The cholera epidemic as condenser of meanings: urban cultures, clinical narratives, and hygiene policies in Rosario, Argentina, 1886-1887

Cecilia M. Pascual

Postdoctoral fellow, Consejo Nacional de Investigaciones Científicas y Técnicas; researcher, Centro de Estudios Culturales Urbanos; professor, Facultad de Humanidades y Artes/Universidad Nacional de Rosario.
Pasco, 1262, 2º piso, dpto. A
2000 – Rosario – Santa Fe – Argentina

cecipascual@hotmail.com

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Abstract

This article investigates how the 1886-1887 cholera epidemic in Rosario, Argentina led to discrimination among city spaces associated with foci, the production of certain socio-moral images about the sectors most affected, and the development of emergency clinical practices. Based on analysis of the signifiers used to define areas of segregation, I seek to show how working-class living conditions were one of the most pressing problems of urban expansion, to identify tensions between the application of hygiene measures and the evacuation or eviction of working-class sectors and to examine the role of displacement in the definition of suburban spaces.

Keywords: city; Rosario; cholera; hygiene; spatiality.

Plagues, pestilence and disease constitute fertile terrain for problematizing, evoking and representing sociocultural issues. The literature contains innumerable pages on disease, notably cholera, the Black Death and tuberculosis (Sontag, 2003; Bongers, Olbrich, 2006). Likewise, epidemics play a central role in the agenda of historiographies of health and disease (Rosenberg, 1966, 1987; Briggs, 1967; Snowden, 1995; Baldwin, 1995). The contextualization of these extraordinary events has sparked interest and led to a variety of differing hypotheses.

According to Charles Rosenberg (1992), disease is perceived as a social phenomenon when various media frame it as such. In the context of epidemics, when faced with the risk of contracting a deadly disease, social actors convert it into a cultural condenser that allows them to channel their anxieties, fears, prejudices and hopes. These meaning nodes are not necessarily directed related to the disease; on the contrary, they are ways of speaking about the disease using other more stable sociocultural tropes.

Diego Armus (2002, 2005, 2007) has shown that in the historiography of health and disease, sociocultural history that is not framed within the history of medicine, politics or the economy has been one of the most productive niches. The field of sociocultural history of health and disease focuses on the configuration of cultural narratives to define the area opened up by disease. Following that line of thinking, this article also seeks to highlight urban issues. Locating the epidemic event is fundamental in order to disassemble and reassemble the planes on which cholera unfolds as a kind of general phenomenon with particular expressions. While numerous studies have stressed the characteristics of urban settings in terms of the history of epidemics, in Argentina there are relatively few that reflect on the process of territorialization that took place after the outbreak of the epidemic.

Cholera, with its rapid onset and violent, definitive symptoms, was linked to migrations, ports, contaminated water, lack of sanitation, a certain moral debility, and poverty in the populations affected. In this article, study of the epidemic involves tracking the semiotics of the complex relationship between definition of the disease and biomedical uncertainty. The authorities were moderately successful at coordinating treatments through the healthcare system and repressing folk healers and quacks (Di Liscia, 2003). They also adopted measures that affected the city, but that expressed differing symbolic meanings, such as the reconfiguration of urban space, policies for removing and segregating-isolating disease foci and expanding areas of local government intervention. Numerous analysts have studied the cholera epidemics that occurred in Argentina in three specific outbreaks: 1867-1868, 1886-1887 and 1894-1895 (Goldman, 1º semestre 1990; Di Liscia, 2003; Carbonetti, 2003; Folquer, 2011; Álvarez, 2012). These studies have contextualized the demographic, social and political impact of the epidemics that occurred in the country, as well as medical views of the various social reasons for the course they took. This article offers a local viewpoint that concentrates on exploring the discourses produced about the event, which allow us to examine the configuration of spatialities anchored in universes of separation and/or segregation. This focused approach helps us examine how the epidemic's sociocultural reception and the political and administrative actions taken to counteract it affected the structuring and distribution both of urban space and municipal policies. This local examination of the problem seeks to show how the city, as an active context and not just a passive setting, shaped reactions

to the epidemic and, at the same time, how social, political, and cultural urban relations were modified, displaced and restructured when cholera passed through.

The city of Rosario lies on the Paraná River. It is the second-largest river port in Argentina, after Buenos Aires. At the turn of the twentieth century, its powerful communications infrastructure was modernized by foreign investment: British capital (in the railways) and French capital (in the port). From the late nineteenth century until 1914, the city attracted massive numbers of immigrants from Spain and Italy. Its commercial profile and social structure were characterized by social mobility and the absence of a colonial past. As seen in census texts, Rosario was a cosmopolitan city, created by its own efforts (Roldán, 2013).

