Activist Biology

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Published by University of Arizona Press

Duarte, Regina Horta.  
Activist Biology: The National Museum, Politics, and Nation Building in Brazil.  

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A MINIATURE OF THE FATHERLAND

It is not hard to understand the great, generalized esteem in which brasileiros hold the old institute.
First of all, it is a miniature of the Fatherland.

—ROQUETTE-PINTO, INTRODUCTION TO UIÁRA, 1937

BRAZILIAN BARBECUE

On November 11, 1930, the Provisional Government—established on October 24 following the victory of the self-proclaimed revolution—gave a barbecue for some of the troops in Rio de Janeiro, then capital of the Federal District. The venue was the gardens of Quinta da Boa Vista, headquarters of the National Museum. Director Roquette-Pinto invited the revolutionaries to visit the museum, where three films were screened in their honor: Em pleno coração do Brasil (Deep in the heart of Brazil), Nos sertões do Brasil (In the Brazilian hinterlands), and Carnaúba (The carnauba wax palm), the latter based on a script by Alberto Sampaio. Five hundred and thirty men, probably in small groups, watched these motion pictures in the exhibit hall that the director had built shortly after he came to office in 1926.¹

Thirteen days later, on November 24, an even more illustrious guest paid a visit to the museum: Getúlio Vargas himself, “honoring this institute” and “leisurely browsing the collections on exhibit.” Roquette-Pinto recounted the event to Minister Francisco Campos in the annual report of the National Museum, which had been attached to the Ministry of Education and Public Health (MESP) following the Revolution of 1930. The director took the opportunity to express his appreciation for having been retained at his post, which he interpreted as a “lofty vote of confidence.”² Seven months later, in June 1931,
both Getúlio Vargas and Francisco Campos attended commemorations of the museum’s 114th anniversary, evidence of their continued interest in the institution, which had assumed an important role both in the administration’s strategy to strengthen its own legitimacy and also in its project to shape a “new Brazilian man.” Vargas and Campos, major strategists of this new era, believed the museum would serve them well in the task of deciphering the complex hieroglyphics represented by the land and people of Brazil. The museum could function as a true “map of legibility” in creating mechanisms of control and homogenization. When they scrutinized the museum’s displays, both men were “seeing like a State.”

In Roquette-Pinto’s opinion, the main reason everyone admired the museum was that it was “a miniature of the Fatherland.” Few people would ever be able to travel across all of Brazil, but wandering through the exhibit rooms was like gazing upon “the portrait of a loved one.” In a few brief minutes, “the features characteristic of the many regions where our compatriots live, delight, and suffer” unfolded before the visitor’s eyes, “in collections within everyone’s reach.” As Vargas browsed the exhibits in November 1930, was it a similar line of thought that prompted him to place the institution under the umbrella of the newly created MESP? It seems likely. The new government encountered a sophisticated structure for educational activities at the National Museum. The building had undergone extensive remodeling in 1927; three new stories housed a library, the hall for conferences and exhibits, and new workshops (drafting and modeling, photomicrography, typography, mechanics and electricity, book binding, carpentry, and painting). The botanical garden had also been redone.

As argued in chapter 1, the field of biology had been tightening its ties with government since the dawn of the century in Brazil. But this alone does not explain why the Provisional Government valued the National Museum so much. There were other institutes with top-quality researchers, like the Oswaldo Cruz and Butantan Institutes, which had demonstrated their public health policy skills under critical circumstances. What singled out the National Museum at that time was its ability to interweave biology and education. Its scientists were geared to conveying knowledge about Brazil and sharing practices of importance to the nation, not just in the realm of biology—regarding hygiene, flora and fauna, soil, physical anthropology, and nature conservation—but also in the social arena, particularly in educating “the people.”

Education was the key for establishing dialogue between National Museum scientists and the Provisional Government; it was the panacea for all troubles,
conflicts, and impasses—a “pedagogical illusion.” In the mid-1920s, Roquette-Pinto had declared that Brazil would not cure its woes “with either the secret ballot, the organization of political parties, compulsory military service, or a re-form of the Constitution.” Such “remedies” would only bear fruit if “the general mass of people would be able to vote securely, not shirk their civic duty, obey authority and the law, and work and produce without falling prey to exploita-
tion.” As it was, the “people were in no condition to benefit from methods of refining.” No initiative would yield results without “intellectual and moral trailblazing.”

Two assumptions underlay these thoughts. First, Roquette-Pinto discarded outright the possibility that civic participation or the pursuit of the true exercise of political citizenship could lead to any transformation of Brazilian society in the medium run. Second, in his eyes, an intellectual elite should guide the “people” where they “ought” to go before they could be deemed capable of engaging in political life. Through education, Brazilians dispersed across this huge land would learn to understand and adopt rules of hygiene and scientific teachings and could then do battle with disease, redeem their spirits and bodies, be integrated into the nation, and change their environment. They would, in short, fulfill their destiny.

It was with such expectations that these and other scientists engaged in countless educational initiatives, many with the support of the state and others with the aid of diverse sectors of society. They cast themselves as the guides of a susceptible, ignorant, and childlike people, within whose breast beat a “collective soul,” awaiting a summons so that it might reveal itself. In so doing, these men threw their support behind an authoritarian playbook that gradually gained hegemony over the course of the 1930s.

No matter how patent the authoritarianism underlying their attitudes, it is impossible to discount the excitement, passion, and idealism with which these scientists immersed themselves in so many projects. Likewise surprising are their versatility and the ease with which they transited between different fields of learning. Their quest for new media and their bold experimentation with these new languages were hallmarks of their work; they were determined to “remove science from the exclusivist domain of sages and deliver it to the people.”

