dispossesses us of our illusions of control. Man must find an ethical and esthetic front [14].

This chapter will look only into a few selected artistic works that we believed to be an interesting introduction to a subject that deserves more detailed research as well as the publication of an entire book.

### 40.1.1 The Roots of Art and Infectious Disease

Mirko Grmek and Danielle Gourevitch [42] wrote undoubtedly the first exhaustive work in the history of medicine treating “disease in ancient art,” covering the period from the sixth century B.C. to the fourth century A.D. This is a vital era in the history of humanity, with most of the arts expressing a relation with illness, such as monumental sculpture, la coroplasty (casting of figurines or small statues in ancient Greece), fresco painting, vase painting, glyptics (the art of engraving on precious stones), numismatics, engraving on mirrors, mosaic, and so on. Although the period is important and the artistic representation rich, infectious disease in the strict sense appears only rarely and the greatest part of medical art is expressed in the representation of trauma (war scenes, care for the wounded) and diseases that were either chronic (obesity) or degenerative (goitre, dwarfism). In iconographic diagnostics can be found several skin lesions such as those resulting from smallpox, and, in sculpture, leprous leonine facies (a Hellenistic head in limestone, p. 248)—all of course based on a retrospective diagnosis whose symptoms shown can be confused with other infectious diseases that deform the face such as “lupus, nasopharyngeal cancer, actinomycosis, and so on” as well as the deformations of bony tuberculosis (Pott’s disease, pp. 217–218). The divine arrows already symbolize the plague (Apollo provokes the plague by his arrows in the Greek army, which lays siege to Troy: Roman bas-relief—Capitole Museum, Rome, 1831 drawing by Inghirami, p. 96).

### 40.1.2 The Plague: Art, Terror, and Religion

The plague is one of the evils of humanity that incited the most debate. The first epidemic, Justinian’s plague, named after the Byzantine emperor Justinian, raged throughout the Mediterranean basin from the sixth to the eighth centuries of our era. It was first seen as a manifestation of divine vengeance or anger: God, no longer tolerant of the sins of man, had to exhort his clemency. The people of the time, attempting in vain to discover the origin of this devastating calamity, soon designated scapegoats. The Jews and the lepers were accused of spreading the evil by poisoning well water. Some resorted to pagan explanations: Eclipses of the moon or

the sun, shooting stars, and comets were also blamed. The Middle Ages is a key time in history in terms of popular beliefs and new religions (considered as heretical by the Catholic Church). This is why the pictorial art relating to this scourge is abundant and diverse. We also see appear at this time, with the new techniques of image reproduction such as engraving, illustrated medical treatises, plates of medicinal plants, and diverse medical instruments involving the plague. We find illustrations of animals and the lack of hygiene illustrated as responsible agents. The health notice of 1628 drawn up by Lyon doctors claimed that “the embryo and seminary of the pestilence stems from the impurity and dirtiness of the body” [69]. As soon as it appeared in the West, the plague was associated with religious iconography. Christian art of the Middle Ages inspired by Roman art gave each representation a very strong symbolic impact, and thus the representations of the plague, death, and divine anger took on multiple forms: It was often represented by arrows (God throwing the arrows of the plague) see Fig. 40.1 and Saint Sebastian, who is, with Saint Roch, a protector saint for plague victims, was represented pierced with arrows (Saint Roch is marked with a plague bubo on his left thigh). These great epidemics, against which men were powerless, inspired a large body of iconographic works on death in its allegoric form or in a personified form: This marks the appearance of the themes of the death dance, the triumph of death, or the young girl and death, widely treated up to the Renaissance.

The goal of art is no longer to represent reality, as in Paleochristian art, but to place the faithful in direct contact



**Fig. 40.1.** Christ Throwing the Arrows of the Plague (fifteenth century) from the heavens Christ sends the arrows of the plague that strike the body precisely where the buboes appear. Image from the fifteenth century where God can be seen sending the plague to man as arrows (Old School of Medicine, Iconographic Coll. Paris).

with a heavenly, spiritual world. Fantasy soon misleads the spirit, terrified by the morbid spectacle of the devastating illness. The works produced on this theme, at this time, take on the primary role of exorcising evil. They will be offerings to God and to the protector saints of the plague, to push away the disastrous consequences.

Men applied all their artistic talent to exorcise evil, building chapels dedicated to the protector saints, so-called columns of “the plague” such as the one in Vienna, crucifixes . . . whereas diverse paintings, sculptures, and commemoratives helped ward off this misfortune [69].

The most famous of the masters illustrated it, such as Raphaël with *The Plague of Phrygia*, Rubens with *The Miracles of Saint Francis of Paola*, Van Dyck, *Saint Rosalie Interceding for the Plague-Stricken*, Nicolas Poussin, *The Plague of the Philistines*, Pierre Mignard, *The Plague in Epira*, Goya, *The Plague House*, Antoine Gros, *Napoleon visiting the pesthouse of Jaffa*, David, *Saint Roch Interceding for the Victims of the Plague*, Géricault, *The Plague Victims*, Gustave Moreau, *Saint Sebastian*, and so on [69].

**40.1.2.1 The black death and the dance of death** In the late Middle Ages, the black death already found expression in folk art (e.g., Saint Roch with a bubo on his thigh, Saint Sebastian and his arrow wounds, the dance of death, the carnivals). This is where the dance of death takes place: The plague strikes indiscriminately, it is the sign of death and it takes the rich and the poor alike in a deathly dance. The first artistic representation came from a fresco painted in the Innocents cemetery in Paris around 1424, which today no longer exists, but it remains well known for its ancient writings by Guyot Marchand, publisher and poet who saved the transcript before the its destruction in 1554. Then came the frescos of London (around 1430), Basel (a first one around 1440 and a second one around 1480), La Chaise-Dieu (approximately 1460–1470), and Lübeck (1463). During the second half of the fifteenth century, the death dances enjoyed ever-growing popularity.

The theme is also found in writing (see Chapter B) and in music (see Chapter D). Death was indeed often represented as a musical instrument. Premise of Dark Romanticism, this characteristic belongs to the rich repertory of the symbolism of death and appeared from the very first dances of death. The instrument calls to mind the seductive, attractive, slightly diabolic side of music’s power of enchantment. Think of the song of the sirens, of Hamelin’s flute player, and so on. Like them, Death charms man with its music.

Another consequence of the high death rate resulting from the plague epidemics was the birth of the theme of death’s triumph. As Germany and France preferred the dance of death, Italy’s tastes leaned toward this new genre. The egalitarian spirit remained, as in the dance of death and the legend of the Three Dead and Three Living: Death takes possession of both rich and poor, but this time, Death is not represented as an ordered dance, but rather in a furious combat with the living. The outcome of the battle is unequivocal: Man will be conquered by Death: it is unavoidable.



**Fig. 40.2.** *The Triumph of Death* by Pieter Bruegel the Elder (toward 1562). Death is in the center of the painting. It is armed with a scythe and is astride an emaciated horse. It is pushing Man into a large box whose door is marked with a cross—clearly a trap door. A hoard of skeletons is invading the scene. They are striking down everyone, with no exception: the king, the mother, and her baby; the knight and the fair ladies; the peasant and the lovers playing music who do not notice the presence of a skeleton behind them. Card players are defending themselves with swords; they have not understood that all resistance is futile. The landscape reflects this death: the trees and grass are dried out, behind the hills there is an infernal fire burning, skeletons everywhere are slaughtering humans: drowning them, hanging them, cutting their throats. A man about to be decapitated is praying in vain, his rosary in his hands. Any promise of redemption or resurrection is absent in this painting. Skeletons are sounding the knell, and there is no hope. See color plates.

Not only the plague provided an opportunity for the creation of a new artistic genre but also, in the nineteenth century, another scourge inundated Europe in waves: cholera.

The art of the Plague mask: Charles de Lorme, first doctor of Louis XIII, imagined the famous protective costume against the plague. “The nose half a foot long, shaped like a beak, filled with perfume with only two holes, one on each side near the nostrils, but that can suffice to breathe and to carry along with the air one breathes the impression of the drugs enclosed further along in the beak. Under the coat we wear boots made in Moroccan leather (goat leather) from the front of the breeches in smooth skin that are attached to said boots and a short-sleeved blouse in smooth skin, the bottom of which is tucked into the breeches. The hat and gloves are also made of the same skin . . . with spectacles over the eyes” [69].

### 40.1.3 Art at the Service of Medical Science

The Middle Ages placed God in the center of man’s preoccupations; already in the later Gothic period, the human being and his representation in art had become closer, more realistic, and more natural. In discovering a creature in the image of the divine, man became the center and the model of artistic creation. Beginning in the fourteenth century in Italy, this new view man had of himself gave birth to the Renaissance during which artists made man the object of their symbolic and esthetic research.



**Fig. 40.3.** *The Four Horsemen of the Apocalypse* by Albrecht Dürer (1498). Albrecht's famous engraving on wood is the fourth of a series of 15 illustrating the revelations of Saint John, who prophesied the end of the world (the series is called *The Apocalypse*). From left to right, the knights represent Death, Famine, Discord (sometimes interpreted as Pestilence), and War. With an angel looking down, the last three are crushing men and women of different social classes with their powerful mounts, whereas Death with the features of an old, gaunt man on his skeletal horse, is casting a bishop into the mouth of a dragon coming out of the bowels of the Earth. This is not a battle scene, but an enraged and ruthless destruction.

In the sixteenth century, the climate of artistic effervescence that marked the Renaissance began to give way to a climate of extreme passions where theological reflection did not exclude massacres, of course, nor did it protect from epidemics. In Western Europe, many artists placed themselves at the service of the Counter Reformation, whereas in Protestant countries, they tended to free themselves from an exclusively religious guardianship.

Seventeenth-century France experienced a different state of affairs, with artistic expression almost entirely devoted to the glorification of the king and civil power.

In the eighteenth century, the role of man in society and in the world became the center of philosophical debates, with artists freeing themselves little by little of ecclesiastic sponsors and throwing themselves into models from classical antiquity.



**Fig. 40.4.** *Napoleon Visiting the Pesthouse of Jaffa* by Antoine-Jean Gros (1804, Louvre Museum). Bonaparte's expedition to the Orient. At the foot of the pyramids, July 21, 1798, Bonaparte conquered Egypt to direct his expedition toward Syria in the first months of 1799 and, with 15,000 soldiers, take El-Arish, Gaza, and lay siege to Jaffa, in the Holy land. In a dreadful and merciless battle, the French troops seize the city; it is a massacre, 2500 prisoners are executed. It is in Jaffa that Bonaparte's soldiers are stricken by an epidemic of the plague that did not relent until the end of the expedition. On August 22, the command of the Orient expedition was given to General Kleber and Bonaparte took to the sea with his best generals, reaching Paris in October 1799. The Egyptian expedition was transformed into a prestigious success by the goods brought back by the members of the expedition: the soldiers' glory, hitherto unseen Egyptian engravings, and the writings of scientists. Antoine-Jean Gros magnifies the Egyptian expedition and represents in *Napoleon Visiting the Pesthouse of Jaffa* a totally imaginary episode of Napoleon's propaganda, when one remembers that when parting from Jaffa, Bonaparte requested that the chief physician, Desgenettes, "put an end to the suffering of our plague victims by giving them opium"; the doctor refused [83]. A.-J. Gros and other renowned painters (David), to serve Bonaparte, and later Napoleon, provided a totally imaginary reading of decisive moments in the history of the Empire, with almost dream-like visions and the use of precise and detailed drawings, undoubtedly intended to make the event represented even more realistic. *Napoleon Visiting the Pesthouse of Jaffa* is an exemplary work.

Thus, from the Renaissance to neoclassicism, the artist emerged as an individual, abandoning the anonymity in which he had enveloped himself during the Middle Ages. From his power to impose ideas and emotions to matter was born the artist's personal responsibility on the work of art that he fashioned with his hands. The Renaissance bloomed in the exceptional atmosphere particular to Italian cities: Citizens took part in this cultural effervescence, and the arts and sciences were protected, as in ancient Athens. The artist played an important role in the sciences: from a professional he became a thinker. The artist acquired the dimension of an individual creator, and not only because he took a place in history, but

he also transformed the history of art into the history of artists and their creations. The artist as citizen expressed his suffering and bore witness to the suffering of others.

An explosion of new artistic genres was seen during this period that was rich in all sorts of discoveries. The many curiosity shops as well as the anatomical and medical treatises of the time oriented some artists toward a naturalistic and descriptive art. The development of the techniques of reproduction such as engraving on leather and lithography also participated in this illustrative art that was accessible to all.

#### 40.1.3.1 *The anatomical body as artistic representations*

In one of his famous essays, the art historian Erwin Panofsky puts forth the idea that the emergence of anatomy in the sixteenth and seventeenth centuries can only be understood separately from Renaissance art because the history of anatomy is deeply anchored in the history of art. To define the scientific value of the art of anatomy, Panofsky even stated that it should be viewed from an art historian's perspective. In the sixteenth century, the knowledge acquired on the body was represented visually by drawings and engravings made by anatomists and their illustrators. The drawings of Vesale's (1514–1564) *De humani corporis fabrica* (1543) recall the sculptures of ancient Greece, with their clearly defined muscles and wide-shouldered torsos. One of the characteristic aspects of Vesale's engravings is that the dissected organs are framed by living bodies in full health, which averts one's gaze from the dissected organs. The scientific reality of the image is embellished and made more esthetic; the classical conventions of sculpture and painting of the Renaissance determined the elements making up these anatomical representations. Panofsky's idea, wanting the artistic techniques to dominate and model scientific knowledge, is corroborated by Ludmilla Jordanova, who, in a detailed analysis of eighteenth-century wax models, showed how the neoclassical ideas determined the representation of the scientific knowledge of anatomy. The models are perfect specimens of the partially open body, making it possible to see the stomach, the intestines, and the reproductive organs, in a representation where the esthetic norms eclipse a realistic representation.

Lorraine Daston and Peter Galliston, specialists in nineteenth-century medical representations of the body, speak of the continual struggle between scientific objectivity and artistic subjectivity. In the nineteenth century with the new techniques of representation, scientists hoped to eliminate any "artistic contamination," and the new tools (e.g., photography, radiography) would eliminate the subjectivity of the artists. However, Daston and Galliston showed that the introduction of mechanical printing "neither created nor closed the debate on how to represent (the body)," and the replacement of engraving by photomechanical instruments did not end the interpretation; the very presence of the photographer meant that these photos were made through mediation. The new tools attenuated the illusion of perfect transparency while advancing the concept of an objectivity accomplished through a mechanical reproduction.



**Fig. 40.5.** William Skelton (eighteenth century) engraving on leather, 70 × 180 mm. Hand of Sarah Nelms, who had contracted cowpox milking cows with the disease.

Anatomical objects, bodies, and models have aroused the interest and the curiosity of the public since the end of the fifteenth century. It was not until the end of the eighteenth century that it disappeared behind the hospital walls. In some parts of Europe, exhibiting human organs remained an attraction of country fairs until the beginning of the twentieth century. From the anatomical theaters of the sixteenth century to today's anatomical collections, anatomical objects have progressively been integrated into a context of medical-scientific museums.

**40.1.3.2 *Wax anatomical models*** Throughout history, anatomists have attempted to reconcile the contradictory demands of authenticity and didactics in their teaching of medical knowledge. From Vesale to von Hagens, anatomists have been torn between the desire to preserve the authenticity of the human body and the educational advantages of models. At the beginning of the Renaissance, observing an anatomist carrying out a dissection was the only means for future physicians and artists to acquire a sense of the inside of the human body. When the Belgian anatomist Andrea Vesale in Bologna where his colleagues Jacobus Sylvius of Paris, and later Nicolas Tulp in Amsterdam, carried out public dissections, neither their students nor the spectators were authorized to touch the body. The cadavers decomposed rapidly, to such an extent that the dissections had to be done rapidly and by experts. The need to preserve the bodies, as well as the desire to set off specific physiological characteristics, stimulated the invention of better preservation techniques. From the beginning of the twelfth century to the sixteenth century, many embalming and preservation techniques were experimented. The Dutch anatomist Frederick Ruysch (1658–1731), the successor of the illustrious Tulp, developed unprecedented cadaver preservation and presentation techniques and made possible the emergence of a new type of anatomical artifact: The cadaver became a work of art more than a scientific object.

Ludmilla Jordanova is a professor of visual arts at the University of East Anglia (UK) specialized in visual culture of the eighteenth and nineteenth centuries, cultural history, portraiture, style, historiography, gender and kinship, and science and medicine as forms of culture, she highlighted that the contradictory demands of authenticity and didactics



**Fig. 40.6.** Wax sculpture (Jules Baretta (1834–1923) Moulages 2923, 11, 17, 208 Jules Baretta (1834–1923) Collection générale de l’Hôpital Saint Louis. Extrait de: Le musée des moulages de l’hôpital Saint-Louis. G. Tilles et D. Wallach, 1996. Ed. APHP et Doin. See color plates.

repeatedly appeared through the history of anatomical artifacts. After the Renaissance, medical education increasingly meant allowing students to practice on anatomical bodies. The increasing demand for cadavers, combined with the emergence of stricter laws on obtaining them, forced anatomists to search for substitutes. Although in the seventeenth and eighteenth centuries, the shortage of cadavers led to the creation of false bodies, the development of wax models, produced to respond to these educational demands, was an alternative that had its advantages. Beeswax had the advantage of both resembling the organic texture and being malleable. Between 1750 and the end of the century, some sculptors of Bologna, such as Lelli and Morandi, and the Florentine masters Caldani, Fontana, and Piranèse, raised wax sculpture to the status of art; their models thus went beyond the clinical education context to private collections, and later to museums where they can be admired today.

#### 40.1.4 Tuberculosis, Self-Portraits of the Diseased

Without fear, and without disease, my life would be like a boat without oars. Edward Munch [6]

*Tuberculosis* is emblematic of the close relation between art and disease. It is the mark of the Romantic Movement. The most reputed masters of medicine of the time did not immediately see the infectious and contagious character of tuberculosis; for

years they attributed to the disease characteristics that were almost charming and intoxicating for the Romantic creative minds of the time. Children and young adults infected with tuberculosis were described with a wealth of details: “slender and delicate beings, with fine traits, beautiful hair, with little physical activity, but with a lively intelligence and early maturity, gifted in the arts and endowed with a particular aptitude to understand and feel” [98].

According to Laennec, the ill, belonging to this morphotype “seem to owe the origin of their illness to sorrow.” “Among the occasional causes of consumption, I know no other more certain than the sorrowful passions when they are profound and long-lasting,” [10] the doctor asserted. There were many writers, poets, painters, and musicians stricken by consumption or who saw their loved ones waste away from this disease, and who colored their works with these romantic and moving attributes [16].

The birth of painting was reduced to the vision of Narcissus contemplating his reflection in his mirror by Leone Batista Alberti [1], which lies directly within the self-portrait. Every great painter left at least one self-portrait, particularly the expressionists of the beginning of the twentieth century, perhaps influenced by the self-portraits of Van Gogh. In particular, the self-portraits of Munch, Schiele, Beckmann, and Kokoschka must be remembered. The portrait, and more specifically the self-portrait, was the preferred subject of the Romantics and the Expressionists. Illustrating both physical and psychological torments, troublingly intimate self-portraits

were surrendered by young artists suffering from tuberculosis. But tuberculosis, even though it was the emblematic disease of the time, was not the only one to inspire the morbidity of a great number of works of art of the nineteenth and twentieth centuries. Other diseases such as syphilis and the Spanish flu took many artists. The Great War menacing on the horizon also certainly caused a great deal of anxiety. Freud's studies on psychoanalysis and the unconscious also motivated the introspection that was in the air, favoring the pathos released by certain works of art. Artists no longer painted the body as it was, in the style of the realists, but rather desperately tried to give it a psychological dimension, incessantly searching for new means of expression to translate the extent and complexity of human suffering.

*Edward Munch.* Munch's work oscillates between illness and Puritanism from its very beginning. In the childhood and youth of this painter, the encounters with illness and death were decisive experiences. He was profoundly marked by the tuberculosis of his sister Sophie, who was not yet 15 years old. Fully aware of what was happening, Munch, younger by a year, followed the progression of this disease and his sister's drawn-out death. In 1885–1886, he formulated this experience in a pictorial mode, through *The Sick Girl*. At the age of 5 years, he had already lost his mother, taken by this disease present throughout all levels of society, still an epidemic 100 years ago. In 1889, during a voyage to Paris, the artist's father also died.

Given these circumstances, there is nothing surprising about the first of Munch's works being devoted to this subject. Much later, toward 1930, Munch again turned his attention to this painting and wrote to the director of the Oslo Nasjonalgalleriet: "Concerning *The Sick Girl*, it is true that we live at a time that I call the pillow epoch. Many were the painters who represented ill children on a background of pillows . . ." Among them, we must cite Christian Krohg (1852–1925), whom Munch deeply admired, and Hans Heyerdahls (1857–1913), whose technique is perhaps the closest to Munch's. In 1880–1881, Krohg had painted *The Sick Girl*; Heyerdahls was the author of *Child on the Point of Death*.

The genesis of these three works presents great similarities: All three painters had to work the death of their own sisters through a pictorial mode. The Swede Ernest Josephson (1852–1906) and the Dane Michael Ancher (1849–1926) can also be placed among those that Munch called the pillow painters.

Krohg's painting of a sick girl has something monumental about it: Sitting in a rocking chair, she is presented facing the spectator. In the highly nuanced whites of the painted surfaces, the square form of the pillow framing the head and the bust take on a symbolic meaning. A form inherited from the pathos of the Middle Ages, the square halo—the sign of the saints canonized during their lifetime—complete the symbolic importance of the roses losing their leaves and echoes the ephemeral side of earthly existence: The existence that the sick child holds between her entwined fingers, and that she presents to us. Krohg makes a memorial of the portrait of his young sister, who stares at the spectator with her large,



**Fig. 40.7.** *The Sick Girl* (Christian Krohg, 1880–1881) Huile sur toile, 102 × 58 cm Oslo, Nasjonalgalleriet.

open eyes full of fear. Other variations on the same theme assume, on the contrary, an air of reflection on a naturalist motif: bouquets of flowers, the drape of blankets, or the light reflected by the small vials that preoccupied the painter.

It is an entirely different story with Munch's painting entitled *The Sick Child*, reworked in the 1890s. Today it is difficult to understand the hostility and indignation that this painting set off when it was presented to the public for the first time in October 1886, during the autumn exhibition of the Christiana artists. The theme was quite conventional, but the reception was indignant—especially in the artistic milieu—because of the impudence of its author who dared exhibit a painting whose main elements recalled a poorly ordered sketch, with traces of the preparative work still visible. Here we are presented with a painting whose power is fully interior. The painter having been touched to his most profound being by tuberculosis, losing two loved ones, his pictorial search was oriented beyond realism, reigning at the time, to plunge into the meanders of his most intimate emotions.

Christian Krohg, who was also a journalist, wrote to defend his admired colleague:

He paints, or more precisely he observes objects differently than other artists do. He sees only what is essential, and sees it naturally, painting nothing but that. This is why in general Munch's paintings are not completed, as people so readily note. But yes they are! They are indeed completed: his work in all its culmination. Art is completed when the artist has truly said everything in his heart. . . .





**Fig. 40.8.** *By the Deathbed* (E. Munch, 1895) oil on canvas, 90 × 120.5 cm; Bergen, Collection Rasmus Meyer.

This is indeed a new form of expression opening to this young generation of avant-garde artists of the Christiania bohemia. Perhaps the premises of abstract art. In any case, it was a way to reach out toward the materialization of abstract things such as disease, death, but the painter's emotions also, when faced with such emotions. Munch noted

In fact, my art is a confession that I make of my own free will, an attempt to elucidate, for myself and my relation to life. ... At the heart, it is a form of egotism, but I do not relinquish hope that it will help me succeed in helping others to understand.

Munch grew up in a very Catholic tradition, and his words can be heard in this sense, almost like the words of a martyr, suffering to free other human beings from their sins. Munch's sufferings were his loyal companions throughout his life, his inspirational Muses: he explored them, confronted them, and finally attempted to channel them into his art.

As if incessantly calling suffering and death to himself through his works, Munch was himself the victim of another illness: the Spanish flu. He survived but it took him some time to recover, which gave birth to an entire series of self-portraits in 1918–1919. The characteristics of these canvases are interior tension and isolation. An instrument of merciless self-examination, Munch's self-portraits accompanied his entire artistic creation, from their very beginnings until his last breath.

With the display of the most splendid colors, Munch shows the immense difficulties he had in overcoming disease (self-portrait after the Spanish Flu, 1919). In 1940, 4 years before passing away at the age of 81, in his Ekely home, Munch painted self-portraits that showed a man who knew himself to be between life and death. The two paintings that he worked on until the end of his life are the large-format self-portrait: between clock and bed, and an oblong painting of a slightly smaller size: self-portrait by the window. The vertical structure of the first painting in an oblong format

expresses the opposition between the standing and lying position. A human being's life is no more than a brief victory over gravity and matter. He pulls only himself up to his full height to lie down more fully. His life becomes the painting, which illustrates this victory [6].

*Amadeo Modigliani.* On January 24, 1920, Amadeo Modigliani succumbed to tuberculosis meningitis. Jeanne, his wife, 8 months pregnant, committed suicide the next day. Modigliani was buried on January 27 at the Père Lachaise cemetery in Paris; Jeanne Hébuterne's body rests at his side. This tragic double death made Modigliani an emblem of the Romantic bohemian artist brought down by tuberculosis.

Although he does not illustrate disease directly, Modigliani's work would undoubtedly be entirely different if, from a very young age, he had not seen death at close hand. In 1901, at only 17 years of age, Modigliani contracted a respiratory disease that weakened him throughout his life. Born in Italy in 1884, he studied art in Florence and settled in Paris in 1906. There he mixed with avant-garde artists: Pablo Picasso and Constantin Brancusi were among the most influential figures in his art. He was greatly inspired by fauvism, a movement that favored pure color as a mediator of emotions, at the expense of figurative realism. Like many artists of the time, his research was oriented toward the strictest representation of lines and shapes, made in the image of African masks. Modigliani's work, almost exclusively portraits, is characterized by simple lines, strong colors, and his highly stylized manner of painting eyes in a single color, giving the characters represented a feeling of "presence absence" close to death.

When death lies in wait, the condemned artist must urgently synthesize his work and research: making dazzling bounds in the history of art, he delivers modernity. If Modigliani's portraits approach the purity and simplicity of certain icons, it is because he knew how to perceive the divine in his models, beyond death. Illness restores the attachment to life and meaning. In this sense, Modigliani's portraits are hymns to life and the beauty of the human being. The characters he painted have a strong presence but seem to escape humanity: they have essence. Modigliani painted life, with the wisdom of someone who had befriended death.

#### 40.1.4.1 *Egon Schiele and Gustave Klimt during the Spanish Flu*

In the autumn of 1918, at the close of the First World War, another, even more deadly disaster was in preparation. A viral disease that would soon be called Spanish flu was about to kill millions of people in just a few months, and then disappear without a trace. We saw above that it touched Munch, who survived its effects. To the sad list of victims appear the illustrious names of Klimt and Egon Schiele (another example can be added, one of many others, the poet Guillaume Apollinaire).

*Egon Schiele* was born in Tulln, a small town near Vienna in Austria, where he died in 1918. From childhood, he expressed a true talent for drawing. His father, a station-master, encouraged him in this endeavor, but afflicted with a

mental illness, he died in 1905. This early death tarnished Egon Schiele's youth and gave him a vision of the world that from then on would often be dark and tortuous.

Schiele is a rebellious, avant-garde artist. He was very young when he left the Vienna School of Fine Arts, too academic for his taste, and in 1909 created "the group for Nouveau Art" with a few friends. His first works were inspired by Impressionism, but very quickly he was attracted by the Viennese Secession. His work was highly influenced by the work of Gustav Klimt. However, other influences such as Van Gogh, Hodler, and Georges Minne also play a primordial role in the evolution and construction of his style. It is in the 1910s that he began to assert a more personal style characterized by sparseness of form, sobriety of content, and the use of backgrounds without adornment, with the character or subject detached from this background. Schiele attached great importance to self-portraits. He attempts to transcribe the anguished interiority of the ego by excentric positions of the body or the hands that he paints. Although Schiele's paintings do not have disease as a subject, these portraits are the image of bodies conscious of their biological limits. He contributed to retranscribing a vision of his reality with no make-up or artifice, exacerbating the suffering and anguish of this turning point in history. The number of Egon Schiele's self-portraits deserves interest, because he is the only one to have gone so far into exhibitionism, representing himself nude many times: full-face, in profile, kneeling, sometimes masturbating or, in *Eros* (1911), brandishing his erect, reddened penis. The young painter undoubtedly rubbed shoulders with disease when he had prostitutes pose for him. Syphilis is hinted at in these bodies between life and death, with bluish, greenish, and sometimes muddy-colored flesh, where only the sex takes on a reddish hue. We feel a dread associated with sexuality. Is it psychological, psychiatric, or rather is it the portrait of a venereal disease that Schiele is providing here?

*Gustav Klimt*, born in Vienna in 1862, at first takes up decorating walls for public buildings, painted in the great

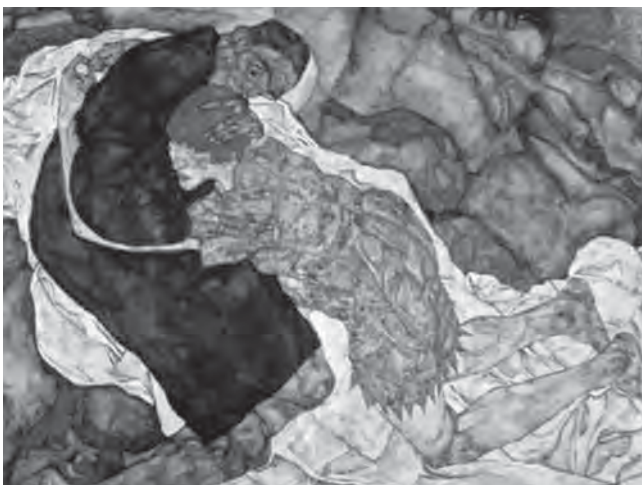


Fig. 40.9. Death and the girl (E. Schiele, 1915).



Fig. 40.10. *Death and Life* (G. Klimt 1916) oil on canvas, 178 × 198 cm Vienna, Dr Rudolf Leopold Collection. See color plates.

academic tradition, with a pronounced taste for naturalist detail. The symbolic cycle of the University of Vienna ceiling, *Philosophy, Medicine and Jurisprudence* (1900–1902, destroyed in 1945), prompted a controversy because of the crudeness of its eroticism and the asymmetric part of its composition. Gustav Klimt founded the Secession group, which advocated a renaissance of the arts against the moral order. The magazine *Ver Sacrum* (Sacred Spring), as part of its policy, was the theoretical support in all fields of application. Klimt's style made use of decorative resources: solid-color surfaces treated in the painting's one-dimensional plane, the snaking lines strictly delimiting the motifs, an abundance of adornments and precious materials. From these highly decorative colored backgrounds spring out the figures, lascivious and organic. Whether it be symbolic, naturalist, or architectural, Klimt's work always treats the relations between eroticism and death; it draws the frontiers of the indecent and the morbid. On February 6, 1918, Klimt died following a stroke resulting from the flu in Vienna. Egon Schiele, his student and also taken by the flu at the end of the year, made his portrait on his deathbed.

#### 40.1.5 The Syphilitic Female Model: A Turning Point in Art History

Very early on, women were identified as evil temptresses in the image of Eve, at the origin of original sin. Woman as the symbol of evil is a widespread theme in the history of art, under a variety of forms. This collective and ancestral imagination was continually updated with sexually transmitted diseases such as syphilis.

In the nineteenth century, the representation of the nude brought about the beginnings of a pictorial revolution led

principally by Courbet and Manet. Courbet rejected academic painting with its smooth, idealized nudes, but he also directly attacked the hypocritical decorum of the Second Empire, where eroticism, or even pornography, was tolerated as long as it portrayed mythological or dream-like painting. The realism of Courbet, who later stated that he had never lied in his painting, continuously pushed back the limits of what was considered presentable. With *Origin of the World*, he exhibited, as it were, the hidden part of Manet's *Olympia*. Courbet and Manet introduced the idea of painting the female body unveiled, insisting on what was uncomfortable to show in the female body in the culture of the time. The painting of "*Origin of the World*" by Manet figuring a detailed and "vivid portrait" of a woman sex was a command of a private commission from a wealthy collector which remained a secret. After being bought by another private collector it remained concealed to visitors by a painted flap covering it. Twenty years later, the public discovered the painting, which was widely commented on in the press. Today it is on public view at the Orsay Museum in Paris. This stage in the history of art, which was in many ways remarkable, allowed syphilis to appear in early twentieth century paintings.

... Teach people true history by showing them true painting, . . . by true history I mean history free from superhuman interference, which from time to time has perverted and overwhelmed the individual. By true history I suggest that which escapes the yoke of any fiction. In order to paint truly, the artist must keep an open eye on the present, he must see with his eyes and not with the back of his neck, . . . be able to portray the morals, the ideas, the aspect of my time, according to my appreciation; to be not only a painter, but also a man; in a nutshell: to create living art, that is my aim [22].

Under the Second Empire, in the name of good taste, David's theories, as taken up by Ingres were revived. The criteria for appreciation of most of the well-to-do classes as well as the Fine Arts Academy were the pleasantness and sumptuousness of the work. A return to overwhelming classicism emerged and rejected new trends such as realism and romanticism. The word "realism" appears in a text by the critic Gustave Planche [56], who contrasted the realist manner with that of supporters of ideal beauty. This term designates more precisely a movement that, between roughly 1848 and 1860, reacted against backward-looking academicism and neoclassicism. The limits of the movement remain vague in time and space as, although it was originally a French movement, realism fed on Dutch, Spanish, and English contributions, and spread throughout Europe.

From the meticulous and cold technique that was typical of neoclassicism, a cruder, more spirited method developed, often closer to sketching. Another, more radical change also took place in the choice of subjects. In the classical hierarchy of genre, noble historical painting stood in first place. In reaction to this, the realists depicted scenes of everyday life. Academic painters referred to this subject matter as "ignoble and impious caricatures."

In 1863, at the behest of Napoleon III, a "Salon des Refusés" opened, in opposition to the academic salon that was held each year for 8 years at the Palais de l'Industrie.

This "Salon des Refusés" was the cradle of modern art, intending to paint life as it was by getting rid of eclectic and complicated backgrounds, as well as the conservative bourgeois morality of the time. At this turning point in the history of art, such scandalous paintings as Courbet's *Origin of the World* (not exhibited in public: it was a commission by a foreign "art-lover.") or Manet's *Luncheon on the Grass* appeared. These two key paintings were to open the door to a new form of expression that touched on cruder, more taboo subjects, dealing with the most daring avant-garde topics. As a reaction to classical female models, who could only be depicted in the nude if they had the status of goddesses, hence belonging to the supernatural, the younger artists were tempted to humanize these women, going so far as to show their most disturbing shortcomings. Prostitutes being the anti-goddesses of the Christian morality in force at the time, it was only a small step before the young avant-gardists chose them as their favorite models.

Venereal disease was the great fear of the nineteenth century. As it struck sexual relations occurring outside the sterile confines of married life, in the same way as HIV-AIDS does today, syphilis testified to the guilt of pure carnal pleasure, a mortiferous pleasure. Bleak romanticism was to make syphilis quite a singular affliction [74].

Alphonse Daudet's son, who had become a doctor, professed

The germ of this terrible affliction, treponema, as it should be given its proper name, is both the whip of genius and talent, heroism and spirit, as well as that of general paralysis, tabes—Neurological attack—and of almost all degeneration (. . .)

Hereditary treponema, strengthened by interbreeding between syphilitic families, has and will play a role comparable to that of the "fate" of antiquity. It is a personality, invisible but present, which moves romantics and unbalanced persons, sublimely beautiful deviants, pedantic or violent revolutionaries. It is the ferment which raises the slightly heavy dough of peasant blood and refines it within two generations. It turns the son of a maid into a great poet, a peaceful middle-class man into a satyr, a shopkeeper into a metaphysicist, a sailor into an astronomer, or an astronomer into a conqueror [24].

At the end of the nineteenth century, it was not long before syphilis was given an esthetic, that of the awful and decadent seduction. Beneath the ardent and coveted flesh of women lay syphilitic death, crouching in the depths of the vagina like a moray eel in the depths of a hole, lying in wait for the foolhardy, fascinating him. It was in the pleasure dens of Montmartre that many artists sought inspiration from these venomous and disturbing creatures [78].

*Pablo Picasso*

We Spanish, we go to Mass in the morning, the bullring in the afternoon, and the whorehouse in the evening [70].