This article seeks to examine how the 1886-1887 cholera outbreak in Rosario led to discrimination in the city against the spaces associated with disease foci (Álvarez, 2012), the production of certain socio-moral images regarding the most affected sectors and the creation of emergency clinical procedures. It also seeks to explore the repercussions and changes in the city government's institutional mechanisms after the epidemic process. It is important to stress that, while the number of cases declined, the effects of the epidemic remained active, producing reforms in health administration. I also stress the role of the epidemic as a liminal experience that encouraged the building of modern sanitation infrastructure, such as drinking water and sewers, in certain zones. Methodologically, this article is based on qualitative analysis of various published and unpublished documentary sources: the archives of the Ministerio Nacional de Obras Públicas (National Ministry for Public Works, referred to from now on as MOP), reports from the Mayor's Office, municipal hygiene regulations (decrees and ordinances), an intensive, day-by-day review of the epidemic as reported by the daily newspaper *La Capital*,[1] and medical theses of the time that dealt with the epidemic, particularly that of Bernardo Rodríguez (1889), which is the only one on the space analyzed here.

Uncertainties: visions in the press

The first warnings of cholera appeared in the last months of 1886. When summer began to bring warming temperatures, a large proportion of the population experienced gastric discomfort. No documented cases of cholera had yet been reported (Álvarez, 2012) when the municipal authorities requested reinforcements from the Interior Ministry in order to systematize care for the sick (Informe..., 1886b). Alarm about an epidemic was not new in Rosario (Hutchinson, 23 abr. 1867) or in Córdoba (Carbonetti, Rodríguez, 2007), and it could have grave consequences for Argentina's interior (Goldman, 1º semestre 1990, p.196).

In March 1867, during the previous epidemic, the city government had consulted the medical tribunal regarding the probability of threat (Corradi, 1867). Expert opinion assumed that the cholera propagating in the city was sporadic in nature (Prieto, 1996). Days later, the fatalities occurring attested the presence of the feared cholera *morbus*. Four hundred and twenty people died as a result of this epidemic. For a city of almost twenty thousand inhabitants, like Rosario in the mid-nineteenth century, this was a considerable number. Various different voices described the commotion caused by cholera at that point.

When rumors of an epidemic were reactivated in 1886, a recurrent diagnosis pointed to the population group most hard-hit by the disease: the poor. Cholera fed on its victims'

ignorance and indigence. According to the conclusions of a British traveler, creoles living in the "filthy little shanties" surrounding Rosario were the most affected. This statement proposes a highly relevant chain of signifiers: ignorance-poverty-segregation-disease. In the chronicles and descriptions, cholera affected those whose material and cultural poverty meant they were ignorant of hygiene rules, people who lived crowded together in spaces that were physically or symbolically separate from the city center. But propagation of the disease was favored not only by individual conditions but also by the authorities' lack of oversight. The press urged the city, without much success, to adopt public hygiene measures to improve environmental conditions in the urban area. In 1887-1887, cholera deaths in Rosario reached 1,156. In Buenos Aires, there were 1,163 fatalities. Rosario had almost fifty thousand inhabitants, whereas Buenos Aires had over four hundred thousand. Given the contrast, the mortality rate in Rosario was overwhelming (Prieto, 1996, p.61).

When the first cases began occurring, doctors in Rosario guessed the etiology of the scattered, recurring deaths. Some newspapers published information about the dangers of cholera *morbus*. The arrival of the steamship Orión in port seemed effectively to have caused the disease to spread from Boca del Riachuelo a neighborhood in Buenos Aires (Álvarez, 2012). President Miguel Ángel Juárez Celman ordered the mayor of Rosario, Dr. Nicanor González del Solar, to make a public announcement about cholera *morbus*. Based on clinical diagnoses, the mayor stated that cholera was not present. Given the considerable public unrest and growing rumors, Juárez Celman dispatched Dr. Roberto Wernicke to Rosario. The prestigious Argentine bacteriologist was received with suspicion and became embroiled in conflict; he was subjected to ironic commentaries in *La Capital*, the largest local newspaper. Before returning to Buenos Aires, Wernicke certified the presence of cholera. The National Department of Hygiene authorized the city to take the necessary measures to counteract the epidemic (Informe..., 1886a). Read in succession, the notes in *La Capital* provide a detailed account of the four-month-long epidemic. Within that body of articles, I shall analyze the ambivalent discourses regarding the early cases, the relationship between city actions and the healthcare situation, the delimitation of foci of infection, and the tension between physicians and the sectors affected by the disease, which were characterized as "uneducated."

