

3.3. Utopianism Clean and Pure: The Interconnected Hygiene Discourse of Nineteenth-Century Science and Literature

Albert Göschl

Abstract

Since Thomas More and classical times, utopian literature has integrated hygiene into its reflections. Renaissance utopias are concerned with questions of cleanliness, sewerage systems and the orientation of the city to exploit the winds for air purification. But the scientific discourse on hygiene increased and consolidated in literary and non-literary utopias of the nineteenth century. It pervades both Richardson's utopian city *Hygeia* (1875) and Jules Verne's *The Begum's Fortune* (*Cinq Cents Millions de la Béguin*) (1879), and also leaves its mark on other European utopias such as Paolo Mantegazza's *Year 3000* (*L'anno 3000*) (1897). In Jules Verne's utopian city of France-Ville, a doctrine of hygiene reaches down to the level of private space. For example, the use of carpets and wallpapers are prohibited to combat "bad evaporation" and the spread of germs, with the effect that epidemics and disease no longer exist. The primary task of the state is to protect the population from diseases, which are conceived as dystopian horror scenarios: "To clean, clean unceasingly, so as to destroy the miasmas constantly emanating from a large community, such is the principal work of the central government" (Verne, 1879: 152). This paper examines the complex status of hygiene control for utopias as well as the consequences for the creation of the utopian space at the turn of the twentieth century.

Key words: nineteenth-century literature, hygiene discourse, Jules Verne, Paolo Mantegazza

The concept of hygiene changed radically during the 19th century (La Berge, 1992; Ward, 2019). The reasons are various medical discoveries, including innovations in the field of epidemiology. Less well known is the connection between literature and hygiene, especially the role that literary utopia plays in this constellation. The hygiene discourse of the nineteenth century — spurred on by the experiences of epidemics such as the cholera pandemics — is a driving force behind the emergence of new sanitary utopias, just as pandemics have played an essential role in the creation of the dystopian genre (Al-Aghberi, 2021). The combination of epidemic experience and dystopia is an extremely fruitful one, since the pandemic represents one of the few real dangers for humanity globally, beside world wars, nuclear wars, and global dictatorships. The epidemiological threats of the nineteenth century, which often resulted from a lack of hygienic conditions, and the birth of epidemiology as a science led to the emergence of numerous literary and non-literary hygienic utopias, that is positive social concepts based on hygienic cleanliness.

Hygiene, public health and preventive medicine are intimately connected (Cawadias, 1950: 352). Since at least the seventeenth century, it has been seen as the task of the state to provide clean water, clean air, and food. Nicolas De La Mare wrote in his *Traité de la police* (1707–1719) that it is the task of the state power to ensure three essential goods, as defined in Seneca's *De beneficiis*: “the goods of the soul, of bodies and of fortune” (De La Mare, 1722: 566):

The health of the air around us, & which we breathe, the purity of the water & the quality of the food, are the three main factors of health; thus, in order to preserve such a great good for the public, & to prevent diseases which might disturb it, it is the duty of the Police Officers to remedy as much as possible that the air may be infected, water & other food may be corrupted. (De La Mare, 1722: 566, my translation)

In the nineteenth century, the pandemic situation was particularly tense in Europe. From the first decade, cholera raged in several waves for almost a hundred years. Its experience was linked to the plague, which at that time, was still very much present in the collective memory of Europe (Poczka, 2017: 359). After the plague, cholera was the first disease to be perceived as global. Between 1850 and 1900, countless international health conferences took place to solve the sanitary situation at which scientists and politicians closely collaborated for the first time. The debate split furiously into two parties: contagionists and anti-contagionists debated the question of the cause of the disease. No agreement between them seemed to be possible (Poczka, 2017: 360).

In the first half of the nineteenth century, the concept of public hygiene was developed in France, especially in the years between 1815 and 1848. This period is often regarded as the beginning of modern hygiene (Ackerknecht, 1948: 118). Transformations in medicine led to the elimination of cholera but also changed the relationship between science and government (Poczka, 2017: 34). By contrast with the elaborate sewerage system of Paris, whose construction dates back to the fourteenth century, London's system was only built in the 1860s after the so-called "Great Stink" (Osterhammel, 2011: 262). Around the same time, the world's first academic chair of hygiene was established in Germany (Cawadias, 1950: 359). Numerous hygienic societies followed, such as the Fondazione dell'igiene in Italy (Giorgi, 1999: 441).