After a period of decay that seemed to presage the end of the “age of museums,” Roquette-Pinto, from 1926 to 1935, launched a number of initiatives aimed at turning the National Museum into an intellectual center for debate, research, and the construction of knowledge. The goal was to make the museum a disseminating hub of information for society at large through projects for national renewal. The museum brought together scientists from different disciplines to
begin interacting as a group organized around specific projects. Some came from Brazil’s schools of medicine or engineering, whereas others were self-taught. They had read similar works and were in agreement on many scientific ideas. They had traveled to the interior of Brazil or were familiar with other people’s accounts of such journeys. Their visions of the nation’s problems and the urgent need for educational action were similar. They belonged to a range of associations in which they constructed social networks, and they had idols like Euclides da Cunha and, in particular, Alberto Torres. The National Museum was a fertile site for a meeting of minds and the staging ground for a multitude of endeavors, both inside and outside its walls, such as the expeditions led by Rondon, Brazil’s heated race debate, scientific exchanges, national and international congresses, the creation of radio stations, and Fernando Azevedo’s Biblioteca Pedagógica editorial project.

The National Museum was quite adroit at insinuating itself into the process of reaching a new balance of power after 1930. Its staff was extremely creative not only in proposing new ideas but also in organizing attractive new ways to convey this information by conjoining knowledge with intellectual adventure and inventing fun ways to learn. They devised novel educational methods that had the potential to affirm the scientific truths they preached, and they were notable players in the day’s political game and its attendant power relations. From their standpoint, to educate was to train workers—good, useful, orderly, wise, patriotic men—but in order to accomplish this task, educators had to be on the same wavelength with people of all ages and be able to appeal to the child within.

These methods were not born in 1930 or invented by the Provisional Government, and they did not simply serve as an “ideological arm” of state power. Rather, they had been evolving for some years as a byproduct of intellectual critiques of Brazil’s oligarchies and their disregard for the Brazilian people and its land. From the inception of the republic, there had been debates about a Brazilian style of education, based on revised methods that would kindle a shared sense of patriotism. Examples include José Veríssimo’s A educação nacional (National education) and Silvio Romero’s A história do Brasil ensinado pela biografia de seus heróis (The history of Brazil taught through the biographies of its heroes), both released in 1890.

One landmark event was the advent of radio in Brazil. In 1923, Roquette-Pinto assumed a role at the forefront of this enterprise, well ahead of his peers. Through his contagious enthusiasm over this new technology in mass communication, he persuaded a number of colleagues that radio was a viable means
of education. He united them around a common project, honed the skills and strategies essential to enlisting the support of public officials, mastered the technical know-how, and coordinated broadcasts with publishing initiatives. Under his influence, scholars from different fields placed their scientific knowledge, time, dedication, political skills, and prestige at the service of the common ideal of education through radio. For Roquette-Pinto, this was a defining moment in his process of acquiring skills that would soon prove essential when he became head of the National Museum.

This chapter begins by exploring the interactions of the group of scientists who experimented with educational radio and acquired a wide range of technical skills, while at the same time working to establish themselves as experts in specific fields, effectively engendering a climate of robust interdisciplinary exchange in which scientific and technological proficiency both contributed. We will see how Rádio Sociedade was a kind of trial run for Roquette-Pinto’s grand experiment as director of the National Museum, as he negotiated with political authorities and premiered new media. The chapter next looks at the educational activities conducted by the museum from 1926 to 1935. While projecting itself as an interactive space open to visitor collaboration, the institution also emphasized the transmission of established, prepackaged knowledge—laying bare the authoritarianism inherent in this facet of its educational approach and the ensuing contradiction between this and the touted ideal of participatory transformation of society. The Revista Nacional de Educação was one of these projects. An outgrowth of the museum’s work in cinema, the magazine was funded by the Film Tax (allocated by the MESP), and in this sense its existence depended on the Commission for the Censorship and Selection of Educational Films, chaired by Roquette-Pinto. The magazine’s ultimate demise, in June 1934, reflects the uncertainty of the political moment as well as the precarious status of National Museum staff within the political projects then underway. Lastly, the chapter describes the participation of Roquette-Pinto, Mello Leitão, and Sampaio in the largest publishing project of their time, the Brasiliana Collection, which secured them a definitive place on the intellectual stage in the 1930s.

**BROADCASTING**

In 1926, the Rádio Sociedade do Rio de Janeiro station, with Roquette-Pinto in charge, launched the magazine *Electron*. The first issue offered an explanation
of the English word “broadcasting,” a new loanword that had its listeners intrigued. The term, said the magazine, was a compound word combining the verb “cast,” a reference to the agricultural act of sowing, and “broad,” in the sense of “wide-ranging” or “far-reaching.” Ergo, “broadcasting” expressed the action of “sowing into the distance, scattering good seeds far and wide.” And since nobody should sow poor quality seeds, “broadcasting should always live up to its name.”10 The notion of sowing meshed well with two ideas that Roquette-Pinto—as the magazine’s director and also as secretary of Rádio Sociedade—deemed of paramount importance: farming, which he believed was vital to the achievement of a more authentic sense of nationality, then lying dormant in the unreached countryside, and ethics, embedded in the distinction between good and bad seeds.