From November until mid-December, the newspaper's coverage fluctuated between incredulity, irony and uncertainty. In December and January, reports of isolated cases of suspected cholera in different points around the city reached a critical point. At that time, the conviction that an epidemic had begun was beginning to take hold. Responsibility was attributed to the city authorities and to physicians in general (Di Liscia, 2003, p.304). In the early news reports, the precarious state of hygiene and sanitation was seen as the authorities' fault: "We declare plainly and simply that, as always, there has been criminal indifference on the part of those in power" (Notas…, 7 nov. 1886). The epidemic was ending a state of institutional torpor: "It has always been necessary for us to be threatened by serious problems for our city government to emerge from its customary lethargy" (Medidas…, 5 nov. 1886). Problems like the lack of running water, insufficient sanitary inspections, the lack of a quarantine facility or rigorous statistical data on mortality were permanent references. Due to demographic growth and saturation on the part of philanthropic institutions, there were calls for municipal facilities for the sick (Medidas…, 6 nov. 1886). The gap between the birth

and death rate could be reversed through municipal action and health education for working-class sectors. Both of these elements were indispensable to improving living conditions for the inhabitants of Rosario.

As the heat increased, so did the strength and speed of rumors. Initially, suspicions of an epidemic were discredited. Stomach pain and diarrhea were attributed to overeating, "bad" habits and immoderate behavior on the part of "faint-hearted folk" (Alarma, 6 nov. 1886).

These conjectures were based less on medical knowledge than on transcription of news from Buenos Aires, which resorted to the same arguments to allay concern about impending calamity. They reiterated references to reports by the health authorities in Buenos Aires dismissing the spread of the epidemic. In Buenos Aires, the main focus was in Boca del Riachuelo, an area of the city that bore negative hygiene, urban and moral connotations, a space where there was a confluence of unsanitary establishments, working-class sectors and immigration (Silvestri, 2003; Álvarez, 2012, p.185). The interpretation of the cases that occurred there shifted from bodies to the terrain. First, the disease contaminated individuals, then a type of population described in negative terms, and subsequently the space that surrounded and contained them. The space played the role of a factory, reproducing evil. According to the press, it was not cholera, because there was no laboratory confirmation as such, although the cases were occurring in men who led disreputable lives.

> According to the notes of the physician of the sub-prefecture of La Boca, the two cases involve individuals he saw when they were already deceased, … the one from the pier lived alone in a miserable hovel, … I cannot totally accept even that it was sporadic cholera because mild cholera is not the only gastrointestinal malady that can prove fatal if appropriate assistance is not rendered … All the reports on those affected both in the city and in La Boca involved disorderly men (Copia de carta…, 7 nov. 1886).

There is also a noticeably sarcastic tone in biomedical definitions of the disease (Carbonetti, 2003). Using a repeated euphemism, "the prevailing illness," there was an attempt to allay the population's panic. Recurring ironic references to "the commas" of the bacillus discovered by Koch sought to downplay the epidemic.

> Alarming the public, imposing a quarantine … Not a single physician in Buenos Aires has observed contagiousness in the diarrheas examined. What does it matter whether the tail goes this way or that when the bacillus microbe is not contagious[?] Is it not ridiculous for us to be alarming the whole world with these scientific trifles? (Los microbios…, 7 nov. 1886).

Panic and rumors were described as producing the conditions for propagation of the epidemic. The press disavowed medical knowledge by comparing it to a journalist's experience: "in less than 10 days it will all have blown over, despite the doctors' predictions; that is the opinion of one who, while not having studied medical science, has just as much experience as a specialist on the subject of epidemics" (¿Y creen…, 10 nov. 1886).

Urban foci of "the prevailing illness" were identified. Emphasis on the microbe, its existence and contagiousness, shifted toward urban zones and infrastructures that were, on a symbolic level, linked to specific topographies, practices and sectors of the population. The statements called for evacuating foci of infection in tenements, slums and dangerous or

unhealthy establishments near the center. The lower part of the city, near the shores of the Paraná River and the port, was catalogued as the place "where many inhabitants live swarming together like ants" (Alarma, 6 nov. 1886). This factor was related to the "great quantity of refuse that is tossed out onto the surrounding wasteland … which starts decomposing and creates a stench in the neighborhood" (Conventillos, 6 nov. 1886). This space was shared by masses of people, heaps of garbage, traffic through the port, dockers and temporary workers. Complaints about unsanitary establishments showed a need for the city to set up new exclusion zones. There were calls to relocate soap factories, chandlers and tanneries, which "emit foul-smelling miasmas that infect the air, putting public health at risk" (Tema del dia, 11 nov. 1886), to spaces far from the city center. Tenements were represented as permanent foci of filth, sources of the poison that was making the rest of the population sick (Interesante nota…, 15 nov. 1886). The tenement condensed negative meanings beyond that of working-class housing, penetrating in the imaginary of an unregulated, anomalous and anti-hygienic city (Armus, 1984, p.60). The tenement is the archetype of crowded, dark, dank working-class housing, inhabited by many immigrants who were perceived negatively (Bordi de Ragucci, 1992; Scarzanella, 2003). When the risk of epidemic was present, tenements were seen by hygienists as one of the epicenters (Rawson, 1942; Wilde, 1885; Gache, 1900; Bunge, 1910; Coni, 1918). Indirectly, this characterization advocated for an ordinance that would ensure rental housing was located outside the city center and subject to internal regulations.