Picasso, who was famous among other things for his sexual ardor, did not escape the venereal disease of the century. Like

the other young avant-garde artists of the time, he was a regular at brothels, where he liked to paint young prostitutes and ball scenes. It was in 1901, during a trip to his native Spain, where he contracted venereal disease. It was a severe blow and threw Picasso into a deep depression. On his return to Paris, he consulted Dr. Julien, a venereologist, who was also the doctor for the woman's prison at Saint Lazare. Picasso requested permission to visit the prison hospital, in the aim, as he was to explain later, of finding cheap models. The doctor opened the doors to him and guided him through the wards.

It was a sinister building: the prostitutes infected with or suspected of having venereal disease were imprisoned, on foot of a simple administrative decision, along with rebellious women arrested for soliciting on the public thoroughfare. The Sisters of Saint Joseph dressed in black and blue dispensed care there and ruled the wards with iron discipline. The place was appalling and hopeless. The inmates were permitted to keep their child until it was weaned. The impression made on the young painter was horrifying. The nightmarish vision of these women, wandering about in silence, as imposed by discipline, was to become the main influence of Picasso's famous blue period. The dark indigo shifts in which they were dressed, and the more or less Phrygian caps that were used to indicate those infected with syphilis, made a strong impression on his imagination, as did the prostitute mothers, protecting their newborns in the folds of their uniforms to guard them from the icy cold of the gloomy corridors. On returning to his studio, he recorded his emotions, keeping mainly to images of motherhood and the drawing of the white caps.

"I want to do a painting of the drawing I'm sending you, *Two Sisters*. The painting is that of a whore from St Lazare and a mother," he wrote to Max Jacob in 1902.

Hence, the blue period was born of venereal disease [72].

From 1904, Picasso recovered from his depression and went on to quite a different style. The pink period with its harlequins got the painter back on his feet again, and in 1906 he returned in strength to the world of brothels. Rejecting all the conventions of the time, quartering the shapes of five women around a bowl of fruit, Picasso composed his first canvas of exorcism: *Les Femmes d'Alger*. On being introduced to the large, unfinished canvas, which remained hidden from public view for a long time, Max Jacob exclaimed "It's the introduction of syphilis to painting" [73].

*Toulouse-Lautrec*. It is in the very essence of his tortuous lines, set out almost organically, that Toulouse-Lautrec inhabits his paintings of women haunted by evil. From them exudes an uncommon humanity, their looks are present, their postures almost disturbingly natural [79].

It was in the brothel at 6, rue des Moulins that in 1894 Toulouse-Lautrec set up camp, as he liked to say. The painter was fond of venal women, without doubt. Much has been said about Toulouse-Lautrec's stays in brothels. A legend has grown up, fed by Thadée Natanson, the director of the *Revue Blanche*, which left us with a portrait of Lautrec as an alcoholic, crazy about painting and women, seeking the intimacy of a family in brothels.



**Fig. 40.11.** *Les Femmes d'Alger*. Pablo Picasso, 1907. Museum of Modern Art, New York. Oil on canvas (224 × 234 cm). See color plates.

In snatches, as he sharpened his pencil, says Yvette Guilbert, he told me of his liking for life in a brothel, watching the throb of prostitution, seeing modesty falter, penetrating the sentimental pain of the poor creatures, the civil servants of love. He was their friend, sometimes their advisor, their brother in pity. When he spoke of these poor women, minute by minute, the emotion in his voice betrayed the warm pity of his heart. . . to the extent that I often wondered if Lautrec did not find a mission of beauty in his willingness for fraternal and Christian commiseration toward these women stripped of modest pride (Yvette Guilbert) [40].

It was through truth that Toulouse-Lautrec supported these women; he painted them as he saw them, directly. His sketches are of a marvelous exactitude in their cruelty, as a critic of the time said of the series of lithographies *Elles*. Art is not there to turn us away from life; on the contrary, it brings us back to life through sensitivity. The work of the artist is to portray through this sensitivity what is vibrant and pathetic in life. In the hopeless brothel, purged of any illusion, Lautrec pays homage, to reality.

**40.1.5.1 AIDS and contemporary art** AIDS arrived in the artistic iconography of the twentieth century in a movement that could be qualified as contemporary romanticism, where the figure of the artist and his torments takes a central place in the work of art. In the liberal society of our time, AIDS is associated with the great moral debates around homosexuality and drugs and is often the occasion for strong demands. As it was identified around 1980, AIDS has closely accompanied the contemporary avant-garde artistic scene, in particular painting and images. This devastating epidemic is



Fig. 40.12. *Woman Putting on Her Stocking*, by H. de Toulouse-Lautrec (1864–1901) (domaine publique). See color plates.

no longer simply a subject of inspiration for artists, but rather has become an open door to a political and social art, controversial. Just as tuberculosis was the mark of Romantic artists and then bohemian artists, AIDS haunts the underground world of art of the 1980s. The young New York artists, gravitating around the figure of Andy Warhol, contributed to the explosive coming-out of American society's unspoken secrets concerning homosexuality, drugs, and AIDS, which were, at the time, intimately entwined. Indeed, it remains under the aegis of religion that Protestant and puritanical American society perceives this disease as unavoidably linked to sin.

The many celebrities who were killed by this disease gave AIDS an uncommon currency and production in all genres, whether through the visual arts, music, film, literature, folk art (graffiti, posters, etc.), and crafts.

Artistic production directly inspired by AIDS took root in the United States. This disease raises not only health problems but also, much more broadly, moral and political issues. Most of the American artists between 1980 and 1995 pay homage in their own way to those touched by AIDS. Among the most famous that can be mentioned is Andy Warhol, who was the central figure of the pop art movement that inspired so many

artists of this generation, as well as Keith Haring, Nan Goldin, Felix Gonzales Torres, Robert Mapplethorpe, Duane Michals, and Franck Moore, to cite only the most important figures.

From rage to activism, from the metaphor to the memorial, their diverse artistic approaches reflect the complex way that the epidemic moved and continues to move contemporary America. The art that developed around AIDS is the reflection of many and various demands, and provided the opportunity for many provocative exhibitions on this theme. Today it has gone beyond the Western world and shows up particularly in Africa, the most highly affected continent, and most specifically in Southern Africa where popular expression is extremely rich [30].

The exhibition *From Media to Metaphor: Art about AIDS* organized in 1992, by R. Atkins and T.W. Sokolowski, brought together a large number of works around the AIDS theme. This great exhibition took a fresh look at the traditional gallery space, transforming it into a true forum for discussion and protests, uniting in a pot-pourri of photographers, painters, sculptors, and also activist groups that had launched into the AIDS theme. The epicenter of the HIV epidemic originally stemmed from the homosexual populations on the east and west coasts of the United States, before



**Fig. 40.13.** Gran Fury, “Read My Lips” (Boys) [1988] posters produced by the group Act Up. An act up appropriation of a World War II year photograph of two sailors kissing. rpt. in Crimp and Rolston [56].

spreading to other social groups—Gmerk Mirko dans son “Histoire du Sida”: montre que les trois foyers homosexuels d’origine ont été New York, Los Angeles et Paris—[41]. The initial artistic response to AIDS was a response by activist artists of the homosexual community. Some in the United States, and even sometimes the authorities, referred to AIDS as the gay plague or even WOG (Wrath of God). The activist groups formed first in response to this growing homophobia before the populations affected by AIDS.

In the 1980s, the activist group Act Up began to write informative material on the risks of AIDS, published in New York periodicals, and then launched a quasi-publicity campaign, covering the walls of the city with all sorts of tracts, posters, and stickers, made up of shock images, warning against the dangers or the epidemic. Among the most widespread posters were *Silence = Death* or *Fight Homophobia*, *Fight AIDS*. This group, created in 1987, spread across the globe in a mere 5 years, forming a dozen groups in other countries. Gran Fury is a group associated with Act Up that makes immense politically committed posters.

One of their major pieces is a monumental black and white poster. The image depicts two government officials shaking hands. What is disturbing is the angle of the photo: the camera is beneath the men, looking up to imply that they, in their position of power, tower over the people. Text stating: When a government turns its back on its people, is it civil war? [89]

This multiform art is highly accessible and has been brought together for the first time by Keith Haring, who was inspired by the serial art of Andy Warhol, opening a boutique in Soho in New York City in 1986, where he sold posters, t-shirts, pins, his stylized characters, illustrating simple concepts simple that appealed to a wide audience—life, death, love, and sex—which became very popular. He opted for an art that was accessible to everyone, meaningful and direct.

Throughout his career, Haring devoted much of his time to public works, which often carried social messages. He produced more than 50 public artworks between 1982 and 1989, in dozens of cities around the world, many of which were created for charities, hospitals, children’s day care centers and orphanages. (...); a mural on the exterior of Necker Children’s Hospital in Paris, France in 1987. (...)

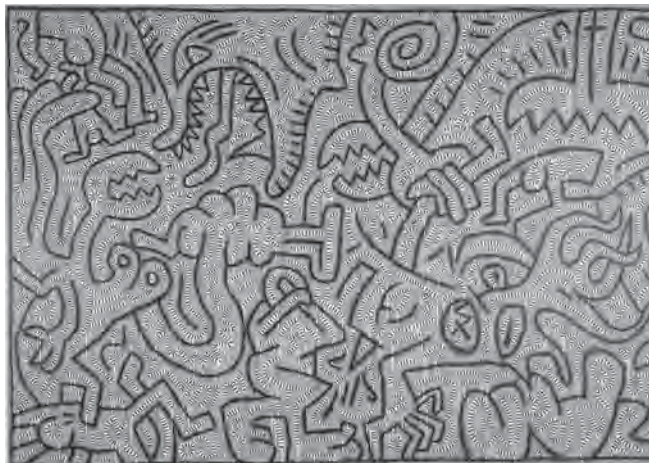
Haring was diagnosed with AIDS in 1988. In 1989, he established the Keith Haring Foundation, its mandate being to provide funding and imagery to AIDS organizations and children’s programs, and to expand the audience for Haring’s work through exhibitions, publications and the licensing of his images. Haring enlisted his imagery during the last years of his life to speak about his own illness and generate activism and awareness about AIDS. (...)

Keith Haring died of AIDS-related complications at the age of 31 on February 16, 1990. A memorial service was held on May 4, 1990 at the Cathedral of St. John the Divine in New York City, with over 1,000 people in attendance [53]. (...)

There can be no doubt that the artist’s battle with AIDS had a profound effect on his artistic vision. ‘To live with a fatal disease,’ he confided to his biographer John Gruen shortly before his death, ‘gives you a whole new perspective on life.’ The resulting pain and anguish are eloquently expressed in Haring’s two collaborations with William Burroughs: *Apocalypse* (1988) and *The Valley* (1989). (...)

The true ‘horror of AIDS had come to light’ for Haring in 1985, and he had for some time regarded himself as a prime AIDS ‘candidate’—even before discovering the first Kaposi sarcoma on his leg during a trip to Japan in 1988. Not only had numerous intimate acquaintances, including his ex-lover Juan Dubose, already succumbed to the disease. Rumors of Haring’s own infection were rife long before he himself learned that he was HIV-positive. More than a year before the diagnosis, *Newsweek* had tracked the artist down in Europe to ask if his protracted stay there was a cover-up for his affliction with AIDS [36].

*Felix Gonzalez Torres* is a conceptual artist from Cuba. He made a substantial contribution to the dialogue on homosexuality and AIDS. He was himself killed by the disease after having seen many of his companions and friends being taken. His works are of an extreme formal simplicity but still bridge many emotions. He is also a partisan of an art based on an exchange with the spectator in which the latter takes part in the evolution of the work. In *Lover Boys*, he exposes a simple pile of monochromatic candies weighing 355 lb, the exact combined weight of Torres and his partner. Visitors are encouraged to take candies and eat them. It is a sort of conceptual self-portrait that Torres provides, the scattering of the body until it totally



**Fig. 40.14.** Untitled (Keith Haring, 1984) acrylic on muslin tarpaulin 120 × 180 in private collection. See color plates.

disappears. The love between the two bodies symbolized by this uniform and indistinct pile of candies. This idea to also include the notion of weight seems directly related to the fact that the first cases of AIDS, with no access to triple therapy at the time (or before it was perfected), suffered from a spectacular weight loss as they approached death. Also, the fact that the visitors are encouraged to eat the candies, placed on the floor, symbolizes the acceptance of the disease by others. With very simple means, Torres succeeds in expressing the emotions a young man afflicted and contaminated by AIDS goes through at the dawn of the twenty-first century.



**Fig. 40.15.** Untitled (Felix Gonzales Torres, 1993). This short biography by the artist himself is very representative of the Torres's work and life, simple but a bridge of multiple emotions.

1957 born in Guaimaro, Cuba, the third of what would eventually be four children 1964 Dad bought me a set of watercolors and gave me my first cat 1971 sent to Spain with my sister Gloria, (...) 1985 first trip to Europe, (...) 1986 Mother died of leukemia 1990 Myriam died 1991 Ross died of AIDS, Dad died three weeks later, a hundred small yellow envelopes of my lover's ashes—his last will 1991 Jorge stopped talking to me, I'm lost—Claudio and Miami Beach saved me 1992 Jeff died of AIDS 1990 silver ocean in San Francisco (...) 1991 went back to L.A., hospitalized for 10 days (...) [39]

These exhibitions, whose central theme was AIDS, were designed to awaken the authorities and the public and encourage them to turn their attentions to the problems caused by AIDS, though certain people seemed in favor of the disease. As Vivien Raynor commented in a *New York Times* article on September 23, 1990:

This is a forum for pleading many causes, notably that of sexual freedom, and there is a strong sense of paranoia and self pity. It is as if the plague that directly or indirectly threatens everyone is somebody else's fault, and to the degree that doctors have failed to find a cure, it is. But like artists-against-the-bomb shows, this one seems concerned primarily with going on record against AIDS, as if there were a party in favor of the disease.

Faced with a new evil, the old reflexes are awakened: as during the great plague epidemics, confronted with such deadly scourges, people sought scapegoats, and, for some, this disease was experienced as punishment for sin. The first reactions are to point to the minority groups who were the first victims. But soon it was clear that AIDS affected not only homosexuals and drug addicts but all levels of society. Beginning in 1986, heterosexual cases appeared, as did cases by blood transfusion or by contamination from mother to baby. Artists such as Jackie Kirk worked on the theme of the changing face of AIDS. She painted portraits at the beginning of the 1990s of AIDS patients from diverse social and ethnic backgrounds, showing that the “gay plague” had made room for a scourge that could reach everyone, one that had to be attacked together.

#### 40.1.6 Images of Disease: Photography and Photographers

The history of the beginnings of photography retains the names of several pioneers: Thomas Wedgwood (1771–1805) in 1802 managed to obtain fleeting photograms, images of objects placed on paper coated with silver chloride that turned black when exposed to light. On May 5, 1816, Nicéphore Niépce (1765–1833) was the first to succeed in producing the first negative on paper, but since it was not fixed, it blackened when exposed to light. In 1822 in a dark-room, he exposed a tin plate covered with a mixture of nitric acid used by engravers for etchings, whose photosensitive properties and lavender essence he had discovered. He also obtained, without drawing, painting, or engraving, the first photographic image (the heliotype): “the standing table.” This is not yet photography (or heliography) and the image is a

“point of view.” In 1826, Louis Jacques Mandé Daguerre (1787–1853), owner of a street show using animated images created by lighting effects, perfected Niépce’s discovery and succeeded in convincing François Arago (1786–1853), Secretary of the Academy of Sciences and Director of the Paris Observatory, of the advantages of the invention. At the Academy of Sciences session on January 8, 1839, it is said “that France then nobly endows the entire world with a discovery that can greatly contribute to the progress of arts and sciences.” Henry Fox Talbot (1800–1877) reinvents, like Niépce before him, the negative paper but pursues his invention and obtains a positive image in less than a minute of exposure and can be credited as the true inventor of today’s photography. He calls his images kalotypes (kalos = beauty). Invention communicated to the Paris Academy of Sciences in 1839, it was eclipsed by Daguerre’s invention, a positive image obtained more directly, one that was more meaningful to the public. Hippolyte Bayard (1801–1877), of all these men the least well-known, as early as February 1839 invented a process to obtain positive images directly on paper. Finally, also in 1839, John Herschel (1792–1871), an English astronomer, invented the words “photography” (written with light), “negative,” and “positive.”

The use of photography in medicine developed rapidly in the beginning of 1840 and a few photographers even seemed to think that the image could provide details beyond the real, such as the “optogrammes” imagined by pathologists persuaded that in the eyes of the murdered they would find the image of the assassin still fixed on the retina, or even in the work of Doctor Baraduc who, holding a photographic plate over a sedated patient, thought he could obtain the “aura of his nightmare.”

The first medical daguerreotypes were microphotographic images made in Paris in the beginning of 1840 by Alfred Donné, giving a course in microscopy at the Paris Medical School, and Léon Foucault, a physicist at the Paris Observatory. Donné had engravings made from the daguerreotypes and published them in 1845. A few years later in 1860, a photograph of the larynx was made by Czermak and in 1865 of the fundus of the eye, but it is Duchenne’s publication in 1862 (in Boulogne) of the first book illustrated by clinical photographs that marks the entrance of photography into medical practice and clinical research.

In dermatology, the first photographs were published in the 1860s. In 1865, in London, Alexander John Balmano Squire (1836–1908), an English surgeon, published the first atlas in dermato-venereology containing 12 photographs on albuminized paper colored by hand. In Paris, a few photographs of skin diseases were made at the Medical School, but it is at Saint-Louis Hospital that the first dermatological photographs were published by Hardy and Montméja in 1868, brought together in a book entitled *Photographic Clinic of the Saint-Louis Hospital*.

Hardy (1811–1893) had been the chief resident at Saint-Louis since 1851 and was appointed President of the First International Congress in Dermatology in Paris in 1889.

Montméja was a former intern in ophthalmology, and when his first photographs were published, he had not yet finished his medical studies. From 1869 to 1873, he published in the *Revue photographique des hôpitaux de Paris* and succeeded in convincing the director of public assistance to set up the first photographic workshop in the Paris hospitals and (. . . .) “during the summer of 1866, Mr. Hardy learned about photographic experiments being carried out in England and confided to me (Montméja) that he planned to study this new iconographic process in dermatology with him from then on (. . .). The colors entrusted to skillful hands are executed entirely before my eyes, with Mr. Hardy’s final approval.” The book contains 50 images classed to bring dermatology “into pathology and destroy these ideas of speciality that are founded on nothing true nor useful.” Syphilis naturally occupies an important place (16 photos) and is added to cutaneous mycoses, scabies, impetigo, eczema, and alopecia.

Montméja colors the images by hand. His loyalty to the true morphology of the structures may be altered at times and, for certain images, he falls halfway between lithography and photography. With no particular lighting effects, the images uniformly present diseases and the diseased, from the disadvantaged of the social classes, who for the first time experience photography and seem frozen in a dramatic, sometimes almost theatrical, attitude, accentuated by the superimposition of the colors.



**Fig. 40.16.** Colored photograph of Impetigo (1868). Impetigo is a bacterial skin infection caused by a staphylococcus or streptococcus and characterized by blisters and pruritis. Gérard Tilles, Société française d’histoire de la dermatologie, Musée de l’hôpital Saint-Louis, Paris. Paper presented at the Symposium Jean-Louis Alibert, Barcelona, January 31, 1998, *Nouv Dermatol* 1998;17:271–275 (extract).



**40.1.6.1 Photographers confronting disease** *Sebastião Salgado* was born in 1944 in Aimores, Brazil. After studying economics in Brazil and the United States, in 1971 Salgado finished his PhD at the University of Paris. During a trip to Africa in 1973, he borrowed his wife Lelia's camera and decided to change careers. Today he is one of the most respected photographers in photojournalism. Mr. Salgado works only in black and white, respects his subjects, and insists that what is happening to them has a broader meaning. This explains the force of a photographic work that bears witness to the fundamental dignity of the human being while forcefully rising against the violation of this dignity by war, poverty, and other injustices. Mr. Salgado has generously collaborated with various humanitarian organizations (e.g., UNICEF, United Nations High Commissioner for Refugees (UNHCR), the World Health Organization (WHO), Doctors Without Borders, Amnesty International). In September 2000 at the UN headquarters, he exhibited ninety portraits of displaced children extracted from his book *The Children: Refugees and Migrants*, a homage to 30 million people, for the most part homeless women and children. Mr. Salgado has donated the royalties that he receives for several of his photographs to the Global Movement for Children. He is currently illustrating the world campaign to eradicate poliomyelitis, a joint UNICEF and WHO project.

*Kristen Ashburn*, a young American photographer, has been working for the last 4 years on the ravages of AIDS in Zimbabwe. She has chosen to take a position as near as she can to the “human,” to show more intimately the inhumane of the pandemic. Since 2001, Kristen Ashburn, 32, has made four documentaries in Zimbabwe on the havoc wreaked by AIDS. She prefers portraits, many taken indoors, as if to better grasp the intimacy of this frightening disease. In her black-and-white photos, she captures beings between life and death. Kristen's work shows just how much the pandemic has torn the traditional structures of this country to pieces, with a new generation gap, role reversal, and so on. Society is turned upside down. Zimbabwe already has more than 80,000 orphans, 35% of its population is HIV-positive, and one child dies of AIDS or opportunistic infections every 15 min. Some 2500 deaths a week are reported for the same reasons. Ashburn photographs Chitungwiza gravediggers preparing eight graves at once in a cemetery that is already saturated. In another photo, a group of people is attending a burial. But the legends clarifies: “Employers are beginning to limit the number of funerals their employees can attend because the absences are reducing their productivity.” Ashburn also explains how religion has become the only medicine, because there are no medications, no money to pay for them, no public assistance, no basic necessities such as flour and sugar. Thus, 90% of Zimbabweans consult the services of traditional healers in this country where it is still said that AIDS is not the consequence of unprotected sexual relations, but it is sent by the ancestors who have not found rest.

*Karen Kasmauki* did not intend to become a professional photographer. She began by studying anthropology and religion at the University of Michigan. After receiving her

degree, she received a grant to cover a study on oral histories in Tennessee, where she began to take photographs. Here she acquired a taste for photography and found a job as a photographer for the Virginia-Pilot in Norfolk. Five years later, she began freelancing as a photographer and proposed subjects to National Geographic, which allowed her to participate in a documentary on viruses that lasted more than 20 years. Karen Kasmauski has traveled to many countries covering the most devastating scourges of our time. The “Viruses: on the edge of life, on the edge of death” proposed by President J.F. Kennedy, was a turning point in her career. Whether it be her study on AIDS throughout the world, cholera in Bangladesh, or yellow fever in Brazil, Kasmauki has always followed her principle of photographing the ill as closely as possible, on very intimate terms. She thus became part of the most varied and unexpected worlds. She rubbed shoulders with prostitutes in Cambodia, drug addicts in the far reaches of Moscow, transvestites in Puerto Rico, and the bosses of a gay sauna in San Francisco. This long and gigantic study has earned her many articles in National Geographic, where she now works, and finally the publication of a book bringing together the major points in her prestigious journey: *From the Front Lines of Global Health*.

**40.1.6.2 Photographers and disease** Photography began to occupy an important place in art from the 1970s. Many photographers immortalized their suffering or that of their relations through the photographic medium, as self-portraits or portraits. Disease occupies an important place in this context, first and foremost AIDS, which at the beginnings of the disease, before triple therapy was accessible, degraded the body dramatically, arousing one of the greatest terrors of the twentieth century.



**Fig. 40.17.** “yeux” by Karen Kasmauski.

*David Nebreda*, a contemporary Spanish artist, remained shut away for more than 7 years to take pictures in which his body appeared mutilated, lacerated, or covered in excrement. (A book collects these photographs, published in 2000 by Leo Scheer.) The photographer wants to “incarnate the essential mythical figures of Western culture,” in his own words. Nebreda’s self-portraits, although very nearly unbearable, are highly esthetic. They are inspired by the classical themes of art, particularly Spanish baroque. It is this identity, inherited from the golden hints of conquest and the inquisitional torments, from the luxury of baroque renaissance and the torturing asceticism of the Counter Reformation, that Nebreda’s art communicates. How not to recognize the mark of El Greco and Francisco Pacheco, and also Géricault whose *The Madwoman* appeared in his self-portraits like the quotation of a mother, Velázquez mirrored in *Parable of Mother and Son*, Goya, of course, the processions of flagellants and the terror of the *sañtas de patro soto*? Nebreda transcends his disease and physical decay by immortalizing himself in his paintings. It is a veritable work of exorcism that he took upon himself.

*Robert Mapplethorpe*, an American photographer, gathered inspiration from boxes of photos, found in New York homosexual nightclubs, staging men who were chained together or flogging themselves. A great admirer of Andy Warhol, Mapplethorpe developed in the underground artistic ferment of his time, photographing those around him. Among these subjects were porn stars, artists, composers, musicians, singers,

the basis of the milieu, the hardest hit by the emerging AIDS. Mapplethorpe’s first photos were considered shocking: He took what was going on around him quite instinctively, producing a portrait with no pretenses of this generation of young creators who roused a great deal of talk about them and who participated in removing taboos from AIDS and homosexuality. Little by little, Mapplethorpe’s work became more refined: he preferred high-quality classical portraits, staging male and female nudes, and the personalities of his time. He also produced floral compositions and took up the subject of vanity in his last photographs. In 1987, he created the Robert Mapplethorpe Foundation whose goal was to promote photography and support medical research on AIDS.

*Hervé Guibert*, who was first and foremost a writer, also turned out an intimist photographic production around his personal experience. Homosexual, afflicted with AIDS, ending in suicide at the age of 36, Hervé Guibert placed the disease at the heart of his literary and photographic work. He provides several portraits of his companions, as well as a few self-portraits, showing in a very minimalist manner the exclusion and interior torments of the disease. Out of his mortal pain he made the great documentary of his life. He photographed himself for the newspapers, recounted his life in novel after novel, filmed himself dying for television. For Guibert, AIDS was the spectacular manifestation of his desire to die. Most certainly, AIDS was going to kill him. To defy it, he preferred to commit suicide, thus preventing it from deciding in his place.



**Fig. 40.18.** Nude and Mother gift. David Nebreda 1989 “My mother gift: The knife with my name on it.” David Nebreda. Color picture on genetic paper, 102 × 75 cm Paris, galerie Leo Scheer. See color plates.

## 40.1.7 Graphic Arts

**40.1.7.1 Drawings and water colors of medicinal plants** Therapeutic medicinal plants were widely used against infectious diseases. They occupy a vital place in the traditional pharmacopeia and are imperative to modern research, along with other natural substances of medical interest, belonging as much to the plant kingdom as the animal kingdom, found on land or in the sea.

Although the use of herbariums was indispensable when it came to identifying and classifying plants, beyond the treatises in botany drawings were widely used for their descriptions. Plates most often showed the plants’ morphology accurately and precisely. They were widely used, as much for their scientific value as for the artistic quality. They were exhibited in books, museums, and even in salons.

In medicine, this knowledge had to be transmitted to practitioners. The drawing of medicinal plants, along with coloring, illustrated medical treatises and botanical handbooks dedicated to medicine and the curative value of plants.

Only a few examples are presented here, chosen from illustrations of medicinal plants that act on bacteria and infectious syndromes: we are thinking of the original pharmacopeia of the School of Madagascar [8]. If generally speaking medicinal plants have varied actions on illness, the preparation and the dose are at the heart of the therapeutic activities, most often treating more the symptom than a targeted



**Fig. 40.19.** *Salvia coccinea* Jusieu ex Murray (Lamiaceae family) from the Medical Plants of Madagascar [8], the Tropical Sage or Scarlet Sage (Mint Family) present several medical properties including a strong anti-pyretic effect using a concoction of leaves and also a known and well used all over the Indian Ocean antibiotic outcome contained in the whole plant extract used to treat upper respiratory infections.

etiology. In their effects against infectious diseases, plants are recognized as having an antiseptic, antibiotic, antitarrhal, or nematicide role, to go back to a term from Western medicine.

## 40.2 LITERATURE

Literature includes both the novel and poetry, as well as all ways of transcribing languages with the wide variety of hand-writings, signs, ideograms, calligraphies, and so on.

Yet rock paintings, the art of modern humans, *Homo sapiens sapiens*, show no sign of infectious diseases. In the oldest wall art known, found in the “Chauvet caves” (Ardèche, France) and dating from 32,000 years ago, although certain images bring to mind healing rituals, nothing remotely interpretable as a representation involving infectious disease can be observed. The same is true for more recent Neolithic pre-history and the first permanent settlements with agriculture or animal husbandry, and in the first urban civilizations, from Mesopotamia to the Pharaonic civilization: traces of our topic cannot be found, and, other than a few limited examples of sculptures or bas-reliefs, infectious diseases are not in

the picture at that time. However, in classical Antiquity, the first manuscripts considered in the West to be great literary works such as the Bible and the Homeric poems trace events believed to be manifestations of infectious diseases, which are either raised allegorically or described precisely.

We have therefore selected among the masterpieces of Western literature those works that make exemplary use of infectious disease as the object or subject of the novel, as actors or settings of a play. Several diseases, limited in number, have often inspired the writer because of their severity or their potential to affect the rich and the poor alike. This was most notably the case of the black plague, assimilated with death itself and magnified in all representations, literary or plastic, from the death dance to other spectacular manifestations such as the parades of the Flagellants and later in carnivals. The white plague (tuberculosis) was also a great theme, in a more recent time, used in particular by the Romantics for the slow and insidious suffering that it inflicted, leading inexorably to a dramatic and fatal end.

### 40.2.1 The Bible

The Bible, a primary and sacred text if ever there were one, unequivocally relates episodes of infectious epidemics. The oldest episodes first became a tradition transmitted orally and then were transcribed in manuscript form.

The first passages relating to infectious diseases are found in Exodus, which relates the episodes of the Hebrew people’s departure from Egypt, events that date from the fifteenth century B.C. for the analysts to the thirteenth century B.C. for others. In the verses recounting the affair of the Ten Plagues of Egypt, for the first time the Old Testament tells of diseases of infectious character and epidemics, even if they are reported metaphorically, even esoterically. The episode ends thus: the Pharaoh refusing to allow the Hebrews to depart, Moses and his brother Aaron ask their god Yahweh several times to send down lightning on the Egyptians to force them to give up.

Several of the “plagues” described illustrate clearly an infectious character:

(Exod.7.20–21) (. . .) And he lifted up the rod, and smote the waters that were in the river, in the sight of Pharaoh, and in the sight of his servants; and all the waters that were in the river were turned to blood. And the fish that was in the river died; and the river stank, and the Egyptians could not drink of the water of the river; and there was blood throughout all the land of Egypt.

The river’s waters were poisoned either with an infectious agent or with a toxic agent (chemical or biological).

(Exod. 8.21) Else, if thou wilt not let my people go, behold, I will send swarms of flies upon thee, and upon thy servants, and upon thy people, and into thy houses: and the houses of the Egyptians shall be full of swarms of flies, and also the ground whereon they are.

In all likelihood, the flies are considered here as purveyors (vectors) of some plague for man and beasts.

(Exod. 9.2–3) For if thou refuse to let them go, and wilt hold them still, behold, the hand of the Lord is upon thy cattle which is in the field, upon the horses, upon the asses, upon the camels, upon the oxen, and upon the sheep: there shall be a very grievous murrain.

The term “murrain” (a pestilence or plague), nonspecific but infectious, is clearly expressed, striking in particular domestic ungulate animals.

(Exod. 9.10) And they took ashes of the furnace, and stood before Pharaoh; and Moses sprinkled it up toward heaven; and it became a boil breaking forth with blains upon man, and upon beast.

Here again this brings to mind the infection of scourges and the development of abscesses by bacterial or fungal agents, as well as leprosy, in the generic sense, at that time meaning a skin disease.

Further in the Bible, the two books of Samuel speak of similar events with the Hebrews settled in the Promised Land, punished by Yahweh:

(1 Sam. 5.9) (...) And it was so, that, after they had carried it about, the hand of the Lord was against the city with a very great destruction: and he smote the men of the city, both small and great, and they had emerods in their secret parts.

(2 Sam. 24.15) So the Lord sent a pestilence upon Israel from the morning even to the time appointed: and there died of the people from Dan even to Beersheba seventy thousand men. (...)

The Book of Chronicles relates even more precisely a probable acute intestinal infection.

(2 Chron. 21.14, 15) (...) behold, with a great plague will the Lord smite thy people, and thy children, and thy wives, and all thy goods: and thou shalt have great sickness by disease of thy bowels, until thy bowels fall out by reason of the sickness day by day.

In the Book of Ezekiel, it is remarkable to note how, for the first time, the people related the drama of infectious disease, the violence of war, and the misery of famine.

(Ezek. 6.11, 12) Thus saith the Lord God; Smite with thine hand, and stamp with thy foot, and say, Alas for all the evil abominations of the house of Israel! for they shall fall by the sword, by the famine, and by the pestilence. He that is far off shall die of the pestilence; and he that is near shall fall by the sword; and he that remaineth and is besieged shall die by the famine: thus will I accomplish my fury upon them.

This tragic trilogy is found again and again throughout time in a great number of accounts of epidemics, thereby becoming a strong element in the history of humanity, marked by the same spirit in art and politics to this very day.

Finally, in Revelations, the last book of the New Testament, the writer uses the same dramatic content:

Rev. 6.8. And power was given unto them over the fourth part of the earth, to kill with sword, and with hunger, and with death, and with the beasts of the earth.

We should also cite:

(Rev. 16.1) And I heard a great voice out of the temple saying to the seven angels, Go your ways, and pour out the vials of the wrath of God upon the earth.

(Rev. 16.2) And the first went, and poured out his vial upon the earth; and there fell a noisome and grievous sore upon the men which had the mark of the beast, and upon them which worshipped his image.

(Rev. 18.8) (...) Therefore shall her plagues come in one day, death, and mourning, and famine; and she shall be utterly burned with fire: for strong is the Lord God who judgeth her.

We can see, therefore, in this founding text that is the Bible, that calamities of all sorts, including infectious ones, are thrown at men by their God as a punishment for their sins. This interpretation—sin, divine vengeance—will be repeated, almost as a litany, throughout history, even today.

#### 40.2.2 Homer: The Iliad (Song I) [58]

In the Iliad, the first part of the long Homeric poem, certainly sung at first according to oral tradition and later transcribed, from the beginning of the work we find in the vengeance of Apollo the scourge of a plague sent down by the lines of his arch.

(...) What god drove them to fight with such a fury? Apollo, the son of Zeus and Leto. Incensed at the king to he swept a fatal plague through the army—men were dying and all because Agamemnon spurned Apollo’s priest.

(...) His prayer went up and Phoebus Apollo heard him. Down he strode from Olympus’ peaks, storming at heart with his bow and hooded quiver slung across his shoulders. The arrows clanged at his hack as the geld quaked with rage, the god himself on the march and down he came like night. Over against the ships he dropped to a knee, let fly a shaft and a terrifying clash rang out from the great silver bow. First he went for the mules and circling dogs but then, launching a piercing shaft at the men themselves, he cut them down in droves—and the corps—fires burned on, night and day, no end in sight.

(...) Achille. So home we sail. . .if we can escape our death—if war and plague are joining forces now to crush the Argives.

In this Homeric episode, the war joins a “plague” to punish and spread hardship on men. Let us note the identification of arrows as purveyors of the pestilence. This will often appear later in images and text, in particular those of a religious nature.

#### 40.2.3 The Black Death

The Black Death is an infectious disease caused by the bacillus *Yersinia pestis*, which naturally infects wild rodents as well as brown and black domestic rats. The bacillus is transmitted to humans when they are bitten by infected fleas that have fed on infected rats. Humans develop bubonic plague or pneumonic plague, and the illness can be secondarily transmitted either by infected fleas or directly from human to human through infected droplets [11].

### 40.2.3.1 *Thucydides, the Peloponnesian War* [95]

The Peloponnesian War opposed two Greek coalitions from 431 to 404 B.C., one led by Athens and the other by Sparta. Thucydides, the Athenian, was both an actor and a general, an observer and an exile, before becoming the brilliant conqueror, recognized as the first historian man of letters. He interests us here because in just a few pages his text describes the terrible epidemic that ravaged his city and region from March 430 to February 429. This is the first precise and detailed account of such an event. Since that time, historians and biologists have long wondered about the etiology of this epidemic, which is now commonly called the Plague of Athens.