There was also a connection between the discourse of hygiene and that of the bourgeoisie. The bourgeoisie distinguished itself from both the nobility and the working class through meticulous personal hygiene (Poczka, 2017: 33). Bourgeois hygiene became a part of moral existence and a successful lifestyle (Poczka, 2017: 96). Victorian cleanliness transcended the medical realm and became an overarching aesthetic paradigm producing its own 'sanitary narratives' (Cleer, 2014, 43–66).

But what significance does utopia have for the discourse of hygiene? From Plato to the Italian concept of the ideal city, from Thomas More and Tommaso Campanella to the enlightened utopias of the eighteenth century, hygiene has been a crucial component that shapes the interrelationship between the individual and their society (Siefert, 1970: 27). Generally speaking, eutopias establish healthy societies, which prevent diseases from arising through hygienic prophylaxis. These utopians do not let anything enter their society that could pollute the air or water. Cattle are slaughtered outside the city and cleaned under running water. Hospitals are located outside the city and act like their own city states. Expensive hospital care is legitimized by the need for epidemic prevention (Siefert, 1970: 41). As in Campanella's *The City of the Sun*, corpses are burned prophylactically to keep the air clean and keep out diseases (Siefert, 1970: 36). Prophylactic quarantine and drugs are used to prevent illness as a result of human catastrophes predicted by misalignments of the stars. Utopian doctors therefore have a prophylactic function. They tell the leaders of the town what they should cook for their society (Siefert, 1970: 37). In Johann Valentin Andreae's *Christianopolis*, gardens are created for medical purposes and air purification (Siefert, 1970: 36). In *New Atlantis*, Francis Bacon creates the office of *conservator sanitatis*, which prescribes prophylactic methods for new arrivals, including a three-day quarantine in well-ventilated individual cells, and forbidding physical contact between individuals.

In the second half of the nineteenth century, a specific form of sanitary, or hygienic, utopianism became established through an intertextual network that included Benjamin Richardson's *Hygeia*, Jules Verne's science fiction and its

relationship with the city of La Plata, as well as a synthesis of the hygienist and utopian that was united in the mind of Paolo Mantegazza. It is a dense network that transcends genres and kinds of literary utopias, and interacts closely with science and architecture.

One of the less well-known texts of the prolific Verne is *Les Cinq cents millions de la Bégum* (*The Begum's Fortune*). After the Franco-Prussian war of 1870–1871, Verne wrote a novel based on the tension between a utopian and a dystopian world correlated implicitly with French and German culture. The protagonist, Dr Sarrasin, a successful French scientist in the field of hygiene, participates at a British hygiene congress. During the congress, he learns that he will inherit an extremely large amount of money due to a distant connection to an Indian noblewoman, a so-called Begum. He will therefore inherit five hundred million francs. Dr Sarrasin is not only a wise man, but also a morally honourable man. He only needs a short time to think about what he intends to achieve with the money. At the Congress, he announces that he wants to donate the sum to science in order to found a city, France-Ville, which would be built according to the latest state of knowledge in the field of hygiene. The city would significantly increase the happiness and health of its citizens. After the news is widely published in the European gazettes, another researcher, Dr Schultze from the German town of Jena, believes he is also entitled to the inheritance due to his far-reaching connections to the Begum. Through an out-of-court settlement, the two agree to share the sum. Schultze, inspired by Sarrasin's idea, also decides to build an ideal city. As a convinced representative of the racially supreme German Empire, he builds, just a few kilometres from France-Ville, its evil twin sister. Stahlstadt, as it will later become clear, has the primary objective of destroying France-Ville. France-Ville is a utopian city oriented between egalitarian common good and liberal democracy. Stahlstadt, on the other hand, is presented as a highly polluted machine of exploitation, which bases its wealth on arms production and the international arms trade, incorporating also the incipient discourse of racial hygiene. The two cities could hardly be conceived as greater opposites: utopian hygiene versus dystopian pollution; sanitary hygiene versus racial hygiene (Göschl, 2022: 122).