> In the first place, permission to build these tenements should not be given except within a well-defined perimeter, so as to avoid having these focal points of filth in the heart of the city. Secondly, the number of rooms must have a fixed space with [outside] light, greater than that which exists today, and they must correspond to the dimensions of the building so that there is space for breathable air to circulate freely (Tema del día, 11 nov. 1886).

Among the permanent infection risks were swamps and lagoons in bad locations, low areas that could be flooded. When these marshy areas overflowed with the summer rains, they carried refuse and germs into areas inhabited by the poor, posing a danger to all the city's inhabitants. Movement toward urban centers and away from the miasmas surrounding them threatened the city's fragile sanitation system. Terror of contracting the disease led to uncoordinated, inconsistent practices being carried out by public health officials under orders from the city. Reports of suspected cases of the disease led to forced evacuations and the transfer of the sick to isolation hospitals, which Adriana Álvarez (2004, p.300) has shown, were being built as obligatory quarantine spaces for all infectious and contagious diseases. The precarious material circumstances of the affected populations favored their displacement and forced removal, actions encouraged by the negative connotations attributed to these social groups.

> The city's delegation of authority to its hygiene commissioners and the doctors who classify a given patient as having cholera or suspected cholera, are principally to blame for the abuses being committed, for the terror and indignation sown among the population, which induce the city's inhabitants to regard doctors and the city authorities as their most bitter foes (Los alarmistas, 15 nov. 1886).

The officials' methods were criticized, as was the lack of rigor on the part of some doctors who did not verify the origin of symptoms. There are records of terror translating into situations of violence against people who were literally dragged to an isolation hospital.

> A patient they took away yesterday … had his feet hanging out of the vehicle, which was going at top speed[;] upon arrival at the isolation hospital the poor man's groans sounded less like a sick person than one whose spine had been broken by being thrown out of the cart so brutally and by the jolting during the trip there[.] There ought to be a recommendation for drivers to be more careful in carrying out their mission because while it is sad to see a sick man it is worse to see them tossed into carts[.] Reports provided to us note that the patient returned that same day, and what he died of[;] from these we surmise that he seems to have died of a broken spine (¡Más humanidad!, 19 nov. 1886).

Gradually, the press admitted the existence of cholera. There was resentment about trusting the authorities. Doctors and city employees were identified as evils more dangerous that cholera itself. The ignorance attributed to inhabitants of the shanty towns, low-lying areas and tenements shifted responsibility to a subjective realm, blaming destitute populations for their dreadful habits and superstitions (González Leandri, 1999).

> [W]e know an old woman called Dolores who is one of the many such women frightened by the cholera issue[. E]ver since suspected cases were reported[,] she has put herself on a strict diet[;] on more than one occasion she has had to go to bed at six in the evening due to the alarming symptoms caused by rum[,] because Doña Dolores' favorite beverage is boiled water with rum and she sticks to it all day long[.] Needless to say[,] the old woman becomes increasingly tipsy[,] ending with her warbling a farcical song to the dog, pulling the little black serving girl's hair, praying to the souls in purgatory and bawling obscenities[.] In her bedroom there is a little painting of a saint which she keeps constantly illuminated[.] The painting has cost Doña Dolores quantities of oil and candles[.] We shall see if after she recovers from her fright she recovers from the anticholera [medicine] that makes her so overwrought (Casos sospechosos, 20 nov. 1886).

The supposedly absurd treatments were linked to alcoholism, a popular metaphor for vice and intemperance. There were calls to suppress working-class behaviors. The press urged people to avoid consulting folk healers and quacks and recommended visiting the doctor at the first symptoms. By December, the epidemic was clearly acknowledged. Complaints were directed at the areas identified as unhealthy and immoral. In those damp, swampy, wretchedly poor places, material and moral bankruptcy went hand in hand. Moral deformation was obvious in the resistance to medical actions (González Leandri, 2000, p.432). In this second phase, the newspaper campaigned to defend the value of medical care among working-class sectors and to prevent the epidemic from spreading to other sectors of society and the city (La ignorancia…, 25 nov. 1886). From the first stages of the epidemic, it is portrayed in a contradictory way in *La Capital*, which went from ironically playing down the issue to strongly recommending that a doctor be consulted at the slightest symptom. However, in the cholera cycle there are some factors that remained constant: the image of a city endangered by the city's (in)action, the diagnosis of functional disorganization of urban space and the equating of infection foci with areas inhabited by working-class sectors, such as tenements and shanties, which

were simultaneously linked to dangerous, unhealthy activities, such as tallow chandlers, slaughter houses etc. and to unfavorable topography, such as swamps, lagoons and areas close to the river. Defeat of the epidemic seemed possible only by sanitizing the city center and controlling the productive and living spaces of working-class sectors. Poverty, ignorance and epidemic formed a chain of signifiers rooted in the name of cholera, in order to prevent its ramifications, at least symbolically.