Roussel, the translator of the French edition, places a long note at the beginning of Thucydides's pages on the plague: "Despite the precision of the details given by Thucydides, the doctors who have studied his text have not been able to come to an agreement on the name of the disease. One thing is certain: the 'plague' of Athens has nothing to do with the true plague. As for the rest, hypotheses will have to do. Some support a smallpox epidemic descending on a population affected with latent ergotism, 'poisoning caused by rye ergot fungus'; others favor the idea of measles that was exceptionally deadly because it sprang up in a population that had never known the disease; typhus could also be blamed. It must not be forgotten that certain diseases may have disappeared since the fifth century or that their clinical manifestations may have changed" [54].

(p. 114) (47) [These numbers correspond to section numbers of chapter II, number II of the book]

(. . .) the Peloponnesians and their allies invaded Attica (. . .). Not many days after their arrival in Attica the plague first began to show itself among the Athenians. (. . .) Neither were the physicians at first of any service, ignorant as they were of the proper way to treat it (. . .), nor did any human art succeed any better.

It should be noted, in just a few words, the narrator presents the emergence of this disease in an area and in a population that had not been affected before. This is confirmed later and shows the helplessness of those faced with this hitherto unheard-of scourge.

(p. 115–116) [49] That year then is admitted to have been otherwise unprecedentedly free from sickness; and such few cases as occurred, all determined in this. As a rule, however, there was no ostensible cause; but people in good health were all of a sudden attacked by violent heats in the head, and redness and inflammation in the eyes, the inward parts, such as the throat or tongue, becoming bloody and emitting an unnatural and fetid breath. These symptoms were followed by sneezing and hoarseness, after which the pain soon reached the chest, and produced a hard cough. When it fixed in the stomach, it upset it; and discharges of bile of every kind named by physicians ensued, accompanied by very great distress. In most cases also an ineffectual retching followed, producing violent spasms, which in some cases ceased soon after, in others much later. Externally the body was not very

hot to the touch, nor pale in its appearance, but reddish, livid, and breaking out into small pustules and ulcers. But internally it burned so that the patient could not bear to have on him clothing or linen even of the very lightest description, or indeed to be otherwise than stark naked. What they would have liked best would have been to throw themselves into cold water, as indeed was done (. . .) The body meanwhile did not waste away so long as the distemper was at its height, but held out to a marvel against its ravages; thus when they succumbed, as in most cases, on the seventh or eighth day to the internal inflammation, they had still some strength in them. But if they passed this stage, and the disease descended further into the bowels, inducing a violent ulceration there accompanied by severe diarrhoea, this brought on a weakness which was generally fatal.

For the disorder first settled in the head, ran its course from thence through the whole of the body, and even where it did not prove mortal, it still left its mark on the extremities; for it settled in the privy parts, the fingers and the toes, and many escaped with the loss of these, some too with that of their eyes. Others again were seized with an entire loss of memory on their first recovery, and did not know either themselves or their friends.

The description given here of the symptoms of the disease and its progression is admirably precise, detailed, and full of imagery. Note that there is little sympathy in the tale of this plague; we are given a rather cold but rich clinical picture, despite a glimpse of emotion that shows through from time to time.

(p. 116) [50] But while the nature of the distemper was such as to baffle all description, and its attacks almost too grievous for human nature to endure, it was still in the following circumstance that its difference from all ordinary disorders was most clearly shown. All the birds and beasts that prey upon human bodies either abstained from touching them (though there were many lying unburied), or died after tasting them. In proof of this, it was noticed that birds of this kind actually disappeared; they were not about the bodies, or indeed to be seen at all. But of course the effects which I have mentioned could best be studied in a domestic animal like the dog.

At this stage of the description, the infectious aspect no longer leaves a doubt, and Thucydides speaks more of the ecology of the disease and advances a hypothesis on the mechanism of transmission.

(p. 117) [51] (. . .) By far the most terrible feature in the malady was the dejection which ensued when anyone felt himself sickening (. . .)

Yet it was with those who had recovered from the disease that the sick and the dying found most compassion. These knew what it was from experience and had now no fear for themselves; for the same man was never attacked twice—never at least fatally.

(p. 118) [52] . . .for as the disaster passed all bounds, men, not knowing what was to become of them, became utterly careless of everything, whether sacred or profane. All the burial rites before in use were entirely upset. (. . .)

[53] Men now coolly ventured on what they had formerly done in a corner and not just as they pleased seeing the rapid transitions produced by persons in prosperity suddenly dying

and those who before had nothing succeeding to their property. So they resolved to spend quickly and enjoy themselves, regarding their lives and riches as alike things of a day.

The description made of the moral atmosphere roughly resembles what will again be presented in the major writings on the plague and cholera epidemics during the Christian era, which the French translator, Denis Roussel, specified in a note: “Lucretius took up in his poem (*On the Nature of Things*, VI, 1038, 1286) this famous description of the plague of Athens. Boccaccio, describing the Florence plague, Defoe describing London’s and Manzoni Milan’s, each rivaled the Athenian historian.”

**40.2.3.2 Boccaccio, the Decameron [7]** Another major narrator, Boccaccio (1313–1375), the first great Italian writer of prose, witnessed the ravages of the Great Plague of Florence, which he survived. He reports his experience of the epidemic in the preface and introduction of his most famous novel—a collection of short stories, *The Decameron*—where the plague is used as an argument for the narration: The meeting of seven young women and three young men who flee the city to find refuge in the “pure” air of the domain that he possesses in the country. To pass the time, they decide that every day for ten days each one will tell the others a story of an event they have witnessed or know to be true, totaling a collection of 100 short stories. The rules of the game stipulate that they cannot tell of the misfortunes of the day, in other words, the plague. The tales are gay, spiritual, even licentious, the novel situated in an erotic atmosphere, which provides the author with the pretext to satirize and criticize the society he lives in.

Let us cite a few extracts from the Introduction, the “beginning of the first day of the Decameron.”

p. 1–2 (. . .) for so is the painful recapitulation of the recent deadly plague, which occasioned hardship and grief to everyone who witnessed it or had some experience of it, and which marks the introduction of my work. (. . .) And just as sorrow will come to displace the most abundant happiness, so will the arrival of joy put paid to sorrow. (. . .) The era of the fruitful Incarnation of the Son of God had arrived at the year 1348 when the deadly plague reached the noble city of Florence, of all Italian cities the most excellent. Whether it was owing to the action of the heavenly bodies or whether, because of our iniquities, it was visited upon us mortals for our correction by the righteous anger of God, this pestilence, which had started some years earlier in the Orient, where it had robbed countless people of their lives, moved without pause from one region to the next until it spread tragically into the West. It was proof against all human providence and remedies (. . .)

Here we see that divine punishment is also brought to the forefront.

Further along, the author gives a number of precisions: for example, on buboes and their consequences; that people die within 3 days; that the infection is transmitted not only by the ill but also by objects belonging to them (p. 9: “a phenomenon

much more surprising but observed, oh so many times”). There were those who were wise and those who were fearful, who fled the company of others or hid. However

Not only did the healthy incur the disease and with it the prevailing mortality by talking to or keeping company with the sick—they had only to touch the clothing or anything else that had come into contact with or been used by the sick and the plague evidently was passed to the one who handled those things).

(p. 4) Others found the contrary view more enticing, that the surest remedy to a disease of this order was to drink their fill, have a good time, sing to their hearts’ content, live it up, give free rein to their appetites—and make light of all that was going on. (. . .) This was easy enough to do because everyone had let his property go, just as he had let himself go, as if there was to be no tomorrow. (. . .) with our city in such a sorry state, the laws of God and men had lost their authority and fallen into disrespect in the absence of magistrates to see them enforced, for they, like everyone else, had either succumbed to the plague and lay sick, or else had been deprived of their minions to the point where they were powerless. This left everyone free to do precisely as he pleased.

(. . .)

(p. 4–5) (. . .) any number of men and women deserted their city and with it their homes and neighbourhoods, their families (. . .) as though the wrath of God, in visiting the plague on men to punish their iniquity, was never going to reach out to where they were; as though it was meant to harry only those remaining within their city walls, as though not a soul was destined to remain alive in the city, as though its last hour had come.

Men and women alike were possessed by such a visceral terror of this scourge that a man would desert his own brother, uncle would forsake his nephew, sister her brother, and often a wife her husband. What is more, believe it or not, mothers and fathers would avoid visiting and tending their children, they would virtually disown them.

The abandonment of children by their parents struck a number of authors who related it in their works on a background of epidemic.

(p. 6) Now this desertion of the sick by their neighbours, their families and friends, and the scarcity of servants, led to a practice hitherto unheard of: when a woman fell ill, she could be the neatest, prettiest, most refined of ladies, but she made no bones about being attended by a male, never mind his age, and displaying to him any part of her anatomy quite without embarrassment, just as would do with another of her sex, if her invalid condition required it. Conceivably this might have occasioned a certain lapse from the path of virtue among those women who subsequently recovered their health. (. . .) Not merely did many people die bereft of their attendant feminine company, all too many passed away without so much as a single witness. Barely a handful were accorded the benefit of seeing their dear ones in floods of compassionate tears: far from it, the new order called for quips and jollity more suited to a festive gathering. The womenfolk had largely suppressed their natural pity and become well practised this new frivolity to assure their own survival (. . .).

Boccaccio enjoys underscoring the fall of refined morals and social values in a time of epidemic, spreading death like a line of gunpowder spreads fire, striking down one and all. Later, carnivals ritualized the theme. The experience of the Great Plague and its permanent threat later developed a sort of frenzy for life that was taken up particularly by the dramatic arts.

(p. 7) If you examined the situation of the common people, and even that of much of the middle class, it looked a great deal bleaker still: (...) Many there were who passed away in the street, by day as by night, while scores of those who died indoors only made their neighbours aware of their decease by the stench of their decaying corpses.

The power of words and the formation of sentences make the art of the perfect novelist that Boccaccio was; his great talent seems magnified by the reality of the epidemic. Before ending his relation to the plague, he devotes a page to the countryside, where the peasants showed themselves to be buried in the fear and fright of death, just as the city-dwellers were

p. 8. As a result they, like the townsfolk, became feckless in their habits, neglecting their affairs and their possessions; indeed, far from encouraging their animals, their fields, their earlier labours to bear fruit, they all bent their best efforts to dissipating whatever came to hand. (. . .)

Leaving the countryside and returning to the city, what more is there to say but that, what with the inordinate wrath of Heaven and doubtless also to some extent the cruelty of men, between March and July more than a hundred thousand human beings are in all certainty believed to have lost their lives within the walls of Florence: this as a result partly of the sheer inexorability of the plague, partly of the terror possessing the survivors, which prevented them from attending and ministering to in their need? (. . .) How many gallant men, how many fair women and bright young people whom anybody would have pronounced among the fittest—even physicians as eminent as Galen, Hippocrates, and Aesculapius would have sat down to breakfast with their families and friends only to find themselves dining that night with their forbears in the next world!

Boccaccio said no more. Having forcefully expressed his observations on the Great Plague and its horrors, he comes down to his subject: the reunion of the characters who push away the fear and perhaps death in telling more pleasant stories, cheerfully and often on a droll tone.

**40.2.3.3 A journal of the plague year [28]** It was impossible to ignore this book, written and published in 1722 by Daniel Defoe (1660–1731), the famous author of *Robinson Crusoe* and others: *Moll Flanders* and *Lady Roxana*. His literary vocation seems to have come rather late in life, trying his hand at poetry and pamphlet writing after the age of 40, then journalism, creating his own magazine, before launching into literature with *Robinson Crusoe* on the threshold of old age at nearly 60. But throughout his adult life he was a politician, often betting on the wrong horse, businessman and merchant with more experience in failure than in success, to the point

of being put in the stocks in 1703. Impecunious and unlucky, he was often pursued for his debts, as happened again toward the end of his life. His need to rebuild himself was certainly one of the reasons that he started writing and publishing—to the great fortune of his readers and world literature, with a few masterpieces, then a dozen works that are still read with pleasure.

*A Journal of the Plague Year*, published in 1722, the same year as three hitherto unpublished novels, is a special piece of work. It should be remembered that this is fiction, a story and report more than a journal; some critics consider it a novel. It is not a personal account, or very little so: Defoe was 5 years old during the London plague of 1665, an age where the mind of a child is imbued for life by the exceptional and dramatic events that he may have lived. So why did he recount this epidemic, more than half a century after the facts? The French scholar today, Professor Henri-Hubert Mollaret, of the Institut Pasteur in Paris, specialist of the plague and its history, advances the idea that Defoe's purpose was to warn his contemporaries about the return of the plague, the most recent (and the last in Europe, but that was impossible to know at the time), having been the Marseille plague in 1720. Defoe may have wanted to warn of the horrors of the plague, instruct and tell how to best behave during a plague, underline the good and bad measures to take, and therefore taking as an example the 1665 plague in London as warning and advice.

His documentation is abundant and serious: he consulted archives, reported eyewitness accounts, and took down many anecdotes, without fabricating any it would seem. The shopkeeper's spirit of the narrator, and undoubtedly of Defoe himself, made him keep veritable accounts of the victims and costs, parish by parish. He highlighted the progress of the plague through these accounts: It blazed up in such and such a sector, calmed down or went out there, and resurfaced elsewhere, a morbid cartographic and topographic description of the city.

Finally, this account is also interesting for its enumeration and description of the exceptional measures taken by the authorities and public services in their attempt to limit the epidemic, measures that had a certain success, notably confinement, cruel but effective: Every house that had a diseased person was closed up with its occupants, guarded by watchmen. Another measure limited the movement of the healthy. In the seventeenth century, Europe organized the fight against an arising epidemic, measures that in 1720 would prevent the plague in Marseille from spreading too far, which would consequently go little beyond the limits of Provence and Languedoc, despite an even greater number of victims and the sacrifice of healthcare, government, and service personnel (this was the last great surge of the plague in Western Europe). Professor H.H. Mollaret, in the preface of the French edition, writes (p. 21) [28]

Daniel Defoe has his narrator communicate in a style that was voluntarily cold, distant, rather pretentious, with no purple

passage, emotion rare despite the grandiloquence in the description of scenes where the actors sink into great fear. He transcribes the commercial spirit and mercantile morals of the century that would soon be called the Enlightenment. His narrator is a well-off saddler (note that the author's uncle was a saddle maker in London at the time of the plague, which he had witnessed; would he have kept a journal? Or his nephew, who had kept memories of the adults' hardships and misfortunes, had listened attentively, which reinforces the truthfulness of the work).

Because this merchant, although well-off, has neither the taste nor the habit of writing, Defoe gives the *Journal* a construction and a form that are voluntarily awkward, heavy, with unbearable repetitions that some editions believed had to be removed, regrettable because these repetitions, intentional on Defoe's part, contributed to defining his character and, most especially, because they hammered like a monotonous knell the progression of the epidemic (. . .)

A great speechifier with a limited vocabulary, the saddler, sententious, moralizing, and puritanical, could not keep his *Journal* without these continual repetitions. There is some of the Monsieur Prudhomme about him, and Monsieur Homais, du Bouvard, and Pécuchet, too: he is proud of his city, but disputes the measures of the town councilmen; he is proud of himself, because in the end he did not flee London, after many a prevarication it is true, and feels very personally protected by God (. . .)

This quite unattractive writing is also, paradoxically, the very charm and interest of this reference work *A Journal of the Plague Year*.

We have chosen the following quotations among the many others that are equally interesting:

p. 30 Death was before their Eyes, and every Body began to think of their Graves, not of Mirth and Diversions.

p. 38 Orders conceived and published by the Lord Mayor and Aldermen of the City of London, concerning the infection of the Plague, 1665.

Whereas in the Reign of our late Sovereign King James, of happy Memory, an Act was made for the charitable Relief and ordering of Persons infected with the Plague; whereby Authority was given to justices of the Peace, Mayors, Bayliffs and other head Officers, to appoint within their several Limits, Examiners, Searchers, Watchmen, Keepers, and Buriers for the Persons and Places infected, and to minister unto them Oaths for the Performance of their Offices. And the same Statute did also authorize the giving of other Directions, as unto them for the present Necessity should seem good in their Discretions. It is now upon special Consideration, thought very expedient for preventing and avoiding of Infection of Sickness (if it shall so please Almighty God) that these Officers following be appointed, and these Orders hereafter duly observed. (. . .)

p. 40. Sequestration of the Sick. As soon as any Man shall be found by this Examiner, Chirurgeon or Searcher to be sick of the Plague, he shall the same Night be sequestred in the same House, and in case he be so sequestred, then, though he afterwards die not, the House wherein he sickned, should be shut up for a Month, after the use of the due Preservatives taken by the rest.

p. 45 Plays. That all Plays, Bear-Baitings, Games, singing of Ballads, Buckler-play, or such like Causes of Assemblies of People, be utterly prohibited. (. . .)

Feasting Prohibited. That all publick Feasting, and particularly by the Companies of this City, and Dinners at Taverns, Alehouses, and other Places of common Entertainment be forbidden till further Order and Allowance; and that the Money thereby spared, be preserved and employed for the Benefit and Relief of the Poor visited with the Infection.

The above quotations are only a few examples of the many administrative measures cited by Defoe, taken by the London authorities, the Lord Mayor and his two sheriffs.

p. 54 But I come back to the Case of Families infected, and shut up by the Magistrates; the Misery of those Families is not to be express'd, and it was generally in such Houses that we heard the most dismal Shrieks and Out-cries of the poor People terrified, and even frighted to Death, by the Sight of the Condition of their dearest Relations, and by the Terror of being imprisoned as they were.

p. 55 . . . but there were innumerable such like Cases; and it was seldom, that the Weekly Bill came in, but there were two or three put in freighted, that is, that may well be called, freighted to Death: But besides those, who were so freighted to die upon the Spot, there were great Numbers freighted to other Extremes, some freighted out of their Senses, some out of their Memory, and some out of their Understanding:

And then there were all those who masked their fear or defied the epidemic in debauchery:

p. 62 . . . but there was a dreadful Set of Fellows that used their House, and who in the middle of all this Horror met there every Night, behaved with all the Reveling and roaring extravagances.

p. 72 This put it out of Question to me, that the Calamity was spread by Infection, that is to say, by some certain Steams, or Fumes, which the Physicians call Effluvia, by Breath, or by the Sweat, or by the Stench of the Sores of the sick Persons, or some other way, perhaps, beyond even the Reach of the Physicians themselves, which Effluvia affected the Sound, who come within certain Distances of the Sick, immediately penetrating the Vital Parts of the said sound Persons, putting their Blood into an immediate ferment, and agitating their Spirits to that Degree which it was found they were agitated; and so those newly infected Persons communicated it in the same Manner to others; (. . .) likewise the Opinion of others, who talk of infection being carried on by the Air only, by carrying with it vast Numbers of Insects, and invisible Creatures, who enter into the Body with the Breath, or even at the Pores the Air, and there generate, or emit most acute Poisons, or poisonous Ovx, or Eggs, which mingle themselves with the Blood, and so infect the Body; a Discourse full of learned Simplicity, and manifested to be so by universal Experience (. . .)

p. 77–78 In these Walks I had many dismal Scenes before my Eyes, as particularly of Persons falling dead in the Streets, terrible Shrieks and Skreekings of Women, who in their Agonies would throw open their Chamber Windows, and cry out in a dismal Surprising Manner; it is impossible to describe the Variety of Postures, in which the Passions of the Poor People would Express themselves.

Passing thro' Token-House-Yard in Lothbury, of a sudden a Casement violently opened just over my Head, and a Woman gave three frightful Skreetches, and then cried, Oh! Death,



Death, Death! in a most inimitable Tone, and which struck me with Horror and a Chillness, in my very Blood.

p. 98–99 As the Desolation was greater, during those terrible Times, so the Amazement of the People increased; and a thousand unaccountable Things they would do in the violence of their Fright, as their Distemper, and this part was very affecting. (...) I suppose the World has heard of the famous Soloman Eagle an Enthusiast: He though not infected at all, but in his Head, went about denouncing of judgment upon the City in a frightful manner; sometimes quite naked, and with a Pan of burning Charcoal on his Head: What he said pretended, indeed I could not learn.

p. 116 Wherefore, were we ordered to kill all the Dogs and Cats: But because as they were domestic Animals, and are apt to run from House to House, and from Street to Street; so are capable of carrying the Effluvia or Infectious Steams of Bodies infected, even in their Furs and Hair; and therefore, it was that in the beginning of the Infection.

p. 146–147 Another thing might render the Country more strict with respect to the Citizens, and especially with respect to the Poor; and this was what I hinted at before, namely, that there was a seeming propensity, or a wicked Inclination in those that were Infected to infect others.

There have been great Debates among our Physicians, as to the Reason of this; some will have it to be in the Nature of the Disease, and that it impresses every one that is seized upon by it, with a kind of a Rage, and a hatred against their own Kind, as if there was a malignity, not only in the Distemper to communicate itself, but in the very Nature of Man, prompting him with evil Will, or an evil Eye, that as they say in the Case of a mad Dog, who tho' the gentlest before of any of his Kind, yet then will fly upon and bite any one that comes next him and those as soon as any, who had been most observed by him before.

Others placed it to the Account of the Corruption of humane Nature, which cannot bear to see itself more miserable than others of its own Specie, and has a kind of involuntary Wish, that all Men were as unhappy, or in as bad a Condition as itself.

p. 147 I choose to give this grave Debate a quite different turn, and answer it or resolve it all by saying, That I do not grant the Fact.

p. 152 . . . shutting up Houses . . . confined the distempered People, who would otherwise have been both very troublesome and very dangerous in their running about Streets with the Distemper upon them, which when they were delirious, they would have done in a most frightful manner; and as indeed they began to do at first very much, 'till they were thus restrained (...)

Here follows the account of a woman being attacked.

pp. 152–153 When she see he would overtake her, she turned, and gave him a Thrust so forcibly, he being but weak, and pushed him down backward: But very unhappily, she being so near, he caught hold of her, and pulled her down also; and getting up first, mastered her, and kissed her; and which was worst of all, when he had done, told her he had the Plague, and why should not she have it as well as he. She was frighten enough before, being also young with Child; but when she heard him say, he had the Plague, she screamed out and fell down in a Swoon, or in a Fit, which tho' she recovered a little, yet on her in a very few Days, and I never heard whether she had the Plague or no.

p. 225 (. . .) however the others aver the Truth of it, yet I rather chuse to keep to the public Account; seven and eight thousand per Week is enough to make good all that I have said of the Terror of those Times. (...)

And then the disease disappeared.

p. 230 However, in general, prudent cautious People did enter into some Measures for airing and sweetening their Houses, and burnt Perfumes, Incense, Benjamin, Rozin, and Sulphur in the Rooms close shut up, and then let the Air carry it all out with a Blast of Gun-powder; others caused large Fires to be made all Day and all Night, for several Days and Nights; by the same Token, that two or three were pleased to set their Houses on Fire, and so effectually sweetened them by burning them down to the Ground.

Typical English humor shows up under the serious countenance of the character, but the account is possible as the great epidemic comes to a close: in other words, better nothing than some new risk. In reference to the great 1666 fire of London

p. 230 (. . .) But the Time was not fully come, that the City was to be purged by Fire, nor was it far off; for within Nine Months more I saw it all lying in Ashes.

p.232 (. . .) The Circumstances of the Deliverance were indeed very remarkable, as I have in part mentioned already, and particularly the dreadful Condition, which we were all in, when we were, to the Surprise of the whole Town, made joyful with the Hope of a Stop of the Infection. Nothing, but the immediate Finger of God, nothing, but omnipotent Power could have done it; the Contagion despised all Medicine, Death rag'd in every Corner; and had it gone on as it did then, a few Weeks more would have clear'd the Town of all, and every thing that had a Soul. (...)

p.363 (. . .) In the Middle of their Distress, when the Condition of the City of London was so truly calamitous, just then it pleased God, as it were, by his immediate Hand to disarm this Enemy; the Poyson was taken out of the Sting, it was wonderful, even the Physicians themselves were surprised at it; wherever they visited, they found their Patients better, either they had sweated kindly, or the Tumours were broke, or the Carbuncles went down, and the Inflammations round them changed Color, or the Fever was gone, or the violent Headache was asswaged, or some good Symptom was in the Case; so that in a few Days, every Body was recovering (...)

p. 234. Nor was this by any new Medicine found out, or new Method of Cure discovered, or by any Experience in the Operation, which the Physicians or Surgeons had attain'd to; but it was evidently from the secret invisible Hand of him, that had at first sent this Disease as a judgment upon us; and the Atheistic part of Mankind call my Saying this what they please, it is no Enthusiasm; it was acknowledged at that time by all Mankind; the Disease was enervated, and its Malignity spent, and let it proceed from whatsoever it will, let the Philosophers search for Reasons in Nature to account for it by, and labour as much as they will to lessen the Debt they owe to their Maker; those Physicians, who had the least Share of Religion in them, were obliged to acknowledge that it was all supernatural, that it was extraordinary, and that no Account could be given of it.

p.235 (. . .) I can go no farther here, I should be counted censorious, and perhaps unjust, if I should enter into the unpleasant Work of reflecting, whatever Cause there was for it, upon the Unthankfulness and Return of all manner of Wickedness among us, which I was so much an Eye-Witness of my self; (. . .)

Daniel Defoe thus ends his account, noting gravely and not very optimistically on the wisdom of men. Did he not have the experience of an entire life when he wrote this pseudo-journal? Nonetheless it is the same man, Defoe, who a few years earlier had created Robinson Crusoe, raised to the heights of myth, a character who represents one of the constants of humanity, as his author says:

Invincible patience in the worse misfortune, the tireless and indomitable reason in the most discouraging circumstances.

### **Yesterday: From Dark Romanticism and the Gothic: Mary Shelley—and Byron—Edgar Allan Poe**

Gothic enters literature with the fairy tales (Charles Pairault, end of the seventeenth century, the Grimm brothers a century later), tales that were long claimed to be written for children, many of them containing all the ingredients and recipes of nineteenth century Gothic literature [9], today replaced by science fiction, although this also appears early, as demonstrated by the author and book we wish to speak of here: Mary Shelley. Infectious, contagious, epidemic disease was sometimes used by writers of this literary genre born with Romanticism (a dark Romanticism), which has endured—it reinforces the harrowing atmosphere and setting of the story, isolating, confining, or destroying, its heroes; or the epidemic is used as metaphor.

Mary Shelley (1797–1851). Through her life and work, Mary Shelley was one of the most surprising and even most extraordinary women of literary history, of history, nothing more and nothing less. Her mother, Mary Godwin, née Wollstonecraft, died in a purpura fever after giving birth to her daughter. Essayist and pamphleteer, she was one of the first feminists, and in 1792 published, among other things: *Demands for Women's Rights*. Her father, William Godwin (1756–1836) was a very well-known publicist, novelist, and philosopher of his time. A former pastor, he turned atheist under the influence of the French philosophers, “he devoted himself to the study of social matters. Questioning liberalism and the right to property, he formulated the principles of a society without government in which every member would benefit from shared work in proportion to his needs” [32]. This brilliant, knowledgeable father, an unusual character, gave Mary a highly original education for a girl at this time, raising her somewhat like a boy and teaching her subjects that were far from the usual education of young ladies. Her parents, her inborn intelligence and vivaciousness of spirit, literature (Godwin also tended a bookshop), philosophy, and the sciences made Mary a gifted child and adolescent. William Godwin also had an influence on the two great poets of English Romanticism, becoming their friend and mentor: Percy Bysshe Shelley (1792–1822) and George Gordon Noel

Byron, Lord Byron (1788–1824). This trio of men was to be, in one fashion or another, the men of Mary's life, men who were admired, venerated, then rejected, even hated.

In 1814, Mary became Shelley's mistress; although he was married, he divorced for her 2 years later. This is the time when they made friends with Byron, a great admirer of Godwin. With Mary's half-sister, Claire Clairmont, a year younger, the couple left for Geneva in May 1816, where they met up with Byron, who put them up in a luxurious villa that he had rented. Byron, just divorced after a scandalous affair (he had had an incestuous relation with his own half-sister), who was incapable of getting to know a woman without falling in love with her and desiring her, seduced Claire, who became his mistress for the summer (she gave birth to his child after their separation).

On the evening of June 16, 1816, on a rainy, stormy night, Byron suggests to his friends (a Geneva doctor, one of his friends, is also present) that they each write “a Gothic ghost story” (a fashionable theme with the Romantics). Byron and Mary set to work, the others have left no trace. The poet wrote a novel entitled *The Vampire*, which would be finished by his secretary; this text inaugurated a genre and a myth: the myth of the “lords of the night,” whose literary and film success has never ceased. For her part, Mary wrote the basic structure of a short story that she called “Frankenstein, or the Modern Prometheus.” Thus, on the same night, the two greatest myths of Gothic literature were born in the imaginative spirit of two brilliant young writers, one a man and one a woman. Mary developed and finished the novel in the following months—she was 19 years old. She had to wait until 1818 for a London publisher to publish it. She was disparaged as much as she was congratulated by her peers (among whom Walter Scott), but the book enjoyed considerable success.

Let us simply summarize the story, less well-known to today's public: Victor Frankenstein, a young Geneva scholar, dreams of making a perfect human, one who is handsome, good, and moral, who is protected from disease and epidemics. To reach his goal, he steals bodies in a neighboring cemetery (some have died of infectious diseases, the only relation to our subject). He manages to put the pieces together and give life to the reconstituted being. But his Creature is physically and physiognomically a monster, a 7-foot-tall monster, with a horrible face. Frankenstein, shattered, abandons the fruit of his work. But his creature is alive, endowed with a mind, intelligence, and sensitivity. He asks only that his creator make him a companion in his image to live in this world that he does not understand. When Frankenstein refuses, the Creature takes vengeance, kills, massacres, notably the young scholar's family that he pursues throughout the world with his hatred. After a last battle near the North Pole, the creator dies and the Creature disappears.

Mary Shelley took inspiration from conversations with her husband, a lover of the physical and natural sciences; she also knew the history of the German alchemist Nippel, “a thief of cadavers to search for the principle of life.” At this

time of passion for progress, the sciences, and technology, the young woman sensed the risks for humanity, for social and family life, of a science with no limits and with no conscience (Rabelais's famous "ruin of the soul"). She thought that scholars would become Prometheus, demiurges, who would end up believing they were God. The Creature is an unhappy living being seeking happiness, but who finds himself deprived of it. But he is no more than a parasite who can kill like an epidemic. This is how Frankenstein and Byron's imagined vampires relate to our subject.

Mary Shelley would soon suffer the misfortunes of life: the death of her young children, her great poet of a husband whom she adored, drowned in the Mediterranean, in the Gulf of Genoa in July 1822; and then, on April 16, 1824, her beloved great poet friend, Lord Byron, died in Greece. Contrary to what many believe, the foreign hero of Greek independence from the Turkish Empire, did not die on the battlefield, but of a rather mysterious fever (flue, typhus?) that took him in just a few days. Shelley, had tuberculosis. Mary wrote in her journal on May 15, 1824: "Why I am doomed to live on seeing all expire before me . . . at age 26 I am in the condition of an aged person, all my old friends are gone." The day before she had written: "The last man! Yes, I may well describe that solitary being's feelings, feeling myself as the last relic of a beloved race, my companions extinct before me." From these lamentations, this desolation, this solitude, this expression of despair, *The Last Man* was born, her second great novel, published in 1826. It was less famous than *Frankenstein*, but also important, at least for her—in her mind, the last man is herself!

The story takes place 2073: the kind of England has abdicated. Five characters: three men—Lionel, Adrian, and Lord Raymond—who will become the Lord Protector of England; two women—Idris, Adrian's sister who marries Lionel, Perdita, Lionel's sister who marries Lord Raymond. The five friends and relatives by marriage live a romantic life, travel, before Lord Raymond turns ambitious, and, with his repeated affairs and dreams of glory, shatters the harmony. This is the story of the Shelleys and the Byrons. Also represented, although ambiguously, is the father and guide, William Godwin. They will all die but one: Perdita kills herself, the others drown or die of the plague that ravages Europe and decimates humanity. Lionel Verney (Mary Shelley) is "the last man," more in a figurative sense than in the literal sense. Sumeeta Patnik [85], a current commentator, has written:

The spread of the plague throughout Europe is Mary Shelley's assessment of the failure of Shelley's utopian ideals to support his wife and children. (. . .) She repudiates Adrian's fragile sensibility and decision to never wed and take responsibility for a family—feelings that she shared about her late husband. For Mary Shelley, the plague serves as a metaphor for the failure of the utopian ideal. In her assessment, by rejecting utopian ideals, her father, Percy and Lord Byron have rejected the traditional values that keep a society and a family together and for Mary Shelley, that was their greatest failure. The novel can be viewed as Mary Shelley's way of coming to terms with the deaths of Lord Byron

and her husband as well the loss of the ideal that their lives represented. *The Last Man* is Mary Shelley's last Gothic novel and by 1829, which is considered the end of the Romantic period, the young widow has decided to move on.

### Mary Shelley (*The Last Man* [76]):

"Oh, that death and sickness were banished from our earthly home! That hatred, tyranny, and fear could no longer make their lair in the human heart . . . the choice is with us; let us will it, and our habitation becomes a paradise. For the will of man is omnipotent, blunting the arrows of death, soothing the bed of disease, and wiping away the tears of agony." (cited by Julie K. Schuetz).

### Edgar Allan Poe (1809–1849) "The Masque of the Red Death" [86]

Born in Boston, the son of poor actors and an orphan at 3 years of age, Poe was adopted by a rich tobacco plantation owner in Richmond, Virginia, John Allan. He studied in England and Virginia, quarreled with his adoptive father, attempted a military career but was dismissed from West Point in 1830, by which time he had already begun publishing poems. He moved in with his aunt in Boston and in 1835 he married his 14-year-old cousin, Virginia. A literary critic, in 1838 he published *The Narrative of Arthur Gordon Pym of Nantucket*, which influenced Joseph Conrad and Jules Verne, among others. The next year, he published his first *Tales of Grotesque and Arabesque*. An alcoholic and possibly addicted to drugs, he continued to write and publish his poetry (particularly prose poems). His work did not sell well; he remained in poor, even in poverty. The death of the woman he loved—Virginia in 1847—finished him. He was found dead one night in a stream in Baltimore. Long scorned in his country, his writing became a true cult in France, with Charles Baudelaire's wonderful translations. He influenced the history of French literature of the second half of the century. He remains the master of ratiocination and horror stories [33].

"The Masque of Red Death" is one of his beautifully written pieces, a short story that recounts in just four pages the captivating story of infection and death that could have lasted two hundred pages.

The "Red Death" had long devastated the country. No pestilence had ever been so fatal, or so hideous. Blood was its Avatar and its seal—the redness and horror of blood. There were sharp pains, and sudden dizziness, and then profuse bleeding at the pores, with dissolution. The scarlet stains upon the body and especially upon the face of the victim, were the pest ban which shut him out from the aid and from the sympathy of his fellow men. And the whole seizure, progress, and termination of the disease, were the incidents of half an hour.

But the Prince Prospero was happy and dauntless and sagacious. When his dominions were half depopulated, he summoned to his presence a thousand hale and light-hearted friends from among the knights and dames of his court, and with these retired to the deep seclusion of one of his castellated abbeys. (. . .) The courtiers, having entered, brought furnaces and massy hammers and welded the bolts. They resolved to leave means

neither of ingress nor egress to the sudden impulses of despair or of frenzy from within. (. . .) With such precautions the courtiers might bid defiance to contagion. The external world could take care of itself. In the meantime it was folly to grieve, or to think. The prince had provided all the appliances of pleasure. There were buffoons, there were improvisatory, there were ballet-dancers, there were musicians, there was Beauty, there was wine. All these and security were within. Without was the “Red Death.”

It was toward the close of the fifth or sixth month of his seclusion, and while the pestilence raged most furiously abroad, that the Prince Prospero entertained his thousand friends at a masked ball of the most unusual magnificence.

It was a voluptuous scene that masquerade. (. . .)

The author describes the seven ballrooms, lined one after another, their great doors open, each decorated in a different color, lighted through stained glass windows of the same color, with windows giving only onto lateral corridors with a great fire burning in front of each one. The last room was dressed in black, but with the stained glass windows in red. In this room there was a gigantic ebony clock, striking at each hour, the sound was so “clear and loud and deep and exceedingly musical, but of so peculiar a note and emphasis that, at each lapse of an hour, the musicians of the orchestra were constrained to pause, momentarily, in their performance, to harken the sound; and thus the waltzers perforce ceased their evolutions; and there was a brief disconcert of the whole gay company; and, while the chimes of the clock yet rang, it was observed that the giddiest grew pale, and the more aged and sedate passed their hands over their brows as if in confused reverie or medication.” (. . .)

But, in spite of these things, it was a gay and magnificent revel. The tastes of the duke were peculiar. (...) His plans were bold and fiery, and his conceptions glowed with barbaric lustre. (. . .) There were arabesque figures with unsuited limbs and appointments. There were delirious fancies such as the madman fashions. There was much of the beautiful, much of the wanton, much of the bizarre, something of the terrible, and not a little of that which might have excited disgust. To and fro in the seven chambers there stalked, in fact, a multitude of dreams. And these—the dreams—writhed in and about, taking hue from the rooms, (. . .)

