

Public Health and Social Ideas in *Modern Brazil*

| Nísia Trindade Lima, PhD

Public health in Brazil achieved remarkable development at the turn of the 20th century thanks in part to physicians and social thinkers who made it central to their proposals for “modernizing” the country. Public health was more than a set of medical and technical measures; it was fundamental to the project of nation building.

I trace the interplay between public health and social ideas in the late 19th and early 20th centuries. Physicians and social thinkers challenged the traditional belief that Brazil’s sociocultural and ethnic diversity was an obstacle to modernization, and they promoted public health as the best prescription for national unity.

Public health ideas in developing countries such as Brazil may have a greater impact when they are intertwined with social thought and with the processes of nation building and construction of a modern society. (*Am J Public Health*. 2007; 97:1168–1177. doi:10.2105/AJPH.2003.036020)

SINCE THE 1980S, THERE HAS

been a proliferation of studies on the history of health and medicine in Brazil and other Latin American and Caribbean countries. Along with native historians and social scientists, American and European researchers have also contributed to this research. The creation of specialized scientific journals and graduate courses and the inclusion of medical and health-related topics in the syllabi of research programs on Latin American social and cultural history are other indicators of the progressive consolidation of this field of study.¹

Among recent contributions to this historiography have been studies of the intellectual role of medical doctors, with their elaboration of ideas about the problems in their own societies and possible alternatives for overcoming them. I add to the analysis of this theme, focusing on the Brazilian experience.

Two major ideas dominated interpretations of Brazil after its

political independence in 1822: “nationhood” and “civilization.”² The concept of nationhood implied the desire to integrate a diverse country geographically, racially, and culturally. The concept of civilization—a fashionable and central idea for Brazilian and Latin American intellectuals concerned with the legacy of colonialism and backwardness—represented their desire to achieve levels of material and cultural progress similar to those in Western Europe.

From the first decades of the 19th century through the early 20th century, Brazilian medical doctors contributed significantly to developing social thought through their publications on public health issues. These physicians emphasized that to attain progress and civilization, the country’s public health problems would have to be addressed. They asserted that Brazil’s tropical location and climate and its ethnic diversity were not in themselves obstacles to social development. Further, they argued the need to examine European lifestyles and institutions critically rather than to imitate them blindly.³ These ideas inspired the Brazilian sanitary movement of the early 20th century, which emphasized the need for development of the *sertão* (the rural areas of the interior of Brazil). This movement, which emerged in Rio de Janeiro, pointed to the devastating effects of infectious diseases and the absence of sound public policies as the central problems of Brazilian society.⁴

In the 1930s, these key ideas would strongly influence the then emerging social sciences in Brazil. Medical doctors and social scientists began a fruitful dialog on their interpretations of Brazilian society and its sociocultural contrasts

(i.e., its ethnic diversity and its stunted sociocultural and economic development), as well as making proposals for modernizing Brazilian society.

I examine this combination of medical and social ideas by describing the work of some of these Brazilian medical doctors and explaining how their work was used and expanded upon by social scientists. A historical examination of this topic is relevant for understanding not only the evolution of public health but also the dynamics of Brazil's nation building.

PROPOSALS ON MEDICAL HYGIENE AND CIVILIZATION

The creation of the Medical Society of Rio de Janeiro in 1829 and the work of one of its leaders, the Frenchman Jose Francisco Xavier de Sigaud, mark the beginning of hygiene and public health in Brazil.⁵ Sigaud focused special attention to the climate and the geographical distribution of diseases throughout Brazil and argued against the idea of the inferiority of Brazil's geography, climatic conditions, and ethnic diversity.⁶ He rejected the contention of some European naturalists that Brazil's nature and society were derivative of—and inferior to—the ideal model, which was, of course, European.⁷ Moreover, he rejected the idea that either miscegenation or the tropical climate was responsible for the prevalence of disease. Rather, he attributed the high disease rates to poor social conditions and especially to the unhealthy diet of the majority of the population.

Like Sigaud, other Brazilian medical doctors in the 19th century stressed the need to adapt ideals of health to the specific

conditions in Brazil. They argued that it was counterproductive to force the native population to adapt to European patterns inappropriate to Brazilian conditions. This view was remarkable for its time, considering that Brazil had been the center of the Portuguese Empire from 1808 to 1822 and was ruled during most of the 19th century by a monarchical system and an elite that, to a large extent, self-identified as European.⁸

After its independence from Portugal in 1822, Brazil was the only country in the Americas to adopt a monarchical political regime, instituting an empire under the rule of Pedro I, a member of the Portuguese royal family. The empire maintained slave labor until 1888, the year before the country was proclaimed a republic. The abolition of slavery, which was the result of a long process of converging internal interests and foreign policy, was an important factor in the decline of the empire and in the subsequent institution of the republican regime.⁹

From the early 16th century until the end of the 19th century, Brazil's system of agricultural production depended on slavery; the main labor force in the countryside was slaves, and both slaves and freedmen worked in the cities. The social elite favored styles of diet, clothing, and housing that copied European models.

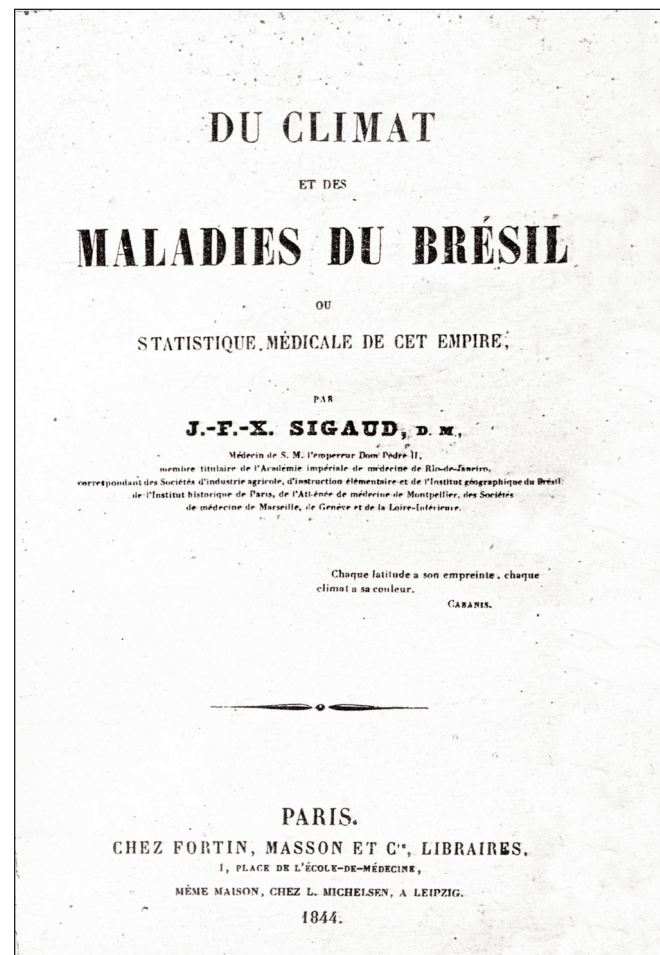
Many 19th-century Brazilian medical texts strongly criticized the attempt to adopt forms of diet, clothing, and housing according to European standards. In 1851, Brazilian physician Francisco de Paula Cândido wrote that the houses in Rio de Janeiro that fashionably imitated European homes seemed more appropriate for Greenland than for the warm conditions of the 23rd latitude.¹⁰ By