The interesting element of this text for my argument is the premise of hygiene on the basis of which the city of France-Ville is to be built. Everything in the city's architecture is geared towards prolonging the lives of the inhabitants, reducing child mortality, diseases, and epidemics to a minimum. France-Ville becomes a health paradise with the typical totalitarian claims of power inherent in utopias. The obsession with long life leads to the fact that private decision-making is reduced to a minimum. The lives of the individuals, also typical of the utopian genre, are systematized through everyday space. The form and architecture of all private apartments is defined down to the last detail: every family lives in a

detached single family house, each house is surrounded by a garden to protect it from possible miasmas (bad air). No house has more than two floors to distribute light and air evenly to all inhabitants. All houses are ten meters from the road, and thus from possible dirt. The roofs are only slightly sloped and surrounded by a protective grid to prevent falls. The houses are supported by a sophisticated and also standardized ventilation and sewerage system. The kitchens must be located on the top floor, directly under the roof terrace, to dissipate the smells. Electricity and water are very cheaply available to the inhabitants. Carpets and wallpapers are forbidden, to prevent germs and unhealthy evaporation. Walls and floors can be kept hygienically clean: “On les lave comme on lave les glaces et les vitres, comme on frotte les parquets et les plafonds. Pas un germe morbide ne peut s’y mettre en embuscade” (Verne, 1879a: 101) [“They are washed as windows are washed, and rubbed like ceilings and floors. Not even a germ of anything harmful can be harboured there”] (Verne, 1879b: 150).

Each bedroom has its own toilet, and here too, the furnishings are precisely defined: four armchairs, an iron bed, a woollen mattress; all legitimized from a hygienic point of view:

Eider-down quilts and heavy coverlets, powerful allies of epidemics, are excluded as a matter of course. Good woollen coverings, light and warm, and easily washed, replace them well. Though curtains and draperies are not absolutely forbidden, it is recommended that, if used, they should be made of washing materials. (Verne, 1879b: 150)

Last but not least, each room has its own fireplace, with a predefined ventilation system (Verne, 1879a: 100–1).

From today’s point of view, one could almost assume that the book might be a persiflage of the utopian genre. However, this is definitely not the case, considering the origin of all these regulations. Indeed, as Verne says in his novel himself, all these rules derive almost literally from a certain Benjamin Ward Richardson, a British hygiene scientist, who had given a lecture entitled “Hygeia. City of Health” a few years earlier at a British hygiene congress (Gondolo della Riva, 2003: 22). The city’s name refers to Hygieia, the Greek goddess of health. Richardson:

It is my object to put forward a theoretical outline of a community so circumstanced and so maintained by the exercise of its own freewill, guided by scientific knowledge, that in it the perfection of sanitary results will be approached, if not actually realised, in the co-existence of the lowest

possible general mortality with the highest possible individual longevity. (Richardson, 1876: 10–11)

Richardson has in mind what the fictional character of Dr. Sarrasin will do in Verne's novel just a few years later. The construction of an ideal community, built according to the state of the art of the hygiene sciences of the time, with the aim of producing the greatest happiness, understood as the greatest cleanliness for the greatest number, to speak in utilitarian terms:

Pestilences which decimated populations, and which, like the great plague of London, destroyed 7,165 people in a single week, have lost their virulency; gaol fever has disappeared, and our gaols, once each a plague-spot, have become, by a strange perversion of civilisation, the health spots of, at least, one kingdom. The term, Black Death, is heard no more. (Richardson, 1876: 14)

Richardson was extremely successful with his idea, published in the form of a literary utopia. In the years that followed, there are countless references to this utopia. Richardson is also likely to have influenced other literary utopias in addition to Verne's. Not only did the utopian town of Hygeia become a metaphor for the hygienic city in the medical circles of the nineteenth century, it was also adopted in other fictions. The fact that Paolo Mantegazza writes some years later an Italian utopian novel called *L'Anno 3000*, wherein he calls his hospital Igeia, suggests that Mantegazza also knew Richardson's text; which is probable, since Mantegazza was not only an Italian writer and utopist but also an international hygienist who published scientific books such as *Elements of Hygiene* (1875) and *Physiology of Love* (1896), which was also read by Freud (Pireddu, 2010: 2).

Mantegazza's hospital, Igeia, is a bureaucratically organized health machine, whose purpose is also to prevent disease:

[I]n all the schools, everyone is taught to observe carefully his own organism and its functioning. And the moment one notices the slightest pain or the smallest trouble, one rushes here or to another Hygeia to have his inner organs checked and thus nip in the bud the least ill that might threaten him. (Mantegazza, 2010: 135)

Richardson's influence can be seen in other works such as Walter Besant and James Rice's short story, "*The Monks of Thelema*" (the title is an allusion to

Rabelais' micro-utopia, "*L'abbay de Thélème*"): "There was clearly a good deal of work before this village could become a city of Hygeia, and the hearts of both glowed at the prospect of tough work before them" (Besant & Rice, 1878: 34–5).