The Rádio Sociedade do Rio de Janeiro station was inaugurated in 1923 by members of the Brazilian Academy of Sciences (ABC), which had in turn been founded in 1916 at the initiative of a group of scientists, some of whom were on the staff of the National Museum—for instance, Roquette-Pinto, the zoologist Alípio de Miranda Ribeiro, and the archaeologist Alberto Childe.11 The academy’s mission was to discuss the boundaries between the sciences, cultivate the so-called pure sciences in an impartial quest for truth, organize courses and conferences for the scientific community, bring knowledge to wide sectors of Brazilian society, publish a periodical featuring research findings by its members, and establish scientific awards. At academy meetings, members addressed each other as “scientist,” a habit that attested to their desire to form a distinctive identity. They also advocated the demarcation of specialized fields, because they believed that the complexity of each field of science demanded full-time devotion and a depth of knowledge incompatible with the figure of the multipurpose sage versed in the rhetoric of generalist knowledge.12 Although these scientists spent their academy meetings talking about the need for pure, impartial science and for specialization, they also placed great value on the dissemination of knowledge to society at large. In this crusade to convey science information, they worked side by side on collective projects like radio, absorbing expertise beyond the limits of their specific domains.

In its day-to-day operations, Rádio Sociedade had to solve many practical problems. It became crucial to have both a theoretical and a practical understanding of radio, broadcasting, and equipment and of the challenges of improving reception—the subject of countless articles in the magazines *Radio* and *Electron*. There was nothing irrelevant or boring about it, not at a time when
radio had come on the scene as one of the most promising modern peacetime technologies, with an equally powerful potential for times of war.\textsuperscript{13}

Roquette-Pinto’s curiosity about radio broadcasting was first piqued by his research into physiology. As a medical student, he had attended classes in experimental physics given by Henrique Morize at the Polytechnic School in Rio de Janeiro. Using the lessons of his former professor, he managed to generate a small source of continuous waveforms in the laboratory. In September 1922, when radio was introduced to Brazil at the International Exhibition in Celebration of the Centennial of Independence, he fell in love with its potential as a form of mass media. In his words, Brazil was witnessing “the dawn of radio” and the miracle of “mysterious waves that silently transmit harmony through space.” He compared his emotion to those experienced by the men who “owned and read the first books.”\textsuperscript{14}

After the initial equipment had been installed, Roquette-Pinto persuaded Professor Morize to support the radio project through the ABC. First, however, they had to jump through legal hoops because of the restrictions on these activities. Roquette-Pinto invited Amadeu Amaral, an essayist and member of the academy, to have a look at the radio in hopes of garnering his support. Amaral wrote an article in \textit{O Estado de S. Paulo} describing his surprise at discovering that “this contraption made from bamboo, a few meters of copper wire, a cardboard spool, and an ordinary telephone apparatus” worked wonderfully. In addition, Roquette-Pinto painstakingly researched how other countries regulated radio broadcasting and drew up suggestions for a law on the transmission and reception of radio communications by private parties; the academy then submitted his proposals to the Ministry of Justice and Internal Affairs. Although Rádio Sociedade was not granted its license until August 1923, its first broadcast took place earlier that year, in April, followed by a series of “experimental” broadcasts—and let us not forget that the listeners could have been arrested for possession of \textit{galenas}, as the crude, homemade crystal sets were known. On September 7, 1923—Independence Day—the radio began broadcasting legally, first operating out of the Polytechnic School. In 1924, the station moved to the spacious Czechoslovakian Pavilion, originally built for the Centennial Exhibition, where studios were set up with equipment donated by the Brazilian postal service.\textsuperscript{15}

In 1924, Roquette-Pinto and his colleagues at the academy launched the semimonthly popular science magazine \textit{Radio}, a complement to its broadcasts. The publication was replaced in 1926 by \textit{Electron}, headed by Roquette-Pinto
and likewise published twice a month. It was no mean editorial challenge. The editors not only had to compile articles and illustrations and then oversee the printing and distribution of the magazine but also to coordinate printed matter with their broadcasts.16

The station also had a library, which in 1926 contained eight hundred cataloged books, along with international magazines on radio and scientific journals.17 The radio had an ongoing campaign to recruit new members, since it depended on membership fees and on advertising revenue from both on-air productions and its magazine. As a membership benefit, the society offered to file the necessary paperwork for members so they could receive a certificate of good standing from the Ministry of Transportation and Public Works, which was a prerequisite for anyone wanting to purchase and install a home radio receiver; the red tape included filing a formal petition and submitting a police-issued certificate of residency. Monday through Saturday, members could also avail themselves of a help desk manned by members of the technical commission, should they need “information on building or repairing radio apparatuses or taking care of defects.”18

As part of Rádio Sociedade’s daily programming, major news stories from Brazil and around the world were read from the daily papers. The schedule also included a children’s program, classical music, lectures on a variety of topics, and classes in history, Portuguese, English, French, chemistry, physics, farming, and hygiene.

Rádio Sociedade avowed its independence from any business or industrial interest and its commitment to fostering education and public instruction in Brazil. The station was not supposed to be an end in itself but rather a means for delivering cultural programming to the public. According to Roquette-Pinto, radio broadcasting was the “greatest school of tomorrow,” and every home “scattered across the vast land of Brazil” could now receive “the comfort of science and art.” In the sertões of Goiás and Mato Grosso and on the arid plateaus of the Northeast, people would now be able to hear music that would enrich, soothe, and refresh the spirits of young and old alike—straight from Rio’s opera house. If used “with heart and soul,” radio could transform people in a matter of minutes. It was a book for those who did not know how to read, and yet it would also combat illiteracy by awakening within each listener the “irrepressible desire to learn to read.” When radio had managed to “land in every backyard on the wings of its infinite flight,” compatriots across the country would start working better and producing more. Living in the sertões would no longer condemn a
person to “dying alive.” The radio would be the illiterate's newspaper, the schoolmaster of those with no school, free entertainment for the poor, and the “spark of new hope, comforter of the ill, guide for the healthy,” as long as it was utilized in an “altruistic, lofty spirit.”