contrast, medical doctors and engineers praised the suitability of many dwellings of the lower classes for life in the tropics. For example, the lighting and ventilation of the northeastern *mocambos* (straw huts used by the urban poor) were considered superior to the European-style urban houses with heavy roofs made of zinc or other heat-conducting materials. Many Brazilians agreed that “modernizing”—that is, Europeanizing—dwellings would be a mistake.¹¹

Physicians in the second half of the 19th century were especially concerned, both before and after the abolition of slavery, about how to modernize and “civilize” a society whose social organization had been based on slavery and

Cover of the book *Du Climat et des Maladies du Brésil (On Brazilian Climate and Diseases)* by the French physician Jose Francisco Xavier Sigaud. Gilberto Freyre considered Sigaud to be one of the precursors of sociological studies in Brazil.

Source: *Archives of the House of Oswaldo Cruz, Oswaldo Cruz Foundation.*



reflected the economics and social order of a plantation society. As early as 1865, the physician Manuel da Gama Lobo had, made some important headway in his studies of the relationship between social condition and diet by showing the influence of plantation monoculture on the nutritional value of the diets of both masters and undernourished slaves.¹² In this and other cases, medical texts on malnutrition became subtle but persistent critiques of the inhumane conditions of slaves and of the political system that maintained slavery.

There were relatively few Brazilian doctors in the 19th century, and they tended to be concentrated in the coastal cities: Rio de Janeiro, Salvador, and a few other ports engaged in maritime commerce. At the beginning of

the 20th century, however, the number of doctors increased both in the aforementioned cities and also in the capitals of other states that were enjoying a period of economic growth.¹³

In 1889, Brazil experienced a major political change when the empire ended and the First Republic was inaugurated. Slavery had been abolished the previous year. The First Republic brought great hopes for social change and many ideas for achieving order, progress, and gradual development. Public health was part of this transformation. A new generation of medical doctors proposed the creation of permanent public health institutions and the gradual extension of public health activities to reach not only the major ports and cities but also the rest of the nation.¹⁴ In 1910, the rural

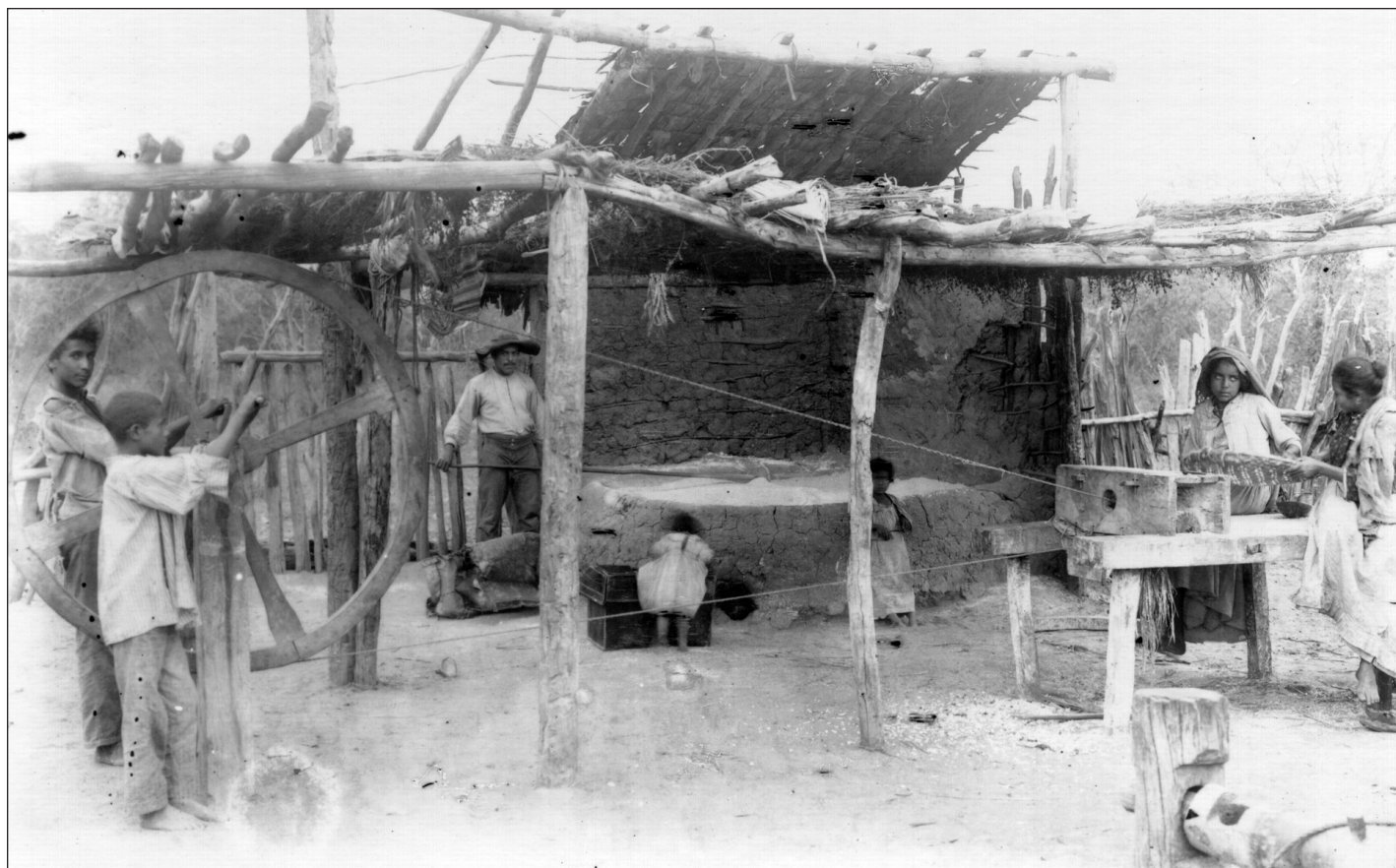
sanitary movement prioritized public health as the major social challenge of the interior.