(. . .) But to the chamber which lies most westwardly of the seven there are now none of the maskers who venture; for the night is waning away; and there flows a ruddier light through the blood-coloured panes; and the blackness of the sable drapery appalls (. . .)

But these other apartments were densely crowded, and in them beat feverishly the heart of life. And the revel went whirlingly on, until at length there commenced the sounding of midnight upon the clock. (...) and thus it happened, perhaps, that before the last echoes of the last chime had utterly sunk into silence, there were many individuals in the crowd who had found leisure to become aware of the presence of a masked figure which had arrested the attention of no single individual before. And the rumor of this new presence having spread itself whisperingly around, there arose at length from the whole company a buzz, or

murmur, expressive of disapprobation and surprise—then, finally, of terror, of horror, and of disgust.

In an assembly of phantasms such as I have painted, it may well be supposed that no ordinary appearance could have excited such sensation. In truth the masquerade licence of the night was nearly unlimited; but the figure in question had out-Heroded Herod, and gone beyond the bounds of even the prince’s indefinite decorum. There are chords in the hearts of even the most reckless which cannot be touched without emotion. Even with the utterly lost, to whom life and death are equally jests, there are matters of which no jest can be made. (...) The figure was tall and gaunt, and shrouded from head to foot in the habiliments of the grave. The mask which concealed the visage was made so nearly to resemble the countenance of a stiffened corpse that the closest scrutiny must have had difficulty in detecting the cheat. (...) But the mummer had gone so far as to assume the type of the Red Death. His vesture was dabbled in *blood*—and his broad brow, with all the features of the face, was besprinkled with the scarlet horror.

When the eyes of the Prince Prospero fell upon this spectral image (which, with a slow and solemn movement, as if more fully to sustain its *rôle*, stalked to and fro among the waltzers) he was seen to be convulsed in the first moment with a strong shudder either of terror or distaste; but, in the next, his brow reddened with rage.

The prince gave the order to lay hold of the hideous individual. He stood with “a group of pale courtiers by his side.” The mask advanced “with a deliberate and stately step,” coming closer to the prince. Nobody dared to stop him. He goes from room to room, to return to the black and red room. Exasperated, he rushed after him, with a dagger in his hand. The strange and terrible individual turned toward him. “There was a sharp cry—and the dagger dropped gleaming upon the sable carpet, upon which, instantly afterward, fell prostrate in death the Prince Prospero.”

Then, summoning the wild courage of despair, a throng of the revelers at once threw themselves into the black apartment, and, seizing the mummer, whose tall figure stood erect and motionless within the shadow of the ebony clock, gasped in unutterable horror at finding the grave ceremonies and corpse-like mask, which they handled with so violent a rudeness, untenanted by any tangible form.

And now was acknowledged the presence of the Red Death. He had come like a thief in the night. And one by one dropped the revellers in the blood-bedewed halls of their revel, and died each in the despairing posture of his fall. And the life of the ebony clock went out with that of the last of the gay. And the flames of the tripods expired. And Darkness and Decay and the Red Death held illimitable dominion over all.

**40.2.3.4 From real to fiction: *The Plague* by Albert Camus [12]** Because he wrote at the end of the Second World War and because he exalted human solidarity in the face of malevolence, this novel by Albert Camus was considered an allegory of the political violence that the world had just come through, one of total brutality and extreme cruelty,

through the fault of a totalitarian regime: the plague is Naziism, and the rats the symbol of human malevolence. The author refutes nothing. What interested him was the behavior of men in a context of terror, in this case, caused by nature. His last page shows that, for him, one must always remain hopeful, and “that there are more things to admire in men than to despise.” But this optimist is misleading and, as the following commentary, *The “Robert Surname Dictionary”* [33], says: “The tale symbolizes the absurdity of the human condition, against which there are only ephemeral victories,” which is said loud and clear at the end of the book’s last sentence: “the day would come when, for the bane and the enlightening of me n, it would rouse up its rats again and send them forth to die in a happy city.”

The novel recounts an epidemic of the plague in Oran (where Camus was born), although imaginary, there had been a few contained epidemics of plague in Algeria during the 1930s and 1940s. The story is a third person account of the daily life of a doctor, Doctor Rieux, during the catastrophe, whose entire life and medical vocation must have prepared him for this, and who does his best to do his duty with humility. (“The thing was to do your job as it should be done.”) This is a tale told in a neutral tone, at times minimalist, almost modest, with rare outbursts of lyricism. The narrator is revealed at the end of the book to be Doctor Rieux. Camus describes with great precision what could be the administrative and social situation of a population, confined to the town because of a modern epidemic.

We begin with Camus’s sentence, which, after a few pages presenting the town, opens his tale with the discovery of dead rats.

(p. 15) But the situation worsened in the following days. There were more and more dead vermin in the streets, and the collectors had bigger truckloads every morning. On the fourth day the rats began to come out and die in batches. From basements, cellars, and sewers they emerged in long wavering files into the light of day, swayed helplessly, then did a sort of pirouette and fell dead at the feet of the horrified onlookers.

Roughly 60 years ago, in Camus’s time, science knew nearly everything there was to know about the plague and its cycle: lethal bacillus, the flea as reservoir that then bites and infects the rat and humans. However, the image of sick rats fleeing their subterranean gloom to come out and die in the open air, in the light, and in contact with humans remains just as powerful.

(p. 17) M. Michel’s eyes were fever-bright and he was breathing wheezily. The old man explained that, feeling “a bit off color,” he had gone out to take the air. But he had started feeling pains in all sorts of places—in his neck, armpits, and groin—had been obliged to turn back and ask Father Paneloux to give him an arm.

(p. 22) (. . .) Two hours later the doctor and Mme. Michel were in the ambulance bending over the sick man. Rambling words were issuing from the gaping mouth, thickly coated now with sordes. He kept on repeating: “Them rats! Them damned rats!” His face had gone livid, a grayish green, his lips were

bloodless, his breath came in sudden gasps. His limbs spread out by the ganglia, embedded in the berth as if he were trying to bury himself in it or a voice from the depths of the earth were summoning him below, the unhappy man seemed to be stifling under some unseen pressure. His wife was sobbing.

As did other writers of the twentieth century who used an infectious disease in their writing, Camus did his research and precisely described the disease and its symptoms on patients and victims. But the writer’s art reinforces the descriptions—the following quotation ends in a short, few word phrase that says it all: the patient is going to die and his wife, like the doctor, knows it.

(p. 35–36) I was in China for a good part of my career, and I saw some cases in Paris twenty years ago. Only no one dared to call them by their name on that occasion. The usual taboo of the public mustn’t be alarmed, that wouldn’t do at all. And then, as one of my colleagues said, “It’s unthinkable. Everyone knows it’s ceased to appear in western Europe.” Yes, everyone knew that—except the dead men. Come now, Rieux, you know as well as I do what it is.

(p. 37) (. . .) Everyone knows that pestilences have a way of recurring in the world; yet somehow we find it hard to believe in ones that crash down on our heads from a blue sky. There have been as many plagues as wars in history; yet always plagues and wars take people equally by surprise. (. . .) Stupidity has a knack of getting its way; as we should see if we were not always so much wrapped up in ourselves. (. . .) A pestilence isn’t a thing made to man’s measure; therefore we tell ourselves that pestilence is a mere bogey of the mind, a bad dream that will pass.

Camus, like his predecessors, could not miss the analogy between plagues and war.

(p. 39) (. . .) He must fix his mind, first of all, on the observed facts: stupor and extreme prostration, buboes, intense thirst, delirium, dark blotches on the body, internal dilatation, and, in conclusion. . . In conclusion, some words came back to the doctor’s mind; aptly enough, the concluding sentence of the description of the symptoms given in his medical handbook: “The pulse becomes fluttering, dicrotic, and intermittent, and death ensues as the result of the slightest movement.” Yes, in conclusion, the patient’s life hung on a thread, and three people out of four (he remembered the exact figures) were too impatient not to make the very slight movement that snapped the thread.

(p. 40) The carnival of masked doctors at the Black Death; men and women copulating in the cemeteries of Milan; cartloads of dead bodies rumbling through London’s ghoul-haunted darkness—nights and days filled always, everywhere, with the eternal cry of human pain.

In every widespread epidemic, the grotesque, the pathetic, inversion, pleasure—first of all charnel, sensual—marries suffering, fear, and terror.

(p. 63) On the day when the death-roll touched thirty, Dr. Rieux read an official telegram that the Prefect had just handed him, remarking: “So they’ve got alarmed at last.” The telegram ran: Proclaim a state of plague stop close the town.

(p. 77) (. . .) commerce, too, had died of plague.

(p. 80) (. . .) One of the cafés had the brilliant idea of putting up a slogan: “The best protection against infection is a bottle of good wine,” which confirmed an already prevalent opinion that alcohol is a safeguard against infectious disease.

Superstitions and magical cures are a big success during an epidemic.

(p. 81) (. . .) One of [the stories] was about a man with all the symptoms and running a high fever who dashed out into the street, flung himself on the first woman he met, and embraced her, yelling that he’d “got it.”

Is this not the writer’s stage effect? Or the expression of a reality: the morbid desire to share one’s pain, forcefully if necessary, with the first stranger to be found, and perhaps infect him? Undoubtedly both. It is well known that in the beginnings of the AIDS epidemic, the stricken voluntarily contaminated others.

(p. 91) (. . .) Rieux had learned that he need no longer steel himself against pity. One grows out of pity when it’s useless.

(p. 92) (. . .) These manifestations of public piety were to be concluded on Sunday by a High Mass celebrated under the auspices of St. Roch, the plague-stricken saint.

(p. 93) (. . .) Even Tarrou, after recording in his notebook that in such cases the Chinese fall to playing tambourines before the Genius of Plague, observed that there was no means of telling whether, in practice, tambourines proved more efficacious than prophylactic measures.

Belief, faith, although they did not cure, they did not worsen the sickness—it is like Pascal’s wager.

(pp. 122–123) As usual! That was to say the new consignment of serum sent from Paris seemed less effective than the first (. . .). Most of the buboes refused to burst—it was as if they underwent a seasonal hardening—and the victims suffered horribly. During the last twenty-four hours there had been two cases of a new form of the epidemic; the plague was becoming pneumonic. On this very day in the course of a meeting, the much-harassed doctors had pressed the Prefect—the unfortunate man seemed quite at his wits’ end—to issue new regulations to prevent contagion being carried from mouth to mouth as happens in pneumonic plague. The Prefect had done as they wished, but as usual they were groping, more or less, in the dark.

In speaking of the authorities, Camus says:

(p. 124) (. . .) What they’re short on is imagination. Officialdom can never cope with something really catastrophic.

Most people had little experience of scourges, and collective memory forgets quickly. How could one imagine and live through the unspeakable? Today we have television; but the natural or human dramas and tragedies “only happen to others,” don’t they?

(p. 131) (. . .) The narrator does not share that view. The evil that is in the world always comes of ignorance, and good intentions

may do as much harm as malevolence, if they lack understanding. On the whole, men are more good than bad; that, however, isn’t the real point.

(p. 168) (. . .) the ambulances clanging past, sounding the plague’s dismal, passionless toxin under their windows.

(p. 179) (. . .) by reason of their very duration great misfortunes are monotonous. In the memories of those who lived through them, the grim days of plague do not stand out like vivid flames, ravenous and inextinguishable, beaconing a troubled sky, but rather like the slow, deliberate progress of some monstrous thing crushing out all upon its path.

(p. 181) (. . .) Indeed, to some, Dr. Rieux among them, this precisely was the most disheartening thing: that the habit of despair is worse than despair itself.

(p. 182) (. . .) For there is no denying that the plague had gradually killed off in all of us the faculty not of love only but even of friendship.

In daily routines of the disease’s ravages, the best sentiments of humanity are lost, and this is almost worse than the loss of one’s loved ones.

(p. 214) The doctor’s hands were gripping the rail of the bed, his eyes fixed on the small tortured body. Suddenly it stiffened, and seemed to give a little at the waist, as slowly the arms and legs spread out X-wise. From the body, naked under an army blanket, rose a smell of damp wool and stale sweat. The boy had gritted his teeth again. Then very gradually he relaxed bringing his arms and legs back toward the center of the bed, still without speaking or opening his eyes, and his breathing seemed to quicken. Rieux looked at Tarrou, who hastily lowered his eyes.

They had already seen children die—for many months now death had shown no favoritism—but they had never yet watched a child’s agony minute by minute, as they had now been doing since daybreak. Needless to say, the pain inflicted on these innocent victims had always seemed to them to be what in fact it was: an abominable thing. But hitherto they had felt its abomination in, so to speak, an abstract way; they had never had to witness over so long a period the death-throes of an innocent child.

Infectious diseases do not spare innocent children—on the contrary! we could say. Camus could only be remembering that the recently ended Second World War had killed thousands of children, many more than all the other wars: the great plague, natural, was becoming truly human.

(p. 227–228) At this point Father Paneloux evoked the august figure of Bishop Belzunce during the Marseille plague. He reminded his hearers how, toward the close of the epidemic, the Bishop, having done all that it behooved him, shut himself up in his palace, behind high walls, after laying in a stock of food and drink. With a sudden revulsion of feeling, such as often comes in times of extreme tribulation, the inhabitants of Marseille, who had idolized him hitherto, now turned against him, piled up corpses round his house in order to infect it, and even flung bodies over the walls to make sure of his death. Thus in a moment of weakness the Bishop had proposed to isolate himself from the outside world—and, to and behold, corpses rained down on his head! This had a lesson to us all; we must convince ourselves that there is no island of escape in time of plague. No,

there was no middle course. We must accept the dilemma and choose either to hate God or to love God. And who would dare to choose to hate Him?

The author, not much of a believer if not a nonbeliever, like his character can only be resigned to come back to the Christian roots of his culture: “There was no middle course.”

(p. 307) (. . .) but tonight they told not of revolt, but of deliverance. (. . .)

From the dark harbor soared the first rocket of the firework display organized by the municipality, and the town acclaimed it with a long-drawn sigh of delight. Cottard, Tarrou, the men and the woman Rieux had loved and lost—all alike, dead or guilty, were forgotten. Yes, the old fellow had been right; these people were “just the same as ever.” But this was at once their strength and their innocence, and it was on this level, beyond all grief, that Rieux could feel himself at one with them. And it was in the midst of shouts rolling against the terrace wall in massive waves that waxed in volume and duration, while cataracts of colored fire fell thicker through the darkness, that Dr. Rieux resolved to compile this chronicle, so that he should not be one of those who hold their peace but should bear witness in favor of those plague-stricken people; so that some memorial of the injustice and outrage done them might endure and to state quite simply what we learn in time of pestilence: that there are more things to admire in men than to despise.

Nonetheless, he knew that the tale he had to tell could not be one of a final victory. It could be only the record of what had had to be done, and what assuredly would have to be done again in the never ending fight against terror and its relentless onslaughts, despite their personal afflictions, by all who, while unable to be saints but refusing to bow down to pestilences, strive their utmost to be healers.

And, indeed, as he listened to the cries of joy rising from the town, Rieux remembered that such joy is always imperiled. He knew what those jubilant crowds did not know but could have learned from books: that the plague bacillus never dies or disappears for good; that it can lie dormant for years and years in furniture and linen-chests; that it bides its time in bedrooms, cellars, trunks, and bookshelves; and that perhaps the day would come when, for the bane and the enlightening of men, it would rouse up its rats again and send them forth to die in a happy city

Camus’s novel, on the terrible theme of the plague, is capable of both moving and appeasing the reader. It is indeed the work of a great artist.

Albert Camus, 1913–1960, was also a great journalist and essayist, a great playwright and novelist, and Nobel Prize awardee in Literature. Camus did not die of the plague, nor of tuberculosis, cured with antibiotics, but died at 46 years of age in an automobile that hit a tree—he was not driving.

#### 40.2.4 Cholera, the Blue Plague

Cholera is caused by the *Vibrio cholerae* bacterium, disseminated through the fecal–oral route as a consequence of sewage and fecal contamination of drinking water and food. It is now widely recognized that the disease was endemic in South Asia for at least 2000 years, especially in the delta lands

of Ganges in West Bengal and Bangladesh, from which it spread periodically in epidemic form.

#### Jean Giono, *Le Hussard sur le Toit* [38]

This French writer (1895–1970) would have been awarded the highest honors and the greatest prizes if he had not voluntarily kept himself isolated from the society of his time. His unwavering pacifism sent him to prison. After the Second World War, he changed the style of his writing from the earthy lyricism of his peasant novels, then his militant works, to a more lively and enthusiastic writing in the remainder of his major novelistic works, what can be called the Angelo cycle from the name of the central character, notably two epic novels, *The Horseman on the Roof* (1951) and *The Straw Man* (1957). Angelo was an aristocratic character, both in background and temperament, but he remains at the edges of society and law, “cultivating the art of not getting fooled” and feels “at the height of happiness” in exercising his freedom [33].

The 1832 cholera epidemic in Provence and elsewhere, one of the first in Europe, is the mold for *The Horseman*. Without it, the novel could not have been constructed as it was, nor even exist. Giono needed to place his heroes and all the characters swarming around them in an extraordinary dramatic context: the terrifying epidemic provided it, and later the war for the continuation of Angelo’s adventures. *The Horseman* story can be summarized as follows:

Angelo Pardi, a young Italian, is the only, but illegitimate, son of a great aristocrat woman won over by democratic ideals. She bought him a colonel’s commission and he commanded a regiment of horsemen of the kingdom of Piedmont Sardinia. A supporter of the Risorgimento and Carbonarism, in a duel Angelo kills a double agent of the Austrian Empire. Wanted, he hides in France, living in the regions of Aix-en-Provence and Marseille among the exiled Italians. With his affair being sorted out by his influential mother, he decides to go home, but clandestinely. He heads toward the Alps through northern Provence. The reader finds him at the beginning of the novel on horseback, in the middle of the summer, a few leagues from Manosque, where in a small hamlet he discovers all the inhabitants dead of a violent disease, that he later learns is cholera, a new disease that has just landed on the western shores of the Mediterranean. The rest of the novel narrates the hero’s adventures and mishaps through the cholera epidemic. He takes refuge in Manosque, living for a time on the rooftops to keep himself away from all human contact. In a house that he believed is deserted, he fleetingly meets a young woman who becomes the heroine of the story: Pauline, wife of the old count de Théus, who is going to join in their castle of the Hautes-Alpes. Angelo withdraws as a gentleman. Later he joins an old nun, who, now that her fellow-nuns have fled, spends her time roaming the streets to wash the dead. He escapes a lynching by the crowd, runs away from the police, and so on. He leaves Manosque, meets a group of his countrymen, one of whom is his foster brother, and then continues his journey alone. He

meets Pauline again at a military roadblock; she accepts his company and protection, but they get arrested at another roadblock. Locked up in a fortress with other people wasting away as they wait in quarantine for the infection, they flee. Later, in a small mountain village where they are soaked by an autumn rain, an old solitary doctor withdrawn to the village, erudite by somewhat misanthropic, takes them in for the night. He tells them of the cholera in a colorful language, full of images. The next morning they leave. At dawn, Pauline collapses, invaded by the disease. Angelo cares for her with every possible means he has garnered. Until this time he had not succeeded in saving a single cholera victim, despite his struggles and the risks he had undergone. Finally he is successful. A few days later they are in Théus. The husband is absent; there is only the elder sister of the count and a few servants. We suspect that Angelo and Pauline can finally love each other carnally, but duty calls her as a wife, and he has married in Italy. They leave each other. Angelo returns to his country. "He was beside himself with joy."

We have extracted from the novel the following quotations, nearly all of them concerning cholera. In the first one, it is a second-class naval doctor at the naval base in Toulon, who has just autopsied a man and diagnosed cholera. His admiral was napping and he must wait before announcing the event. He is thinking about what he will say:

(pp. 27–28) "What makes me sick," he said to himself, "is being obliged to argue; having to explain matters when, in my fellow from the *Melpomène*, everything is explained clearly, positively, and beyond argument. . . . Bring them the whole thing on a platter, all cut out and prepared ahead of time for the mathematical demonstration of the connections, highly disrespectful toward rank and society, between the distant exaltation of great rivers and the snuffing-out of, day, a hundred thousand human lives. Easier to explain with proofs at one's fingertips.

"Look: the viscous appearance of the pleura—see? And the contracted left ventricle; and the right ventricle full of a blackish coagulum; and the cyanosis of the esophagus, and the detached epithelium, and the intestines swollen with matter that I might liken, sir, in order to facilitate your comprehension of science, to rice-water or whey. Let's open him up, Admiral whose siesta must not be disturbed, let's open up the six feet of the *Melpomène's* quartermaster; dead at noon, Admiral, while you were sipping your coffee and your couch was being prepared; dead at noon, blown up by the Indus Delta and the air pump of the Upper Ganges Valley. Intestines the color of pink hydrangeas; glands isolated, protruding as large as grains of millet or even hempseed; the *plaques de Ryer* gritty; tumefaction of the follicles, what we call psoriasis; vascular repletion of the spleen; greenish soup in the ileocaecale valvule; and the liver marbled: all this in the six feet of the *Melpomène's* quartermaster, stuffed like a stinkball. I'm just a junior officer, Admiral, but I can assure you that we have her a bomb capable of blowing up this country in five seconds like a bloody grenade."

Jean Giono had read all of the documentation on cholera gathered in the nineteenth century. He shows in this scene with the doctor how the art of the writer can transform a pre-

cise scientific description into a literary purple passage. There are others throughout the book—*The Horseman on the Roof* is an epic and picaresque novel but also a manual on cholera.

The two bodies in the following passage are those of a young health officer—the one who told him about which disease he was facing—dead in his arms, and a young boy that they had taken in.

(p. 55) Angelo spent a terrible night beside the two corpses. He was not afraid of contagion. He didn't think about it. But he dared not look at the two faces, as the firelight flickered over them, their drawn-back lips baring jaws with dog's teeth ready to bite. He did not know that people dead of cholera are shaken with spasms and even waver their arms at the moment when their nerves relax, and when he saw the young man move his hair stood on end; but he rushed to massage his legs and continued to massage them for a long time.

Then Angelo is in Manosque. For the first time he sees the death cart pass. The image, the scene is almost a ritual in all the epidemic narratives.

p. 104 . . . he heard, coming from a side street, the rumbling and creaking of a heavily laden cart. He hid behind a tree trunk and saw two men appear, each holding up a torch. They were escorting a wagon drawn by two strong horses. Four or five other individuals, in white blouses and carrying picks, spades, and more torches, walked beside the wheels. It was a load of coffins, and even corpses simply wrapped in sheets. Arms, legs, heads wagging on long, thick, flabby necks, stuck out through the side racks.

Below: At this time—Pasteur is a child—the microorganisms later called bacteria have not yet been recognized as responsible for infectious diseases. But perhaps some were already evoking them. And the novelist has the right to be anachronistic and to place an echo of the debates of the time in his hero's head: literature has often been made in the futuristic and science fiction.

p. 142. I don't believe the plague's a bearded man, but I'm quite sure it's a little animal, much smaller than a fly and perfectly capable of inhabiting a chair cover or a web of a tapestry.

p. 144. You know it's simply a question of little creatures smaller than flies, which give people cholera.

Later, this image of abandoned children who die in solitude, hiding themselves like animals, is exaggerated, but it was undoubtedly often the case. That too is the horror of the great catastrophes that tormented humanity, a victim of its excesses and its abuses.

p. 161 . . . a new order (called for the moment disorder) was abruptly organizing life within new horizons. Very few were still able to believe in the virtues of the old cardinal points. They no longer kissed the children. Not to protect them; to protect themselves. Moreover the children all had rigid bearing, monolithic, with wide eyes, and when they died, it was without a word or a groan and always far from their homes, burrowing into a dog kennel, or into a rabbit warren, or hutches, or curled up in the big baskets used for brooding turkeys.



In the worst situations, there are always people capable of practicing compassion and showing respect

p. 170. They washed abandoned corpses. They could not be all that they found in the night; they lay in every corner. Some were sitting up; they had been deliberately arranged to look like persons resting. The others, thrown down anyhow, would be hidden under filth . . .

They washed only the foulest. They carried them one by one to the side of a fountain. They undressed them. They scrubbed them with plenty of water. They laid them out neatly to be picked up when day came.

p. 174. The nun's chief care was to prepare the bodies for the Resurrection. She wanted them clean and decent for that occasion . . . "I'm a housekeeper; I'm doing my job."

She was very taken aback one night when, after throwing some buckets of water over a corpse, it opened its eyes, then sat up and asked why it was being treated in this way.

It was a man still in the prime of life. He had fainted in a fit of cholera and been taken for dead.

And the animals also change:

p. 210. It's been noticed, too, that when a horse refuses, it's always a very bad sign for the person or house it refuses . . . The dogs: naturally there's the dogs belonging to all those who have died, and they wander all over the place, feeding on corpses. But they don't die; on the contrary, they grow fat and give themselves airs; they no longer want to be dogs.

In a single colorful sentence, the author expresses the spread of the epidemic that is devouring everything in its passage:

p. 246. The cholera was now stalking like a lion over towns and woods.

And then derision masks disobedience:

p. 288. "The stage of absolute funk (they don't beat about the bush). The stage of masquerades, carnivals on the *corso*. People dress up as Pierrots, Harlequins, Columbines, clowns, to get away from death. They wear masks, they put on cardboard noses, false mustaches, false beards, they paint themselves ludicrous faces, they play at '*après moi le déluge*' vicariously. We're right back in the Middle Ages, sir. At every crossroads they're burning straw effigies entitled 'Father Cholera'; they insult it, they laugh at it. They dance around it and then go home to die of fear or diarrhea."

We arrive at the last scene of the novel, with two episodes that deserve to be cited in greater length. First Angelo and Pauline, spending the evening at an old doctor's, a man come out of the worst, who, in his way, tells them of the cholera and what it does to men, their minds, and their bodies:

p. 394. "It's comical," said the big man in the riding-coat. "We're having an epidemic of fear. Right now, if I were to call a yellow armband 'cholera' and make a thousand people wear it, the thousand would die in a fortnight." . . .

"I've practiced medicine for over forty years. I know perfectly well that the cholera isn't the outcome of pure imagination. But if

it spreads so easily, if it has what we call this 'epidemic violence,' that's because by the continual presence of death it enhances everybody's huge congenital egoism. People die, literally, or egoism."

The egoism of the patient who ends up reveling in his suffering? Or the egoism that believes it is still healthy and flees the other? But cholera, like all plagues, is not a psychosomatic disease.

p. 404. While a camel lies in its death throes in the dust of Karakorum, a shopgirl is drinking champagne in a café, a family of crocodiles is descending the Amazon, a herd of elephants is crossing the equator, a llama with a load of borate of soda is spitting in its driver's face on a path in the Andes, a whale is floating between Cape North and the Lofoten Islands, and it's the Feast of the Virgin in Bolivia. The terraqueous globe revolves, heavens knows why or how, in solitude and shadow.

And such is the fate of each one. What good is it believing. . . .

They had paid him the honor, he believed, of asking him about cholera; he was now ready to reply.

"Enter, let us enter into these five or six cubic feet of flesh about to become cholera-stricken."

"What happened in the beginning? Nobody can tell us."

p. 406. "That is the moment when the cholera victim's face reflects that stupor said to be characteristic. His debilitated joys are terrified today by something other than their own weakness; by some unknown thing from which they flee far beyond true north and are lost to view."

"Fear gives wings and wit. The day darkens. The stupor is not enough: one has to stagger, fall on the spot: at table, in the street, in love, in hate, and attend to far more intimate, personal, and passionate things."

Disease takes you, takes you over, subjugates you. Nothing else counts any more.

p. 408. Yet people continued to be surprised at the indifference shown by cholera victims to those around them and to the courage and devotion often spent upon them. "In most illnesses, the sick person takes an interest in those who are looking after him. Patients on the point of death have been seen shedding tears over their loved ones or asking for news of Aunt Eulalie. The cholera victim is not a patient: *he's an impatient*. He has just understood too many essential things. He's in a hurry to know more. That's all that interests him, and if you both caught the cholera you'd cease to mean anything to each other. *You'd have found something better.*"

p. 409. "Your cholera victim is prodigiously interested. His one aim from now on is to know more.

"What is it he's feeling? Banal things: his feet are cold. His hands icy. He's cold in what are called the extremities. His blood is receding, rushing to the site of the spectacle."

"Generally, there's nothing to be done. Poultices for wooden legs—as you can imagine, there's an infinite variety of them. Calomel is one. No, I haven't got any. What should I do with it? Sirup of gum perfumed with orange blossom is another. We have a choice between leeches at the anus and bloodletting—one doesn't need much erudition to think of these in such cases. We

can pass from clysters to cachou, from ratany to quinine, mint, camomile, lime, balm. In Poland they give a grain of belladonna; in London two grains of subnitrate of bismuth. Some try cupping the epigastrium, or mustard plasters on the abdomen. Some administer (it's a pretty word) hydrochlorate of soda or acetate of lead."

"... we keep on looking for a specific capable of neutralizing the toxic attack, according to the formula of learned persons ..."

All folk remedies or scientists remedies are no more than placebos when confronted with a new evil. Everything is tried but it is too late: The disease has already gone elsewhere.

p. 410–411. "The cholera victim no longer has any face: he has a *facies*—a *facies* that *could only mean cholera*. The eye, sunk deep in its socket and seemingly atrophied, is surrounded by a livid circle and half covered by the upper eyelid. It expresses either great agitation of the soul or a sort of annihilation. The sclerosis, now visible, is smitten with ecchymosis; the pupil is dilated and will never contract again. These eyes will never have tears again. The lashes, the lids are impregnated with a dry, grayish matter. Eyes that remain wide open in a rain of ashes, gazing at halos, giant fireflies, flashes of lightning.

"The cheeks have lost their flesh, the mouth is half open, the lips glued to the teeth. The breath passing through the narrow dental arcades becomes loud. It's like a child imitating an enormous kettle. The tongue is swollen, flabby, rather red, covered with a yellowish coating.

"The chill, first felt in the feet, knees, and hands, tends to invade the whole body. Nose, cheeks, ears are frozen. The breath is cold, the pulse slow, extremely weak, toward the decline of physiological existence.

"Now in this condition the victim answers with lucidity if questioned. His voice is hoarse but he doesn't wander. He sees clearly, and *from both sides*. When he chooses, it is with full awareness."

p. 411. "Some of my colleagues, who aren't all blind, have spoken of 'choleric asphyxia.' I even thought for a moment that they were capable of understanding and expressing a little more than science whispers into their ears, when they added this charming remark—and how true!—"The air still reaches the blood, but the blood doesn't reach the air."

"I've often thought that there is perhaps a moment when the cholera victim suffers, suffers horribly, not in his pride as hitherto (that's what is pushing him on) but, at last, in his love, and this might hold him back on our side."

pp. 412–413. The invalid is in an extreme state of agitation. He tries to rid himself of every covering, complains of unbearable heat, feels thirsty; forgetting all modesty, he flings himself out of bed or furiously uncovers his sexual parts. And yet his skin has turned cold and soaked with an icy sweat, which soon becomes sticky and gives to anyone touching it the disagreeable impression of contact with a cold-blooded animal.

"The pulse becomes more and more faint but it is still very rapid. The extremities take on a bluish tinge. The nose, ears, fingers suffer cyanosis; similar patches appear on the body.

"The emaciation we have noted in the face has extended all over. The skin has lost its elasticity, and *retains the crease if one pinches it*.

"The voice is extinguished. The patient now speaks only in sighs. The breath has a sickening smell, impossible to describe but unforgettable once one has smelled it.

"Calm comes at last. Death is not far off.

"I've seen some come out of this coma, sit up and for several seconds look for air; put their hands to their throats and, with a pantomime as painful as it is expressive, indicate to me an appalling strangling sensation.

"The eyes are turned up, their brilliance has vanished, the cornea itself has thickened. The gaping mouth reveals a thick tongue covered with ulcers. The chest no longer rises. A few sighs. It is over. He knows what to think of the outward marks of respect.

The doctor has given his lesson. Each one can go and rest. Angelo and Pauline take up the road again the next morning, as indicated by their host.

pp. 414–415. It was warm—one of those autumn days that seem like spring . . . A light wind, flecked with cold, gave the air an unparalleled vigor and virtue. Even the mule was happy . . .

The young woman walked along gaily and, like Angelo, kept exclaiming over the clarity of the sky, the beauty of the camellia-colored mountains lost in morning mist, toward which they were heading.

The day passes, a happy one. And, as twilight approaches

pp. 416–417. But she was looking at him stupidly. Before he could cry: "What's the matter, Pauline?" she gave a sort of reflection of a still charming little smile and dropped down, slowly, folding her knees, bending her neck, her arms dangling.

As he rushed to her side, she opened her eyes and plainly tried to speak, but belched out a small flood of white, clotted matter, like rice paste.

This is precisely how the cruel disease takes you down, after having ruminated in you for a long moment without your feeling it.

p. 417. Angelo tore the pack off the mule, spread his big cloak on the grass, and wrapped the young woman in it. He tried to make her drink some rum. Her neck was already as hard as wood and yet it shuddered, as if from tremendous blows struck deep inside her.

Angelo listened to those strange appeals to which the whole body of the young woman was responding.

Here, our hero no longer wants to lose against evil. He rebels. Everything that he has learned through his contact with the epidemic and the dying, and the lesson bestowed by the old doctor, came back to him. He attacks the victim to save her. Because he is a man, and warrior, because she is a woman, and perhaps obedient, it is like rape.

p. 417. He pulled off the young woman's boots. Her legs were already stiff. Her calves were trembling. Her straining muscles protruded from the flesh. From her mouth, still plastered with its flow of rice, came little, shrill moans. He noticed that her lips were curling back over her teeth and that the young woman had a sort of cruel, almost carnivorous laugh on her face. Her cheeks

were fallen in and palpitating. He began to massage her icy feet with all his strength.

... He had also to light a fire and heat some big stones.

pp. 418–419. Angelo had placed some large pebbles in the fire. When they were very hot, he wrapped them in some linen and laid them close to the young woman's stomach. But the feet had turned purple. He began to massage again. He could feel the cold fleeing from his fingers and climbing up the leg. He raised the skirts. An icy hand seized his.

"I'd rather die," said Pauline.

Angelo gave some answer, he knew not what. That voice, though a stranger's, put him in a sort of tender rage. He shook off the hand brutally and tore out the laces binding the skirt at the waist. He undressed the young woman the way one skins a rabbit, dragging off the petticoats and drawers bordered with lace. He immediately massaged the thighs but, feeling them warm and soft, he withdrew his hands as though from live charcoal and returned to the legs and knees, which were already in a grip of ice and turning blue. The feet were snow-white. He uncovered the belly and studied it attentively. He felt it with both hands, all over. It was supple and warm but traversed with shudders and cramps. He could see it was inhabited by bluish shapes, swimming about and rising to strike the surface of the skin.

The young woman's groans now came rather loudly with each spasm. They made a continuous complaint, betraying no very great pain but accompanying the deep workings of some sort of ambiguous state, which was waiting, even hoping (or so it seems), for a paroxysm when the cry would become savage and, as it were, delirious. These spasms that shook the whole body recurred every minute, making Pauline's stomach and thighs crack and arch each time, leaving her exhausted under Angelo's hands after each assault.

He never stopped massaging ... He at once attacked the thighs, which were beginning to be peacock-patterned with blue spots. He renewed the little nest of burning-hot stones around the stomach.

... Pauline had begun to foul herself below. He cleaned everything carefully and placed under her buttocks a draw-sheet made of embroidered underclothes that he had taken out of the little case.

"She must be forced to drink some rum," he thought. ... He struggled to unlock the teeth. He succeeded. The mouth opened. "The smell isn't nauseating," he thought, "no, it doesn't smell bad." He poured in the rum, little by little. At first it was not swallowed, but then the alcohol vanished like water in sand.

He automatically raised the bottle to his own lips and drank ... but said to himself: "And so what?"

The cyanosis seemed to have settled in above the thighs. Angelo energetically massaged the folds of the groin ... Her stomach was still shuddering with memories. The moaning had ceased.

p. 420. She continued to disgorge clotted, whitish matter. Angelo noticed a frightful stench spreading. He wondered where it came from.

... He could only massage without stopping. His hands ached. He massaged with *eau de vie*. He kept renewing the hot stones. He carefully dragged the young woman as close as possible to the fire.

... The absence of hope, rather than despair, and above all physical exhaustion now made him more and more frequently turn to gaze into the night. He was not seeking help but some reprieve.