The eyes of the clinic: bodies, habits and the urban environment

Once the epidemic was declared, an improvised isolation hospital in the northern part of the city was used as an emergency healthcare space. It was set up on lands purchased in the early 1880s by José Arijón (1853-1923), a leading local businessman from Galicia [Spain], who was well-connected to corporations and the city authorities (Roldán, 2005; Lanciotti, 2009). This temporary building was set up in an area dedicated to commercial and industrial activities. The facility was even shoddier than those found in Buenos Aires by Álvarez (2004): it was built of wood and did not even possess disinfection stoves. On the same site, in 1889, the Argentine Sugar Refinery would later set up operations. Bernardo Rodríguez carried out work there for a doctorate in medicine at the University of Buenos Aires. During the cholera epidemic, other doctors with the same plan were sent to various places in the country: Diego García (1887) to Tucumán and Patricio Fleming (1887) to Salta. Carlos Malbrán (1887) remained in Buenos Aires, at the Casa de Aislamiento (Quarantine Hospital). All of these dissertations included clinical experiences recorded during the cholera epidemic. While their arguments varied, there were also points of coincidence. Some were more interested in epidemiological study of the cholera bacillus, following the discoveries of Koch and possible variations on them; others stressed the climate conditions in which the microbe operated. To differing degrees, they all concentrated on clinical practice developed during their research stints in healthcare emergency contexts. José Penna (1888) published *El cólera y su tratamiento* (*Cholera and its treatment*). The director of the Buenos Aires Quarantine Hospital devoted over three hundred pages to listing what was known about the topic. His work was intended to "remedy the absence of a history of morbidity in Argentina" (p.25). His view of cholera was based on eminently clinical grounds, abandoning the etiological approach involving the analysis of pathological germs and the study of contaminated soil. The text analyzed the pathological and normal qualities observed during the epidemic (p.27). There are few references to the other theses, only to the work of Carlos Malbrán. For Penna, clinical practice was displaced in the final explanation by bacteriology and chemistry, which enjoyed great international prestige. Nevertheless, the author states that clinical practice is "always relevant" in times of epidemic, because it documents cases and variations and analyzes the development of the disease in bodies and locales (p.4).

Beginning with Rodríguez's work (1889) on cholera in Rosario, it is clear that clinical practice, in epidemic settings, was spatialized in a particular way. I shall outline his experience, which certainly cannot be generalized to the medical situation in the country as a whole, since the 1880s were marked by the production of institutional regulations governing the state's responses, a process that involved the still very heterogeneous body of physicians

(González Leandri, 2000, p.430; Carbonetti, Rodríguez, 2007). The specialist's eye advanced from the body of the patient to the space around him. He was incapable of ignoring the environmental conditions associated with the affliction nor the context of the doctor-patient relationship. This bond was constantly threatened by circumstances (González Leandri, 1999, p.70). The body of the cholera patient occupied a threatened city, inhabited by an army of micro-organisms that medical knowledge signified as enemies. Perception of the disease became quantitative: the clinician's eye invited statistical generalization. In Rodríguez's notes (1889), the phenomenon advancing toward and hovering over the city required a multi-faceted examination of the body of the patient, who was singled out by infinite variations, specificities and uncertainties, a perspective that clinical practice could not achieve. Rodríguez described his work in sacrificial terms. Interaction with the patient involved a danger that only a few people, those committed to advancing empirical knowledge and addressing the healthcare emergency, were capable of confronting. One of the concerns of his study involves the unreliability of clinical practice in terms of establishing accurate diagnoses. Many doctors and nurses cared for cholera patients and noted a wide range of symptoms. But the ability to produce an overall diagnosis and a successful cure did not match Koch's contributions to bacteriology. With the "microbe revolution" (Latour, 1988, p.44), the thesis of spontaneous morbidity espoused by hygienists started to decline. The multi-causality of the hygiene movement was replaced by the narrow focus and precision assigned to the microscope. In the case in question, we can see the tension between those two occasionally hybridized planes. European battles over medical knowledge and agency were selectively invoked to support particular arguments. Rodríguez devoted various pages of his treatise to examining the origin of the different types of cholera. He sought to demonstrate that contagion was independent of any microbial intervention. He emphasized transmission from a mixture of putrid matter containing the bacillus and other micro-organisms (ptomaine) which was inoculated into "contaminated blood." The locale appeared as a variable in Rodriguez's explanatory system. Determined by the characteristics of the soil, water and air, ptomaine, he argued was the true cause of the spread of cholera (Rodríguez, 1889, p.6). This view, seen at the beginning of his treatise, was overshadowed as the case description progressed. But Rodríguez's gaze was always aimed beyond the doors of the isolation hospital, whose irregular procedures paralleled the living-conditions of those most affected by the epidemic. Associated with demographic density in the city's central neighborhoods, the tenements, along with other foci, were acting as contagious environments. But, like the press, although in a more sophisticated way, Rodríguez (1889, p.14), attributed the variations in response to ptomaine exposure and to a contrast in habits between the infected and the immune: "Many there were attacked; many succumbed; but, without exception, the dreadful disease spared all those with a healthy stomach and proper digestion, those who led a prudent life, even if they drank water that had not been boiled."