DISEASE AS METAPHOR

Debates on Brazilian national identity intensified during the First Republic. Many argued that Brazil was not yet a real nation but rather a weakly united set of provinces aggregated into an unstable state political system through the Republican Constitution. Brazilian intellectuals suggested different ways of creating real national unity. Some were drawn to intense nationalistic movements that supported strong state centralization. The Brazilian National Defense League, for example, maintained that the military draft was essential for national unity.¹⁵ Its members argued

A cassava flourmill in Jatobá, state of Bahia (northeast Brazil), in June 1912. The photograph, taken by a member of the Oswaldo Cruz Institute's scientific expedition led by Arthur Neiva and Belisário Penna, shows the working conditions of the local population.

Source. Archives of the House of Oswaldo Cruz, Oswaldo Cruz Foundation.



that the Brazilian rural population and those colonizing the Amazon and other regions of the interior were tough, brave, and physically strong and, in an emergency, would be an effective military resource to guarantee Brazil's territorial and political integrity.¹⁶ Others, however, believed that the existence of a widespread illiterate and "sick" population would be a serious obstacle to state expansion and unity through military means. Eventually, the latter would impose their ideas and emphasize that the extent of ill health and illiteracy among the population was so high that it undermined a military-based national unity.

In 1916, Miguel Pereira, a medical doctor, insisted that "Brazil is a vast hospital."¹⁷ Pereira's bold statement was based on the accounts of scientific expeditions sponsored by the Instituto Oswaldo Cruz, an institution created in 1900 in the capital, Rio de Janeiro.¹⁸ Government agencies responsible for railway construction and other development projects commonly commissioned such scientific expeditions before initiating new projects.

Among the many expeditions carried out by members of the Instituto Oswaldo Cruz, the one headed by Arthur Neiva and Belisário Penna received the most publicity.¹⁹ The Inspetoria de Obras contra as Secas (Drought Relief Inspection Agency) commissioned this expedition in 1912. For over 9 months, the 2 scientists traveled throughout Brazil's northeastern and northern regions.²⁰ The expedition report (published in 1916 in the journal *Memórias do Instituto Oswaldo Cruz* [*Memories of the Oswaldo Cruz Institute*]) contained detailed information on the environment, fauna, flora, epidemiological situation, and living conditions of the

local population. It included photographs that helped to illustrate and popularize its denunciation of the appalling health conditions of the rural areas.

This report added fuel to a continuing debate that had been initiated by the publication of Euclides da Cunha's book *Os Sertões (Rebellion in the Backlands)* in 1902. Da Cunha's historical novel—one of Brazil's literary masterpieces—was based on the war in 1897 between *sertanejos* (the rural people of the interior) and federal troops.²¹ The rural people, following a charismatic religious leader, had banded together and challenged the authority of the government and the landowners. Ultimately, the army defeated this peasant rebellion by massacring many of the participants and killing the leader. *Os Sertões* was considered a landmark in Brazilian social thought because it elaborated an image of 2 societies in Brazil: the "civilized" coastal society—which it characterized as European—and the "primitive" interior: Da Cunha suggested that, despite the backward social conditions in the interior, authentic values for shaping the future of Brazilian civilization could be found there. He also suggested the mistake of using military force to control this population, which was more vibrant than the effete society of the coastal region.

Neiva and Penna's text takes up this idea of the existence of 2 societies within Brazil, but it offers a somewhat different interpretation of the interior population. The social condition of the interior, which, according to da Cunha, was created by its isolation from the coastal civilization, was defined by Neiva and Penna as one of "abandonment."²² Neiva and Penna argued that the elites on the coast had

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abandoned their responsibility for the rest of the country. The coastal people did not know or care about the interior population: "[V]ery rarely do we meet anyone who knows what Brazil really is."²³ In their eyes, the coastal population should therefore be blamed for the absence of any sense of national identity.

The interior population had also been abandoned by public health and medical institutions. According to Neiva and Penna's report, the populations of the interior used local medicinal plants and animals for treatment because Western medical and pharmaceutical resources were practically nonexistent.

Neiva and Penna's scientific expedition surveyed the health and living conditions of towns along the São Francisco and Tocantins rivers. From their diaries, we see that they were deeply concerned about mapping the spread of Chagas disease—trypanosomiasis, which was discovered in 1909 by Brazilian scientist Carlos Chagas. Brazilian doctors considered Chagas disease, malaria, and hookworm to be the great problems of the remote rural areas. Such diseases not only decimated *caboclo*²⁴ (mixed-blood) populations but also jeopardized public health

progress in general and plagued even European immigrants.

In 1914, two years before the publication of Neiva and Penna's report, Monteiro Lobato published two articles in the newspaper *O Estado de São Paulo (The State of São Paulo)* describing what he considered the "true" situation of Brazilian *caboclos*. Lobato, a renowned intellectual and one of the most important Brazilian publishers and writers of the 1920s, had strong opinions about the *caboclos*, whom he viewed as the "lice of the earth" and the main obstacle to progress.²⁵ These articles, which were included in his first short story collection in 1918, sparked an intense debate because he created one of the best-known popular characters of Brazilian fiction, Jeca Tatu, a sort of Brazilian hillbilly of the Paraíba River valley.²⁶ That same year, however, after learning of the ideas of the sanitary movement, Lobato began to argue that the *caboclos* were apathetic and backward because of their poor health and living conditions.²⁷

Lobato came to consider public health (i.e., sanitation) an organizing principle for redeeming Brazil, as evident from the following quotation from 1918: "There is only one patriotic program for

Brazil: sanitize. There is only one way to revamp the Brazilian voting system: sanitize. There is only one way of increasing production in Brazil: sanitize.”²⁸ Lobato, like the doctors and social scientists of his time, understood that sanitation implied development of basic health and medical services, including disease control and health education

In 1917, Belisário Penna’s articles in the newspaper *Correio da Manhã* (*The Morning Mail*) helped promote and publicize the sanitary movement in Brazil’s interior. The literary, military, and political elites embraced the idea that infectious diseases, especially prevalent in the interior, were thwarting progress and civilization in the country, and

Nacional de Saúde Pública (National Public Health Department). The department attempted to control and coordinate the work done by municipal and state boards of health and to extend public health programs into the rural countryside. It also developed training programs, laboratory research work, and career opportunities in public health administration and practice.³⁰

The sanitary movement was responsible for the creation of rural health centers in several states. These health centers represent an important landmark in the development of public health services in Brazil.³¹ Although they were unable directly to improve living conditions, they constituted a real

the 20th century, the term *sertão* was applied to backland areas, as opposed to the seacoast. Nevertheless, it would be impossible to assign a precise geographical denotation to it. In the first half of the 20th century, the term was used to refer to a wide range of geographical regions: the semiarid area in the northeast; the Amazon region of the north and middle west; the northwestern part of the state of Paraná, in the south; the interior of the state of São Paulo, in the southeast; and even, according to some texts, in reference to some state capitals located on the coast.