... Yet he never ceased to labor with his hands to bring warmth to that groin at the edges of which the cold and marble hue still lurked.

At length a whole series of little, highly colored, brightly lit thoughts came to him, some of them absurd and laughable, and, at the end of his tether, he rested his cheek on that stomach, now shuddering only feebly, and fell asleep.

... It was day.

He could not think what the soft, warm thing was on which his head was resting. He could see he was covered to the chin by the folds of his cloak. He breathed deeply. A cool hand touched his cheek.

"I covered you up," said a voice. "you were cold."

He was on his feet in an instant. The voice was not entirely unfamiliar. Pauline was looking at him with almost human eyes.

... At length he had the sense to feel the patient's pulse. It was beating quite strongly and its speed was on the whole reassuring.

pp. 421–422. Angelo remembered the maize water Teresa used to make him take when he was small: apparently it cured everything, particularly dysentery.

... The young woman drank greedily, several times. Towards noon the cramps were plainly over.

... the young woman announced that she now felt as warm and soft as a chick in its egg.

p. 423. "I'm anxious about you," she said. "I've had cholera, there's no doubt about that... And you, haven't you been rash?"

... "Yes, but in these cases the infection shows at once. I've got a night's start on death," said Angelo, "and it won't catch me up."

p. 425. "It is," thought Angelo, "a case of cholera, of course, but a cured one."

... They reached Théus two days later, in the evening.

p. 426. This horse gave him matchless pleasure for three days. Her kept thinking of it. He saw himself galloping.

Every evening Pauline put on a long dress. The illness had made her little face sharper than ever. It was as smooth and pointed as a lance-head and, under the powder and rouge, faintly tinged with blue.

"How do you think I look?" she said.

"Very beautiful."

The morning that he left, Angelo right away gave free rein to his horse, which he had himself, every day, fed with oats. It had a swiftness he could be proud of. He saw galloping toward him those rosy mountains, near enough now for him to make out the rising larches and firs on their lower slopes.

"Beyond is Italy," he thought.

He was beside himself with joy.

And so ends *The Horseman on the Roof*. A few years later a third novel of the Angelo trilogy appeared: *The Straw Man*, where Angelo, always as magnificent, continues his epic, his odyssey, no longer in cholera but this time in war and revolution: six of one half a dozen of the other/ same difference!

#### 40.2.4.1 *The blue plague and the yellow fever* Barbara Hambly, *Fever Season*, 1998 [52]

Barbara Hambly is a contemporary American novelist who was trained as a historian. After publishing a few heroic Gothic novels that received critical acclaim, in 1997 she began the saga of Benjamin January—a free black man of nineteenth

century New Orleans. *Fever Season* is the second title of the series, a thriller that plunges the reader into the murky world of the city of lagoons and bayous, both poverty-stricken and brilliant. The action takes place in 1833–1834. For the last 25 years, Louisiana, and particularly the city of New Orleans, has experienced an epidemic of yellow fever, especially during the hot season. That year cholera also broke out.

Also, the sudden emergence of yellow fever on the continent was related to the collapse of the French military personnel sent by First Consul Bonaparte to retake Saint Domingo, where the rebel slaves had taken power. Of 25,000 men, 15,000–20,000 men of the French army perished from yellow fever, with 20 generals out of 23, including the Chief Commandant Leclerc, Bonaparte's sister Pauline's husband. There is no doubt that the epidemic disaster influenced the French decision to sell Louisiana to the United States.

Benjamin January is a dark quadroon, in his forties, free. When he was an adolescent, his mother, a relatively well-off mulatto, maintained, sent him to Paris to study medicine. He would have continued living in France, if his wife, a French mulatto, had not died of cholera the year before, 1832. January thus returns to his home country and family. Forbidden to practice medicine because he was a Black, he gets by as a musician, with a passion for shady and criminal affairs. With the double epidemic ravaging the area, the medical authorities accept January's help at the Charity Hospital, but only at night. Several stories intertwine: a slave fleeing or kidnapped, the mysterious death of a planter, buccaneers and pirates in the bayous and the river, abductions of slaves and free Blacks sold in Missouri, and a large bourgeois house where atrocious crimes are committed. Barbara Hambly brings to life an entire illicit society, both European and African, taken up in the epidemic torment that whips up passions. In this environment and atmosphere, where the famous mulatto Marie Laveau rules, the mistress of voodoo, Benjamin January, having grieved his dead wife, rediscovers the temptations of love in the person of a mulatto young lady, Rose, who runs a small boarding school for young colored girls from good families, refusing that they become like their maintained mothers "placées," as was said at the time) or prostitutes. Barbara Hambly took inspiration from true events reported at the time in the New Orleans and Louisiana gazettes. Her novel is also the sociological study of a changing, disordered world, underscored by the epidemics—and then there are the hurricanes (we are writing these lines as Katrina is raging at the mouth of the Mississippi and its great city, at the end of September 2005; many things have changed little since the 1830s).

Let us cite the following passages from the novel:

(p. 1, the beginning of the story) In fever season, traffic in the streets was thin. Those who could afford to do so had left New Orleans with the ending of Lent; those who could not had all through the long summer hurried about their business as if Bronze John, as they called the sickness, were a creditor one could avoid if one kept off the streets.

To be better protected against the mosquitos.

(p. 22) His last patient that day had been a nine-year-old girl who'd walked the twelve streets to the hospital from the levee where she'd been selling oranges. Her mama, she said in English, before delirium claimed her, would whale her for not staying on to finish the day. The child had died before she could tell anyone who her mama was or where that lady could be found.

As always, the image of innocent childhood struck down—although at the time, as in *The Horseman*, many children died, victims of infectious diseases; people were used to it, even if the mother's and father's suffering was real each time.

(p. 2) The fever had first come to New Orleans in January's sixteenth year.

1809. But it seems that yellow fever had touched Louisiana a few years earlier.

(p. 4) Like the Americans uptown, the householders here burned piles of hair and hooves from the slaughteryards or smudges made up with gunpowder, to clear the disease-ridden miasma from the air.

p. 5 When Bronze John came calling, a lot of people, no matter how strait their circumstances, came up with the money to remove for the summer to one of the hotels or cottages on the shores of the lake, where the air was cleaner, in Milneburgh or Mandeville or Spanish Fort. Those who hadn't done so from fear of the fever, which came nearly every year—or from the horrible combination of summer decay and summer insects—reconsidered the matter when the first cases of the cholera were diagnosed.

In the nineteenth century as in the Middle Ages, the reaction was always the same: flee the bad air—this was only valid for the well-off or the rich, without really protecting them more than the poor and destitute.

(p.19) Though Bronze John's hand touched everyone, white, black, and colored, it was mostly the whites who died of it and, of them, more often the whites who'd flocked into New Orleans from the United States—the rest of the United States, January corrected himself—or from Europe.

A fair remark showing the different degrees of sensitivity to the infection or of acquired immunity.

(p.24) Fever rode the night air, invisible and deadly—that was all that anybody knew of it.

(p. 27) Dome wasting sickness there, thought January, studying her rigid profile with a good physician's eye. Not consumption.

A quiet reminder of that other, slowly evolving infectious disease that was also rife at the time, notably in the Western world.

(p. 30) A fortress against Bronze John, he thought. Against the cholera. Locked and shuttered, like every other house on the street, in the hopes of thwarting nightbone, drifting enemies no one could see.

Fear of the “bad air” in the ignorance of microbes (but for yellow fever, as for malaria, the link was made with mosquitos: There were mosquito nets around beds and even doors and windows).

(p. 61) Salts of mercury mixed with turpentine have been shown to be of sovereign benefit—sovereign, sir!—in cases of fever, Sanchez retorted. But the dosage must be heroic! Nothing is of any benefit unless the patient’s gums bleed . . .

It is always the same medicine, ridiculed by Molière!

(p. 115) (. . .) Yellow Jack hits quick. (. . .) . . .

Yet another nickname that personified the disease. In a note at the bottom of this page, the author indicates that yellow fever was the other name given to cholera. This is clearly wrong: Cholera was not known in North America until that year of 1833.

(p. 156) In the silence it was easy to believe the disease roved the streets like the angel of death. Easy to half-expect the skeletal white shape of Baron cemetery, the voodoo lord of the dead, coming around a corner in his top hat and his spectacles. (. . .)

Janvier, like all of the colored people of the city, knew his secret myths and rites well. He is in relation with Marie Laveau, the true and famous mistress of voodoo, who was also a healer.

(p. 159) *The disease isn’t contagious*, he told himself, slipping from tomb to tomb. He dodged behind one, then another, working his way through the dense-packed mazes. *I’ve worked among the dying for three months now and I haven’t contracted it yet.*

Or the mystery of immunity . . .

(p. 165) January had hunted enough mosquitoes within the tents of mosquito-bar—trying to singe them to death with a bedroom candle where they clung to the gauze without immolating the house—to know that nobody in Louisiana would leave the bar untied.

(p. 173) January thought suddenly of all those houses standing locked and empty, and of the fear that fueled drinking, and the drinking that fueled violence in an already violent town.

(p. 230) . . . but plague or no plague, January felt he must breathe clean air, or die. Smudges of lemongrass and gunpowder burned on the gallery over the water, keeping at bay the mosquitoes which, though fewer than in town, could be found even along the lakeshore.

(p. 306) “Would you believe it ladies?” he turned to take in the dozen or so who clustered at his heels, “when I came down to the city last summer, at the very landing where I boarded they loaded a matched team of white horses whose cost alone could have provided a dozen beds for those wretched sufferers dying in the alleys of this city during the pestilence? It isn’t God who sent the fever to punish mankind, ladies; it is Man who brought it upon himself, with sheer, greedy neglect of his fellow man.”

An evangelist preacher who no longer believes in divine will! He knows the human kind too well.

(p. 345) “One thing I’ve learned,” January said with a smile, “love is beyond comprehension. Anyone can love anyone. It’s like the cholera.

(p. 348) They spoke of the epidemic, and of why the fever might come in the summertimes and not the winters, and why not every summer; of why sometimes cures seemed to work—even onions under the bed—and why sometimes they did not; of the white ghost-crabs that scurried in the retreating scum of the surf, and of pirate treasure and hurricanes. “I’ve watched the winds and the clouds here,” said Rose, “and the winds and air in the marsh. It feels different there, but I can’t say why it’s different, what is different about it. There has to be some way of identifying what it is. Everyone talks about the miasma of sickness, but it’s only a guess, you know. There has to be a way of making it visible, like a chemical stain turning the color of water.”

“This will blow past, like a hurricane. It always does.”

“And like a hurricane,” said Rose softly, “it will leave wreckage, and that long tedious season.

The character, like her author, knows what she is talking about, in the country of hurricanes and fevers, of poverty and the music in dance and festivities.

#### 40.2.4.2 *Love in the Time of Cholera* [80] Gabriel

**Garcia Marquez**, A Colombian writer in Spanish who was born in 1928, Gabriel Garcia Marquez is qualified in a dictionary as a “fantastic storyteller.” Undoubtedly. But we could add that he is an extraordinary novelist whose name will remain in the history of literature; perhaps the world’s greatest writer of the end of the last century. The Nobel Prize he was awarded in 1982, several years before the publication that we will now discuss, was greatly deserved, not always the case. It should be remembered that he is also the author, among other talented works, of *One Hundred Years of Solitude* and *Chronicle of a Death Foretold*. En ce qui concerne “L’Amour au Temps du Choléra,” le quatrième de couverture de l’édition que nous avons en main dit: “L’auteur (. . .) donne libre cours dans ce roman à son génie de conteur, à la richesse de son imagination et à l’enchantement baroque de son écriture.” — ô combien !

*Love in the Time of Cholera* is the story of three characters: a woman and two men. It takes place over more than 80 years, from the middle of the nineteenth century, for the most part in a city, a Colombian port giving onto the Caribbean, probably Cartagena, as well as in a few other places and on the Magdalena River.

Two teenagers love each other with an absolute love that remains epistolary and platonic while waiting for the time to marry. The young man, Florentino Ariza, is poor but destined for a great inheritance; the girl, Fermina Daza, comes from the wealthy bourgeoisie. When he returns from Paris, where he has perfected the art of medicine, the young doctor Juvenal Urbino, the most brilliant match of the city and the province, instantly falls in love with Fermina, and he is the one she chooses. Florentino lives with his failure for more than half a century, devoting himself to work and women through carnal love, but he remains true to Fermina: He stays

a bachelor, never doubting that one day she will be his, and he will be hers. Urbino's life proceeds as was right and proper; he is a great doctor and professor and a high notable of the city; she a great lady with her home life and social life, attentive to her charities and her children; she is also a woman with an artistic spirit, as liberal as her husband. Doctor Urbino ends up dying, stupidly, septuagenarian, still vigorous, and healthy. Florentino Ariza resumes his long-interrupted correspondence with Fermina Daza, the widow Urbino. She accepts the game, and then accepts to receive her old sweetheart. They celebrate their friendly and still chaste reunion by taking a cruise on the river on board the largest and most luxurious ship in the country, a ship Florentino has owned for years. After a last hesitation, it is on board ship that their bodies finally come together, regaining the sexual fire of their youth in their decrepitude, a curious couple of lustful old people.

In the setting and in the background of the story of this flamboyant trio of very romantic characters, the entire life of an old city and an ex-colonial country unwind before our eyes in the transformations of social and technical modernity, as in North America and Europe: steam power, natural gas, electricity, the automobile, the airplane, and radio all appear. Political life was meant to be democratic, but changes in orientation and personalities between liberals and conservatives are sorted out by popular violence and sometimes with cannon fire and by armed force; this often happens somewhere not far from the coast, where commerce predominates. Finally, there is cholera, whose great epidemics are in decline but which remains endemic, like a threat that is continually renewed. The novel is a sort of baroque opera: joyous, lively, where the outdoors are celebrated in song and is, despite death so often present, a great hymn to life, on which the yellow flag of cholera (once the flag of the plague) seems to wave, the one that will lead to the unexpected ending of the novel, burlesque as much as grave.

The choice of our quotations undoubtedly does not give sufficient homage to Garcia Marquez's unparalleled talent and style. But at least half of the novel would have to be quoted. Let us suffice with the passages that exemplify our subject best.

(p. 3, the start of the novel) It was inevitable: the scent of bitter almonds always reminded him of the fate of unrequited love. Dr. Juvenal Urbino noticed it as soon as he entered the still darkened house (. . .). Jeremiah de Saint-Amour, disabled war veteran, photographer of children, and his most sympathetic opponent in chess, had escaped the torments of memory with the aromatic fumes of gold cyanide.

(. . .) At one window the splendor of dawn was just beginning to illuminate the stifling, crowded room that served as both bedroom and laboratory, but there was enough light for him to recognize at once the authority of death.

(p. 17) At nightfall, at the oppressive moment of transition, a storm of carnivorous mosquitoes rose out of the swamps, and a tender breath of human shit, warm and sad, stirred the certainty of death in the depths of one's soul.

Dawn, twilight, and death. These two passages, a mere 20 pages apart, give an idea of the author's suggestive power.

(p. 43) Soon after he had completed his course of specialized studies in France, Dr. Juvenal Urbino became known in his country for the drastic new methods he used to ward off the last cholera epidemic suffered by the province. While he was still in Europe, the previous one had caused the death of a quarter of the urban population in less than three months; among the victims was his father, who was also a highly esteemed physician.

(p. 63) All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera.

This curious and striking parallel is indeed Garcia Marquez! Barbara Hambly (see above), writing later, "borrowed" it from him, not a great sin; we know that artists in all the arts copied one another, even plagiarized, cheerfully, or at least took inspiration from their predecessors. It is possible that there are social or picturesque observations of epidemics that have been repeated since the time of Thucydides.

(p. 108) He tried to impose the latest ideas at Misericordia Hospital, but this was not as easy as it had seemed in his youthful enthusiasm, for the antiquated house of health was stubborn in its attachment to atavistic superstitions, such as standing beds in pots of water to prevent disease from climbing up the legs, or requiring evening wear and chamois gloves in the operating room because it was taken for granted that elegance was an essential condition for asepsis. They could not tolerate the young newcomer's tasting a patient's urine to determine the presence of sugar, quoting Charcot and Trousseau as if they were his roommates, issuing severe warnings in class against the mortal risks of vaccines while maintaining a suspicious faith in the recent invention of suppositories. (. . .)

(pp. 108–109) His obsession was the dangerous lack of sanitation the city. He appealed to the highest authorities to fill in the Spanish sewers that were an immense breeding ground for rats, and to build in their place a closed sewage system whose contents would not empty into the cove at the market, as had always been the case, but into some distant drainage area instead. The well-equipped colonial houses had latrines with septic tanks, but two thirds of the population lived in shanties at the edge of the swamps and relieved themselves in the in the open air. The excrement dried in the sun, turned to dust, and was inhaled by everyone along with the joys of Christmas in the cool, gentle breezes of December. Dr. Juvenal Urbino attempted to force the City Council to impose an obligatory training course so that the poor could learn how to build their own latrines. He in vain tried to stop them from tossing garbage into the mangrove thickets that over the centuries had become swamps of putrefaction, and to have them collect it instead at least twice a week and incinerate it in some uninhabited area.

pp. 109–110 He was aware of the mortal threat of the drinking water. The mere idea of building an aqueduct seemed fantastic, since those who might have supported it had underground cisterns at their disposal, where water rained down over the years was collected under a thick layer of scum. Among the most valued household articles of the time were carved wooden water collectors whose stone filters dripped day and night into large

earthen water jars. To prevent anyone from drinking from the aluminum cup used to dip out the water, its edges were as jagged as the crown of a mock king. The water was crystalline and cool in the dark clay, and it tasted of the forest. But Dr. Juvenal Urbino was not taken in by these appearances of purity, for he knew that despite all precautions, the bottom of each earthen jar was a sanctuary for waterworms. He had spent the slow hours of his childhood watching them with an almost mystical astonishment, convinced along with so many other people at the time that waterworms were animes, supernatural creatures who, from the sediment in still water, courted young maidens and could inflict furious vengeance because of love. (. . .) And so it was a long while before he learned that waterworms were in reality the larvae of mosquitoes, but once he learned it he never forgot it, because from that moment on he realized that they and many other evil animes could pass through our simple stone filters intact.

For a long time the water in the cisterns had been honored as the cause of the scrotal hernia that so many men in the city endured not only without embarrassment but with a certain patriotic insolence. When Juvenal Urbino was in elementary school, he could not avoid a spasm of horror at the sight of men with ruptures sitting in their doorways on hot afternoons, fanning their enormous testicle as if it were a child sleeping between their legs. It was said that the hernia whistled like a lugubrious bird on stormy nights and twisted in unbearable pain when buzzard feather was burned nearby, but no one complained about those discomforts because a large, well-carried rupture was, more than anything else, a display of masculine honor. When Dr. Juvenal Urbino returned from Europe he was well aware of the scientific fallacy in these beliefs, but they were so rooted in local superstition that many people opposed the mineral enrichment of the water in the cisterns for fear of destroying its ability to cause an honorable rupture.

Or the art of transforming the image of malevolence into a buffoon's painting.

Impure water was not all that alarmed Dr. Juvenal Urbino. He was just as concerned with the lack of hygiene at the public market, a vast extension of cleared land along Las Animas Bay where the sailing ships from the the Antilles would dock. (. . .) Set on its own garbage heap, at the mercy of capricious tides, it was the spot where the bay belched filth from the sewers back onto land. The offal from the adjoining slaughterhouse was also thrown away there – severed heads, rotting viscera, animal refuse that floated, in sunshine and starshine, in a swamp of blood. The buzzards fought for it with the rats and the dogs in a perpetual scramble among the deer and succulent capons from Sotavento hanging from the eaves of the market stalls, and the spring vegetables from Arjona displayed on straw mats spread over the ground. (. . .)

The entire passage is a humorous class on the need for hygiene and asepsis and a demonstration that the environment created by humans is the main cause of infectious diseases: the anthropic factor.

(p. 111) There graves were dug deep enough to bury the dead on three levels, without delay and without coffins, but this had to be

stopped because the brimming ground turned into a sponge that oozed sickening, infected blood at every step. (. . .)

(p. 111–112) From the time the cholera proclamation was issued, the local garrison shot a cannon from the fortress every quarter hour, day and night, in accordance with the local superstition that gunpowder purified the atmosphere. The cholera was much more devastating to the black population, which was larger and poorer. (. . .)

(. . .) Dr. Marco Aurelio Urbino, the father of Juvenal, was a civic hero during that dreadful time, as well as its most distinguished victim. (. . .) Years later, reviewing the chronicle of those days, Dr. Juvenal Urbino confirmed that his father's methodology had been more charitable than scientific and, in many ways, contrary to reason, so that in large measure it had fostered the voraciousness of the plague. He confirmed this with the compassion of sons whom life has turned, little by little, into the fathers of their fathers, (...) and it was with justice that his name was found among those of so many other heroes of less honorable wars.

(. . .) When he recognized in himself the irreversible symptoms that he had seen and pitied in others, he did not even attempt a useless struggle but withdrew from the world so as not to infect anyone else. Locked in a utility room at Misericordia Hospital, deaf to calls of his colleagues and the pleas of his family, removed from the horror of the plague victims dying on the floor in the packed corridors, he wrote a letter of feverish love to his wife and children, a letter of gratitude for his existence in which he revealed how much and with fervor he had loved life. (. . .)

(. . .) (p. 113) Until then Dr. Juvenal Urbino and his family had conceived of death as a misfortune that befell others, other people's fathers and mothers, other people's brothers and sisters and husbands and wives, but not theirs.

(p. 114) Cholera became an obsession for him. He did not know much more about it than he had learned in a routine manner in some marginal course, when he had found it difficult to believe that only thirty years before, it had been responsible for more than one hundred forty thousand deaths in France, including Paris. But after the death of his father he learned all there was to know about the different forms of cholera, almost as a penance to appease his memory, and he studied with the most outstanding epidemiologist of his time and the creator of the cordons sanitaires, Professor Adrien Proust, father of the great novelist. So that when he returned to his country and smelled the stench of the market while he was still out at sea and saw the rats in the sewers and the children rolling naked in the puddles on the streets, he not only understood how the tragedy had occurred but was certain that it would be repeated at any moment.

The moment was not long in coming. In less than a year his students at Misericordia Hospital asked for his help in treating a charity patient with a strange blue coloration all over his body. Dr. Juvenal Urbino had only to see him from the doorway to recognize the enemy. (. . .)

(p. 115) From that time on, and well into this century, cholera was endemic not only in the city but along most of the Caribbean coast and the valley of the of the Magdalena, but it never again flared into an epidemic. The crisis meant that Dr. Juvenal Urbino's warnings heard with greater seriousness by public officials. They established an obligatory Chair of Cholera and Yellow Fever in the in the Medical School, and realized the urgency of closing up the sewers and building a market far from the garbage dump.

In these pages, Garcia Marquez brilliantly describes the changing paradigm in medicine in terms of infectious diseases, in the second half of the nineteenth century. This son who takes over for his father, but in transforming the tool and the vision of the goal, is like a parable of the passage of ancient to modern medicine by looking for the intimate secrets of these patients and by imposing hygiene and asepsis.

(...) (p. 218) Tránsito Ariza used to say: “The only disease my son ever had was cholera.” She had confused cholera with love, of course, long before her memory failed. But in any event she was mistaken, because her son had suffered from six blennorrhagias, although the doctor had said they were not six but the same one that reappeared after each lost battle. He had also had a swollen lymph gland, four warts, and six cases of impetigo in the groin, but it would not have occurred to him or any man to think of these as diseases; they were only the spoils of war.

Another passage that is not only a purple patch but also it shows that venereal diseases, in men’s minds, in the minds of the Western men of the time, were experienced like a malevolence that signified a certain panache, the most esteemed, that is to say sexual, making an institution of the brothel and its prostitutes.

(p. 232) Someone asked what terrible illness would dare to attack a woman with so much power, and the answer he received was saturated with black bile:

(p. 299) “A lady so distinguished could suffer only from consumption.”

Tuberculosis was not only a disease of the rich, far from it. But this disease of slow progression was easier to live with, as it were, than any other. As the author writes below, it was a “fashionable” disease.

After several episodes returning to the protagonists’ lives, this is the finale, the two lovers’ cruise on the river, like a honeymoon that they never want to end. And to accomplish this, they find a way.

(pp. 342–343) The only thing that would allow them to bypass all that was a case of cholera on board. The ship would be quarantined, it would hoist the yellow flag and sail in a state of emergency. Captain Samaritano had needed to do just that on several occasions because of the many cases of cholera along the river, (...) After all, everyone knew that the time of cholera had not ended despite all the joyful statistics from health officials. (...) If such things were done for so many immoral, even contemptible reasons Florentino Ariza could not see why it would not be legitimate to do them for love. (...)

The New Fidelity weighed anchor at dawn the next day, without cargo or passengers, and with the yellow cholera flag waving jubilantly from the mainmast. (...)

(...) (p. 345) For they had lived together long enough to know that love was always love, anytime and anyplace, but it was more solid the closer it came to death. (...)

“It is going to be like dying,” she said (speaking of their return)

(...) in conclusion, after a string of barbaric curses, was that he could find no way out of the mess he had gotten into with the cholera flag. (the ship had been put in quarantine)

Florentino Ariza listened to him without blinking. Florentino Ariza l’écoula sans ciller and he said: “Let us keep going, going, going, back to La Dorada.” (...) The Captain looked at Fermina Daza and the first glimmer of wintry frost. Then Ariza, his invincible power, his intrepid whelmed by the belated suspicion that it was life that has no limits

“And how long do you think we can keep coming and going?” he asked.

Florentino Ariza had kept his answer ready for fifty-three years, seven months, and eleven nights. (the time since they were teenagers that he had declared his love to Fermina)

Forever,” he said.

### 40.2.5 The White Plague

The swift, impetuous vigor, the lightning speed and ferociously lethal nature of epidemic infectious diseases such as the plague, cholera, yellow fever, and certain strains of typhus should not conceal the slower but equally fatal power of other diseases such as leprosy, tuberculosis, or syphilis. The latter two diseases had particular psychological effects on artists, influencing the work of their numerous victims (HIV AIDS is too recent to estimate its “artistic” impact; however, in literary texts on the subject, influences appear from texts inspired by the two older diseases that are reasonably comparable for their physiological and psychological effects).

Tuberculosis was the modern artist’s disease *par excellence*. It was linked to various artistic movements, in particular Romanticism. If art was influenced by a single infectious disease, tuberculosis was in this sense exemplary.

In the 19th century its pulmonary form, consumption, became one of the most harmful diseases in developed societies. It is a metaphor which characterizes the dominant pathology of the time. [43]

Tuberculosis was the motif and/or the theme of a fertile literary output, fanning the flame of its creativity, which is presented in the first part of the present chapter.

Let us return to some of it:

In the 19th century) In Mediterranean countries, (tuberculosis) was believed to be contagious (...) In France, this hypothesis was vigorously rejected, and that of hereditary transmission was preferred. No detail was spared in the description of the characteristics of children and adolescents who suffered from the disease: slender, delicate beings with fine features and beautiful hair, who did little physical activity, but who had a lively intelligence and were precociously mature, with a talent for art and a particular ability to understand and to feel.

Yes, artists! Moreover:

(...) In this Romantic period, consumption struck heavily among writers, poets, musicians, painters, actors. [98]

**40.2.5.1 Paul voivenel** Paul Voivenel, a doctor who was the author of literary essays and criticism, wrote:



All these famous tuberculosis sufferers, Mozart, Millevoye, Sciller, Maurice de Guérin, Schubert, Chopin, Laforgue, Novalis, Glatigny, Mérimée, Rachel, Marie Bashkirtseff, Bastien Lepage, Chekhov, Hugues Rebell, Albert Samain, suffered to a certain extent from what Camille Mauclair called “The Disease of the Infinite” for which Watteau, himself consumptive, painted the definitive setting in *The Embarkation for Cythera*.

Shelley can also be added to the list (although he died in a shipwreck), as well as Keats, and many others.

The metaphysical ingenuity of Novalis, the feverish tenderness of Chopin, the sometimes tragic smile of Laforgue, the idealistic beauty of Mozart, the pastoral passion of Schubert, all that is found in the country that Watteau drew out of nature, deep within which is heard, with indescribable emotion, the murmur of *Invitation to the Voyage*.

Tuberculosis hollows out and ennobles the face, and refines the soul: “Hence, in Watteau, the son of a roofer, even before he could see it himself, an idealization of luxurious society formed. Neither prolonged observation nor birth could have bestowed upon him such a unique ease in the expression of what was exquisite, refined. The painter drew from nature, but the artist imposed his preconceived vision and this vision was simply the desire for a paradise of melancholy and love.” [101]

It is curious, and even remarkable, that this apparent relationship between tuberculosis and art was still so strongly emphasized in the early twentieth century, whereas it had become known, even in France, that tuberculosis was a contagious disease, transmitted from one individual to another, and not hereditary: The artists mentioned above did not become such, or develop such a talent, because of their illness. However, because of the limits it forced on them, the disease could have highlighted their ability for sensitive, emotive, and artistic expression. Tuberculosis did become a subject for artistic creation, in particular in literature.

A painless disease, tuberculosis leaves the intellectual, emotional, and creative qualities intact. The long period of physical inactivity encourages introspection, imagination, and projects in an atmosphere of sympathetic attention from the patient’s family circle, faced with the tragic destiny of young men and women who had been promised a brilliant future, or who were afflicted at the height of their glory. As their health deteriorates, death is waited upon with fatalism, passively (. . .) A poetic, romantic death, like that of Marie Duplessis, immortalized as La Dame aux Camélias (Camille), like that of Chopin, Marie Barshkirtseff and so many others. [99]

**40.2.5.2 *La dame aux camélias, or the fate of a consumptive*** Camille (La Dame aux Camélias) is one of the most famous characters in Romantic literature—a dying Romanticism, as the work represents the swan song of the movement. In the story of this woman, tuberculosis appears to play only a supporting role; however, it is an allegorical role, the disease being the cause of the physical and material decline of the heroine, and then of her redemption through Love (with a capital L), before she is cut down in the prime

of her brilliant and captivating youth. The author, Alexandre Dumas fils, called his work a novel, but apart from a few details such as names and the final episode, it was not a work of fiction. Dumas fils recounted faithfully his passionate love affair (at least from his point of view!) with one of the most admired and sought-after courtesans of 1840s Paris: Marie Duplessis, whose fame he passed down to posterity under the name Marguerite Gauthier, la Dame aux Camélias.

Marie Duplessis was born as Rose Alphonsine Plessis on January 16, 1824, in a Norman village. She was 15 years old when her father took her to Paris and placed her with a milliner of the Palais-Royal—a milliner who was also a go-between. In addition to her beauty, the young girl had intelligence and character. At 16, she took her freedom; at 17 she began to be well known and sought after in the courtesan milieu. Then she had her coming out in the “beau monde” by becoming the mistress, very well maintained, of a very rich old man (every day he sent her armfuls of camélias, this sumptuous but unscented flower). From then on she could choose her lovers, wealthy. She was 20 years old when Alexandre Dumas fils, the same age, fell in love with her, who responded to his love, by discouraging him by her practices and her lifestyle, before convincing him that their liaison could go nowhere. He broke it off. Marie Duplessis died of consumption a year later, at barely 23 years of age, on February 3, 1847. When Dumas fils met her, she was already experiencing coughing fits, spitting up blood (3 years was the average reprieve accorded by the disease at this time).

A few months after the young woman’s death, as if to atone for having abandoned her, Dumas fils told the story of their love as a novel, in which “he expressed his shame and the beauty of his mistress’s soul, portraying her as a sinner redeemed by love who sacrificed both her fortune and her vanity so as not to harm the man she loved” [71]. It was an immediate success, and even more so a few years later when the author turned the novel into a tragedy for the stage. Transposed from reality to fiction, the heroine no longer simply dies from the distressing disease but instead succumbs almost magically to the malady of Love. The final scene, when Marguerite lies dying in the arms of her lover and declares her passion for him, has drawn floods of tears from generations of spectators. Yes, without tuberculosis there would never have been a Marguerite Gauthier, and her model, Marie Duplessis, would only have been one among many in the troop of courtesans, those diamond-eating tarts—who grew up as simple working-class girls—before whom princes, ministers, and financiers of bourgeois, conquering Europe, bowed down and in whose arms they swooned, until August 1914.

Almost all art forms have since taken up the character of La Dame aux Camélias, from academic painting to music, the latter through the opera composed by Verdi based on a libretto by Francesco Maria Piave, just after the appearance of the play, under the title of *La Traviata*, in which Marguerite is called Violetta. Up to the present day, the greatest opera singers have sought to play the role, just as on the stage, and

on screen a host of actresses have played Marguerite Gauthier. An identical theme, with a heroine dying of consumption, can be found in numerous literary and/or stage productions, many of which take place in an artistic setting. The best known of these is Henri Murger's "Scènes de la Vie de Bohème" that was turned into an opera, Puccini's "La Bohème," by film directors.

Hence, tuberculosis had found its key character, its heroine. During this time, through the "silent" disease, each year slow death cut down millions of children and adults from the lower working classes of Europe (and elsewhere) in overcrowded city slums. Few artists recorded this physiological misery, which was only brought into "social" literature at the end of the nineteenth century, in the work of Emile Zola, for example. It was also at this time that sanatoriums, establishments for rest and specialized care in the treatment of tuberculosis, appeared. The living conditions and the life of their residents became literary subject matter between the two World Wars.

**40.2.5.3 Literature of the sanatorium** From the beginning of the twentieth century, the first hand accounts gathered in sanatoria revealed that this sort of voluntary prisoner who lived there made up a particular and eccentric cultural group, followers of what today could be called a subculture, even a counterculture, in which forced inactivity developed the intellect and the imagination, and in which temptations and desires formed an important component of their lives, the potential for acting out these desires being great. In 1902, a novel, *Les Embrasés* by Michel Corday, dealt with the emotional life of tuberculosis patients living in the sanatorium. It was the starting point for an investigation led by a group of tuberculosis specialists. "The nearly unanimous conclusion was that 'the rousing' of the tuberculosis sufferers was not so much related to a direct or indirect action of the Koch bacillus on the nerve centers regulating the reproductive activity of consumptive patients as to the inactivity that is imposed upon them." [100]

The major literary work inspired by life in the sanatorium is Thomas Mann's *The Magic Mountain* (1924) [80]. The story takes place a little before the First World War [64]. A young German, Hans Castorp, the reflection of the author's personality, from a family of the ruling class but deprived of his parents as a child, goes into a Swiss sanatorium shortly before becoming an engineer. He joins the life of the sanatorium and shows himself to be receptive to the disease. His mind undergoes a sort of mutation, opening up to previously unknown areas of interest, while falling in love with a Russian resident. He immerses himself in the study of human biology, extending to the phenomena of spiritual life. He is assisted in his studies by two other residents, Settembrini, an Italian writer and an intellectual idealist, and Naphta, both a Jesuit and a communist, from a Jewish family, a young, ambitious and self-centered dialectician with pre-Facist ideas, who confronts Settembrini in vehement debates attended by Hans Castorp who attempts to summarize the two men's opposing

views. The morbid nature of the disease plays a role in Hans Castorp's reflection, but he feels that reason should be an instrument for life. "Man, in the name of goodness and love, should not allow death to gain a hold over his thoughts." "An elementary truth in authentic humanism," comments L. Liebritch. Castorp leaves the sanatorium and his "magic mountain" more or less cured, only to be called up for combat where death catches up with him. *The Magic Mountain* is a great novel of disease experienced—to be cured of it—in the very particular setting of sanatoria, the very exterior and interior design of which could be seen and read as a work of art.

Let us note a few passages from the novel [55]:

(p. 486) Because our interest in death and illness is nothing but a way of expressing an interest in life – just look at how the humanistic faculty of medicine always addresses life and its illness so courteously in Latin. (. . .)

(p. 98) A human being who lives as an invalid is only body, and that is the most inhuman of debasements – in most cases, he is no better than a cadaver.

(p. 456) this much was certain: illness meant an overemphasis on the physical, sent a person back to his own body, cast him back totally upon it, as it were, detracted from the worthiness and dignity of man to the point of annihilation by reducing man to mere body.

(p. 12) Hans Castorp suddenly stopped in his tracks, mesmerized by a perfectly ghastly noise he heard coming from beyond a dogleg in the hall (. . .) it was a cough (. . .) but sounded as if someone were stirring feebly in a terrible mush of decomposing organic material. (. . .) a cough devoid of any zest for life or love (. . .) as if you were looking right down inside and could see it all – the mucus and the slime

*The Magic Mountain* is perhaps the most complete work written on disease as an expression of life able to lead to death.