Rodríguez's sample was from the northern part of Rosario, near the improvised quarantine center. Despite the bias in his observations, he was able to declare that cholera claimed more victims "on the shores of the river than in the center" (Rodríguez, 1889, p.15). Certain habits predisposed bodies to the disease. The criterion for normality used by Rodríguez was related to the binary opposition between temperance/intemperance. Epidemics would last longer

and be more lethal not in places threatened by contaminated water, as various authors had claimed, but in places governed by barbarous customs, which in the case of Argentine meant creole customs. "Creole incontinence" was the condition of possibility that enabled cholera to wreak havoc. This connotation was linked to the implicitly indigenous nature of a populace that was desperately poor, rebellious and unable to internalize regular habits. In this account, we see a moral redefinition of the people likely to contract the disease. The idea of contagion linked to poverty, filth and squalor was declining. A clinical gaze was overturning the reassuring socioeconomic classifications of the hygiene movement, and replacing its labels with moral classifications. It was not socioeconomic disparity but a difference in moral stature that marked the dividing line between health and sickness.

> It has been said that cholera is the disease of the poor; it is not the disease of the poor, it is the disease of the incontinent. … There is another cause that influences prognosis and that is overcrowding of patients in the isolation hospitals, where thanks to this, and [even] under equal conditions of treatment there is an enormous difference in mortality (Rodríguez, 1889, p.16).

Often, intemperance drove men to drink and destitution. The doctor refined his argument about habits based on reflections concerning lifestyle. For example, married persons, he pointed out, were less likely to become infected. Married life restricted certain practices that posed a risk to body and mind. The most widespread of these was alcoholism, which destroyed the stomach acids, irritating the mucose membranes, [which offered] a barrier against toxic substances that could potentially make a person sick. The habit of drink weakened the organism in medical terms and encouraged moral anemia in the alcoholic. Rodríguez (1889, p.18) pointed out that by eliminating those bodily excesses, one could conquer "this affliction that attacks the weak and flees from the strong." The mentally ill, who could not distinguish what type of food they were ingesting or what hygienic practices they were performing, were also an at-risk group. Those exposed to infection were subjected to moralized and moralizing individuation. Medical observation stopped focusing on environmental and hygienic conditions to link individuality with clinical analysis and the legitimacy of pathological anatomy. Description of the situation was framed by emergency and precariousness. All certainty seemed to vanish in a framework of uncertainties, of precarious and exceptional circumstances that made any statistical generalizing impossible. Obviously, the author lacked the time to homogenize the various different reports on a discursive level. The geography of the disease inhabited a kind of a space of exception. Re-situating his gaze on the multiplicity of the epidemic, Rodríguez argued that it was not impossible to diagnose cholera. In his view, the indeterminate nature presumed by physicians to define the epidemic situation did not lie in the lack of clarity of symptoms. In fact, the search to placate rumors and deny the disease made for a plethora of pronouncements by specialists and quacks offering their services. It was in the midst of those exceptional circumstances, as physicians battled against rumors and charlatans, that the city and the press tended to ally with medical knowledge to safeguard the population. On most occasions, medical certification of the epidemic led to the spread of an atmosphere of panic that hampered any systematic action. Rodríguez believed that bacteriological verification

was not indispensable to the well-trained gaze of the clinician. Although pathological anatomy and autopsies seemed to be the necessary condition for normalizing treatment, in Rosario only one autopsy was performed during the entire epidemic. There was nowhere to perform them, anyway. While in Buenos Aires some 50 cadavers were dissected, the makeshift facilities in Rosario were devoted more to emergency treatment than to data collection and medical research. According to Rodríguez, being besieged by family members of the victims in the domestic sphere and the uncomfortable conditions in hospitals made treatment difficult and complicated practices on cadavers. Tensions among [cholera] sufferers, folk remedies, funeral rites for corpses and widespread mistrust of doctors made the epidemic scenario more complex.