Some authors thought that the term *sertão* should be given a broad sociopolitical interpretation rather

of Brazil were strongly influenced by the idea of Brazil’s unique ethnic diversity.³⁵ For some, the so-called “inferior” races represented an insurmountable obstacle to progress and only an aggressive European immigration program could overcome it.³⁶ Other intellectuals, although not necessarily opposed to such an immigration program, promoted a more “optimistic” solution, namely a progressive “whitening” of the native population through intermarriage. These two interpretations shared the assumption that Brazil’s most important problem was its racial and ethnic composition.³⁷

By contrast, the intellectuals supporting the sanitary movement rejected the common prejudice and discrimination against the darker-skinned majority of the Brazilian population. These debates over racial determinism coincided with the development of eugenic ideas. Brazil was experiencing a lively exchange of ideas: old racial notions, eugenics, and the new concepts of public health.

Nancy Leys Stepan contends that neo-Lamarckian ideas were adapted to fit local needs in Latin America during the turn of the 20th century.³⁸ The result was, as she termed it, a “positive” rather than “negative” version of eugenics. Whereas negative eugenics was characterized by efforts to restrict marriage and to sterilize “unfit” and “degenerate” individuals, positive eugenics stressed the human ability to change and control the environment—and it eschewed racial determinism. Peruvian medical doctor Enrique Paz-Soldán’s statement that “eugenics is sanitation”³⁹ summarizes the view of many physicians in Latin American countries, namely, that public health and education could indeed change

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they enthusiastically supported the movement. According to Miguel Couto, president of the National Academy of Medicine, the time had come to launch a “medical crusade to help Brazil.”²⁹ At the time, the government presence was practically nonexistent in most of Brazil’s remote rural areas. As Couto’s call to action implied, Brazil’s rural oligarchy had done little to improve the living conditions of the poor. Couto also questioned the principle of state autonomy, or states’ rights, which impeded any federally coordinated public health intervention or epidemic disease control.

These ideas led to the establishment in 1920 of the first national agency for public health and disease control, the Departamento

and constructive government presence and were important for local populations that, as Penna and Neiva had pointed out, had previously had little or no contact with official health agencies.

Newspaper articles, popular publications, and the enthusiastic support of intellectuals and political leaders for the sanitary movement popularized the concept that public health was central to solving Brazil’s problems. Early public health interventions reinforced this concept and in turn increased public awareness and support for public health.³² In particular, they emphasize on the need for promoting sound living conditions in Brazilian backlands.³³

In Brazil during the 19th century and in the first decades of

than a geographically precise meaning. For them, the *sertão* began wherever public authority was absent. According to Afrânio Peixoto, MID “the backlands begin where Rio de Janeiro’s Central Avenue [Avenida Central] ends.” He was referring to the avenue that was built in 1903 during the city’s urban reform, which was promoted by the mayor, Pereira Passos. Everything located out of the modern nucleus of the city could be qualified as *sertão*. Moreover, the *sertão*, in light of this interpretation, was shown to have two inextricably intertwined features of Brazilian society: widespread infectious diseases and the absence of government in many areas of social life.³⁴

In the early 20th century, these sociomedical interpretations

and improve the health of the apparently inferior native ethnic groups.

It is important to note that negative eugenics was not absent from intellectual circles in Latin America in the 1920s and 1930s, although it was only supported by a minority. Often, the Latin American eugenicists who espoused the negative version of eugenics opposed Lamarckian ideas and defended Mendel's theory of heredity. In accord with their point of view, the environment was not important for explaining the transmittal of traits throughout generations. Nevertheless, as Stepan points out, it is impossible to establish a direct relationship between the acceptance of orthodox Mendelian heredity theory and negative eugenics. Not everyone who defended Mendelian heredity espoused negative eugenics. For example, Edgard Roquette-Pinto⁴⁰—one of the most important advocates of rural public health reform—opposed negative eugenics but embraced Mendel's theory of heredity.

After 1910, the idea that education and public health were the two necessary tools for overcoming the country's backwardness became widely accepted.⁴¹ Although some pessimistic writers continued to see Brazil as condemned by its ethnic and racial makeup, public health leaders confidently stated that sanitation could “rescue” and “civilize” Brazil.⁴²

The sanitary movement continued to have strong repercussions into the 1930s. Julio Paternostro, MD, an officer of the Yellow Fever Service (an agency established in the 1930s by an agreement between the Brazilian Government and the Rockefeller Foundation), was sent to the Tocantins River basin to study the region's immunity to yellow fever. Paternostro's



data and travel observations were published in the *Brasiliana*⁴³ series in 1935, over 20 years after Neiva and Penna's first findings. He wrote that the remote rural population—which he considered backward—could be “saved” by establishing sound public health policies and services.

Paternostro underlined the persistent cultural distance between the coastal civilization and the poor, crumbling villages and hamlets of the interior. He emphasized the lack of, and need for, public health and medical services for the Tocantins River population and recommended setting up malaria prophylaxis stations staffed by adequate medical personnel.⁴⁴

Paternostro claimed the only place in the north of the State of Goiás with a medical doctor in 1935 was Porto Nacional. Medical assistance in the more developed municipalities was limited to the “Santas Casas.” These Catholic-run hospitals survived on such sporadic financial resources as the population's contributions to the Church. Paternostro believed that

hospitalization was unpopular in the rural areas because of the lack of medical personnel and adequate financial resources.⁴⁵

Paternostro pointed out another problem affecting the health of the rural population: many state health centers set up to deal with endemic diseases (such as malaria, hookworm, leishmaniasis, and trachoma) were located in municipal capitals to further the prestige of political leaders. As a result, the health centers were totally useless because of the long distances rural people would have to travel to access its services. Consequently, people living in remote villages, small communities, farms, and the unexplored regions of the Brazilian interior depended on local herbal doctors and lay healers when they were ill. Paternostro proposed that these lay healers be integrated into the official public health services. Public health officials, he argued, could institutionalize and expand a custom already in use by employing these lay healers to reach the most isolated rural areas.⁴⁶

A campsite in Bebe Mijo, state of Piauí, northeast of Brazil, June 1912, of the Oswaldo Cruz Institute's expedition to the northern and northeastern regions of Brazil. Belisário Penna (left) and Arthur Neiva are seated in the foreground.

Source. Archives of the House of Oswaldo Cruz, Oswaldo Cruz Foundation.



Cover of *O Malho* (*The Hammer*), a widely read newspaper in Rio de Janeiro. The cartoon by J. Carlos shows the impact of Rui Barbosa's conference in 1919, titled "The Social and Political Question in Brazil." Barbosa, one of the main intellectual and political leaders of the First Republic, is shown on a caravel at the moment of his "rediscovery" of Brazil and its social problems. The fictional character Jeca Tatu stands on the shore.