Tuberculosis in general and its treatment in the sanatorium gave birth to a literary genre where introspection was as important as the story. Moreover, one could almost say that there was a sanatorium literature, just as there was a train station literature and add that it is through tuberculosis that the experience of disease was taken up by literature. In a relatively abundant production, this is well illustrated by the French novel written by Paul Gadenne, *Siloé* (Gallimard, 1941), where the character experiences his illness as a coming-of-age journey or adventure [65]. In a commentary on his book, the author writes

Disease, in tearing a man from his environment, his routines, represents an incredible chance for renewal. This physical misery that drops on him like an experimental chamber where, in unheard-of temperatures, under pressure as yet unknown, will develop a new man.

The analyst of the novel specifies "This is a quest in which Nature and Woman play the role of mediators, the girl Ariane and the torrent Siloé symbolize purity and authenticity" [67].

He (Simon, the hero of the novel that illness is initiating) said that, “life in the depths of himself was like a river that is foaming, like water that is boiling, like a pod that is bursting.” (. . .) And “that the response to our questions could be provided to us as much by a cataclysm as by a doctor.” [66]

Disease provides knowledge, because health “is the absence of psychological experience of the relation of thought to the body.” [29]

Non-Western—but westernized—poets and novelists, such as the Japanese writers Sakutaro and Kajii, both tuberculosis patients, felt and expressed nearly identical sentiments and thoughts in their experience of their disease, notably the diseased human being’s relation with nature [17]. Shinoda makes this remark (ep. 167): “He (Kajii) stares at the bule because he must keep still, doing nothing, while sunbathing (this was the only therapy against consumption at the time).” Could sunbathing for tuberculosis patients be the beginnings of tanning in light-skinned people? Or of nudity as an offer to the sun like living art?

However, more than the disease itself perhaps, it may well be the therapeutic treatment through the retreat imposed in the sanatorium that developed or reinforced the artistic expression in some of these consumptive patients.

## 40.2.6 Syphilis

from her eye, Black sky, spawner of hurricanes, drank in Sweetness that fascinates, pleasure that kills.

Charles Baudelaire, *The Flowers of Evil* [3]

M.D. Gmerk and J.C. Sournia write about the nineteenth century:

Since 1800, syphilis has had clinical patterns that it did not have in the past. (. . .)

With alcoholism and tuberculosis, syphilis plays a major role in the collective imagination and in the literature of Western countries; it is seen as one of the causes of the biological decline of modern man. It is true that social habits, notably prostitution, encourage the spread up to the highest levels of society. [44]

Is this a true change in the disease? Or has medicine achieved a clearer vision of the disease? It was indeed studied, spoken of, feared, and this is said, even more than during the two previous centuries that followed the enormous and terrible initial outbreak of the disease in the sixteenth century. In people’s minds, the disease was related to sexual practices, let us say diversified and/or “debauched.” But until then it had not been highly visible and was silent in artistic, graphic, or literary expression or creation, insofar as the censure was strict.

Through writing or erotic or pornographic drawing, the libertine philosophy went a long time back to Antiquity. However, it grew during the era of XIV and developed even more throughout the eighteenth century, the Enlightenment, to reach, just before the French Revolution, the extremes of the Marquis de Sade, and, more or less sinisterly or cynically,

outside the context of crime, the more joyous if not poetic expression of a knight from Nerciat. But, whatever the authors, allusions to sexually transmitted diseases, syphilis first and foremost, were nearly nonexistent or showed up at best as slap and tickle jokes, amusing things to say, or in colorful language. Let us add that public pornographic expression, and even private, was forbidden, censured, fought against, and therefore confidential, which did not prevent its clandestine production from enjoying success and being sold “under one’s coat.”

That is not to say that erotic and libertine expression was freer in the nineteenth century—on the contrary, it could be said. But many artists, in all the arts, succumbed ardently to the deadly carnal, sensual, and sexual temptations and pleasures, in particular with prostitution; moreover, writers and other artists frequently broached the subject in private as well in their journals or in letters. Finally, of those texts that were not purified or destroyed by prudish and ashamed heirs, many were analyzed, commented, and published in the twentieth century in literary journals or in editions of the author’s complete works.

In actual fact, nearly all of these gentlemen—and a few ladies as well—had a superactivated sexual life (skirt chasers, as we say, bohemians in every sense of the word), oriented toward local exoticism—prostitution—or, more in the literal sense, beyond the Mediterranean Sea (later toward the far away Orient, the Pacific, “the islands”), outside of traditional moral religious and cultural precepts, which, we can now say, was their right. However, this sexual life had its dangers because it was infected by venereal diseases, in particular syphilis, which was widely disseminated by urbanization, professional or occasional prostitution that at times was vagabond, in a bourgeois industrial society that was in full expansion, where misery was also sexual. In this favorable environment, syphilis produced tremendous ravages despite preventive and treatment measures on the part of the authorities, developed to curb what was, with tuberculosis, one of the two main pandemics, or rather endemics, of the modern world.

These artists knew that syphilis was a contagious disease through sexual intercourse, a disease that killed, even if slowly (10–20 years survival at the time), which led to a filthy death by decimating the mind as well as the body, a terrifying disease that was experienced as such, a disease that in men accentuated the fear of women (of prostitutes—or all women were prostitutes in one way or another!), reaching hatred in the prevailing misogyny—fear but also a morbid attraction. A disease that, finally, contributed to the reflection on illness in general, on the state of illness, on life and death, as was the case with tuberculosis in another manner.

Therefore, with the accounts written and preserved from those concerned, many commentaries were written concerning such and such an author or such and such a work, aided by the revelation of the intimate turpitude of each one. But this remained confidential, academic, the subject of literary, scholarly research expressed in the pages of more or less

obscure journals, rarely—or noted episodically here and there—in the pages of the daily press or magazines read by the public. France’s international reputation—the reputation of Paris as the capital of vice and depravity, elegant or vulgar (London and other large cities were not set straight on the issue)—was what it was and what it remains today; the subject is very French. But it was not until the end of the twentieth century that a widely circulated book was published, well documented and, in addition, adroitly written. It is entitled, simply, *Artists in the Bordel* [71]. The period covers roughly a century since Romanticism. The author has called a subchapter “The specter of the mors syphilitica,” which begins thus [75]

The venereal evil was the great fear of the nineteenth century. Striking sexual intercourse performed outside of the sacred and aseptized relations of conjugality, much like AIDS today, syphilis attested to the guilt inherent to purely carnal pleasure, this deadly pleasure. The symptomatic consequences of this disease, with its chancres and its putrid decay, worsened the malediction even more [74].

Murger is dying of a disease that rots everything alive, a senile gangrene complicated by charcoal, a horrible thing where you fall to pieces. I was cutting his mustache the other day, and his lip came away with the hairs,” wrote the Goncourt brothers, on that 28th of January 1861, with no idea that a few years later the younger of the two would succumb to this atrocious disease. Besides, thinking about it, they added, this death “looks like a death from Writing. It looks like the death of the Bohemian, this decomposing death – where everything is intertwined, from Murger’s life and that of the world he painted: a profusion of nighttime work, periods of misery and periods of feast, poxes poorly cared for, the heat and cold of existence without a home, eating but not dining, small glasses of absinth that console the pawnbrokers; everything that wears us down, everything that burns us, everything that kills us, life rebelling against the hygiene of the body and the soul, which means that a forty-two-year old man leaves life in tatters because he hasn’t the vitality to suffer and complains of only one thing: the odor of rotten flesh that is in his room. It is his own [45].

Like a dreadful end-of-the-century forewarning prophet, Murger was dying in the odor of syphilis, as is said of dying in the odor of sanctity.

Adds from Manéglier, citing a current author [103].

Thus sexuality was cursed; and the prostitute who embodied it better than anyone else inevitably became an abyss of perdition. For the artist it was a double danger: the danger of exhaustion by frenzied fornication and the danger of death by invasion of the treponema [74].

It should be remembered that Henri Murger was the charming author of *Scenes from the Life of a Bohemian*, where, when the characters die, it is from tuberculosis . . .

And yet, the medical school and its most dignified representatives warned against the excess of fornication, which, beyond the risk of the dreadful disease “could only result in limiting the force of creation,” wrote the learned ones in all seriousness.

Pulling himself out of Héléne’s arms, the young model for the Schio Massacres, Delacroix noted that she had taken a part of his day’s energy. The only thing left for him to do was clean his brushes and go and lounge around the cafes and wait for tomorrow to arrive. [75]

Artists believed him, as Flaubert wrote to his friend Bouilher: “Poor wretch, if you spill your come in such a way. You will have no more for your inkwell. And that is the true vagina of you men of letters.” [35] But they kept at it, the devils! And there was sin: one was punished by where one sinned: disease as punishment, an old refrain. A German theologian wrote in 1519:

Tell those who keep the Holy Scripture that the pox came from the wrath of God and that God would punish our miserable life and torment it. [59]

In the medical descriptions of the nineteenth century, the horrors described joined the horrors of war. But, a certain Guy de Maupassant exclaimed in a letter written in 1877:

I’ve got the pox! Finally! The true pox! Not some contemptible clap, not the pure cleric, not the bourgeois dandy, no, the great pox, the one that killed King Francis I. And I am proud, zounds! And I scorn the bourgeois above all. Hallelujah, I’ve got pox, and so I am no longer afraid of catching it. [76]

Oh the braggart, the boaster! who would die a stunned madman 15 years later.

However, his elder and friend, his mentor, Norman as he was, the great and good Gustave Flaubert, expressed no less sharply in his letters his wounds from carnal love that he received with his companions on his voyage to the Orient:

(. . .) in Beirut I picked up (I realized it in Rhodes, homeland of the dragon) seven chancres, which ended in melting into first two, and then one. (. . .) I suspect a Maronite of having given me this gift, but perhaps it was a little Turkish girl. Is it the Turk or the Christian, which of the two? problem? what a thought!! here is one of the aspects of the Orient question that the *Revue des Deux Mondes* did not suspect. (. . .)

And, speaking of Maxime du Camp

That’s the third pox that he has caught since we have been on the road. Nothing is better for the health than traveling.

(. . .) my wretched dick, know that it is cured for the moment. There is hardly more than a slight induration, but that is the scar of the brave. It heightens it with poetry. You can see that it is experienced, that it has had its misfortunes. It gives it a fatal and cursed air that should please the thinker.

Flaubert was no fool, but he preferred mockery—making fun of himself—joking to mask his worry. He came out of it rather well, but died of syphilis at the age of 59, or of an excess of heavy Norman cooking; why not both? Perhaps Gabriel Garcia Marquez took inspiration from a few illustrious predecessors, such as this one, to write the passage that

we have cited from Love in the Time of Cholera. At any rate, it is with such anecdotes that “syphilis was transformed into the disease of geniuses” [77]. Ménéglie adds on the next page:

This black Romanticism would make syphilis a very singular disorder. At this time at the end of the nineteenth century, it would not take long to find an esthetic quality in it. The esthetics of the horrible and of the well-hung seduction. Behind woman’s burning and coveted flesh, the Mors Syphilitica, lurking in the depths of the vagina like a moray at the back of its hole, lay in wait for the foolhardy and fascinated it. (. . .)

And a few nude barbarian beauties, adorned in paints, jewels, or some transparent veil, painted by Gustave Moreau, inspired Jean Lorrain, a writer of the epoch that succumbed to the poisonous charms, to write:

I love her air of plague victim and black virgin got up in satin, like the ones we see in the chapels in Spain. How lovely she would be as a Madonna of the Terror-Stricken, in one of Goya’s corteges of the penitents! It is Our Lady of the Seven Lusts . . . [68]

Let us note in passing that our gentlemen rarely had words of passion for the women, most often anonymous, who contaminated them. They were the vector, seductive, irresistible. And the men, were they not as much so when they fornicated, in exchange for a few cents, with very young girls, sometimes hardly nubile? Well! Our remark is perhaps anachronistic (But what of AIDS today?). Shall we say that in the nineteenth century, venereal diseases—with syphilis as the conqueror—was the artists’ lot. One had to truly be a saint to escape it. Artists are not saints. Did their all-out, unbridled copulations encourage their talents and their genius? It is doubtful if one considers Victor Hugo who passed away at an old age, despite his ardent sexuality in the last part of his life. How many artists died after long and horrid agonizing in their middle age, before exhausting their talents? The list is long, suicides of high-risk love. There were few of them who used their disease to transcribe into their works the physical and mental torments that it put them through. Among the French writers, let us choose three; the last one, nearly our contemporary, was not contaminated but lived a part of his life in fear of syphilis, a fear that showed through his writing.

Guy de Maupassant (1850–1893) is quite exemplary. He was already infected by syphilis (the “pox” as he calls it; see the quotation above), when he was recognized as a talented writer by his friends, the critics, and the public, with the publication of the short story, *Boule de Suif*, the big-hearted prostitute who gave herself to the enemy to save her traveling companions, on the road in a diligence, who scorned her (Maupassant wrote a number of stories staging prostitutes and brothels, reflections from his unremitting practice of dangerous venal love, revealing, however, a certain respect (tenderness?) for these women, a few madams included). It is interesting to note that all his work was written while he was syphilitic and that this civil servant, filled with a *joie de vivre* in the

existence that he shared in another fashion between his friends, sailing, and easy women, and that he knew how to sharply but pertinently denounce the flaws of bourgeois, even aristocratic, society (he was born in a castle), which he considered hypocritical and merciless. He continued to write, despite the psychological problems brought on by his cruel disease. And then it was the apotheosis, or the fall. In 1887, he wrote one of his strongest texts, *La Horla*, where the luminous and morbid, horrible hallucinations of his character are the transcription of his own torments. Then, 5 years of decline, desperation, rot, and finally internment before death relieved him.

*Alphonse Daudet (1840–1897)*. His *Letters from My Windmill and Tartarin of Tarascon* were read by every schoolchild in France and perhaps they still are. *Le dictionnaire Robert* writes of this Provençal:

Whether it be fanciful tales or novels of social commentary, in Daudet there is always a taste for the truth, tempered by a delicate sensitivity and a constant compassion for the weak.

Undoubtedly. But the schoolchildren did not realize—nor did most teachers—that behind the “sensitive” writer existed a man who was obsessed with copulation throughout his entire life. In Paris, an active and honored member of the artists’ guild, he openly joined in the escapades and debaucheries of his companions, all as well known or better known than he was. Other than that, he was a good husband and father, but he did not escape syphilis. At more than 50 years of age, he experienced the tertiary and final stage of the disease, and he had the courage to keep a journal of his illness, what it subjected him to, and the thoughts and feelings that the disease and treatment fed his mind with. He began a journal: *The Land of Pain*. He died without being able to publish it.

This volume “Alphonse Daudet, *la Doulou*, 1887–1895 and *Le trésor d’Arlatan: 1897*” (illustrated, t. 17 Edit. *Ne Varietur*, Paris, Librairie de France, 1930) is the original edition of *The Land of Pain (La Doulou)*. The study and publication of communications from a conference, “*Ecriture et Maladie*,” a book that we have cited in the section on tuberculosis and contains a paper by Michael Worton entitled “*Narration, Dialogue et Diagnostic: le cas Alphonse Daudet*” (pp. 107–119), whose subject is *La Doulou*.

A few quotes [26]

(p. 13) torture . . . there are no words to express it, only howls of pain could do so. Are words actually any use to describe what pain (or passion, for that matter) really feels like? Words only come when everything is over, when things have calmed down. They refer only to memory, and are either powerless or untruthful.

In his journal, Goncourt writes on May 31, 1886

He [Daudet] also talks to me about the sort of vacillation that bromide brought to his memory, forcing him, he said, to grab hold of the edges of memories; and on this subject, he sends forth a curious observation, affirming that Flaubert’s struggle

with words must have come from the enormous mass of broomide that he had absorbed.

Daudet writes:

(p. 41) Effect of morphine.

Wake up in the night, with nothing beyond a mere sense of existing. But the place, the time, and any sense of self, are completely lost.

Not a single idea. Sense of EXTRAORDINARY moral blindness. [25]

(. . .)

(p. 4–5) ‘The ship has fouled’ is the nautical phrase. I need some such term to describe the crisis I find myself in. (. . .) I’m going down. [27]

What else can be said?

Julien Green (1900–1998), the writer with dual American–French nationality, who wrote in French, accompanied the last, tormented century throughout its duration. The harshest and most severe diseases—tuberculosis and syphilis—that touched his close relatives haunted Julien Green, who was raised by his mother until, as a young adolescent, he lost her: a puritan who had a phobia of the body and sex, a mother traumatized by losses in her family and who wanted to protect her youngest from being soiled by infectious disease. He was a contemporary of the pseudo-victory over infectious diseases and then of their return, notably the sexually transmitted diseases, augmented by AIDS. Green’s entire body of largely autobiographic work revolved around these themes, from the novels to the voluminous journal that he published over more than half of his life. The phobia of the body, the phobia of bodily contact that runs the risk of disease, appears throughout his work.

She regretted that she hadn’t given Germaine a kiss, or rather, that she hadn’t been able to give her a kiss, because at the moment when she saw her arms reach out to her, a feeling of irrepressible horror made her return to her room. Perhaps, indeed, a single kiss was enough to communicate to her this disease that had afflicted her sister. Admittedly her maiden sister had assured her that she wasn’t contagious, but isn’t that how all the diseased spoke? [46]

All diseases, in particular syphilis, can only be divine punishment.

I cannot, however, hide the gravity of the risk that I ran, that I am now telling the doctor about, but according to him I am suffering from no more than what he calls syphilophobia and he insists that it is a passing obsession. [47]

Elsewhere we find

(. . .) to allude to disease and death is, as it were, to increase their prestige (. . .). In a sort of anonymity, death seems to me much more imposing than if it were presented with a name borrowed from medical jargon [48].

Finally

The greatest modern scourge, the most recent of the nightmares that terrifies physical love, that terrifies the flesh, AIDS. . . [49].

Diseases stemming from bestiality, syphilis and AIDS, would lead some to believe in a curse, but what do they know about what God thinks? [51]

Thus, Julien Green, homosexual but spared from syphilis and AIDS, completes the circle of disease. Anne-Cécile Pottier-Thoby comments

Disease appears more than ever like an irrevocable component of the human condition. Give in to the world and its temptations lead one there, resisting leads to depression. But whatever face it presents, behind disease emerges the fear of death. [50]

## 40.2.7 Smallpox, Ebola, and Other Pestilences

### 40.2.7.1 *Smallpox* Choderlos de Laclos, *Les Liaisons Dangereuses* [61]; Presentation

(*Letter CLXXIII*, p. 389) The same person who gave me these details told me that Madame de Merteuil was attacked the following night by a very violent fever, which, it was thought at first, must be the effect of the terrible predicament in which she had found herself; but since last night it has become known that confluent smallpox (*NB: confluent smallpox is the most harmful, contrary to discrete smallpox, because the closely spaced pock marks cover the entire body*) of a particularly malignant type has declared itself. It would really, I think, be fortunate for her if she died of it.

(*Lettre CLXXVI*, pp. 391–392) Madame de Merteuil’s destiny, my dear and worthy friend, to have been fulfilled. It is such that her worst enemies are divided between the indignation she merits and the pity she inspires. I was quite right to say that it would perhaps be fortunate for her if she died of the smallpox. She has recovered, it is true, but horribly disfigured; more than anything by the loss of an eye. As you may imagine, I have not seen her again, but I am told that she looks truly hideous

(p. 392) The Marquis de—, who never loses an opportunity to be spiteful, said yesterday in speaking of her ‘that the disease has turned her inside out and that her soul is now visible on her face’. Unfortunately everyone thought the observation very just. (. . .)

For centuries, smallpox sowed death or, in the survivors, the marks of its pustules, throughout the Old World: Asia, Europe, and Africa. Then the conquerors of the European peninsula unknowingly transported it to the New World. Smallpox—as well as a few other infectious diseases, unknown in the West—wrought devastation as soon as the first bearded White men landed. The decimation of populations in just a few decades, particularly in the Caribbean and Central American, was unprecedented, wiping out between 50% and 95% of the indigenous population, depending on the colonized regions. Indian painters in Mexico represented smallpox victims. As a result, Black Africans were imported for labor—yet another story—except that the slaves perhaps exported yellow fever

to the tropical Americas. Later, smallpox was even used as a biological weapon to reduce the bothersome Indians who refused to submit to the new order. Then the conscience of the conquerors evolved, at least officially in North America. The American president, Thomas Jefferson, a man of the Enlightenment if ever there was one, chose Captain Meriwether Lewis to head the 1803–1806 expedition sent by the Congress of the United States on Jefferson's request to explore the mysterious lands of the west to the Pacific recently bought from Napoleon in the Louisiana Purchase. Lewis was charged with the mission of taking the smallpox vaccine to immunize the Indian tribes that he encountered: For trade, fair or not, there is a need for consumers, not dead people. It seems that Lewis and his men had few occasions to carry this out; perhaps vials were lost, broken, or their contents spoiled. But the fact remains that roughly 30 years later, smallpox sprang up again along the Missouri River and west of it, exterminating entire Indian tribes.

There were a few White witnesses of this ultimate tragedy caused by smallpox. A naturalist scholar, the greatest of the ornithologists, a reputed painter of animals, and author of a remarkable comprehensive survey, *The Birds of North America*, John James Audubon (Jean-Jacques Audubon, born French in Louisiana), traveled in the American far west during these years. In his journal, later published, he reports what witnesses told him of the fatal epidemic [2]. His tale is not a masterpiece of literature, but travel literature was greatly appreciated by the public of Western culture between the eighteenth and the middle of the twentieth centuries. In relation with the theme of this chapter, we believe Audubon deserves to be cited:

(p. 613) Early in the month of July, 1837, the steamer "Assiniboin" arrived at Fort Clark with many cases of small-pox on board. (...) The pestilence, however, had many victims on the steamboat, and seemed destined to find many more among the helpless tribes of the wilderness. An Indian stole the blanket of one of the steamboat's watchmen (...), wrapped himself in it, and carried it off (...). Mr. Chardon offered a reward immediately for the return of the blanket. (...)

But the Indian quickly died.

"They moved en masse, to confront the awful catastrophe that was about to follow. (...) and the small-pox had taken such a hold upon the poor Indians, and in such malignant form, that they died oftentimes within the rising and setting of a day's sun. They died by hundreds daily. (...) Men shot their wives and children, and afterwards, driving several balls in their guns, would place the muzzle in their mouths, and, touching the trigger with their feet, blow their brains out.

(...) a young man, covered with the eruption, and apparently on the eve of death, managed to get to a deep puddle of mire or mud, threw himself in it, and rolled over and over as a Buffalo is wont to do. The sun was scorching hot, and the poor fellow got out of the mire covered with a coating of clay so as to render it like unburnt bricks, and as he walked or crawled along towards the village, the mud drying and falling from him, taking the skin with it, and leaving the flesh raw and bleeding, he was

in agony, and besought those who passed to kill him; but, strange to say, after enduring tortures, the fever left him, he recovered, and is still living, though badly scarred. (...)

This is a mere sketch of the terrible scourge which virtually annihilated two powerful tribes of Indians (...) The mortality, as taken down by Major Mitchell, was estimated by that gentleman at 150,000 Indians, including those from the tribes of the Riccarees, Mandans, Sioux and Blackfeet (...) He concluded by assuring us all that the small-pox had never been known in the civilized world, as it had been among the poor Mandans and other Indians. Only twenty-seven Mandans were left to tell the tale; they have now augmented to ten or twelve lodges in the six years that have nearly elapsed since the pestilence. >>" [2]

In this story based on eyewitness accounts, one must allow for the Davy Crockett-type inventions, most particularly on the number of victims. It nevertheless remains true that the Mandans and other tribes nearly all disappeared. This occurred 168 years ago. But there are still Plains Indians in North America.

After his return, Audubon little by little shut himself up in silence and died a few years later, about to turn 62 years old, probably of Alzheimer's disease.

*When the microbes of fiction save humanity:* Herbert Georges Wells (1866–1946) was a pioneering science fiction author using the fundamentals of science (time travel, nuclear conflict, and genetic manipulations), who also attempted to show the positive aspect of scientific and technological knowledge. In *War of the Worlds*, H.G. Wells showed the invasion of the planet Earth by Martians, totally foreign to humanity, who used the Earth and men as the biological fermenting agents required for survival. Powerless, the people are subjected to the invader who destroys them. When a saprophyte bacterium from Earth turns out to be infectious and lethal for the Martians, they are destroyed in a few hours and humanity is saved until the next encounter that Wells plans.

No one would have believed, in the last years of the nineteenth century, that human affairs were being watched keenly and closely by intelligences greater than man's and yet as mortal as his own; that as men busied themselves about their affairs they were scrutinized and studied, perhaps almost as narrowly as a man with a microscope might scrutinize the transient creatures that swarm and multiply in a drop of water. [105]

#### 40.2.7.2 *Reality, fiction, science fiction, or from reality to its frontiers*

The two World Wars, including the period between them, veiled to a certain degree the impact of infectious diseases, despite the shock of the Spanish flu of 1918–1919 and the sudden attacks of plague, cholera, typhus, and yellow fever here and there. Advances in vaccines continued and, between the wars, the antibiotics penicillin and Sulfamide were discovered, which in the 1940s and 1950s brought hope of wiping out all of the infections that had tormented humanity for thousands of years. Vaccinations plus antibiotics equals victory over infectious disease; they did not cure the disease of war, but the gods cannot be expected to

deliver everything at once. The Wisemen of the UN promised peace for 1000 years, if not eternally; in the meantime, a cold war was better than a hot war.

The use of the theme of infectious diseases and/or epidemics did not disappear so easily in literature, as we have seen with Camus's *The Plague*, Giono's *The Horseman on the Roof*, or in the great novels of adventure and love such as *The Rain Comes*, or the introspective novels written by tuberculosis sufferers expressing their sentiments toward their disease. As for the mislaid or assassin microbe, it appeared little or not at all in European detective fiction, a genre that had taken its place since the end of the nineteenth century, or was developing with a more radical and dark mode in the United States. Despite the example of H.G. Wells, the unknown microbes coming from far away, invaders were not yet the key characters in science fiction. And to hell with the venereal diseases that spread from person to person, but that a few pills or tablets or shots in the buttocks would quickly eliminate.

Speaking of the 1960s and 1970s in terms of revolution is perhaps exaggerated, but speaking rather of a period of cultural liberation, first of all sexual, goes without saying. Let us kiss, let us embrace, let us all copulate without hang-ups or risks; long live pleasure, enjoyment, and happiness (the famous search for happiness has finally succeeded); thank you Doctor Freud, Doctor Kinsey, and a few others. Ladies you have been liberated to the greater advantage of your pleasure, first of all the pleasure of the gentlemen.

The return of microbes to literature comes through the vector of science fiction, or rather anticipation à la Jules Verne. In 1969, a young doctor, just out of Harvard Medical School, Michael Crichton (we now know his famous career since then as a novelist and Hollywood scriptwriter) published a novel that could be qualified as a thriller of the near future, entitled *The Andromeda Strain* [23]. This is the year of the first man on the moon. The novel is a great success.

In this novel, an inhabited space ship crashes in Arizona; a microbe escapes that kills a few hundred inhabitants in a village in just a few minutes: Death takes them in their occupations, movements, or gestures of the moment, and only an old man and a baby survive. A cell of four eminent researchers from different disciplines in biology is created at the site and kept protected. They examine the facts, collect samples, and take the two survivors, locking themselves into a secret, multilevel, and underground laboratory of a base in Utah, a laboratory constructed for just such an incident that would introduce an extraterrestrial microbe to Earth: the Wildfire plan. Most of the novel recounts the event and the search to explain and find an answer over 5 days. The tale precisely describes the origins and organization of the Wildfire plan and recounts the adventures of the progression in the four researchers' knowledge from the underground fortress and their debates. The technical and scientific explanations are detailed by the author. Finally, one of the researchers thinks he has found the solution, but he makes a mistake in the follow-up test, and they are confronted with the risk that terrible agent may escape. The alert sets off the countdown of the

laboratory's destruction by a nuclear device kept for this purpose. One of the men suddenly understands that the mysterious organism has mutated. Another manages to stop the countdown and humanity has been saved.

Crichton, in a style that is both simple and not excessive, succeeds in maintaining the reader's curiosity and tinting it with dread. The theoretical and technical content is good, interesting, on the whole understandable, and plausible. In addition, the author had obtained first hand knowledge from research centers in microbiology and space techniques from NASA, indicating that the possibility of an extraterrestrial contamination was taken seriously from the beginning of space flight. Crichton was well informed (some would say too well).

(p. 189.) In fact, man lived in a sea of bacteria. They were everywhere—on his skin, in his ears and mouth, down his lungs, in his stomach. Everything he owned, anything he touched, every breath he breathed, was drenched in bacteria. Bacteria were ubiquitous. Most of the time you weren't aware of it.  
(. . .)

A man easily killed by bacteria was poorly adapted; he didn't live long enough to reproduce. A bacteria that killed its host was also poorly adapted. Because any parasite that kills its host is a failure.

(p. 222) Most of this work was to lead nowhere. They knew that, and accepted it in advance. As Stone was fond of saying, scientific research was much like prospecting: you went out and you hunted, armed with your maps and your instruments, but in the your preparations did not matter, or even your intuition. You needed your luck, and whatever benefits accrued to the diligent, through sheer, grinding hard work.

(p. 225) True, every living thing on earth had at least some proteins—but that didn't mean life elsewhere had to have it.

(p. 226) This was not an academic matter. Biology, as George Wald had said, was a unique science because it could not define its subject matter. Nobody had a definition for life. Nobody knew what it was, really.

(p. 235) Perhaps the human brain had become a kind of dinosaur for man and perhaps, in the end, would prove his downfall.

Already, the brain consumed one quarter of the body's blood supply.

(p. 273) Sir Winston Churchill once said that "true genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information." (. . .)

One is reminded of Montaigne's acerbic comment: "Men under stress are fools, and fool themselves."

Crichton tells the story of Kalocine, a drug, an experimental chemical product developed by Jensen Pharmaceuticals in spring 1965, that was supposed to cure all cancers.

(p. 298) February 1966, a pilot clinical trial was undertaken. It involved twenty patients with incurable cancer, and twenty normal volunteers from the Alabama state penitentiary. All forty subjects took the drug daily for one month. Results were as expected: normal subjects experienced unpleasant side effects, but nothing serious. Cancer patients showed striking remission of symptoms consistent with cure.



On March 1, 1966, the forty men were taken off the drug. Within six hours, they were all dead.

(p. 301) It was then that he realized that he, too, was scared. Scared to death. The words came back to him.

Scared to death.

Somehow, that was the answer.

p. 302. He smiled.

“I think we can be fairly confident that the organism will move into the upper atmosphere without causing further difficulty on the surface, so there’s no problem there. And as for us down here, we understand what’s happening now, in of the mutations. That’s the important thing. That we understand.

“Understand,” Hall repeated.

“Yes,” Stone said. “We have to understand.”

*The Andromeda Strain* was at the origin of a Romantic and cinematographic fashion, with stories that were more fantastic than scientific, deviating toward gruesomeness and terror. However, it was a time when infectious diseases were on the way to being conquered, or were officially vanquished, so why bring them out or use them as a dramatic springboard in entertainment or more serious works?

The Marburg Laboratory accident in 1967 as well as the Ebola epidemics in the Democratic Republic of Congo and Sudan in 1976 brought the discovery of the *filoviruses*, but this was not widely reported by the media, and therefore went unnoticed by the general public. *Filoviruses* were only the last, or rather the next to last members in a procession of hitherto unheard-of microbes causing serious disease and a more or less high percentage of deaths that had been revealed since *Junin* in the 1930s in Argentina to *Machupo* in Bolivia at the end of the 1950s and a few others such as *Hantavirus* in Korea. As had been predicted by Charles Nicolle, the *Fate of Infectious Diseases* was indeed that they would come back in the future. Ebola had barely gone out after its brief outburst that HIV began its ravages in secret. The shock of AIDS seemed to anesthetize the creative minds and consciences. Literature and film took time to seize upon the theme of AIDS. However, Ebola and HIV shook researchers who, as the 1980s progressed, defined the concept of disease, microbes, new viruses, more exactly as *emerging*.

Ebola alerts occurred. In 1992, the national press in the United States revealed the 1989 affair of the pet store in Reston, Virginia, and showed that the administration and virologists had been able to hide since then. One year later, a good novelist, Richard Preston, wrote and published *The Hot Zone* a fictional story of the discovery of Ebola and its possibly dramatic consequences, a great success with the public, with translations in a number of countries. (In 1988, Richard Preston also published *Cobra Event*, the story of a bioterrorist attack on New York by an unknown virus. Then in 2002 came *The Demon in the Freezer*, an investigation into bioterrorist risks.) In 1994, the Hollywood film *Outbreak* came out, which had repercussions in the film industry as significant as *The Hot Zone* had in literature. In the news that year, a French

virologist, a specialist in hemorrhagic fevers (an author of this chapter: JPG) working at the Yale Arbovirus Research Unit at Yale University, was accidentally infected with the yet unknown Brazilian virus *Sabia* that he was studying. He was saved in only a few days, but the case increased the media bal-lyhoo. Finally, that same year, a journalist and science columnist working for *New York Newsdays* and other national media, Laurie Garrett, published *The Coming Plague*, subtitled: *Newly Emerging Diseases in a World out of Balance*, a gripping survey that tells the story of new infectious diseases cropping up over the last several decades. Novels and films—even more so television films—multiplied. In literature, among other more or less minor works, let us give as examples the creations on our subject of three renowned American writers who deserve their success and who are specialized in thrillers and detective puzzles.

*Robin Cook*. This ex-surgeon began writing thrillers around 1980. His stories take place in the areas that he knows best: healthcare, medicine, and the hospital. He took up our subject in 1995 with the title *Outbreak* (the novel was quickly made into a television film). The story involves a sort of violent black plague that seems to have come from Africa, which was first unveiled in a Los Angeles medical center. The investigator makes a frightening discovery. In 1997, Robin Cook pursues the same theme of an unknown bacterium, but through science fiction, presenting *Invasion*: an extraterrestrial civilization “bombs” the Earth with small, seemingly metallic objects that sting people and take hold of them, inoculating them with a bacterium that awakens and modifies a dormant virus, present since the beginning of life in all living things. The process kills the weakest of them and leaves the survivors in a state of euphoria that subjects them to a mysterious superior power.

In 1999, this author returned to a more plausible (and therefore more cautionary) reality with *Vector*. The story takes place in New York: militants of white supremacy wish to punish those responsible for the cultural and social decadence of the country through an attack that would kill great numbers of innocent people (reminiscent of the Oklahoma City bombing that was set off by a truck bomb). The means: spread a lethal microbe in an office building. They meet a taxi driver, a Russian emigrant—what luck!—a technician who survived the Sverdlovsk catastrophe in the USSR (today Ekaterinburg) where a biological weapons factory exploded, releasing a large amount of anthrax. This gives us the report of the April 2, 1979, Sverdlovsk catastrophe, made public for the first time here, slaughtering the population. The taxi driver joins the project; he sets up a high-protection laboratory in his basement to produce several kilos of anthrax and botulinum toxin. He manages to cultivate a small amount of anthrax. It is tested by mailing the white powder to several strangers. The project develops, but the tenacity of two pathologists stops the catastrophe at the last minute.

p. 126. He went on to describe the visit he and Steve had made to the Jacob Javits Federal Building that morning. He told Yuri that

it was set up perfectly to put the bioweapon in the HVAC duct. “Will you need an aerosolizer?” Yuri asked. “No, not if the weapon comes in a fine powder,” Curt said. “We’ll use timed detonators to burst the packaging. The circulating fans will do the rest.”

p. 127. (. . .) “That’s what we’re fighting against. We know we’ll have some civilian casualties in the struggle. It’s to be expected. But it’s the government we’re targeting.”

“There are no civilians in my war,” Yuri said. “That’s why I want the laydown in Central Park. With a proper wind vector it will take out a large swath of the city. I’m talking about hundreds of thousands of casualties or even millions, not thousands. That’s what a weapon is supposed to do. Hell, for your narrow objective you could use a regular old bomb.”

For those who read *Vector* after September 11, 2001, the story written 2 years before by Robin Cook leaves one thinking, reality joining fiction: letters containing anthrax sent by mail . . .