All this optimism about radio undoubtedly reflected a strong underlying belief in technology as a kind of magic. Roquette-Pinto calculated the number of receivers in Brazil and estimated how many people were reached by each. Imagining people gathered around loudspeakers in every single far-off village, farm, or plantation, he reckoned each receiver was heard by five people, putting at thousands the number of daily listeners who had the benefit of “lessons, lectures, music, the history of Brazil, hygiene, helpful farming tips, news, and information on science.” He argued that radio’s immense success could be traced to something deeper: the “organic solidarity” of the human species, whose thirst for social relations flames “an unbridled desire to communicate with one’s peers.” It was also vital to instill certain ethical tenets (the idea of planting good seeds) so that broadcasting stations would not be swept up in “selfish individual interests” but would instead be guided by the greater good.

For all these reasons, Roquette-Pinto pressed the government to subsidize the purchase of radio sets. Once in possession of a modest radio, and even before knowing how to read and write, every single Brazilian—whether he or she be “barefoot or threadbare, ragamuffin, pallid, languid from disease or ignorance”—could learn that “sloth is almost always disease . . . [and] that to be a soldier is not to be a slave but rather to receive instruction and an education, in proper places, led by compatriots fraternally devoted to serving the country.”

In addition to being a founding member of the ABC and overseeing the magazine *Electron*, Roquette-Pinto maintained a busy schedule at the National Museum. After being appointed director of the museum in 1926, he resigned from the magazine in August of that year, but he did not abandon his radio activities. One of his first measures as museum director was to try to establish a nationwide educational radio system that would involve state and municipal schools as well as the more educated citizens in communities around the country. After all, every major town has a “worthy Court Judge, [who is] a scholar in the History and Geography of Brazil,” a “talented young” attorney devoted to poetry and literature, a physician who could give lessons in natural history and hygiene, women school teachers, young boys who play piano at church, and young girls who sing. These individuals could be recruited “for the sake of educating the poor.” A radio station did not cost much, “less than the main altar
at the town cathedral.” The state should subsidize the purchase of radio sets by making it possible to buy them at cost—and consider these funds well spent on popular education.22

The prevailing winds, however, were not that favorable. In 1928, the local administration of the Federal District asked that Rádio Sociedade move out of the Czechoslovakian Pavilion. Roquette-Pinto tried to transfer the station to the National Museum but the costs were prohibitive. Maintaining its independence from the museum, the station leased space elsewhere. With commercial radio stations multiplying, the government issued a decree in 1932 mandating that antennas have a power of at least 5 kW, a standard Rádio Sociedade could not afford to meet. Numerous obstacles notwithstanding, Roquette-Pinto stalwartly led the station until 1936, when it was donated to the government, under the condition that it remain under the aegis of the MESP (in other words, outside the domain of the Press and Propaganda Department) and true to its educational objectives.23

Perhaps foreseeing how hard it would be to keep the station on the air, in 1934 Roquette-Pinto joined forces with Anísio Teixeira, then director general of public instruction for the Federal District. Together they founded PRD-5, an educational radio station with modern, powerful equipment, located at the Rio de Janeiro Institute of Education (formerly the Normal School, which was rechristened when Teixeira initiated a thoroughgoing reform, reorganizing it to provide experimental, secular education and undergraduate-level teacher training). The station’s programming focused on elementary school courses and teacher training courses. In Teixeira’s plans, the radio would play an essential role in extension education at the University of the Federal District, whose mandate included not only teaching but also research and extension. The station was headed by Roquette-Pinto until 1937, when he began devoting himself exclusively to the National Institute of Educational Cinema.24

In his speech at the PRD-5 inauguration ceremony, Anísio Teixeira said radio was the medium that would spell the end of the limitations of the past, placing itself at the service of directed education and making up for Brazil’s shortage of schools; the microphone was the “classroom for millions of spectators.” On the same occasion, Lourenço Filho declared that radio and movies might be sources of corruption but, like fire and water, they could also enrich society by conquering distance, tearing down walls, stealing into all corners, and transmitting “enlightenment and guidance, questions that stimulate and words of comfort.” By sending in a request, listeners could receive free course programs, drawings, and
maps that would give them a much better understanding of the courses and lectures heard on air.25

By working at both Rádio Sociedade and PRD-5, and also as a founding member of the ABC and head of the National Museum, Roquette-Pinto served as a key go-between, as did some of the museum’s other scientists. In his broadcasting activities, he assumed leadership of a collective endeavor that spawned manifold offshoots. Alberto Sampaio was one of the most important of the scientists invited to join these efforts, right at the founding of the Rádio Sociedade station. He gave many lectures—on flowering floss-silk trees, proper care of trees, the trees at the Pasteur Institute in Paris, the planting of eucalyptus trees in São Paulo, orchid raising, botany in elementary school and in the Boy Scouts—as well as a complete practical, multi-module course on forestry in 1926.26 In the early 1930s, when the museum hired Mello Leitão, he was assigned a regular fifteen-minute time slot every Friday on Rádio Sociedade. He lectured on an assortment of topics, including grasshoppers, spiders, sea serpents, genetics, frogs, Cnidaria, eolites and tektites, plant pigments, meteorites, and the genesis of the continents and oceans according to Alfred Wegener.27