Source. Library, House of Rui Barbosa, Rio de Janeiro.

THE DIALOGUE BETWEEN SOCIOLOGY AND MEDICINE

More than any other Brazilian sociologist, Gilberto Freyre (1900–1987), a prominent intellectual, stressed the importance of the physicians' views of Brazilian social organization. His two best-known books—*Casa Grande e Senzala* (*The Masters and the Slaves*; 1933) and *Sobrados e Mocambos* (*The Mansions and the Shanties*; 1936)—abound in references to medical writings. Freyre reinforced Roquette-Pinto's ideas and the goals of the rural sanitary movement by arguing that disease, not racial interbreeding, was Brazil's real problem.⁴⁷ In the preface to *Casa Grande e Senzala*, for example, he writes:

Once, after almost three years out of the country, I saw a group of Brazilian sailors—mulattoes and *cafuzos* [people of mixed Black and Indian origin]—(I do not remember whether they were from the São Paulo or Minas) walking on the soft snow of Brooklyn. They left me with the impression of caricatures of men and brought to my mind the words I had just read of an American or English traveler in Brazil: "the fearfully mongrel aspect of the population." I then saw this as the result of interbreeding. I needed someone to tell me then, as Roquette-Pinto would tell the advocates of Aryanism at the Brazilian Eugenics Congress in 1929, that the individuals I thought represented Brazil were not mere mulattoes or *cafuzos*, but sick mulattoes and *cafuzos*.⁴⁸

In *Sobrados e Mocambos*, Freyre examined Brazil's transition from a traditional colonial and multicultural society toward a re-Europeanized one. By re-Europeanization, he meant that modernization and urbanization had, since the 19th century, been gradually diminishing the influence of African and indigenous cultures on Brazilian society. Doctors, Freyre argued, played an important part in slowing this transition because they questioned re-Europeanization and the blind imitation of European lifestyles. He noted that these medical ideas had foreshadowed the later sociological critiques of modernization in Brazil.

The institutionalization of social sciences in Brazilian universities in the 1930s and 1940s was closely linked to these debates on the interaction of health and modernization. The Sociology Department of the University of São Paulo and the Escola Paulista de Sociologia were the country's most renowned centers for social science, both located in the industrial and business center of São Paulo, Brazil. The early medical texts discussed here as well as the

reports of scientific expeditions to Brazil's interior provided the framework for and the organizing principles of Brazilian social science. Both physicians and sociologists described the coexistence in Brazil of societies representing different stages of historical development: the advanced societies of the coastal region and the backward communities of the interior. They equally discussed the coastal society's "abandonment" of the rural population. Like the physicians, Brazilian social scientists argued that the communities of the interior resisted modernization and cultural change. Emílio Willems, professor of social anthropology at the University of São Paulo, provided a new reading of the classic dualism between coastal civilization and the interior; his work was to influence sociological studies of modernization throughout the 1930s, 1940s, and 1950s.

Willems argued that the rural interior of Brazil was characterized by a *cultura rústica*.⁴⁹ According to Willems, Brazil was an agglomerate of diversified cultures coexisting in a common political system. The cultural values and social codes of the interior had been formed in isolation from the coastal regions. Some communities were seminomadic because of the concentration of land ownership. This distinguished them from the more stable folk culture of the European peasantry.⁵⁰ The following excerpt summarizes Willems's views of the distance between the coastal civilization and the *cultura rústica* (rustic culture):

The lives of the backland *caboco* populations seem to take place in a different world from ours. These people have few if any ties to the urban market because they hardly use money. City dwellers usually ridicule these people and call them "backwards" and "lazy."

... If we asked one of the interior inhabitants who is Brazil's president, he could not grasp the idea behind the question. Moreover, if we told him how to treat or prevent hookworm he would not seem to be listening. And even if we thought he understood our advice, he still wouldn't do anything about it. Although they speak Portuguese, it seems difficult to communicate with them.⁵¹

According to Willems, most attempts to educate and civilize the *caboclo* populations failed because of misunderstanding and a lack of awareness of local cultural contexts and social codes. He argued that these communities had specific and unique conceptions of labor, time, family, religion, and leisure that had to be understood and taken into account by regional development programs.⁵² Willems believed that social scientists should join forces with doctors, agricultural engineers, educators, and economists to improve the social conditions of the *caboclo* populations. Indeed, he ridiculed one-sided interpretations of the *caboclo*:

For doctors, the *caboclo* is sick and undernourished; for educators, the *caboclo's* problem is illiteracy; for agricultural engineers, the *caboclo* knows nothing of "sound" farming techniques; for economists, the *caboclo* has no financing, markets, or means of communication; and for moralists; the *caboclo's* problems are his vices.⁵³

In the 1950s, physician and anthropologist Alceu Maynard Araújo conducted important studies of traditional medicine.⁵⁴ He coined the term *medicina rústica*⁵⁵ (literally, "rustic medicine"), inspired by Willems's concept of *cultura rústica*, to describe the varieties of healing practices used by the rural Brazilian population. This had developed as a blend of Portuguese, African, and Indian

remedies and treatments. Araújo, who was not a strict advocate of Western medicine, explained that local populations made use of alternative healing practices in the absence of mainstream medicine and public health services. He believed that *medicina rústica* and Western medicine were not mutually exclusive.

In 1959, Araújo received the prestigious *Brasília* prize for his book *Medicina Rústica* on traditional healing practices, health awareness, and the living conditions of the northeastern rural population.⁵⁵ According to Araújo, the people of the region consulted lay healers most frequently, followed in order by spiritual healers, herbal doctors, snake healers, pharmacists, and finally, least often consulted, medical doctors. Like Paternostro, he noted that rural people complained that Western medical doctors prescribed only a few drugs and did not make house calls.

Willems, with his concern for the integrated sociocultural development of the *caboclo* populations, also inspired Florestan Fernandes, professor at the Universidade de São Paulo and another of Brazil's most important sociologists. According to Fernandes, Willems's contribution was a decisive turning point in the development of Brazilian social sciences because it provided a comprehensive perspective and guide through the challenges of modernization.⁵⁶

Fernandes discussed the antagonism between the coastal and interior regions but argued that there was a high symbolic content in the interaction of the regions. The so-called distance between the coastal and interior regions was more cultural than geographical and represented a

conflict between "civilization" and "tradition."⁵⁷ Fernandes described the living conditions of the rural populations as more characteristic of the 18th or 19th century than the 20th. They were treated as "the pariah of Brazilian civilization" (an expression earlier used by Paternostro) because contact with the coastal culture was virtually nonexistent. The undeniably ethnocentric attitudes of the urban coastal dwellers toward them varied from empathy to outright scorn. Fernandes argued that the cultural reality of Brazil had barely changed since the situation described in Euclides da Cunha's *Os Sertões*.⁵⁸ The country remained as socially fragmented as ever.