*Patricia Cornwell.* Who has never heard of, or read, this American novelist, a writer since the 1990s of detective novels that are globally successful thrillers? Novels whose main character, the heroine, is a woman, a chief pathologist for the state of Virginia, in Richmond (after nearly a dozen books, the author has to quit her job to continue working as a freelance investigator). In 1997, Cornwell published *Unnatural Exposure* [19]. The heroine must face a serial killer, but the point of the story for us is that the author presents a return of a form of smallpox, nearly 20 years after it has been officially eradicated, a form similar to monkeypox. The heroine is contaminated and isolated in a specialized center. As for all her books, Cornwell is highly informed on the subject, on both the science and technical fronts.

p. 195. [20] after all the murder and madness I had seen in my career, it would be a disease that quietly killed me in the end. I never knew what I was exposing myself to when I opened a body and handled its blood and breathed the air. I was careful about cuts and needle sticks, but there was more to worry about than hepatitis and HIV. New viruses were discovered all the time, and I often wondered if they would one day rule, at last winning a war with us that began with time.

p. 210 (. . .) BL-4 meant scientists doing open war with Ebola, Hantavirus and unknown diseases for which there was no cure.

p. 253. “Dr. Martin,” I said. “Do monkeys get monkeypox or are they just the carrier?”

“They get it and they give it where there is animal contact, as in the rain forests of Africa. There are nine known virulent poxviruses on this planet, and transmission to humans happens only in two. The variola virus, or smallpox, which, thank God, we don’t see anymore, and molluscum contagiosum.”

p. 337 (. . .) They cuffed Dr. Phyllis Crowder after she collapsed to the floor. An ambulance transported her to Sentara Norfolk General Hospital, where twenty-one days later she died, shackled in bed, covered with fulminating pustules. She was forty-four.

Patricia Cornwell is well read. She knows that bad women, the sinners, are punished by smallpox, whether they die or

not, by ugliness or rottenness, like Madame de Merteuil in *Les Liaisons Dangereuses*, or Zola’s *Nana*.

*Tony Hillerman.* Almost as well known as his famous countrywoman, this writer of classic detective novels began his literary career late. A native of Oklahoma, the American with European roots was a journalist in his home state, then in Texas, before working and settling in Santa Fe and Albuquerque, New Mexico, where he discovered the life and culture of the Navajo and Hopi Indians in the Great Reservation at Four Corners, covering part of four states in the Southwest of the United States. Hillerman’s very original idea was to place his detective stories within the Great Reservation and make his two heroes policemen of the Navajo Tribal Police: a lieutenant near retirement and later retired, and a young recruit, then sergeant, who became his student in the profession. Hillerman, clear headed, is not someone whom humanity drives to despair, because, although not ideal, man is peaceable, because the traditional Navajo interests him. There is also the setting (and archeology) of this region of great natural beauty, its skies, its colors, its reliefs, and contours. As for the riddles and detective investigations that the author recounts, they are well put together and sufficiently captivating to fascinate the reader.

In 1998, Tony Hillerman published new adventures of Lieutenant Joe Lephorn, pulled out of retirement, and Sergeant Jim Chee, officiating as temporary lieutenant, under the title *The First Eagle*. Two unrelated people have disappeared in the wild: a rank-and-file policeman on patrol and a young woman who is a technician and researcher for the Arizona Public Health Department, who studies small mammal vectors (here a colony of prairie dogs and families of kangaroo rats) and various parasite insects (fleas), parasites that are suspected of living and transmitting microbes of infectious diseases. Several human cases of a species of new bubonic plague have shown up on the Reservation. There is indeed an assassin, a young, ambitious researcher working alone for a pharmaceutical company. There is no doubt that Hillerman was inspired by the story of an epidemic brought on by a new Hantavirus, with victims in several states during the summer of 1993, the first of which, setting off the alarm, were in fact Navaho Indians. The virus, at first baptized with the true toponym, *Muerto Canyon*, where the presumed index case was infected, was renamed as *Sin Nombre (!)* (*engl.* = *No name*), so as not to offend the people of the regions and not frighten the public more. We know that the field research for the virus in New Mexico and Arizona was the first great joint maneuver with CDC teams and other concerned organizations—a success since the puzzle was solved and the virus described in just a few weeks. Hillerman’s novel succeeds in making us live the daily events of the researchers in the field and in their laboratories, these hunters of viruses and other infectious agents, original players in microbiology research. The author has collected his documentation and information from the best sources.

(pp. 95–96) Well, first he asked whether we’d wrapped up the work on the plague cases. I said no, we didn’t know where the

last one got it. I told him Cathy was still working on that one. Then he asked if we'd found any live kangaroo rats up around the Disbah place. That's one of the places where a hantavirus case had turned up. I told him we hadn't. [57]

(p. 102) (. . .) He's studying how some hosts of vectors – like prairie dogs, or field mice, and so forth – can be infected by bacteria or viruses and stay alive while others of the same species are killed. For example, plague comes along and wipes out about a billion rodents, and you've got empty burrows, nothing but bones for a hundred miles. But here and there you find a colony still alive. They carry it, but it didn't kill them. They're sort of reservoir colonies. They breed, renew the rodent population, and then the plague spreads again. Probably from them, too. But nobody really knows for sure how it works.

(p. 115) (. . .) He thinks the bacteria are going to eliminate mammals unless we do something about it. And if they don't get us, the viruses will. He feels this need to warn everybody about it. Jeremiah complex.

(pp. 150–151) “Now, if I'm lucky, the blood in these fleas is laced with *Yersinia pestis* and” – Woody poked the prairie dog with the tweezers—“so is the blood of our friend here. And if I'm very lucky, it will be *Yersinia X*, the new, modified, recently evolved fast-acting stuff that kills mammals much quicker than the old stuff.”

(p. 154) “Because nothing stops them except your immune system. You don't cure a viral sickness. You try to prevent it with a vaccine. That's to prepare your immune system to deal with it if it shows up.”

(p. 190) “And what you learn from the rodent immune system applies to the human system.”

“That's been the basis of medical research for generations,” Woody said. He put down his cup. “If it doesn't work this time, we can quit worrying about global warming, asteroids on collision courses, nuclear war, all those minor threats. The tiny little beasties have neutralized our defenses. They'll get us first.

Toward the beginning of his novel, Tony Hillerman has one of his characters tell a historical anecdote, which he ends by citing an age-old refrain still sung today as a nursery rhyme.

(p. 9) “You know,” he said, “back in the Middle Ages the doctors had another cure for this stuff. They thought it had something to do with the sense of smell, and they recommended people stave it off by using a lot of perfume and wearing flowers. It didn't stop everybody from dying, but it proved humans have a sense of humor.

(. . .)

“What do you mean?”

They made an ironic song out of it—and it lived on as a nursery rhyme.”

Howe sang it in his creaky voice:

Ring around with roses  
Pockets full of posies.  
Ashes. Ashes.  
We all fall down.

The new bacterial or viral dangers have therefore fed and continue to feed the imagination of confirmed or budding writers—our authors above are not the only ones. In addition, a few nonfiction works should be noted, documentaries,

written by journalists in the tradition of investigative journalism. We have already cited Laurie Garrett's 1994 *The Coming Plague*. She did it again 6 years later with *Betrayal of Trust: The Collapse of Global Public Health* [37], which emphasizes the errors committed during the last few decades in the research and fight against the microbes of infectious diseases. In 2001, reedited in 2002, Judith Miller, Stephen Engelberg, and William Broad published *Germs, Biological Weapons and America's Secret War* [81], which recalls several minor, but as yet unspoken, acts of bioterrorism, and then underscores the threat of biological warfare, a potential weapon of massive destruction. Finally, from Gina Kolata there is *Flu, The Story of the Great Influenza Pandemic of 1918 and the Search for the Virus that Caused It* [60], whose subtitle explains the content, the first great work on this enormous pandemic that ravaged the planet just at the end of the Great War, a major event in the history of public health that was hidden for a long time. The history of the search for the responsible virus is a novel in itself. In fact, these last books read like novels, with the qualities of American investigative journalism, with its descriptions as lively and colorful as they are precise, and its reconstituted dialogues thanks to the recounts of the people involved in the events, in addition to the documents and archives. This is a form of literature, also artistic in how it presents facts.

September 11, 2001, its aftermath, and the wars in Afghanistan and Iraq, have somewhat discredited the biological threat, especially since it was put forward, along with the chemical and nuclear threats, to justify the political and military actions instigated, the infamous arms of mass destruction now revealed as somewhat overdone. However, the biological risk by voluntary human action still exists. As for more natural biological risk, it continues to thrive, as the lightning SARS episode in 2003 and bird flu demonstrate. There is no doubt that writers and cinematographers will continue to use these risks and the defense against them as subjects for their work. Infectious diseases have a bright future ahead of them in artistic creation.

#### 40.2.7.3 *Anticipating a future flu: Hervé Bazin (1911–1996)*

*The Ninth Day* [4]. Recognized as one of the most talented French novelists, Hervé Bazin devoted his work to the acerbic critique of the human environment he lived in, both in the family, shown in parental intolerance and heaviness, notably coming from the mother, and in the social group and society. He rejected any coercive demonstration of power and showed a discrete benevolence for the rebellious individual or for the unconventional figure. His biting irony toward stupidity and individual or group failings hit home. He was a moralistic writer; his novels were also long fables in prose.

At first sight, one would not have expected Hervé Bazin to launch into writing fiction—or rather science fiction—taking place in an environment describing it, rather removed from his provincial life, or his somewhat reserved Parisian literary life, limiting himself to the Académie Goncourt—and even more so at his age of an octogenarian. But in the end,

the subject treated, although original, was not so far from the intellectual preoccupations of this novelist. The severe and distressing irony of a stupid laboratory accident in a research institute studying fatal viruses could only be interesting to him. In fact, we know that he was informed of the scientific developments in this domain, and of the possible risks, by a close relation by marriage, himself a virologist and researcher—the documentation is complete and faultless. Il existe de ces rencontres entre un bon romancier et un sujet qu'il choisit. L'auteur se doutait que sa carrière ne se prolongerait pas des années, même s'il ignorait que ce serait son dernier roman—not a very optimistic testament, in the end well within the line of his work.

*The Ninth Day* tells the following story: In a research center on dangerous viruses, financed by the European Community, near the Franco-Belgian border, a program directed by a Doctor Alleaume studying the virus of the 1918–1919 flu, newly found. The organization and the research work are described, as is the private life of the main researchers. A flu from an apparently new virus breaks out in India, in Bombay. The illness is immediately extremely lethal and spreads throughout the world in a few weeks. The political leaders mean to be reassuring, but the economic consequences are tremendous and the panic real: It will take months to produce a vaccine. This flu kills indiscriminately, like all great plagues. We realize that the virus is similar, perhaps identical, to the 1918 virus. The Center is working at less than capacity, affected as everyone is by the number of ill and dead. But it is Alleaume's team that describes the virus first, which allows them to launch the production of an adequate vaccine: They are going to save the world! Well, humanity. The end of the novel can be revealed here: Alleaume begins to have doubts. His main assistant on the project, who has disappeared, had decided to take a break, a few days before the beginning of the flu, giving the impression that he was going to see his ex-wife and children in Canada. But Alleaume learns that Martin Lansdale is spinning out love's sweet dream with a woman and that he went somewhere else. Then comes the official news of his death in Bombay, where he had been staying a few months before, in a hotel, that Alleaume phones: Yes, he was stricken by the flu, among the very first, with the woman, and they had died in the hospital. Alleaume, thunderstruck, then remembers that just before leaving, Lansdale, working on the 1918 virus in the P.4 laboratory, had hit a corner and cracked the mask of his high-security cleanroom suit; but he had immediately followed the protective procedures. But . . . There is no doubt: It is indeed him; they are the ones responsible for the pandemic of the superflu. He imagines the headlines in the newspaper about him: *The rescuer is the assassin!* The next day, a routine exam informs Alleaume that he has advanced liver cancer and has only a few weeks to live.

This novel, with its fatal irony, was the last message from Hervé Bazin to a society that raised his ire. However, as the author specifies, it is science fiction. Like those written by, among others, a certain Jules Verne, we might add . . .

(p. 30) (. . .) Shrewdly built in open country by architects who remembered the Sverdlovsk, alias Ekaterinburg, disaster, where the Romanovs had died and where a Soviet military laboratory had exploded, causing a slaughter, we could see the quadrilateral of the Center.

(p. 38) (. . .) Millesond (the Center's director) was insistent, singing the litany of the sorcerer's apprentice:

"And if it was nothing more than that! Accidents, blunders! I can cite dozens. I'll mention just a few random ones, shall I? You can put names on them if you wish. Which good scientist released two rabbits into the wild that he had inoculated with myxomatosis, simply to protect crops? What did a British biologist working at the Porton Research Center die of? And what happened to that poor assistant of some big CEO who was working on the Lhassa virus? Who introduced a macaque virus into a common human intestinal virus, without a single worry as to what would happen if it came back home? Who toyed with the growth hormone gene to obtain rabbits that are bigger than goats, sheep the size of cattle, I mean, monsters? What madman dared wonder if such a thing as ethnic viruses existed that would only contaminate one variety of the population, and for what purpose? (. . .)

(p. 44) (. . .) It's true, that's my role. I must prevent researchers from researching in dangerous areas. I'm not crying mad scientist here; I'm calling out to the virtuous scientist wandering around in the unknown without disclosing that it's a mine field. (. . .)

"Lord! You created the world in six days and on the seventh you rested. On the eighth, you chased man out of earthly heaven to punish him for having touched the fruits of the tree of knowledge. But the ninth day, having gotten a taste of it, *sapiens* gave himself the means to destroy or transform your creation, alone. And he does what he can without necessarily knowing what he's doing. And you see me, Lord, divided between Well done! and Darn!

(pp. 44–45) (. . .) Because, my children, I wish you a good one, like poor Damocles. Live with the very costly nuclear power until the end of time, without ever touching that little bomb, now that would be tricky. But live peacefully, indefinitely, with biologists who exalt in knowing that nature uses the same chemical language for all living creatures, with interchangeable genes, who from now on can break down the barriers separating species and tinker around with ours, who, because of an influx of knowledge, inaccurately measure the immensity of their ignorance, who will provide you with the means to turn life upside down and tease death, all at a low price. Do you really think that's a return to Eden? When a danger is possible, time makes it probable and over the long term, inevitable: it's the story of 0.001 multiplied by 1,000!

(p. 47) "Let's get down to the facts. Since last night, 11 pm, India has been sounding alarms. The flu epidemic that has just started up in the Bombay region can already be regarded as worrying. It seems to be a severe form and the first serological data make us hesitate between a quite dangerous mutant and an old killer reactivated in populations that are no longer immune to it (. . .) It's not at all improbable that it could rapidly spread." (. . .)

Spread to here, of course. To here, where this year's vaccine cocktail distributed to the high-risk members of the population has just been allocated and where people are counting on protection that is now illusory.

(p. 66) (. . .) Nothing but the virus can do as well as what man has done.

(p. 68) (. . .) the epidemic proceeded like a tumor through distant metastases where the airlines played the role of the blood circulation.

(p. 72) “Imagine, Alleaume, that it’s been twenty years ago now that my dissertation director announced the end of the great viral invasions. And now two of them, one right after the other, have declared victory, and three or four more are threatening. The next one could be the resurrection of the yellow fever. In Louisiana, for example.” (. . .)

(p. 114) (. . .) The appearance of such a viciously contagious flu the likes of which we hadn’t seen since the beginning of the century, even more serious because AIDS has remained undefeated, because dengue fever from the tropics, until now inoffensive, was becoming fatal, because polio was making a comeback, because the planetary upheaval ran the risk of disseminating exotic aggressors that had until now remained local, such as the horrific Ebola from Zaire, the Japanese Kawasaki, the Hantavirus from Korea, the Marburg, Lhassa, Machupo, and Junin viruses and other, less well-known assassins. What? Haven’t these attacks been periodical? Haven’t they always been responsible for sixty percent of the infectious diseases, these miniscule threads, cubes, rods, spikes, invisible, insensitive, which attack us just like pork, tobacco, potatoes, or cats?

(p. 158) (. . .) But even more significant, there was widespread use of the nose-guard, a small double filter inserted into the nostrils that was supposed to protect the breathing in a contaminated atmosphere and clearly the heir – although made in China – of the perfumed antiplague beaks of the Middle Ages.

(p. 190) In fact, the unfortunate editors recited a single litany: the stock market at its lowest, zero dividends, ineffective advertising, liabilities at their highest, currencies surfing on the money printer, crazed exchange rates, seizures of goods, the IRS with no money coming in, drained budgets. . . A disaster!

(p. 191) With so many apartments empty in the cities, the price per square foot collapsed.

The same can be said of gold, oil, artworks, vintage wines, paintings, art books.

(p. 211) (. . .) Unfortunately, my memory was too good. I hadn’t forgotten that the day before his departure, Martin, slipping accidentally, had fallen and struck the edge of the dissection table, that he had cracked the plastic facepiece, and holding his breath – or thinking he was – he had to quickly move back to the security area. Forgotten at the time, this incident later became of vital importance: we would find it in the report.

(p. 215) (. . .) It spread in a circle. The virus itself is showing us: despite its age, it has undergone no change, not even minimal. It surprised me to no end: it was an exact copy of the porcine virus found frozen in Alaska that we reactivated.

(p. 217–218) Am I showing off? Yes, I’m showing off. What did you think I was doing? That in the hundred thousand years to come – small beans, really – not to mention the little bomb, the manipulations would stop, the possible would cease to be solicited, that nature would no longer be more and more rigged by the braggarts of the heroic original sin. What did you imagine? That once smallpox was eradicated (we’ll see), AIDS quelled (we’ll see), the viral army would back away endlessly? My eye! Death is inventive; so many of its other friends are awaiting their turn. The latest news: see the devourer of human flesh join the list, the bacterium of a violent gangrene, not at all unknown, but

rather extolled, that our antibiotics have kindly selected, insistently pushed forward. What did you imagine? *Evil is nothing more than the pus of good*. And our great benefactors, the Jenners and the Pasteurs, like their excellent successors, have so congested the square mile that the *sapiens*, on their own planet, is the first calamity, the source of every other disaster. Let us wish him a good one! After all, when the very saint plague, former world record-holder, caused so many souls to rise to heaven, it never surpassed a success rate of ninety-nine percent! For the superflu, let us come to an agreement, Lord! Your clemency allowed me to remain far off target.

(p. 231) I’m driving along. Custom-fit for me, my cleanroom suit will be of use to no one; perhaps, if the High Security Laboratory is closed, it will become a rare object in the Museum of Fear, like in Japan. I’m driving. The embankments are covered in daisies, with poppies bleeding among them. I too, at my funeral, will be covered in flowers, at the risk of being covered in trash the week after. So what? I will never be aware of it. Everything is fine in the worst case: early retirement, entirely justified, nothing suspicious, unequivocal. I’m putting an end to myself, I’m shutting up, I’m extinguishing myself discretely in the rare satisfaction of disappearing. Salvation, at times, has unexpected appearances.

This novel, like the detective or science fiction works cited before it, is indeed realistic science fiction; it does not recount a story from the past, but perhaps of an approaching future. Any comment would be superfluous.

### 40.3 CINEMATOGRAPHIC ART: MOVIES AND DISEASES

More than 200,000 movies, including 50,000 movies of the silent screen, have been registered to date [87]. We have explored roughly 11,000 productions (from 1920 to the 2004 Cannes Festival) to identify the implication of infectious diseases in their scenarios. These analyses excluded most documentaries and scientific film production.

Although television films represent an enormous production of movies especially produced for commercial television, we did not include this type of production in our presentation.

Both in the way it is constructed and in which it is received, film is a remarkable art form, allowing as it does the animation of photographic images and the visualization of the temporal development of what is shown. Few arts or art forms, apart from painting occasionally, photography, and sometimes opera, and then in very few works, achieve the evocative (more often brutal than peaceful) passion of film. Film forcibly creates a distortion of reality and time. It makes up for time lapses through flashbacks. It is rare for the duration of a short film, about two hours, without flashbacks, without a return to the past, to be the duration of the story it tells. We are aware of only one real, successful example: *High Noon*, by Fred Zinnerman (1952), which obeys, in a real, albeit psychological western, classical drama’s three unities: unity of action, place, and time.

Moreover, it is good form to create an analogy with literature and speak of film writing. Despite the good impression this makes, film is nothing like literature. Of course, there is a screenplay written by one or many authors, which is divided up into scenes (shots and sequences), a script which describes the action and the characters' dialogues (today a storyboard is drawn, most probably by computer); next comes the direction and the shooting; finally, an essential part: editing, which plays a critical role in the success or failure of a film. Hence, we should use the term "film language" rather than writing. On top of that, film is a collective artistic work of a team made up of many members, even though celebrity is often reserved only for the directors, screenwriters, and actors—there is a project manager, sometimes more than one, just as in architecture. A writer, however, is alone with his page and his pen, or in front of his computer with his keyboard. In order to present a narrative or tell a story, everything in the spirit of the work and in its very construction is different. However, the main difference between the two narrative (and in a sense spoken) arts—one ancient and one modern—resides elsewhere. The narrative is received by the reader in a physical, physiological, and spiritual way, on the one hand, and the cinemagoer on the other hand. By definition, a literary work is read, but a work on screen is watched and also listened to, both senses being almost the only ones brought into play. Instantly, the brain interprets the work as it wishes and delivers sensations and emotions. The cinemagoer (as is the case with a play or an opera) can be illiterate. The reader of a work of literature must of course know how to read—the first intellectual operation—not only how to decipher letters and words in a sentence and make sense of its syntax but he must also understand and reconstruct what is described: the second intellectual operation. The space left up to the reader's imagination is vaster and more intimate and discreet than that left up to a viewer. The latter receives the message and the image frontally; he is obliged to absorb it without being able to analyze it as the film progresses. That is why, for example, a violent, crudely brutal and bloody act is felt with much more sensitivity in a film than one described in a literary text. The same goes for sex, which on film is always arousing through its visual aspect, which often creates unease—un-ease/dis-ease—like disease. In literature, the acts described have to be outrageously perverse and sadistic, with in-depth details to create similar unease in the reader: Only a few decades ago, this type of narrative was censored and condemned, the authors and publishers prosecuted. Even today, when freedom of speech has asserted itself at least in Western cultures, explicitly cruel and/or sexual narrative is not freely accessible to the average citizen (it is restricted to pornographic magazines, that is, photography, and Japanese mangas, or comic books, as well as some other media or vectors). However, film is readily accessible. From the very start, film has been aggressive. It has become more so, through freedom of speech but also thanks to technical progress.

The general comments above on the art of film do not form an opinion, but the acknowledgment of a reality, without criticism or value judgment. Why have we emphasized

the technical reality of film? Why have we brought it up here? What does it have to do with our subject? Doubtless not everything, but a great deal. Indeed, suffering, death, biological and/or mental ill health should be main themes in film. Indeed they are, but not much through the means of disease, and certainly not through contagious or epidemic disease. Nevertheless, the situations created by such diseases in reality, in real life, should lend themselves to the film medium. We note, however, that film has only provided a small number of works concerning infectious diseases and epidemics, to a greater or lesser extent: Out of 11,000 films listed in a dictionary by specialists, fewer than 100 are about disease or evoke the subject.

Note that literature, on this level, is hardly rich in number, even counting the recent and contemporary thrillers inspired by emerging diseases and microbes. On the contrary, ordinary suffering, violence, cruelty, and sadism—of war for example—are widely treated, but rarely through disease. Disease, a fairly natural biological phenomenon, creates unease, and when it is potentially fatal, creates fear. We can see no other major explanation for its absence noted in the literary arts. Filmmakers have used infectious disease, either by adapting a work of literary fiction, or by taking inspiration from reality, or by inventing an original story. Let us take a look at the main works featured in our table.

To recap: 87 films out of 11,000 quoted in the reference book is a small percentage. Almost all 87 titles are works of quality; some of them are masterpieces. Their directors are often filmmakers who are well known for the quality of their work, including such living artists as Bergman, von Trier, Wadja, Russel, Mulligan, Carpenter, Cronenberg, Demme, Peterson, Herzog, Robson, Coppola, Branagh, and Gillam. Those who have died include Manziés, Brow, Kazan, Preminger, Demy, Vidor, Cukor, Polack, Bresson, Huston, Wyler, Renoir, Allegret, Ford, Grémillon, Reed, Murnau, and Visconti. Almost none of the others were or are producers of simple popular entertainment consumer products, which are also part of film; they were or are skilled craftsmen.

*The oldest film made* directly concerning our subject is entitled: *Au Ravissement des Dames*, directed by a certain Alfred Machin, dating from 1913. It is a short film that lasts only 11 min. (Only short films were made at this pioneering era of the cinema, with either a dramatic or a comical subject, with accentuated visual effects due to the lack of sound.) Its content is, however, original and curious: the dressmakers of a department store are exploited and live in miserable conditions. They become infected with tuberculosis and contaminate the rich clients with the dresses as vectors. This is one of the first social commentary films, if not the very first. Note that nearly 100 years later, at the beginning of the twenty-first century, disease associated with working conditions and the working environment is again in the news.

*The Plague* makes its first appearance in film with Otto Rippert's *Die Pest in Florenz*, in 1919, just after the end of the First World War, in the heat of the Spanish flu epidemic, perhaps not a simple coincidence.

**TABLE 40.1.** Filmography of Infectious Diseases

Movie Title	Author	Origin	Date	Remarks (the Place of the Disease in the Scenario)*
<b>Plague</b>				
<i>Die Pest in Florenz</i>	Otto Rippert	Germany	1919	Referenced to the 1348 black plague of Florence? (1)
<i>The Painted Veil</i>	Richard Boleslawski	USA	1934	Fighting epidemic in China? (4)
<i>The Seventh Sin</i>	Ronald Neame	USA	1957	Remake of <i>The Painted Veil</i> (4)
<i>Things to Come</i>	William C. Manzies	United Kingdom	1936	From HG Wells, war, plague, revolt, anticipation (1)
<i>The Rains Come</i>	Clarence Brow	USA	1939	Monsoon, plague and nurse (3)
<i>Forever amber</i>	Otto Preminger	USA	1947	Plague epidemic in the 17th century in kingdom of England
<i>Monsieur Vincent</i>	Maurice Cloche	France	1947	St. Vincent de Paul
<i>The Rains of Ranchpur</i>	Jean Negulesco	USA	1955	Remake of <i>The Rains Come</i> (3)
<i>Panic in the Streets</i>	Elia Kazan	USA	1950	Risk of disease spreading (1)
<i>Det Sjunde Inseplet</i>	Ingmar Bergman	Sweden	1956	Epidemic and death dance (1)
<i>Andrej Rublew</i>	Andrei Tarkowski	USSR	1969	Russian plague in 1424 (1)
<i>The Last Valley</i>	James Clavell	USA	1970	30-years war, plague episode (2)
<i>The Pied Piper</i>	Jacques Demy	United Kingdom	1971	The Pied Piper tale (1)
<i>Flesh and Blood</i>	Paul Verhoven	USA	1985	16th century war and plague in Europe (4)
<i>Epidemic</i>	Lars Von Trier	Denmark	1987	Plague Milano 17th century (2)
<i>Niezwszka Podroz Balthazara Kobera</i>	Wojcieck J. Has	Poland / France	1988	Plague and societies, 16th century (4)
<b>Tuberculosis</b>				
<i>Au Ravissement des Dames</i>	Alfred Machin	France	1913	Plague and societies (1)
<i>La Bohème</i>	King Vidor	USA	1926	From Puccini opera booklet written by Henry Murger (3)
<i>Mimi</i>	Paul Stein	USA	1935	Remake of <i>La bohème</i> USA (3)
<i>Camille</i>	George Cukor	USA	1936	From Marguerite Gautier novel (3)
<i>Docteur Laennec</i>	Maurice Cloche	France	1949	Biography (2, 3)
<i>La Dame aux Camélias</i>	Raymond Bernard	France	1953	From Dumas novel (3)
<i>Traviata</i>	Vittorio Cottafavi	Italy/France	1953	From Dumas novel in modern times (3)
<i>This Property is Condemned</i>	Sydney Pollack	USA	1966	From Tennessee Williams (3)
<i>Mouchette</i>	Robert Bresson	France	1967	The mother of heroin (3)
<i>Brzezina</i>	Andrzej Wajda	Poland	1970	Psychological drama (2)
<i>Priest of Love</i>	Christopher Miles	United Kingdom	1981	A biography of the last years of DH Lawrence's life (3)
<i>La Bohème</i>	Luigi Comencini	France/Italy	1987	From Puccini opera booklet (3)
<b>Cholera</b>				
<i>The Barbarian and the Geisha</i>	John Huston	USA	1958	Epidemic in Japan in the 19th century (1)
<i>The Charge of the Light Brigade</i>	Tony Richardson	United Kingdom	1968	War and diseases Crimea 1854. A 1936 movie remake of M. Curtiz, USA (4)
<i>The Music Lovers</i>	Ken Russel	United Kingdom	1968	Psychological drama (2)
<i>Le Hussard sur le Toit</i>	Jean-Paul Rappeneau	France	1995	An epidemic in South of France in 1030 (1)
<b>Leprosis</b>				
<i>L'Homme du Niger</i>	Jacques de Baroncelli	France	1939	Colonial Adventure (3)
<i>Ben Hur</i>	William Wyler	USA	1959	A remake of 1925 silent movie by Fred Niblo, USA (4)
<i>The Spiral Road</i>	Robert Mulligan	USA	1962	Borneo epidemic in 1936 (2)
<i>The Fog</i>	John Carpenter	USA	1979	Fantastic, horror (2)
<b>Smallpox</b>				
<i>Gösta Berling Saga</i>	Mauritz Stiller	Sweden	1924	Middle Ages drama, adapted from Selma Lagarlöf (Nobel price) (4)
<i>Nana</i>	Dorothy Arzner	USA	1924	From Emile Zola (3)

TABLE 40.1. (Continued)

Movie Title	Author	Origin	Date	Remarks (the Place of the Disease in the Scenario)*
<i>Nana</i>	Jean Renoir	France	1926	From Emile Zola (3)
<i>Nana</i>	Christian Jacques	France/Italy	1955	From Emile Zola (3)
<i>Les Liaisons Dangereuses</i>	Roger Vadim	France	1960	Drama; From P. Choderlos de Laclos (3)
<i>Dangerous Liaisons</i>	Stephen Frears	United Kingdom	1988	Drama; From P. Choderlos de Laclos (3)
<i>Valmont</i>	Milos Forman	USA	1989	A remake of <i>Dangerous Liaisons</i> (3)
Typhus				
<i>In Old California</i>	William NcGann	USA	1942	Western typhoid epidemic (2)
<i>Les Orgueilleux</i>	Yves Allégret	France/Mexico	1953	Phycological drama in Mexico (2)
<i>Die Letzte Brück</i>	Helmuth Kautner	Germany, RFA	1954	War and murine typhus (2)
<i>Morte a Venezia</i>	Luchino Visconti	Italy/France	1971	Cholera or typhus? (2)
Yellow Fever				
<i>The Prisoner of Shark Island</i>	John Ford	USA	1936	Historical drama (Lincoln murderer, doctor) (2)
<i>Jezebel</i>	William Wyler	USA	1938	Drama, New Orleans quarantine (2)
Rabies				
<i>Gardiens de Phare</i>	Jean Grémillon	France	1929	Drama (1)
<i>The story of Louis Pasteur</i>	William Dieterle	USA	1936	Biography (2)
<i>Rabid</i>	David Cronenberg	Canada	1976	Horror: vampire and rabies (2)
Syphilis				
<i>Liebes Konzil</i>	Werner Schroeter	Germany	1981	Fantastic (1)
<i>Le Mal d'Amour</i>	Giorgio Treves	France/Italy	1986	Drama (1)
AIDS				
<i>Encore (Ones More)</i>	Paul Vecchiali	France	1988	Drama (1)
<i>Les Nuits Fauves</i>	Cyril Collard	France	1992	Drama. The main actor succumbs to AIDS shortly after (3)
<i>Philadelphia</i>	Jonathan Demme	USA	1993	Drama (1)
Fever and hemorrhagic fever				
<i>Outbreak</i>	Wolfgang Petersen	USA	1995	Adventure (1)
<i>Aguirre, der Zorn Gottes</i>	Werner Herzog	Germany	1972	Historical adventure (4)
<i>Ridicule</i>	Patrice Leconte	France	1996	Comedy; malaria, and politics (4)
Vaccine, therapy, and politics				
<i>Arrowsmith</i>	John Ford	USA	1931	Epidemic, vaccine; from Sinclair Lewis story (1)
<i>Ashanti</i>	Richard Fleisher	USA/Switzerland	1978	Vaccine (2)
<i>The Third Man</i>	Carol Reed	Great Britain	1949	Antibiotic smuggling (4)
<i>The Constant Gardener</i>	Fernando Meirelles	Great Britain	2006	Phase II to III Drug development = innocuity and efficacy (1)
Bioterrorism related				
<i>The Satan Bug</i>	John Sturges	USA	1965	Bacteriological war (1)
<i>Cassandra Crossing</i>	George Pan Cosmatos	USA	1977	Bacteriological war: Terror in a train (1)
<i>Avalanche Express</i>	Mark Robson	USA	1978	Bacteriological war (2)
<i>Mauvais Sang</i>	Léo Carax	France	1986	Virus robber (2)
<i>Mission Impossible II</i>	John Woo	USA	2000	Virus, vaccine and spy (4)

## Legend:

1. The disease has a central role in the scenario; the disease plays a major component within the plot.
2. The disease appears clearly mentioned as a component of the plot but does not overwhelm the entire scenario.
3. The disease is responsible for the death of the main(s) character(s).
4. The disease is secondary and more a part of the decor than the plot. It is part of the environment as a background.



The four other films of the silent era relating to infectious diseases are high-quality films, if not masterpieces, beginning with Murnau's *Nosferatu* in 1922 (see the commentary below on vampirism). In 1926, King Vidor adapted *La Bohème*, a novel and opera of the nineteenth century, and Jean Renoir adapted *Nana*, based on a Zola novel, the first film creations on the theme of the woman in love and/or prostitute, who dies in her youth and beauty of tuberculosis, or, when the character is a perverse exploiter of men, of smallpox. Finally, in 1929, Jean Grémillon produced *Gardiens de Phare*, a tragedy set off by rabies: A young man is bitten by a rabid dog; he joins his father who, like him, is a lighthouse keeper. The disease breaks out; there is a fight in the lighthouse, and the father ends up sending his son down into the stormy sea. This film was one of the precursors of modern horror films, but the quality of the direction (the scriptwriter was Jacques Feyder, another great filmmaker), its sobriety, the sets, including in the outdoor scenes, made for a first-rate dramatic work, showing the public the effects of one of the most dreadful infectious diseases, which, once it breaks out, leads inevitably to a ghastly death, with no chance of remission.

*Sound and voice in cinema.* Let us immediately award our Palme d'or, both generally and within our theme: Ingmar Bergman's *The Seventh Seal* (1956), which takes place in an indefinite period, toward the end of the Middle Ages, during a plague epidemic or even the Great Plague. A knight and his squire, returning from the crusades to their country, which they discover ravaged by the plague, in a state of total moral and social torment. The knight goes to meet Death, suspended between despair and hope. The filmmaker proposes a series of scenes from accounts and images of the plague: misery, famine, terror, the cadaver carts, the processions of flagellates, witches burned alive, and so forth. Finally, the knight arrives at his castle at the head of a death dance. This film is a metaphysical quest, and, as one critic has written: [it] "never ceases to pester—in the positive sense of the word—the viewers' intelligence and sensitivity" [87]. Other films take place during an episode of plague from centuries past (e.g., *Andrej Rublew*, *Niezwslka Podroz Balhtazara Kobera*, and *Epidemic*), but more as a dropback than as the central subject, without achieving the realist and poetic grandeur of *The Seventh Seal*. We should also mention *The Pied Piper*, by Jacques Demy, 1971, an adaptation of a German tale staging a mysterious pied piper of the fourteenth century, who, in the city of Hamelin, attracted all the rats that were carriers of the plague by his music, leading them to the river where they drowned. However, because the town's population did not reward him for his act, he leads away all the town's children, who follow his music not to the river but to the Land of Songs (in the tale on which the film is based, the end is even more cruel, with the piper drowning the children).

*Epidemics.* A subtheme often comes back in films that could be qualified as epidemics: a character's heroism, whether it be a man or a woman, doctor or nurse, who sometimes dies as a result, with the action often taking place in an exotic setting. For example, *The Rains Come*, and its remake

*The Rain of Ranchpur*, adapted from the Louis Broomfield novel, which takes place in the time of the British Empire in India, with the plague interfering with the characters' love affairs: *Forever Amber*, in eighteenth century London, the story of a courtier; *The Barbarian and the Geisha*, in nineteenth century Japan; *The Spiral Road*, in Borneo; *Die Ketze Brück*, with a German woman military doctor, prisoner of the Serbian partisans and caring for typhus victims; *Ashanti*, with a vaccination campaign deep in Africa; *Arrowsmith*, where a doctor sacrifices his life for his profession; *In Old California*, with a typhoid epidemic in the Sacramento of nineteenth century California; *The Painted Veil*, and its remake *The Seven Sins*, where a Western couple combat a plague epidemic in China.