When Roquette-Pinto took the helm of the National Museum, he launched an ambitious plan to revitalize the institution, no doubt a product of the rich experience he had acquired as leader of Rádio Sociedade. The museum metamorphosed into a promising place for experimentation, new modalities of communication, and new uses of technology, where staff members could team up in a collective effort, obtain government support for projects, and accomplish great things. The museum provided Roquette-Pinto with a sizable team of botanists, zoologists, entomologists, anthropologists, archaeologists, and geologists, complemented by a variety of technicians, during a time of smooth give-and-take between fields (ultimately making everyone a scholar of natural history). Yet it was also a period of increasing specialization, when scientists were aspiring to gain recognition in one specific field. Working together and sharing ideals, expectations, and interpretations of Brazil, they designed their projects in frank dialogue with the political context of their day, blending scientific, technical, artistic, and literary forms of knowledge. This molded an intellectual milieu where different fields interacted, methodologies were exchanged, and gray areas within and between existing disciplines encouraged the development of new knowledge. It was a time of specialization yet in a climate of intense communication among fields. Science, art, and technology all cooperated with each other as part of the bigger nation-building project.
This picture brings to mind what we now call “transdisciplinarity”: drawing a team from different fields to focus on a collective project that conjoins science, technology, and art in an environment where borders between the disciplines blur and where sharing experiences is a priority. It might be somewhat anachronistic but not totally wrong to say that the museum presented itself as a transdisciplinary space. And, as we will soon see, it was a multimedia space as well.

THE ASSISTANCE SERVICE FOR THE TEACHING OF NATURAL HISTORY

The Royal Museum was born in 1818 in Rio de Janeiro under an imperial decree issued by Dom João VI. The institution mimicked the model of Europe’s encyclopedic museums, which sought to offer a “great universal census” by gathering all they could in one spot and inviting patrons to travel the continents of the globe by walking just a few meters and peering into a few drawers. Species that lived at great distances from each other in space and time could “easily show up among things in one display case and then in the next,” pieces in collections whose goal was to represent the world. The idea of founding a natural history museum in Brazil was clearly linked to the exercise of power by the Portuguese Empire, then intent on tightening relations between political power and the natural sciences. As in other European nations, museums and gardens appeared as both agents and products of modern history, “as a space in which ideas about nature, economy, and legitimate authority interacted with concrete policies” of monarchical power.

Major changes came to the institution in the 1870s under the leadership of Ladislau Netto. New fields were consolidated, like paleontology, anthropology, and ethnology. Anyone applying for a position had to take part in a competitive public selection process, and the staff became more professional as a result. Exchange agreements were signed with European, U.S., and Latin American museums. The Arquivos do Museu Nacional began publishing research conducted in Brazil, and starting in 1876, courses and lectures were opened to interested parties. However, as part of an imperial, hierarchical, slave-based society, the museum had a very limited target public. According to the Jornal do Comércio, attendees at its courses and lectures were ladies from high society, men of letters, civil servants, and—not just occasionally—the emperor himself.
At the dawn of the republic, however, the National Museum declined in prestige as it encountered competition from new institutions. The Paulista Museum and the Pará Museum of Natural History and Ethnography both came on the scene, headed by Hermann Von Ihering and Emílio Goeldi, respectively. Both men wanted their institutes to set the benchmark for excellence and specialization, and they scorned their counterpart in Rio de Janeiro as a “museum of generalities.” The establishment in Brazil of experimental laboratories and research institutes concerned with disease control also helped elbow the National Museum into the background. Arthur Neiva, renowned in biomedicine and experimental science, tried to enforce a project to make the museum more dynamic during his tenure as director, from 1923 to 1926. However, he got caught up in other ventures, particularly the fight against the coffee berry borer and his effort to create the Biological Institute of Agricultural and Animal Defense, so the museum saw no major changes.

Roquette-Pinto had witnessed these troubles, since he had been on the museum staff since 1906. Twenty years after joining the institution, he accepted the post of director with the firm intention of implementing new practices that would authoritatively secure the museum its rightful place on Brazil’s scientific and intellectual stage. The anthropologist had just returned from a trip to the United States, where he had visited the American Museum of Natural History, then one of the main hubs of a broad movement to endorse biological studies as a resource for forming young citizens and for national renewal in the United States. The American museum sponsored courses and guided tours, coordinated activities with public schools, and worked in partnership with teachers, professors, and intellectuals from the fields of biology, philosophy, and education, adopting the practices of the “new museum movement” that had been blooming in the United States since the late nineteenth century. This transformation was part of the U.S. context, where museums were being taken over by emerging groups of biologists, eager to foster the public, educational tasks of these institutions. The chief engineer behind these new museum practices was George B. Goode, who said that “a thorough education and knowledge of science and art are vital to the nation and to the place it holds at present in the civilized world.” This euphoric, optimistic climate of belief in the transformative power of a museum that produces knowledge while working closely with schools and society at large—all as part of a project of national renewal—dove-tailed with Roquette-Pinto’s hopes for Brazil. His visit to the United States reinforced his educational convictions. Soon after he returned to Rio, he was appointed director and threw himself into a ten-year period of tireless work.
Roquette-Pinto’s administration was guided by the precept that a museum should not be a “mere treasure trove of collections” or just a “center for research into high science, be it in the laboratory or in the field.” These were crucial tasks, but in addition the “Institute” (the term Roquette-Pinto used whenever he wrote about the museum) should also devote itself to public education “through all means within its grasp.” By sticking to this path, the National Museum would leave its past behind, moving beyond the amassing of natural history collections, and it would set itself apart from other leading research institutions of its day, like the Oswaldo Cruz Institute in Rio and the Bacteriological Institute in São Paulo. Roquette-Pinto sought to carve out a unique niche for the museum at the national level. He opened its doors and exhibit halls to visitors every Tuesday through Sunday, mornings and afternoons. Cleaning services came in on Mondays, while its scientists and other staff carried on with their usual activities.