On an abstract level, the hygiene utopianism of the nineteenth century transcends the emerging science of hygiene, whose ideas are taken over in literature, while at the same time hygiene utopianism is influenced by literature. Richardson's Hygeia is not only a scientific example, but also linguistic construct created with literary means that explicitly refers to the utopias of early modern times. Hygiene utopianism transcends the boundaries of literary utopia, science, fiction, and reality too. One of the models for the Argentine city of La Plata was Verne's France-Ville. In fact, at the World Exhibition of 1889, La Plata was called "The City of Verne" (Feierstein, 2008: 41).¹

Notes

1. I would like to thank Benjamin Loy for drawing my attention to this fact.

Works Cited

Ackerknecht, Erwin H. (1948), "Hygiene in France, 1815–1848", *Bulletin of the History of Medicine* 22.2, pp. 117–55.

Al-Aghberi, Munir Ahmed (2021), "Pandemic Apocalypse in between Dystopias: Observations from Post-Apocalyptic Novels", *Angles* 12. doi:10.4000/angles.4595

Besant, Walter, and James Rice (1878), *The Monks of Thelema*. London: Chatto & Windus.

Cawadias, Alexander P. (1950), "Hygiene through the Ages", *The Journal of the Royal Institute of Public Health and Hygiene* 13.10, pp. 352–64.

Cleere, Eileen (2014), *The Sanitary Arts: Aesthetic Culture and the Victorian Cleanliness Campaigns*. Columbus, OH: Ohio State University Press.

De La Mare, Nicolas (1722), *Traité de la police*, Vol. 4, 2nd edn. Paris: Brunet.

Feierstein, Liliana Ruth (2008), "The World as a Collection of Postcards. Evita's Architectural Project(ion)s and the Making of Argentinean Identity", in *Architecture and Identity*, ed. Peter Herrle and Erik Wegerhoff. Berlin: Lit, pp. 39–46.

De Giorgi, Fulvio (1999), "I batteri e l'acqua santa. L'igiene nelle chiese ai primi del '900", *Contemporanea* 2.3, pp. 435–62.

Gondolo della Riva, Piero (2003), "Appunti sull'utopia in Verne", *Francofonia* 44, pp. 21–7.

Göschl, Albert (2022), "Antibürgerliche (Albt)Räume in den literarischen Utopien des Fin de Siècle", in *Bürgerschrecken: Antibürgerliche Ästhetiken und Diskurse in der Romania (1870–1939)*, ed. Teresa Hiergeist and Benjamin Loy. Stuttgart: Metzler, pp. 115–30.

- La Berge, Ann F. (1992), *Mission and Method: The Early Nineteenth-Century French Public Health Movement*. Cambridge: Cambridge University Press.
- Loy, Benjamin, and Teresa Hiergeist, eds. (2022), *Bürgerschrecken! Antibürgerliche Ästhetiken und Diskurse in der Romania (1870–1939)*. Stuttgart: J. B. Metzler.
- Mantegazza, Paolo (1897), *L'Anno 3000: Sogno*. Milan: Fratelli Treves.
- Mantegazza, Paolo (2010), *The Year 3000: A Dream*, ed. Nicoletta Pireddu. Lincoln, NE: University of Nebraska Press.
- Osterhammel, Jürgen (2011), *Die Verwandlung der Welt: Eine Geschichte des 19. Jahrhunderts*. Munich: Beck.
- Pireddu, Nicoletta (2010), "Introduction", in Paolo Mantegazza, *The Year 3000: A Dream*, ed. Nicoletta Pireddu. Lincoln, NE: University of Nebraska Press, pp. 1–53.
- Poczka, Irene (2017), "Die Internationalen Gesundheitskonferenzen 1851–1903", in *Die Regierung der Gesundheit: Fragmente einer Genealogie liberaler Gouvernementalität*. Bielefeld: transcript Verlag, pp. 359–420.
- Richardson, Benjamin Ward (1876), *Hygeia: A City of Health*. London: Macmillan and Co.
- Siefert, Helmut (1970), "Hygiene in utopischen Entwürfen des 16. und 17. Jahrhunderts", *Medizinisches Journal* 5.1, pp. 24–41.
- Verne, Jules (1879), *Les Cinq cents millions de la Bégum*. Paris: J. Hetzel et Compagnie.
- Verne, Jules (1880), *The Begum's Fortune*, trans. William Henry Giles Kingston. London: S. Low, Marston, Searle & Rivington.
- Ward, Peter (2019), *The Clean Body: A Modern History*. Montreal: McGill-Queen's University Press.