Fernandes believed that Brazil's demographic, economic, and political development posed enormous challenges to socially oriented public policy. Economic and cultural discontinuity between the coastal cities and the interior hindered all attempts to rationalize social policies and administrative procedures. The government, educators, and sanitarians could not overcome these barriers alone; they needed the participation and guidance of sociologists.⁵⁹

Fernandes argued that popular or "empirical" medicine could be a valuable complement to Western or European medicine. He also proposed that traditional healers receive some training from Western-oriented doctors, who in turn could benefit from working with traditional healers and learning why local rural populations accepted these practices. Western-trained doctors could thus begin to develop a deeper understanding of local cultures and create the basis for a truly intercultural perspective.⁶⁰

CONCLUSION

Development and concepts of public health and modernization were closely linked in Brazil and tied to the development of sociology as a field. In a country of stark contrasts between its urban coastal centers and remote rural areas, public health, medicine, and social thought interacted in efforts to understand and further a dynamic process of nation building.

Medical doctors, public health practitioners, and sociologists agreed on the most important questions: Is modernization possible in Brazil? How can the contrast between the coastal regions and the interior be overcome? What can the interior regions and cultures contribute to the Brazilian identity and development? They all argued against the more pessimistic views of Brazilian society, believing that they as a group could contribute to Brazil's transition toward a modern society. To this end, they supported the kinds of public policies that could help to integrate a country of powerful socioeconomic and cultural contrasts. ■

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This article was accepted August 3, 2006.

Acknowledgments

Special thanks to Dominichi Miranda de Sá, Elizabeth Fee, Elizabeth Xavier, and Marcos Cueto.