John Ford's *The Prisoner of Shark Island*, 1936, was based on a true story: a doctor cares for President Lincoln's assassin without knowing it. Arrested, he is sentenced to hard labor for life on an island off the coast of Florida, in an unhealthy climate. A yellow fever epidemic breaks out, and the doctor sacrifices himself to care for the victims. His attitude gains him a pardon, his wife fighting for the pardon in Washington. This film on heroism and duty is treated voluntarily by its director on a grave and austere tone.

*Yellow Fever* plays a role in another film, *Jezebel*, by William Wyler, 1938. It takes place in 1850 in New Orleans: At a ball, a young and rich heir, temperamental, provokes her fiancé, who leaves her and marries another woman. After a period where she continues to behave in an unpleasant and excessive manner and is the cause of various dramatic events, she learns that her ex-fiancé has yellow fever. She joins him in the lazaretto where he is confined, promising to marry him in redemption and to change her ways. Bette Davis's personality suits this character perfectly, and she wins an Oscar for her role in this classic film. Infectious disease and its threat of death push the young woman, frivolous and perverse, to sacrifice. This type of female character is like a model, even if it has been presented in a variety of ways in its amorous seduction: many films were adapted or inspired by this model such as *Nana*, or *Les Liaisons Dangereuses*, or even *La Bohème*, and of course *La Dame aux Camélias*. George Cuker's *Camille*, 1936, is undoubtedly the best film inspired by the story of Marie Duplessis, with Greta Garbo at the summit of her glory in the starring role. Infectious disease, tuberculosis, or smallpox dramatize the divers romances or romantic adventures in these films.

*Les Orgueilleux*, Yves Allégret, 1953, is a remarkable film on more than one account. In a small, desolate Mexican port, where there has been an epidemic of meningitis, two Frenchmen meet: a young woman, adrift, and a former doctor, responsible for the death of his wife and alcoholic. One scene in particular has become famous, a sort of medical eroticism, as it were, where the doctor (Gérard Philippe) performs a spinal tap on the woman (Michèle Morgan), in a light gown that reveals more than it covers. The dramatic intensity of this film is exceptional; but love will revive hope.

In a slightly different spirit, a detective film is interesting: *Panic in the Streets*, by Elia Kazan, 1950. The action takes place

in New Orleans, where an illegal immigrant has been murdered in the port, but the victim is discovered to be a carrier of the plague. A doctor has 48 hours to find the murderers and prevent the infection from spreading. The suspense is handled well, and this film is partly documentary, filmed in a natural setting, underscoring the strangeness of this very particular American city.

*This Property is Condemned*, Sydney Pollack, 1966, sends us to the same city (and the Mississippi valley), but the story takes place in 1930, and the subject is quite sordid and even darker. A teenage girl falls in love with a drifter, to her mother's great displeasure. He leaves and in spite the girl marries another man. She then flees to the big city to join her first love, who, learning of her marriage, abandons her. She becomes a prostitute and dies of tuberculosis. This is the story of a girl in love but lost, and who dies of her situation, in the America of the Great Depression. The director makes his actress, Nathalie Wood, shine, and succeeds in making this desolating story poetic. Here, disease is both punishment and deliverance.

*Death in Venice*, Luchino Visconti, 1971, does not require presentation. This film, of an extreme estheticism treating shocking subject, led to great debate and was both admired and disparaged. Those who had read Thomas Mann's novel, from which the film was adapted, may have been disappointed. In the film, the epidemic that reinforced the morbidity of the story is portrayed as typhus; the book uses cholera.

*Music Lovers*, Ken Russel, 1968. This is a curious musical biography of Tchaikovsky, portraying this composer as having a tormented psyche, with the preposterous idea of inoculating himself against cholera by drinking a glass of contaminated contents, haunted "as he was by the image of his mother dead of the disease when he was young."

Cholera. It took the cinema more than 40 years to take on *The Horseman on the Roof*, directed by Jean-Paul Rappeneau in 1995. The film, the epic that it is, suits cinema well, despite the length of the story and the variety of situations and sets. But if one has enjoyed Giono's novel, this heroic story at the heart of a cholera epidemic, one can only be disappointed by the film (as is often the case of films adapted from great novels). The film emphasizes the love story over the realities of the epidemic and the passions that it releases—entire episodes from the book have been cut. However, the scenes of the measures taken by the

police and the time spent in the quarantine station are interesting. Two other great contemporary novels should also be noted: *The Plague* and *Love in the Time of Cholera*, neither of which has yet been made into a film, to our knowledge.

Leprosy. Our table includes *L'Homme du Niger*, directed by Jacques de Baroncelli, 1939, because it is a colonial film, rather rare, and it speaks of leprosy, this long-course disease, silent but visible. In William Wyler's *Ben Hur*, 1959, the relation to this disease is very much in the background: the hero's mother and sister are afflicted, as seen at the end under their veils. But they will be miraculously cured by Jesus.

*The Third Man*, Carol Reed, 1949 (Palme d'Or in Cannes), a film famous for its music, its postwar images of Vienna occupied by the Allies and how music was pursued in the sewers of the city. This film relates to our subject in that the dark hero, played by Orson Welles, is at the head of antibiotics smuggling (they were still rare at the time), notably against tuberculosis, thus preventing children from being saved.

*Films inspired by bioterrorism* appeared in the 1960s and 1970s, incredible stories but more or less possible: A violent virus developed in a secret laboratory and stolen (*The Satan Bug*, John Sturges, 1965); a lethal virus, transported by a terrorist, accidentally gets out on a train (*Cassandra Crossing*, G.P. Cosmatos, 1977), with its famous but aging actors; a bacteriological war project during the Cold War (*Avalanche Express*, directed by Mark Robson, 1978); or a stolen virus (*Mauvais Sang*, Léo Carax, 1986); finally, a pharmaceutical company that is ready to use a virus to sell its vaccine that protects against it (*M.I.-2*, directed by John Woo, 2000).

We would first like to mention three themes, which have been widely used in the scenario of a number of films, namely the man-made man, Dracula and the vampires, Frankenstein, and the living dead. All of them have a particular relation to infectious disease.

*Dracula*: As does Frankenstein, the myth of Dracula as a vampire comes from literature: *Dracula* by Bram Stoker. Dracula and mostly Nosferatu are seen to arrive by boat in London along with the rats and the myth of the Black Death. Moreover, the transmission of vampirism strictly mimics an infectious transmission by bite, with the bitten person becoming infected and becoming a vampire. The vampire appears as a vector of a plague and like the Black Death transmitted to blood.

**TABLE 40.2.** Vampirism and Vampires

Movie	Author	Country	Year
<i>Nosferatu: Eine Symphonie des Grauens</i>	Friedrich Wilhelm Murnau	Germany	1922
<i>Nosferatu, Phantom der Nacht</i>	Werner Herzog	Germany/France	1979
<i>Dance of the Vampires</i>	Roman Polanski	United Kingdom	1967
<i>Dracula</i>	Ted Browning	USA	1931
<i>Dracula, Prince of Darkness</i>	Terence Fisher	United Kingdom	1966
<i>Dracula</i>	John Badham	USA	1979
<i>Dracula</i>	Francis Ford Coppola	USA	1992
<i>The Kiss of the Vampire</i>	Don Sharp	United Kingdom	1962
<i>Interview with a Vampire</i>	Neil Jordan	USA	1994

**TABLE 40.3.** Horror and Science Fiction

Movie	Author	Country	Year	Them
<i>The Invasion of the Body Snatchers</i>	Don Siegel	USA	1956	Grains from space invade the Earth (1)
<i>The Mask of the Red Death</i>	Roger Corman	USA	1964	Based on a short story by Edgar Allan Poe (1)
<i>The Plague of the Zombies</i>	John Gilling	Grande Bretagne	1965	Horror: Mysterious epidemic (2)
<i>Parasite Murders</i>	David Cronenberg	Canada	1974	Horror; Fr. "Frisson" (1)
<i>Die Hamburger Krankheit</i>	Peter Fleischmann	Germany (RFA)/France	1979	Fantastic drama (1)
<i>Night of the Living Dead</i>	George A. Romero	USA	1978	Horror; Mutation ? (1)
<i>The Crazies</i>	George A. Romero	USA	1974	Horror, Virus (1)
<i>Mary Shelley's Frankenstein</i>	Kenneth Branagh	USA	1994	Epidemic (2)
<i>The Omega Man</i>	Boris Segal	USA	1971	Science fiction (1)
<i>The Andromeda Strain</i>	Robert Wise	USA	1971	Science fiction (1)
<i>Twelve Monkeys</i>	Terry Gilliam	USA	1995	Science fiction (2)

*Frankenstein or the modern Prometheus* [92]: Adapted from the novel written by Mary Shelley, several movies of a range of artistic value have been produced. The link to our theme comes when the hero, a doctor who wanted to create a human being, uses body parts from "donors" who had died during a previous short epidemic; the troubled doctor was worried about whether the different parts were fresh and matched in terms of time of death. Table 40.3 lists the two main versions of the *Frankenstein* story: James Wall's film made in 1931, with Boris Karloff, and Kenneth Branagh's, 1995. There is both fantastic and horror in the story written by Mary Shelley, the wife of the famous poet—the hero she imagined wishes to produce an artificial man, a sort of robot, from pieces of several cadavers, but the cadavers are infected and the new being sows terror and spreads an epidemic. It should be noted that there were roughly 20 versions of *Frankenstein*.

*The living dead*. The third theme related to death appears essentially in the horror film genre, whereas the others reflect on humans and humanity.

Quite similar themes can be found in a series of films that we have listed in the table we call *The living dead*. However, they are often science fiction or horror films. A few titles: *The Plague of the Zombies*, by John Gilling, 1965; *The Night of the Living Dead*, by G.E. Romero, 1974; *Invasion of the Body Snatchers*, Don Siegel, 1956, with a remake in 1978; *The Andromeda Strain*, directed by Robert Wise, 1971, is an adaptation of a novel that made its author, Michael Crichton famous (see Part B); and *Twelve Monkeys*, by Terry Gilliam, 1995, passing from bioterrorism to the struggle of an ecological movement, making use of a sort of journey to the past (or to the future!).

In a totally different genre, *The Fog*, by John Carpenter, 1979, skillfully uses the theme of cursed disease, long considered a punishment for sins committed, in this case leprosy. A

ship transporting lepers in the nineteenth century is shipwrecked by the inhabitants of a coastal village. The victims come back 100 years later to take revenge. It is quite a successful Gothic horror film, a genre that has come back into fashion since the beginning of the 1970s. David Cronenberg's *Rabid*, 1976, is typical of the period, where the phantasmagoria mix with terror. In this film, the filmmaker associates vampirism and rabies.

*The Mask of the Red Death*, Roger Corman, 1964, is taken from one of the Gothic short stories of Edgar Allan Poe (even though the story is short, just a few pages, we have cited parts of it in Part B). The story: The prince Prospero, who made a pact with Satan, gives a great ball, where Red Death (the plague) has invited itself. "This adaptation is a classic of the genre," and therefore deserves to be listed in the table of horror and Satanic films, rather than in the table on the plague.

### 40.3.1 The Ebola Fever Movies and Television Movies

Ebola fever emerged in 1976 "in the heart of the shadows" in the Democratic Republic of Congo (former Zaire), crossed by the Ebola river. Ebola fever went hidden for 25 years and reemerged in Kikwit, 300 km south of where it first appeared. Jens H. Kuhn (Jens H. Kuhn, pers. Comm. The Filoviruses—History and Research C. Calisher Edit.—Unpublished) gives us an extensive analysis of the scientific and nonscientific production, providing insights on how and why Ebola fever fueled the popular imagination and inspired literature and cinematographic art.

In an authoritative compilation of all production of all kinds, Jens H. Kuhn provides an extensive view of the Filovirus arcane including Ebola fever and Marburg disease, their history, and the consequences on public health and social issues

(...)

... a substantial interest in the filoviruses has developed among the general public, in part because of novels and popular science stories and Hollywood productions that portrayed them... Poets [94] and artists [62] seem to be inspired by the filoviruses; literature analysts suggested that an ebolavirus outbreak might have inspired Edgar Allen Poe to write *The Masque of the Red Death* [102]; and investigators used “Ebola” as a catch phrase to draw attention to their articles, many of which did not pertain to filoviruses.

(...)

“A new subgenre of horror movies, termed plague films [104], and television productions amplified the public’s concern (...)

It has been established that most of these plague films disregarded scientific facts and focused on the “rhetorically constructed, predatory nature of the [filo]virus” to attract interest [104]. Other analysts came to the conclusion that the same is true for popular scientific articles, which display the filovirus as killers with will [88]. Comparative analyses demonstrated that fictitious work and Hollywood productions portraying filoviruses are construed similarly [90].”

In addition, a great deal of literature has been published on the subject, and it appears from time to time in the news [18] (see also Section 40.2.7).

*Outbreak* was a huge Hollywood production, produced in 1994–1995 by Wolfgang Petersen, inspired by Richard Preston’s novel *The Hot Zone* as soon as it came out. The story imagines the appearance of an Ebola-type virus in the United States, which is reported to have mutated and is now propagated by breathing and the breath. A military plot is woven into this story, because the military does not want to use an existing, but secret, vaccine in response to the epidemic. The story is quite plausible, well documented, and for the first time shows the CDC’s specialized civil team in action, launching the chase for the new virus, as well as the Army’s research center (USAMRIID: United States Army Medical Research Institute for Infectious Diseases) at Fort Detrick (Frederick, Maryland). The audience is pulled into the suspense. The two star characters were based on a husband and wife team of real virologists, pioneers in the hunt for viruses of hemorrhagic fevers such as Machupo and Ebola.

### 40.3.2 Alien “The Series”

“The stranger” is a parasite: It lays eggs; it feeds on its host (human or animal); and it undergoes metamorphoses that include an intense predation phase before becoming adult. Such is the description of the perfect cycle of an arthropod-type parasite. The quest for the host indispensable to the survival of the species takes it into outer space and, like some parasites, sends it into a stage of resistance and/or hibernation when prey becomes rare.

In conclusion to this part on cinema, we will say that this art has produced a wide variety of works even remotely related to infectious diseases or epidemics. Compared to world film production, infectious diseases account for a minor part in scenarios, certainly if we compare it to the themes of war or love, as we will see in conclusion. On the

contrary, the theme of infectious diseases has been used remarkably well in this art, often transposed from literature to the screen. Today’s health news has played a role and the cycles of humanity’s great fears have also been a driving force in this production.

## 40.4 THE ARTS AND INFECTIOUS DISEASE, IN CONCLUSION

Other artists have taken inspiration from infectious diseases, either directly as did the poets afflicted with disease or indirectly as did architects in their hospital creations. Here are a few examples to conclude this chapter that can never be truly closed, like a work of art, which is never finished.

*In architecture* the examples are many, from homes not only to protect the well, for hospitals to cure but also to isolate the ill. Throughout the history of medicine, architects have played a role and built on the sites chosen (sanatoria and spas) and in the city, not necessarily within the restrictions of health needs.

Facing Marseille, the Caroline Hospital on the Frioul Islands (1828) can be considered the masterpiece of Michel-Robert Penchaud (1772–1833), architect of the city of Marseille: “... a universal lazaretto ... a place of refuge accessible in time of peace as in time of war, in case of contagion, to sailors from all nations, a religious sanctuary, both civil and political.” [13] Since the sixteenth century, with its epidemics, from the plague to yellow fever, the Frioul Islands have been a protective belt for the city.

The Paimio Sanatorium, by the Finnish architect and town planner Alvar Aalto (1933), is a major work that appears on the first page of the *Encyclopédie des arts* [34] and is remarkable for its representation of functionalism expressed by an elevated, fine, and airy architecture, at the service of the patients’ well-being and human relations.

*Music and dance* are intertwined, and the dance of death, figuring in the plague epidemics, shows death with a musical instrument, which seeks to seduce, enchant, and attract mortals. This seductive symbolism attributed to music is found in the pied piper of Hamelin, who combats rats (the plague) and then takes revenge on the ingratitude of men and becomes the instrument of Death. Later, this theme of the death dance inspired musicians such as Franz List, Austrian composer who, in 1849, proposed a suite of variations on the theme *Dies irae* “Totentanz” (The Dance of Death) or later, Camille Saint-Saëns, a French pianist and organist, who composed a symphonic poem: “The Death Dance” (1886). From the Middle Ages to our time, “The Death Dance,” an inheritance from the great plagues, has been sung.

*In poetry* disease is also present. Again the plague, with the famous poem by Jean de La Fontaine, *The Animals Stricken with the Plague*. (Verses 1–7) [63].

A blight whose very name gives cause  
For fear and trembling;  
on that was Invented by the gods  
and sent, in fact, As punishment.



**Fig. 40.20.** Caroline Hospital on the Frioul Islands. The building is registered as a Historical Monument. In 1821, the government ordered the construction of the Berry Dike, joining Pomègues to Ratonneau, and the Caroline Hospital—a homage to Marie-Caroline de Bourbon-Sicile, princess of the Two Sicilies, wife of Duke de Berry—the creation was ordered from the architect M.-R. Penchaud. Used for the great epidemics of the nineteenth century for quarantine, the site was partially destroyed by the Allied bombings during the liberation of Marseille in August 1944. (a) An overall view of the Caroline Hospital. (b) In the background, Marseille. (c) The chapel, located at the center of the hospital complex (Moziconnacci photograph; courtesy of the Association Caroline, which operates the monument).

The Plague – for why should one Not call by its name? –  
waged war Upon the beasts.  
Each day saw more and more  
Enrich the waters of the Acheron.  
Some lived, but all were touched.

Or leprosy avec Jean Bodel and *Adieux to the Lepers* when, “Toward 1205, he was readying himself to go on a crusade he was inflicted with leprosy. (. . .) In his *Congé* (he understands *Adieux to the Lepers* as announcing Villon’s *Testament*), about to be locked up in a leperhouse, he commends himself to the prayers of his friends and his Arras protectors” [31]

(. . .)  
*The pain descending into my heart  
With your face ravaged and pale  
and who makes me meek,  
before I pack my case, (. . .)  
I leave ill and crippled*

Comics are a part of these arts that has emerged with the technologies of the last century (the airbrush technique and computer-assisted drawing). The master ideas come from classical literature and borrow from the bacteriological threat. Thus, *The Voronov Affair* by Yves Sentès and André Juillard [91] takes place during the Cold War when a Soviet rocket, hit by a meteorite, falls to earth with a bacterial spore attached to it. Identified as the new “Z bacterium,” its discoverer attempts to

use it as a biological weapon. Children’s thymus protects them against the infection and makes them healthy but infecting carriers via airborne transmission. They are the living vectors used by Professor Voronov to get rid of the leaders of the world and take power. The idea is modern—terrorism and bacteriological weapons—the scenario is well constructed around the investigations of the British monarch’s secret service, MI5, and heroes are well known to an audience of impassioned enthusiasts. Precise drawings and meticulous coloring have made the reputation of this collection created by J. Jacob.

For a younger comic book audience, but just as celebrated, the authors Tome and Janry propose *Virus* with its heroes Spirou and Fantasio, who must protect the world from a lethal virus that has escaped from a secret laboratory isolated in the polar ice [96].

Thus, all forms of art have treated and continue to treat infectious disease, today’s and yesterday’s literature, with cinematography today providing the most voluminous production. Although the great themes that have inspired artists were often love, war, and religion, disease, and in particular infectious disease, has its place in the decor of this focus, and it provides the artist with matter for inspiration. Fruit of love, it is the diseased child who magnifies this unique sentiment and the need for compassion. The pandemics that ravaged towns and villages are a reflection of the warring hordes that helpless people regarded with terror and resignation: Power and suffering come together. The gods are present in popular imagery; they govern the plagues and use them to punish humans and their faults.

Like the great fears that occupy the collective unconscious, infectious diseases, through their message of death and their epidemic genius, serve artistic creation: It is up to



**Fig. 40.21.** *Virus*.

the artist to make use of infectious disease to show, guided by the scientist, what the eye cannot see of the life of microbes.

We always come back to Fear, Death, to the Fear of Death. Wars, famines, and plagues—the assassinating and raping war, hunger that can push man over the edge to cannibalism (Géricault's painting: *Raft of the Medusa*, where the dying are represented in the same postures as the plague victims of Marseille a century earlier), and disease often insidious and sometimes brutal. The Apocalypse adds the wild beasts that frightened (The Middle Ages invented monstrous and hybrid imaginary beasts); animals that certain peoples captured to have them massacre and devour human beings, for the pleasure of crowds of spectators.

Through infectious diseases and epidemics, Death ravages, and men moan like women and also cry “why?,” the eternal question of *Homo sapiens sapiens* for at least 100,000 years – the oldest prehistoric burial ritual known. Despite all the woes, all the misery of this world and among its beauties, humans are still here: six billion two hundred million we are told, and the numbers increase every day, with the same suffering, the same fears, and the certainty of death. There is, however, the fabulous progress of medicine, but beware of the demiurges and those who consider themselves God, Mary Shelley told us, 124 years ago.

So let us cite one last time an artist, novelist, and poet, Blaise Cendrars, who wrote in 1913, one year before the First World War, in his *The prose of the trans-Siberian and of the Little Jehanne of France*

(. . .) In Siberia thundered the cannon, it was war  
Hunger, cold, plague, cholera  
And the silty waters of Love swept along millions of the  
decaying dead.

Cendrars in the twentieth century, the apocalyptic prophesy of Saint John

Rev. 6.8. And power was given unto them over the fourth part of the earth, to kill with sword, and with hunger, and with death, and with the beasts of the earth.

And the circle is closed. In *Heart of Darkness*, Joseph Conrad has his fearsome and dark hero, Kurtz, say this last word, as he is dying of a fever: “The horror! the horror!” [21].

But where is the garden of Eden?  
Where are the snows of yesteryear? [97]  
Artists have often showed us the horror, but have more often offered hope.

## REFERENCES

- Alberti LB. De Leone Batista born in Genoa (1404–1472). In: *De Pictura Praestantissima*, 1440.
- Audubon J. *Writings and Drawings*, Literary Classics of the United States, New York, p. 613.
- Baudelaire C. *The Flowers of Evil* [Translated by James McGowan], Oxford University Press, Oxford, 1993, p. 91.
- Bazin H. “Le Neuvième Jour” Livre de Poche Edit. ASIN: 2253140023, 1996, 156 pp.
- Beardsley A. *La Dame aux Camélias* [Illustration of Yellow Book], t. III (London Tate Gallery), 1894.
- Bischoff U. *Edvard Munch, 1863–1944: Pictures of Life and Death* [Translated into french by Anne Lemonnier, Taschen], 2001 (Printed in Germany) (*La petite collection*).
- Boccaccio G. *The Decameron* [Translated by Guido Walman], Oxford University Press, New York, 1993 [French: Boccace, Le Decameron, coll. Classiques Garnier, Garnier, Paris, 1988, Translated by Jean Bourcier].
- Boiteau P, Allorge-Nboiteau L. *Plantes Médicinales de Madagascar*, ACCT ICSN Karthala, 1998, pp. 84–5.
- Boulanger J. (Cégep du Vieux Montréal), The basic elements of Gothic literature: “fear, dread, terror, doubt, hesitation, trances, erasing limits, strangeness, supernatural, a quest for oneself, death, madness, identity crisis, double, a solitary character, excluded, fragile”. Available at <http://www.cvm.cc.ca/encephi.Syllabus/Littérature/19°/Fantastique.htm>
- Braun P. Frey-Ragu J. L'importance du facteur moral chez l'adulte et chez l'enfant dans l'éclatement de la tuberculose. *Presse Médicale* 1930:2962–5 [Repris par Cyr Voisin, p. 16].
- Buchillet D. 2006. see also Chapter 20 present edition.
- Camus A. *The Plague* [Translated by Stuart Gilbert, 1975], Vintage International, New York, 1948, p. 7.
- Caroline's Hospital. <http://marsdesign.free.fr/caroline/htm/histocare.htm>
- Cesbron G. *Ecriture et maladie, la saisie esthétique*, 1979, pp 346–7.
- Chalumeau JL. *Les théories de l'Art*. 2002. Vuilbert édit.
- Chatran T. *Laennec examined a consumptive patient at the Necker Hospital*, detail of a painting by Paris - Sorbonne, 1842–1907.
- Chiwaki S. Eclat aveuglant de la mort, à la dernière vision des poètes malades, Kajii et d'autres Imago, 2003. In: *Ecriture et Maladie*, pp.164–77.
- Close T, William. *Ebola*. Arrow Book, UK, 1995.
- Cornwell P. *Unnatural Exposure*, G.P. Putman's Sons, New York, 1997.
- Cornwell P. *Mordoc*, Calmann-Lévy, 1997 From French translation: Le Livre de poche, no. 17077, 1998.
- Conrad J. *Heart of Darkness* (published in 1902, Conrad, Joseph, 1857–1924), Heart of Darkness Electronic Text Center, University of Virginia Library.
- Courbet G. Extract from the foreword of the Catalogue to his one-man show, 1855.
- Crichton M. *The Andromeda Strain*, Avon Books (1969, Centesis Corporation), New York, 2003.
- Daudet L. *Souvenirs des milieux littéraires, politiques, artistiques et médicaux*, Paris, Robert Laffont, Bouquins. Cited in: *Les artistes au Bordel*, Manéglier. Flammarion, 1993, pp. 218.
- Daudet A. *In the Land of Pain*. translated by Julian Barnes, Knopf, New York, 2002, pp. 4–5.
- Daudet A. *In the Land of Pain*. Op. cit. p. 13.
- Daudet A. *In the Land of Pain*. Op. cit. p. 36.
- Defoe D. *A Journal of the Plague Year*, Random House, New York, 2001; *A Journal of the Plague* (French Press) [Transaltion and notes from Francis Ledoux; preface de Henri H. Mollaret

- (1982), collection Folio Classique, n 1372], Gallimard, Paris, 1989.
29. Deguy M. In: *Le Magazine Littéraire*, Paris, no. 186, juillet 1982, p. 47, à propos de *La Montagne Magique*. Cité par Le Marinel, p. 153.
  30. Deliry-Antheaume, E. Des murs peints contre le Sida. *La Recherche*, 2004;375:68–75.
  31. Delvaile B. Biographical note. In: *Mille et Cent Ans de Poésie Française*, collection Bouquins, éditions Robert Laffont, Paris, 1991, notice, p. 1748, poem pp. 156–67.
  32. Dictionnaire Robert des Noms Propres. Ideas and a utopian project that the Frenchman Charles Fourier develops and attempts, with his disciples, to put into practice through the phalanstery organization.
  33. Dictionnaire Robert des Noms Propres. Op.cit
  34. Encyclopédie de l'Art, Encyclopédie d'aujourd'hui, La pochothèque, Garzanti.
  35. Flaubert G. In: *Correspondance*, Gallimard, La Pléiade, 1991, Paris, t. III, p. 33.
  36. Galloway D. *The Marriage of Heaven and Hell*, article Keith Haring archives.
  37. Garrett L. *Betrayal of Trust: The Collapse of Global Public Health*, Hyperion, New York, 2000.
  38. Giono J. *Le Hussard sur le Toit* Gallimard, 1951. Coll. Folio, no. 240.
  39. Gonzales T.F. From *Catalogue Raisonné Cantz*, 1997.
  40. Guilbert Y. *La chanson de ma vie, mes mémoires*, Grasset, Paris, 1927, pp. 227–228 (quoted by Manglier, p. 267).
  41. Grmerk, M.D. *Histoire du SIDA*. Payot, Paris, 1990.
  42. Grmek M, Gourevitch D. *Les Maladies dans l'Art Antique. Penser la Médecin*, Fayard, Paris, 1998, 518 pp.
  43. Gmerk MD, Sournia JC. Les maladies dominantes. In: *Histoire de la Pensée Médicale en Occident*, tome 3: *Du romantisme à la science moderne* (sous la direction de M.D. Gmerk), Paris, Le Seuil, 1999 (édition originale italienne, Laterza, 1998), p. 285.
  44. Gmerk MD, Sournia JC. Les maladies dominantes. In: *Histoire de la Pensée Médicale en Occident*, tome 3: *Du romantisme à la science moderne* (sous la direction de M.D. Gmerk), Paris, Le Seuil, 1999 (édition originale italienne, Laterza, 1998), p. 286.
  45. de Goncourt E, de Goncourt J. *Journal* 1875;1:664.
  46. Green J. *Adrienne Mesurat*, p. 370, cited by Anne-Cécile Pottier-Thoby, Le mal à dire: Julien Green syphilophobe. In: *Écriture et Maladie*, p. 123.
  47. Green J. *Adrienne Mesurat*, Op. cit. p. 127.
  48. Green J. *Adrienne Mesurat*, Op. cit. p. 129. Extract from *Green's J*, 1933.
  49. Green J. *Adrienne Mesurat*, Op. cited. p. 132. *Journal* 1985.
  50. Green J. *Adrienne Mesurat*, Op. cited. p. 133.
  51. Green J. *Adrienne Mesurat*, Op. cited. p. 138, note 75. *Journal* 1989.
  52. Hambly B. *Fever Saison*, Bantam, New York, 1998.
  53. Haring K. *Biography extracted from the official Internet site of the artist*. Available at <http://.haring.com>.
  54. Hérodote. Thucydide. Oeuvres complètes, introduction par De Romilly Jacqueline, Paris, 1964 (Bibliothèque de la Pléiade) Thucydide, texte présenté, traduit et annoté par Roussel D.
  55. Hersfeld C. Graal et phtisie dans La Montagne Magique. In: *Écriture et Maladie*. “du bon usage de la maladie” (A. Bouloumié ed.), Imago, Paris, 1999, pp. 139–40.
  56. Histoire de l'Art. Hachette Education, Paris, 1995.
  57. Hillerman T. *The First Eagle*, Harper Books, New York, 1999.
  58. Homer. *The Iliad* [Translated by Robert Fagles], Viking Penguin, New York, pp. 78–79.
  59. von Hutten, U. *De la maladie françoise ou vérole*. Cited by Lasowski, op. cit, p. 105.
  60. Kolata G. *Flu, The Story of the Great Influenza Pandemic of 1918* Touchtone Book, Simon and Schuster, New York, 1999.
  61. Laclos (de), Choderlos. Les Liaisons Dangereuses, collection Lire et Voir les Classiques, n° 6010, éditions Pocket, 1989.
  62. Ladouceur J. *Ebola*, Last Gasp, San Francisco, CA, USA, 2003.
  63. Lafontaine (de), J. *Fifty More Fables of La Fontaine* [Translated by Norman R. Shapiro], University of Illinois Press, 1998.
  64. Leibritch L. Notes. In: *Dictionnaire des Personnages littéraires et dramatiques de tous les temps et tous les pays*, collection Bouquins, éditions Robert Laffont, Paris, 1984 (Translated from the first itgalian edition 1960).
  65. Le Marinel J. La Maladie comme parcours initiatique dans Siloé, de Paul Gadenne. In: *Écriture et Maladie*, pp. 152–163.
  66. Le Marinel J. *La Maladie comme parcours initiatique*, Op. cit. Article Quotations, p. 162.
  67. Le Marinel J. *La Maladie comme parcours initiatique*, Op. cit. p. 152–3.
  68. Lorrain J. *Monsieur de Phocas*, La Table Ronde, Paris, 1992, Cité par Manéglier, op. cit. p. 220.
  69. Lucenet M. “La peste, fléau majeur” extraits de la Bibliothèque InterUniversitaire, Paris, 1994. Available at <http://www.bium.univ-paris5.fr/histmed/medica/peste.htm>.
  70. Malraux A. *La Tête d'obsidienne*, Gallimard, Paris, 1974, p. 117 (quoted in Manéglier, p. 169, op. cit).
  71. Manéglier H. *Les Artistes au Bordel*, Flammarion, Paris, 1998, p. 351, p. 100.
  72. Manéglier H. *Les Artistes au Bordel*, Op. cit, pp. 170–1.
  73. Manéglier H. *Les Artistes au Bordel*, Op. cit., p. 172.
  74. Manéglier H. *Les Artistes au Bordel*, Op. cit., p. 212.
  75. Manéglier H. *Les Artistes au Bordel*, Op. cit., pp. 213–23.
  76. Manéglier H. *Les Artistes au Bordel*, Op. cit., p. 217.
  77. Manéglier H. *Les Artistes au Bordel*, Op. cit, p. 218.
  78. Manéglier H. *Les Artistes au Bordel*, Op. cit., p. 219.
  79. Manéglier H. *Les Artistes au Bordel*, Op. cit., pp. 265–7.
  80. Mann T.. *The Magic Mountain* [Translated by John E. Woods], Alfred A. Knopf, 1995.
  81. Marquez GG. *Love in the Time of Cholera*, Alfred A. Knopf, New York, 1988 (no translator name given). (Colombie) par Annie Morvan, éditions Grasset et Fasquelle, Paris, 1987 (Le Livre de Poche, no. 4249)
  82. Miller J, Engelberg S, Broad W. *Germs, Biological Weapons and America's Secret War*, Touchtone Book, Simon and Schuster, New York, 2002.
  83. Murat L, Weill N. [1998] L'expédition d'Égypte. Le rêve oriental de Bonaparte, 160 pages, ill., sous couv. ill., 125 x 178 mm. Collection Découvertes Gallimard (No 343), série Histoire, Gallimard-doc (ISBN 2070533999).
  84. Nouveau (le) Petit R. 1994. *Dictionnaires Le Robert*, Paris, 1993–1998, 2556 pp. (ISBN 2-85036-506-8).
  85. Patnik S. *The Last Man and the Order of Society: How Mary Shelley's Use of the Plague Serves as a Métaphor for the Failure of the Utopian Ideal*. Available at <http://www.kimwoodbridge.com>.

86. Poe EA. *The Masque of the Red Death*, Poe's Tales of Mystery and Imagination, Weatherbane Books, 1935, pp. 97–102.
87. Rapp B, Jean-Claude L. *Dictionnaire Mondial des Films*, Larousse, Paris, 2005, p. 1144.
88. Schell H. Outburst! A chilling true story about emerging-virus narratives and pandemic social change. *Configurations (Baltimore)* 1997;**5**(1):93–133.
89. Schwendenwien J. *The Hartford Courant*, 1980.
90. Semmler IA. Ebola goes pop: the filovirus from literature into film. *Literature Med (Baltimore)* 1998;**17**(1):149–74.
91. Sentes Y, Juillard A. *The Voronov Affair* (2ème édn.), Blake et Mortimer/Studios Jacobs (EDI-B&M s.a.), Bruxelles, 2000.
92. Shelley WM. *Frankenstein ou le Prométhée moderne*, 1817.
93. Surugue B. (producer) *Mara, le regard du lion*. A 26-minute film, 1986. Conseil scientifique: B. Philippon; Coproduction: OCP/OMS, Orstom, Ministère de la Coopération.
94. Tatarunis P. Ebola. *JAMA (Chicago)* 1996;**275**(3):169.
95. Thucydides. *The Peloponnesian War* [Revised with an Introduction by T.E. Wick], Random House, New York, 1982.
96. Tome et Janry. Virus. *J Spirou* 1984;**1982**:2305–21 [Album Spirou et Fantasio, Tome 33:VIRUS].
97. Villon F. *Ballade des femmes de Paris*, Recueil, Le testament, 1431–?.
98. Voisin C. Destin des maladies et littérature. L'exemple de la tuberculose, in *Ecriture et Maladie. Du bon usage des maladies* (sous la direction d'Arlette Bouloumié), Imago, Paris, 1999, p. 16.
99. Voisin C. *Destin des maladies et littérature*, op. cit. p. 17.
100. Voisin C. *Destin des maladies et littérature*, op. cit. p. 20.
101. Voivenel P. Du rôle de la maladie dans l'inspiration littéraire. In: *Mercur de France*, 1911. Camille Mauclair's quotation that he reproduced comes from an article that he published in: *Revue Bleue* 1904, pp. 317–8.
102. Vora Setu K, Ramanan Sundaram V. Ebola-Poe: A modern-day parallel of the red death? *Emerg Infect Dis (Atlanta)* 2002;**8**(12):1521–3. Available online at <http://www.cdc.gov/ncidod/EID/vol8no12/02-0176.htm>.
103. Wald LP. *Syphilis, Essai sur la littérature française du XIXe siècle*, Gallimard, Paris, 1982, p. 148.
104. Weldon RA. The rhetorical construction of the Predatorial virus: a Burkian analysis of nonfiction accounts of the ebola virus. *Qual Health Res* 2001;**11**(Pt 1):5–2.
105. Wells HG. *War of the Worlds*. p 221, p 252, p 291.



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