In October 1927, Roquette-Pinto inaugurated the museum’s Assistance Service for the Teaching of Natural History. In his mind, it was imperative to establish laboratories and experimental centers for middle school students. “It’s time for us to train researchers,” he wrote. Brazilian research institutes lacked skilled personnel. There was no need for extravagant investments; modest laboratories and a good library would suffice. The Assistance Service was an independent department within the museum and was headed by Roquette-Pinto until August 1935, when staff member Paulo Roquette-Pinto—Edgard’s son—stepped into the job.

The Assistance Service helped steer and facilitate the organization of “school museums,” whose holdings included native specimens that had been collected and prepared by the students themselves under the guidance of their teachers. There were courses and lectures on how to capture insects and small mammals and how to gather plants and minerals. Participating schools sent materials to the museum, where they were prepared, mounted, and classified in the Assistance Service room. The lists of material that was received illustrate the variety of things sent to the museum, including samples of wood, seeds, insects, stones, shells, eggs, and bones. Attached to the 1929 report, a photograph of the room shows boards of butterflies, stuffed animals, shells, and books, as well as bottles filled with all sorts of substances, assembled in a hands-on environment where technology, science, and education cooperated with each other (figure 5).

The Assistance Service also prepared educational guides, charts, slide shows, and posters for use in schools, along with publications in popular science. During the years that followed, teachers, students of all ages, and Boy Scouts packed
the museum rooms for film screenings, slide shows, lectures, and courses of all kinds. Classes focused on practical museology, taxidermy, histological techniques, the collection of animals, the organization of herbaria, photography (lighting, picture taking, developing, and printing), drawing, and wax molding. Given the museum’s stagnant budget, a great deal of creativity was needed to set up and maintain equipment. For example, a photomicrographic camera that used natural lighting was fashioned out of “improvised, makeshift equipment on a rough wooden stand, with a small discarded 9×12 camera” (figures 6, 7, and 8).36

Although the full name of the Assistance Service referred only to “natural history”—which was the term then used to designate the class taught at schools—the underlying epistemological perspective encompassed the teaching of biology in its broadest sense. The goal was to instill in students the habit of observing relations of interdependence in nature so they could “better understand our own life,” in healthy contrast to older natural history methods.
FIGURE 6. Workshop of the Assistance Service for the Teaching of Natural History, 1929. SAE 146.5, Doc. 7.09A, folder 105. Courtesy of SEMEAR.
FIGURE 7. Negatives for educational films, 1929. SAE 146.5, Doc. 7.09A, folder 105. Courtesy of SEMEAR.
Instead of memorizing systems and names, students would take up “the inquisitive study of life, delving into true biology.”

The Assistance Service also worked with the University of Rio de Janeiro, founded in 1920; it made use of the college’s facilities and technical equipment and offered extension courses under its umbrella. In 1932, for example, professors from the National Museum gave the following courses in partnership with the university, all of which included weekly theoretical and practical classes, slide shows, and films: Popular Biology (Roquette-Pinto), Spectral Analysis Techniques Used in Mineralogy (Alberto Betim Paes Leme), Phytogeography (Sampaio), Scorpions and Other Small Venomous Arachnids of Brazil (Mello Leitão), and National Studies in Brazilian Ethnography (Heloísa Alberto Torres).

Sampaio, who had been with the museum since 1904, shared the director’s enthusiasm. He pictured museums in every school in the near future, their work coordinated with scientific institutes and especially the National Museum. This
would make it possible to track the distribution of species and their frequency in different botanical and zoological zones in order to arrive at a detailed survey, something that would not have been feasible earlier, since there had been no way to ascertain “what actually exists in each region.” These school museums would not only generate local knowledge but also enhance the production of knowledge at research centers.

Sampaio exemplifies how the National Museum networked with schools and associations at various levels in a process of mutual reinforcement. The botanist gave countless lectures at agricultural clubs in schools throughout the interior, led annual botany contests at schools, was active in lending guidance to the Friends of Nature Clubs created at municipal schools in Rio de Janeiro, and was a founding member of both the Society of the Friends of Trees (1931) and the Society of the Friends of Alberto Torres (1932). He promoted lectures on nature, botany, and forestry at the Rotary Club and the Touring Club do Brazil (an association to attract foreign tourists and to foster tourism among the Brazilian elites as well). He worked with teachers from myriad city and country schools to hold commemorations related to Arbor Day and to gardening and the planting of seedlings. He tied all these activities in with the museum, which acted as a source of knowledge and guidance. In his work at schools and with women’s associations, Sampaio had the assistance of the botanist Bertha Lutz, a museum staff member since 1919, who had graduated from the Sorbonne in 1918 and was a prominent feminist.

**WHAT IS A MUSEUM’S PURPOSE?**

During one of his lectures on Rádio Sociedade, Mello Leitão, who had worked as a zoologist in the museum’s invertebrates department since 1931, spoke about the “Educational Role of the National Museum of Natural History.” According to the professor, a false notion of museums still held sway: they continued to be viewed as repositories for rarities and for bizarre plants and animals never seen before. But, said Mello Leitão, a museum’s mission was actually much different; it should teach and display the “most authentic, truest facets” of nature. Generally speaking, ninety-nine out of a hundred Brazilians who had visited the galleries of a museum knew absolutely nothing about the real lives of the organisms in its collections or about their characteristics or habitats. Museums had to be maintained precisely with these people in mind—“and that was exactly how things should be.”
In order to be the “repository of everything that exists in the country,” the National Museum relied on the dedication of its scientists. But this was not enough. So the museum called on the general public to collect small animals in the region where they lived and send them to the institution; the specimens should be the most common, the most ordinary, and the least surprising, like bugs, centipedes, snails, scorpions, and spiders. The museum gave detailed instructions on how to carry out the task: how to protect oneself from any danger the animals might present, how to choose the right glass jar and seal it hermetically, how to use alcohol to preserve specimens, how to package the specimens safely, and how to mail them.