In fifty pages, Rodríguez (1889) offers fragments of his clinical work from 1886-1887. The treatise adopts various styles and haltingly develops three spheres for medical work that seemed to contradict one another on occasion. Firstly, he laid out the hypotheses about the etiology of the disease; then, under the aegis of contagionism, he proceeds to discriminate among victims based on their habits, and lastly, he describes treatment based on observation of symptoms, excluding pathological anatomy. In Rodríguez's narrative, the cholera story assimilates the epidemic within the body and the body assimilates the epidemic. Cholera traveled through the body (intestines) and that body merged with urban space and a confused moral terrain (putrid water, refuse, unhealthy industries, impure city, excess, intemperance). Unreliability of services and emergency conditions governed the urban scene. Without recourse to pathological anatomy, Rodríguez's work carefully describes each of the cases he attended, calibrating the outcome of the treatments administered. This description can be read as a record of precariousness, a review of the conditions under which clinical work was carried out: isolation hospital packed with patients, damp walls, dirty beds, unhealthy atmospheres, lack of privacy, excessive distance from the home and lack of material and hygienic resources. The health of the population described as intemperate was dogged by uncertainty, but it could not be erased from the discourse of the clinic. In Rodríguez's thesis, any attempt at an overall normative reading was defeated by case descriptions, a collection of particularities linked to the rhythm of a threatened city.

From the city's point of view: govern and prevent

In late 1886, by order of José Gálvez, governor of Santa Fe and a member of the pro-Roca modernist faction of the Partido Autonomista Nacional (National Autonomist Party, known as PAN), Pedro de Larrechea became mayor. While he was criticized for his link to provincial [government] intervention in Rosario, Larrechea managed to stay in power for almost two years. Once the heat and the epidemic slackened and his position [as mayor] was more secure, thanks to his administration's support for infrastructure reform, Larrechea presented a report on city management. The previous administration's lack of organization and resources are favorite topics of this *Memoria de Intendencia* (Mayoral Report, 1888). This retrospective analysis of the city under the epidemic focused on two issues: firstly, the institutional disorganization that marked response to the epidemic, and secondly, the modifications undertaken since then. Cholera sparked two institutional developments that marked a turning point in the city's hygiene and sanitation response: the creation of the Office of Hygiene and the Chemistry

Office and a contract with a British firm for the installation of running water, sewers and drains (Larrechea, 1888). The report's negative diagnosis of the past was combined with a hygiene utopia that would make the problems laid bare by the epidemic a thing of the past. In a subsequent set of revisions to the hygiene laws, expansion of the city's radius started to affect its more distant outlying areas, which the mayor's office knew little about. During the health scare, inhabitants of these areas beyond the city's knowledge went through a process of discursive territorialization that put them under municipal jurisdiction. It was proclaimed that all houses and streets would be cleaned, swamps would be filled in, piles of refuse on the wasteland surrounding the city would be burned, tenements would be regulated, food items would be subject to thorough oversight etc. However, this utopia was dimmed by the fact that running water was not widespread and by the lack of an effective mechanism for monitoring and disposing of the thirty tons of refuse that Rosario produced every day. In this article, I am less concerned with the results and effective functioning of this new package of measures. It is more interesting to show the change that took place in a city in which the only virtually spontaneous tactics for safeguarding hygiene in the face of a major threat were a cordon sanitaire and quarantine, but which was now proposing to adopt a strategy of systematic monitoring and institutional reorganization of the agencies in charge of public health in urban spaces and populations. This process matches the trajectory from emergency medicine to a policy of prevention aimed at creating a safe environment and regulating its conditions.

The mayor of Rosario described the epidemic as a moment of paralysis in the progress and functioning of civilization. All infectious diseases led to disruptions of work, slow-downs in commerce and a drop in revenues, and they also undermined the process of attracting immigrants and settlers to lands in the province of Santa Fe. At the same time, government spending rose in an attempt to mitigate the consequences. Financial records reveal that Rosario required a loan to carry out the projected infrastructure works (Larrechea, 1888, p.15). According to the statistics, the age range most affected by the epidemic was 20-35 year-olds, in the productive stage of life. This data bolstered Larrechea's argument that the epidemic slowed progress. The mayor stressed the advantages to be gained by modernizing urban space: improving the circulation of traffic and goods and protecting the health of the active population (p.16). In the mayor's view, population centers with bad hygiene conditions attracted and preserved germs that perpetuated epidemics. Cholera functioned as a revelation, highlighting the need to adopt a methodical hygiene plan and to centralize sanitation mechanisms (p.36). At least in [Larrechea's] argument, private, individual public health interventions declined in favor of an approach driven by public institutions. Public hygiene sought to fuse the city with the body; epidemics and crises offered a unique opportunity to strengthen that alliance. Based on this diagnosis, a series of general ideas can be seen operating as legitimizing mechanisms for the city's action and the urban imaginary on which the city was projected. These principles linked the work of local administration with scientific knowledge. Health statistics were the tool that would help clinical practice and pathological anatomy to establish the causes, propagation routes and effective mechanisms for preventing diseases. Less than five years after the cholera epidemic (1890), a statistics board was convened to collect data about economic activities,

demographic movements and sanitation issues (Roldán, 2013). Safeguarding individuals' bodies, combined with investment in the moral education of working-class sectors, endorsed intervention. In order to contain the danger of epidemic, to control and eliminate it, all sectors of society had to be protected, even if that meant excluding and in exceptional cases dispossessing some of them. Once again, in this discourse, as in many hygiene treatises, the idea of contagion moved from the miasma or microbe factor to focus on sectors with specific habits and characteristics: shanty-dwellers, laborers, market vendors, tenement dwellers, the insane, the incarcerated and pregnant women are some of the actors seen as being on the path to peril. During the most critical moments, the city had to improvise monitoring mechanisms to counteract its failures in terms of prevention. Neighborhood patrols were set up in each section, with newly-created commissioners who coordinated activities relating to cleanliness, refuse collection, food purchase and vending, veterinary monitoring etc.