ENDNOTES

1. Among books used as reference for the tendencies of recent historiography on health, medicine and disease, the

- most outstanding are: Armus D ed. *Entre Médicos y Curanderos. Cultura, Historia y Enfermedad en la América Latina Moderna* [Among Doctors and Healers. Culture, History and Disease in Modern Latin America]. Buenos Aires: Grupo Editorial Norma; 2002; Hochman G, Armus D. *Cuidar, Controlar, Curar: Ensaíos Históricos sobre Saúde e Doença na América Latina e Caribe* [Care, Control and Cure: Historical Essays on Health and Disease in Latin America and the Caribbean], Rio de Janeiro: Ed. Fiocruz; 2004; Cueto M ed. *Salud, Cultura y Sociedad en América Latina: Nuevas Perspectivas Históricas* [Health, Culture and Society in Latin America: New Historical Perspectives]. Lima: Instituto de Estudios Peruanos/Organización Pan-Americana de Saúde [The Institute of Peruvian Studies/The Pan-American Health Association]; 1996.
2. See Elias N. *O Processo Civilizador* [The Civilizing Process]. Rio de Janeiro: Zahar; 1990.
 3. See Kury L. *O Império dos Miasmas. A Academia Imperial de Medicina* [The Empire of Miasmas. The Imperial Academy of Medicine]. Federal Fluminense University, Niterói: Master's Thesis; 1990; Freyre G. *Sobrados e Mocambos* [The Mansions and the Shanties]. Rio de Janeiro: José Olympio; 1977; Carrara S. *Tributo à Vênus: a Luta contra a Sífilis no Brasil, da Passagem do Século aos Anos 40* [Tribute to Venus: The Campaign Against Syphilis in Brazil, From the Turn of the Century to the 1940s]. Rio de Janeiro: Fundação Oswaldo Cruz; 1996; Peard JG. *The Tropicalista School of Medicine of Bahia, Brazil, 1860–1889*. Ann Arbor: University Microfilms International; 1990.
 4. Lima NT, Hochman G. *Condenado pela raça, absolvido pela medicina: o Brasil descoberto pelo Movimento Sanitarista da Primeira República* [Condemned by race, acquitted by medicine: the discovery of Brazil by the sanitarian movement during the First Republic]. In Maio MC, Santos RV, eds. *Raça, Ciência e Sociedade* [Race, Science and Society]. Rio de Janeiro: Fiocruz/CCBB [Oswaldo Cruz Foundation/Cultural Center of the Bank of Brazil]; 1996: 23–40.
 5. After graduating from the Strassburg School of Medicine, Sigaud moved to Brazil in 1825, where he became a prolific publisher with the help of bookseller Pierre Plancher. Both of them launched the *Jornal do Comércio* [Commercial News] and, in 1827, *O Propagador das Ciências Médicas* [The Propagator of Medical Sciences]—Brazil's first medical journal. In Paris, Sigaud also published the famous book: *Du climat et des maladies du Brésil* [On Brazilian Climate and Diseases]. See Ferreira LO. José Francisco Xavier Sigaud: um personagem esquecido, uma obra reveladora [José Francisco Xavier Sigaud: a forgotten character, but revealing works]. *História, Ciências, Saúde—Manguinhos* [History, Sciences and Health—Manguinhos]. 1998; V : 125–126.
 6. Freyre G. *Precursores esquecidos* [Forgotten Pioneers], *O Jornal* [The News], 21/07/1942; Freyre G. *Sobrados e Mocambos*.
 7. Antonello Gerbi's classic book, *La disputa del nuevo mundo. Historia de una polémica, 1750–1900* [The Dispute of the New World. The History of a Polemic]. 2nd ed. México: Fondo de Cultura Económica; 1982, is an important piece regarding a critical perspective on the negative views held by travelers and naturalists about the Americas, particularly in reference to climatic conditions and nature on the continents.
 8. Nabuco J. *Um Estadista do Império* [A Statesman of the Empire]. Rio de Janeiro: Topbooks; 1997; Carvalho JM de. *A Construção da Ordem: a Elite Política Imperial* [Building of Order: The Imperial Political Elite]; *Teatro de Sombras: a política imperial* [Theater of Shadows: Imperial Politics]. Rio de Janeiro: UFRJ [The Federal University of Rio de Janeiro/Relume-Dumará; 1996; Carvalho MAR de. *O Quinto Século. André Rebouças e a construção do Brasil* [The Fifth Century. André Rebouças and Building Brazil]. Rio de Janeiro: Revan; 1998; Mattos IR de. *O Tempo Saquarema* [The Saquarema Period]. São Paulo: Hucitec Press; Brasília: Instituto Nacional do Livro [Brasília: National Institute of Books]; 1987.
 9. The renewal of the studies on slavery is an important characteristic of the recent historiographic production in Brazil. See Karasch M. *A Vida dos Escravos no Rio de Janeiro (1808–1850)* [Slavery Life in Rio de Janeiro (1808–1850)]. São Paulo: Cia das Letras; 2000; Florentino MG. *Em Costas Negras: Uma História do Tráfico de Escravos entre a África e o Rio de Janeiro (Séculos XVIII e XIX)* [On Black Shores: A History of Slave Traffic Between Africa and Rio de Janeiro (18th and 19th Centuries)]. Rio de Janeiro: Arquivo Nacional [National Archives]; 1995; Castro HMM de. *Das Cores do Silêncio: Os Significados da Liberdade no Sudeste Escravista* [On the Colors of Silence: The Meanings of Freedom in the Slave Southeast]. Rio de Janeiro: Arquivo Nacional [National Archives]; 1995; Farias JB, Gomes FS, Soares CEL. *No Labirinto das Nações: Africanos e Identidades no Rio de Janeiro* [In the Labyrinth of Nations: Africans and Identities in Rio de Janeiro]. Rio de Janeiro: Arquivo Nacional [National Archives]; 2003.
 10. Paula Candido (1805–1864) graduated from the Paris School of Medicine and was President of the Local Central Hygiene Bureau of Hygiene and the Imperial Academy of Medicine.
 11. Freyre G, *Sobrados e Mocambos*, (p253).
 12. Ibid, 284. Dr. Manoel da Gama Lobo (1835–1883) graduated from the School of Medicine of Rio de Janeiro and studied ophthalmology in Europe. He was a general practitioner and a surgeon, with experience in yellow fever. He was a board member of the Academia Imperial de Medicina [the Imperial Academy of Medicine] and several foreign scientific institutions.
 13. Guimarães MRC. *Civilizando as Artes de Curar: Chernoviz e os Manuais de Medicina Popular no Império* [Civilizing the Arts of Cure: Chernoviz and the Manuals on Popular Medicine in the Empire]. Casa de Oswaldo Cruz/Fundação Oswaldo Cruz, Rio de Janeiro: [House of Oswaldo Cruz]/[Oswaldo Cruz Foundation], Master's degree dissertation; 2003.
 14. Castro-Santos LA de. *Power, Ideology and Public Health 1889–1930*. Harvard University, Doctoral dissertation; 1987.
 15. Regarding the intellectual atmosphere, see Skidmore T. *Black Into White: Race and Nationality in Brazilian Thought*. Oxford: Oxford University Press; 1974; Oliveira LL. *A Questão Nacional na Primeira República* [The National Issue During the First Republic]. São Paulo: Brasiliense; 1990.
 16. Lima NT, Hochman G. *Condenado pela raça, absolvido pela medicina: o Brasil descoberto pelo movimento sanitarista da Primeira República* [Condemned by race, acquitted by medicine: the discovery of Brazil by the sanitarian movement of the First Republic].
 17. Pereira graduated from the School of Medicine and became a professor in 1907. He was a member and president of the prestigious National Academy of Medicine.
 18. See Stepan N. *Beginnings of Brazilian Science: Oswaldo Cruz, Medical Research and Policy, 1890–1920*. New York: Neale Watson Academy Publications; 1976; Benchimol JL, Teixeira LA. *Cobras, Lagartos & Outros Bichos: Uma História Comparada dos Institutos Oswaldo Cruz e Butantan* [Snakes, Lizards and the Like: A Comparative History of the Oswaldo Cruz and the Butantan Institutes]. Rio de Janeiro: Editora UFRJ/Casa de Oswaldo Cruz [The Federal University of Rio de Janeiro/The House of Oswaldo Cruz], 1993.
 19. Neiva (1880–1943) was director of the Sanitary Service of the State of São Paulo in 1916 and a member of the Instituto Oswaldo Cruz [Oswaldo Cruz Institute] and the Biological Institute of São Paulo. Penna (1868–1939) was a physician and the leading advocate of the rural sanitation movement. He became Health Inspector of the Diretoria Geral de Saúde Pública [General Direction of Public Health] in 1904.
 20. Penna B, Neiva A. *Viagem Científica Pelo Norte da Bahia, Sudoeste de Pernambuco, Sul do Piauí e de Norte a Sul de Goiás* [A Scientific Journey Through the North of Bahia, the Southwest of Pernambuco, the South of Piauí and From the North to the South of Goiás], Memórias do Instituto Oswaldo Cruz [the journal Memories of the Oswaldo Cruz Institute]. 1916; 8: 74–224.
 21. Euclides Cunha (1866–1909), a military engineer, wrote the classic *Os Sertões* [Rebellion in the Backlands], after having been correspondent for the newspaper Estado de São Paulo (state of São Paulo) during the conflict.
 22. Lima NT. *Um Sertão Chamado Brasil* [Certain Backlands Called Brazil]. Rio de Janeiro: Revan, IUPERJ, UCAM; 1999.
 23. Penna B, Neiva A. *Viagem Científica Pelo Norte da Bahia, Sudoeste de Pernambuco, Sul do Piauí e de Norte a Sul de Goiás*, p121.
 24. In Brazil, the term caboclo has been used with different meanings. Two renowned anthropologists in the 1930s concluded that the term referred to the sertanejo—a Brazilian not yet integrated into urban civilization. It is a synonym for the caipira in the Southeast or cabra in the Northeast. See Baldus H, Willems E. *Dicionário de Etnologia e Sociologia* [Dictionary of Ethnology and Sociology]. São Paulo: Cia. Editora Nacional; 1939.
 25. Lobato M. *Urupês*. São Paulo: Brasiliense; 1957, v. 1, p269–292.
 26. About this controversy, see Cavalheiro E. *Monteiro Lobato e a Revista do Brasil* [Monteiro Lobato and Brazil's Journal]. *Revista Brasiliense*. 1955; 1: 5–14.
 27. Skidmore T, *Preto no Branco* [Black into White]; Castro-Santos LA. *Power, Ideology and Public Health*; Lima NT, Hochman G. *Condenado pela raça, absolvido pela medicina: o Brasil descoberto pelo Movimento Sanitarista da Primeira República*; Lima NT, *Um Sertão Chamado Brasil*.
 28. Lobato M. *Mr. Slang e o Brasil e Problema Vital* [Mr. Slang and Brazil and Vital Problem]. São Paulo: Brasiliense; 1957, v. 8 (p244).
 29. Penna B. *Saneamento da População Agrária do Brasil* [Sanitation Among Brazil's Agrarian Population]. Rio de

Janeiro: Tip. Mascote; 1917 (p13–17); Brito N. *Oswaldo Cruz, a Construção de um Mito da Ciência Brasileira* [Oswaldo Cruz, the Building of a Myth of Brazilian Science]. Rio de Janeiro: Fundação Oswaldo Cruz [Oswaldo Cruz Foundation]; 1995 (p23).

30. The Rockefeller Foundation played an important role in this change which occurred in other Latin American countries as well. In São Paulo, the Foundation created, for example, the hygiene course at the Escola de Medicina de São Paulo (São Paulo Medical School) in 1918 and founded the modern Instituto de Saúde Pública (Public Health Institute), in 1925. Many Brazilian professionals received Rockefeller fellowships to study at Johns Hopkins School of Hygiene and Public Health.