Mello Leitão saw this as a two-way street: as a member of the museum, he wanted to share the knowledge being produced there with the rest of society, but he also wanted his audience to assist the institution with an educational project, in which they would become actual collectors for the museum. The exhibits should showcase “what is typically Brazilian,” exploring the structure, morphology, and ecology of gathered plants and animals so that “our culture” becomes increasingly “more familiar and more cherished.”

This movement could have an even more dynamic impact: once material had been received from collaborators nationwide, it could be transformed into illustrations and prints for publication in textbooks or the Revista Nacional de Educação, forming a “veritable iconography of Brazilian zoology” and thus disseminating to all regions of the country information on plants and animals from distant areas as well as those common across the land. Teachers and professors at schools scattered throughout the nation could then teach biology without having to resort to “the exotic figures found in European books.” Studies would be more dynamic, thanks to the readily identifiable images that portrayed plants and animals well known to students.

The goal of awakening a new vision of plant and animal life in Brazil might also have been a response to vestiges of the age-old controversy about the value of the plants and animals that flourished in the New World, and specifically in Brazil. In the mid-eighteenth century, the Comte de Buffon and Cornelius de Pauw argued that living creatures in the Americas were inferior and that nature had degenerative effects in these lands. Such ideas ignited a great polemic. Thomas Jefferson not only contested Buffon in the pages of his Notes on the State of Virginia but also went to great lengths to send him a giant taxidermied moose as concrete proof of the magnificence of American wildlife. In the nineteenth century, Hegel was one of the leading champions of the idea of American degeneration. Thinkers like Humboldt and Darwin contributed
substantially to quashing these ideas, and slowly the polemic died out. To some extent, the museum’s overall posture was a rejoinder to the echoes of this debate; it defended the excellence of the animals and plants found in Brazil, worthy of the keenest attention on the part of scientists and of other people as well. In other words, the museum validated the merit and grandeur of Brazil’s flora and fauna.\textsuperscript{41}

The museum’s overriding goal was to accumulate a multitude of references that could be shared, because knowledge of nature stood as a powerful means of instilling love of nation as part of an educational project that connected the National Museum, its publications, and its exhibits with schools all over Brazil. Also featuring prominently was an acute appreciation for experimental knowledge, grounded in real life and in everyday experience. The very meaning ascribed to the physical space of the science museum and to its collections underwent a revision.

Roquette-Pinto thought of the museum as a strategic staging ground for educational action tailored to youth. The exhibit halls allowed young people direct contact with nature, encouraged them to get to know their own environment, and replaced a natural history of wonders with a natural history of ordinary things out of everyday life—a prerequisite for strengthening their love of their homeland. In Roquette-Pinto’s opinion, children were like the Brazilian people in miniature and displayed fetishistic, “wild souls.” They could not be expected to understand their country through abstract notions but only through “the shaded orange grove and the brook where tadpoles swim about in dark shadows of schools . . . [and] the land itself, with its scrublands and its birds, its beaches, sand, and sea.” They needed to learn about commonplace, pedestrian things and vanquish their ignorance of the names of plants and animals. In the interior, the use of popular names for living creatures reflected this dearth of knowledge, for every animal there was “just . . . a critter.”\textsuperscript{42}

It was not enough for the museum to organize exhibits that flaunted the rich diversity of Brazilian nature. Roquette-Pinto insisted that exhibits should leave an indelible mark on the patron’s soul. Otherwise, the visitor would stroll apathetically by the display cases, “like a drop of water rolling off a greasy slide,” without being moved or transformed by anything. A visit to the museum should be a powerful experience, absorbing visitors deeply in time and space. They should linger there awhile, observing objects, attending lectures, looking at posters, and watching movies and slides—the last two both highly innovative resources back then. When they entered the building nestled in Quinta da Boa
Vista, children and their teachers would experience something unique; they would enjoy a different kind of interlude from their regular school or family life, for they would discover an environment filled with special objects, and the museum scientists were sure they would be mesmerized by them. The scholars that assembled the displays wanted people to make the very most of their time during what might be their one chance to visit the museum. When the scientists welcomed these guests or when they just walked around the museum sporting lab coats, they were presenting themselves as laboratory researchers engaged in experimental science and nourishing the image of the museum as a research center (figure 9).

Learning was to be facilitated by the use of tantalizing forms of media. Any excitement caused by an exhibit was not an end in itself but rather a strategy; everything was designed to ensure an effective educational experience. The exhibits themselves were forms of media, designed for the purpose of communicating. The intent was also to spark a collective experience; the children walked through the museum and filled its spaces in groups, aided by guides and

teachers. The goal was to breed a sense of belonging to the nation, to kindle an identity through the activities that had been devised collectively by the museum staff, and to mold the young visitors into Brazilians—or brasileiros, as Roquette-Pinto liked to say, rejecting the much more common brasileiros. In the hallways and galleries of the National Museum, Brazil was transformed into a showy spectacle (figures 10 and 11).