Likewise, isolation efforts meant restricting contact between those potentially infected with the healthy. People who were recorded as having had contact with cholera patients were routinely moved to sheds or tents. They were placed under observation and belongings of the dead were incinerated (Larrechea, 1888, p.40). These interventions were aimed at those living in tenements, spaces that presented a particular health risk as they were barely habitable and because they were located in the central part of the city (Paz, 1896). In the *Memoria de Intendencia* (Mayoral Report) by Alberto J. Paz, in 1896, the laws relating to space were linked to the creation of a different system of regulations, able to end or replace the (deficient) existing state of affairs. In the various ordinances, such as those that created the Office of Hygiene, the Land Registry Office, inspection of markets, monitoring animal violence, flammable materials, milking yards etc., we see the mobilization of more intentions than resources in an attempt to strengthen and systematize municipal efforts to pursue hygiene, modernization and the construction of a civilized atmosphere. Despite the many difficulties and drawbacks of this hygiene and sanitation regulation, the design of this new field of local government activity led to a change in the administration's view of urban space in Rosario.

Final considerations

The *Disposiciones sobre higiene* (Hygiene regulations, Municipalidad de Rosario, 1902) assembled in the form of a set of by-laws the concerns revealed in the 1886-1887 epidemic, which were revived by the mild threat in 1895 (Paz, 1896, p.278-285). They mandated specific procedures for the construction of tenements, the cleaning of milk-yards and the removal of refuse. The cholera epidemic offers a field of observation where we can reconstruct the arguments that gradually gained legal force in the early twentieth century in Rosario. Starting with the epidemic in 1886, the trajectory of municipal intervention underwent an adjustment.

The absence of conditions for naming and comparing clinical observations to laboratory discoveries unleashed a whole series of suspicions about the habits and lifestyle of at-risk groups, who were described in terms that were almost stigmatizing. Assimilation of the disease to specific social sectors and locales, institutional environments unsure about

treatments, and the lack of resources to systematize prevention are some of the issues highlighted in this article. Limited by the weakness of urban infrastructure and the isolation hospital, and framed by the absence of institutional actors and policies, Rodríguez's narrative attests to the complexity of the backstories that drove interactions between doctors and the population and public authorities. Rodríguez paints a picture that combines the city's flawed, piecemeal sanitation interventions with a series of problems specific to medicine and microbiology. The epidemic event allows us to observe the confluence of these apparently separate spheres. The conflicts and contradictions of the medical sphere were expressed in the hygiene and sanitation intervention carried out by the city. The voice of the press spotlighted the evolving nature of the definitions of threat, which concentrated on a description of at-risk groups based on social affiliation, daily habits and urban inscription. This article shows the network of meanings surrounding the epidemic, which has been little scrutinized on a national level, but which was the first of significant and unprecedented size in the area and led to important repercussions locally in the creation of the framework of hygiene and sanitation [regulations] for the city of Rosario.

Rumor was rife at the start of the epidemic; gossip dragged, shifted and fabricated the contexts of enunciation where the events took place. The polyphony of discursive and textual sources shows the relational framework of the 1886-1887 epidemic at work, and the rise of social and urban classifications. It was in the context of the 1887 cholera epidemic that the first differentiated territorialization of Rosario was designed. This division caused the rise of a series of ideas about processes of spatialization for the configuration of symbolically separated territories, anchored in locales on the periphery of the city, asymmetry in the material aspects of urban life, unfavorable topography and cultural models marked both by difference and stigma.

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NOTE

[1] The analysis concentrated on a specific press source: *La Capital*. The reasons behind this choice relate in part to the amount of coverage it gave and greater complexity in its handling of the issue compared to other media, who paid it less on-going attention in fewer issues. In any case, [my] analysis was limited to the identification of meaning nodes used to describe the epidemic event. As part of the press of the era, *La Capital,* which was somewhat pro-rebel, aimed to participate in political struggles involving different actors. Fundamentally, its pages expressed the debate and political tension being experienced in the province of Santa Fe between the capital city and the city of Rosario; on this point see Roldán (2012). However, *La Capital* sought to present its arguments with a certain distance, through ellipsis, which was not characteristic of the more radical rebel press. Rebel political struggles, however, do not constitute the central topic of this article. For an examination of factionalism in the press in Rosario and its relationship to politics, see the useful work of Mauro, Uliana, Cesaretti, (2005).

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