31. About the impact of Brazilian sanitarian movement on public health policies see Castro-Santos LA, Power, Ideology and Public Health; Hochman G, *A Era do Saneamento* [The Era of Sanitation]. São Paulo: HUCITEC/ANPOCS; 1998.

32. Medical debates were not restricted to specialized journals but also appeared in newspapers and magazines. See Benchimol JL. *Dos Micróbios aos Mosquitos. Febre Amarela e Revolução Pasteuriana no Brasil* [From Microbes to Mosquitoes. Yellow Fever and the Pasteurian Revolution in Brazil]. Rio de Janeiro: Editora Fiocruz/ Editora UFRJ [Oswaldo Cruz Foundation Press/The Federal University of Rio de Janeiro Press]; 1999; Ferreira LO. *O Nascimento de uma Instituição Científica: o periódico médico brasileiro da primeira metade do século XIX* [The birth of a scientific institution: The Brazilian Medical Journal during the first half of the 19th century]. USP, São Paulo: Doctoral Dissertation; 1996.

33. See Amado J. *Estudos Históricos* [Historical Studies]. 1995; 8 (15): 145–151; Lima NT, *Um Sertão Chamado Brasil*.

34. Hochman, *A Era do Saneamento* (p65).

35. See the work by Maio and Santos, which offers a broad perspective on the idea that race and ethnicity stands at the core of Brazilian social thought. Maio MC, Santos RV, *Raça, Ciência e Sociedade* [Race, Science and Society].

36. See Peixoto A. *Moinhos de vento* [Windmills]. *Saúde* [Health]. 1918, n.1.p.12–16.

37. Skidmore T, Black into White; Carvalho JM de. *Brasil, Nacione Imaginadas* [Brazil, Imaginary Nations]. In Annino A, Leiva LC, Guerra F, eds. *De los Imperios a la Nación Ibero-America* [From Empires to the Iberian-America Nation]. Saragoza:

Intercaja, 1994: 32–47; Lima NT, Hochman, G. *Condenado pela raça, absolvido pela medicina: o Brasil descoberto pelo Movimento Sanitarista da Primeira República*. For a divergent position from the fatalistic-sounding condemnation of Brazilian nationality based on the ethnic characteristics of its people, see Torres A. *A Organização Nacional* [National Organization]. São Paulo, Brasília: Companhia Editora Nacional/UnB; 1982; Torres A, *O Problema Nacional Brasileiro: Introdução a um Programa de Organização Nacional* [The Brazilian National Problem: Introduction to a Program of National Organization]. São Paulo: Companhia Editora Nacional; 1933; Bonfim M. *A América Latina: Males de Origem* [Latin America: the Woes of Origin]. Rio de Janeiro: Topbooks; 1993.

38. Stepan N. *The Hour of Eugenics: Race, Gender, and Nation in Latin America*. Nova York: University Press; 1991.

39. Soldan EP. *Eugenização da América* [Making America eugenic]. *Saúde* [Health]. 1919; 4: 95–96.

40. Roquette-Pinto (1884–1954) was an important Brazilian doctor and biological anthropologist. He graduated from the School of Medicine of Rio de Janeiro, conducted studies on indigenous populations, taught natural history in Rio, and directed the National Museum in 1926. In 1927, he became a member of the prestigious Academia Brasileira de Letras [Brazilian Literary Academy] and later was president of the first Brazilian Congress on Eugenics.

41. Skidmore T. *Black into White*; Castro-Santos LA. *Power, Ideology and Public Health*; Castro-Santos LA. *O saneamento sanitário na primeira república: uma ideologia de construção da nacionalidade* [Sanitarian thought during the first republic: an ideology for building nationality]. *Dados* [Data]. 1985; 2: 193–210.

42. This argument is further developed in Lima NT, Hochman G, *Condenado pela raça, absolvido pela medicina: o Brasil descoberto pelo Movimento Sanitarista da Primeira República*.

43. The *Brasiliana*—a collection of Brazilian social thought—was the most important publishing project of its kind.

44. Paternostro J. *Viagem ao Tocantins* [Journey to Tocantins]. São Paulo: Companhia Editora Nacional, Coleção Brasileira, série 5, vol. 248; 1945 (p 240).

45. *Ibid*, 238.

46. *Ibid* 240.

47. For a discussion of Gilberto Freyre's approach on race and disease, see Teixeira LA. *Da raça à doença em Casa-Grande & Senzala* [From race to disease in *The Masters and the Slaves*]. *História*,

Ciências, Saúde. Manguinhos [History, Science and Health—Manguinhos]. 1997; IV : 231–243.

48. Freyre G. *Casa-Grande & Senzala: Formação da Família Brasileira sob o Regime de Economia Patriarcal* [The Masters and the Slaves: The Formation of the Brazilian Family Under the Regime of Patriarchal Economy]. Rio de Janeiro: José Olympio, 1978 (p23). Freyre's works, like *Casa-Grande & Senzala* [The Masters and the Slaves] and *Sobrados e Mocambos* mark the transition from the biological approach to society to cultural anthropology. Freyre (1900–1987).

49. Willems E. *O Problema Rural Brasileiro do Ponto de Vista Antropológico* [The Brazilian Rural Problem From an Anthropological Point of View]. São Paulo: Secretaria de Agricultura, Indústria e Comércio do Estado de São Paulo [The Department of Agriculture, Industry and Commerce of the State of São Paulo]; 1944 (p18).

50. *Ibid*, 10.

51. *Ibid*, 10.

52. *Ibid*, 10.

53. *Ibid*, 21.

54. Araújo was professor and director of Escola de Sociologia e Ciências Políticas da Universidade de São Paulo (the School of Sociology and Political Science of the University of São Paulo), the most remarkable center of higher learning in the country.

55. A.Araújo. *Medicina Rústica* [Rustic Medicine]. São Paulo: Editora Nacional [National Press].1979.

56. The text I refer to appears as Chapter VI in Fernandes F. *A Etnologia e a Sociologia no Brasil* [Ethnology and Society in Brazil]. São Paulo: Anhambí; 1958 (p233), under the title *O Ensino da Sociologia na Escola Secundária Brasileira* [Teaching Sociology in Brazilian High Schools], originally presented as a paper to the I Congresso Brasileiro de Sociologia (1st Brazilian Congress of Sociology) in 1954.

57. Fernandes F. *Mudanças Sociais no Brasil* [Social Changes in Brazil]. São Paulo: Difel; 1979 (p123).

58. *Ibid*, 125.

59. Fernandes F. *A Etnologia e a Sociologia no Brasil* (p47).

60. Fernandes F. *Mudanças Sociais no Brasil* (p146).