Photographs of exhibits and patrons at the museum show shelving units laid out in orderly rows, arranged so that lines of students could file by, stopping to stare at objects through transparent glass. In one of these photos, the students hold pencils and paper to record their observations. They are looking at material gathered by the traveling naturalists hired by the museum in the second half of the nineteenth century, as well as at collections of specimens brought back by the scientists who accompanied Rondon. Roquette-Pinto himself organized the Hinterland Ethnography collection, selecting the utensils, instruments, and materials to be included in the display. There was a sharp awareness of the paths these objects had traveled before reaching the museum and how they had been chosen and arranged alongside other objects. But another important consideration was how they would be viewed and appreciated by visitors.
FIGURE 11. Anthropology exhibit hall, National Museum, 1929. SAE 146.5, Doc. 7.09A, folder 105. Courtesy of SEMEAR.
Films and slides were shown in the spacious Marajó Hall. Inaugurated in 1932, it offered comfortable chairs and a décor inspired by Marajoara pottery. There, according to an article from the magazine *Cinearte*, “a marvelous Krupp Ernemann apparatus” showed the 150 films “carefully stored in cans and numbered.” The idea was to optimize visitors’ comprehension of the objects on display at the museum: after looking at “stationary” shelves, they would witness an “animated exhibit”; after looking at a “cold and lifeless octopus,” they would watch “moving” images, thanks to the magic of film. “A modern museum without cinema is not a museum,” the director pronounced. Motion pictures transformed a visit to the museum into a voyage through space and time, freeing visitors from the fate of “living and dying cloistered inside the walls of their customs and their era.” The museum also put great store in the impact of overlapping media: display cases, slide shows, posters, lectures, guidebooks—and all of this infused learning with “an iterative renewal.”

The museum was designed as a space for interaction and iteration. Patrons were meant to lend a hand in constructing knowledge while at the same time new means of communication and technologies would be used to teach them established knowledge through repetition, relying on an assorted pallet of tones, colors, images, and sounds for this purpose.

When Mello Leitão suggested that the public collect material and do the initial preparation so it could be shipped to the museum for exhibition or to illustrate magazines and textbooks, he was envisioning listeners, readers, and visitors taking up the active job of being “voluntary collectors.” As such, they would view with new eyes the “critters” in their region, now imbued with a certain “aura” and a whole new meaning—after all, these animals had deserved a scientist’s attention and were worthy of being displayed in a museum. Anyone would find it wondrous, stimulating, and rewarding to see “their spiders” or “their critters” duly labeled in Latin and shown off in a display case or transformed into drawings that illustrated the *Revista Nacional de Educação* or the pages of a textbook. People would have a fresh new attitude toward the animals and insects in the places where they lived.

When Sampaio brought teachers, students, and members of diverse associations together to organize school museums and gardens, he too was interested in active involvement in the production of knowledge. The same notion lay behind Roquette-Pinto’s proposal for municipal radios. In other words, the National Museum’s introduction of interactivity was a pivotal step in its project of renewal. These interactions would be bolstered by experimental teaching about
everyday life, local landscapes, and immediate, palpable challenges—teaching that at the same time would demonstrate that building knowledge was a collective activity.

Still, the endeavor remained true to the rote learning approach, as Roquette-Pinto revealed when he used the telling expression “iterative renewal” in his interview. Content was transmitted via sound waves, in the form of classroom radio programs, the news, and handpicked music. The same content appeared in print format in magazines, which featured summaries or full transcripts of the museum’s courses and lectures. This content could also be seen in the moving images shown in Marajó Hall, in slide shows, and on the printed posters and charts distributed to schools or included in museum guidebooks. On the one hand, this rendered each and every object on display more dynamic, since it became part of an array of networks; on the other, since everything was served up on a platter of explanations, the result was a passive learning experience that deprived visitors of the opportunity for true active participation. The logic of repetition was grounded in the “pedagogical illusion” of a childlike people who were like blank sheets of paper or lumps of unmolded clay, needing only to discover what their masters already knew. The emphasis on collective experience was also part of the plan to guide the people. This pedagogical perspective was thus quintessentially paradoxical: while efforts centered on enabling people to construct knowledge themselves, the prevailing assumption was that they would reach foregone conclusions. This reinforced the perspective of a republic from the top down, with an intellectual crème de la crème at the fore. And so an authoritarian political culture was marched out yet again and gained new momentum in the early 1930s with the support of the Vargas Provisional Government and the creation of the MESP. No matter how innovative its methods, the National Museum’s project for renewal was still conservative in its ends.

**IN EVERY HOME**

In October 1932, the hallways and exhibit rooms of the National Museum were bubbling over with excitement. The first issue of the *Revista Nacional de Educação* (*RNE*) was about to roll off the presses, and hopes were high that all 12,500 copies would enjoy wide distribution across Brazil, a Herculean task assigned to the Directorate of Information, Statistics, and Dissemination, an MESP department. Teachers, schools, mayors’ offices, and cultural and professional associations
began receiving free subscriptions.48 The magazine was a key piece in the National Museum’s broader crusade to renew Brazilian society.

A lucky recipient of the first issue would see on the cover the image of a stately yet delicate woman reaching up to touch a radiant source of light.49 Was this a depiction of Minerva, the protective goddess of all intellectual activities and particularly of schools? If so, missing were her usual staff and shield—possibly a providential oversight for a magazine published by a government that touted social pacification. Did she denote the Brazilian nation? The luminous rays shone across a somewhat obscure landscape, where we can make out the lines of houses and mountains in a setting perhaps urban, perhaps rural. On the right side is the title of the magazine and the name “Ministry of Education and Public Health,” followed by the tagline that would be stamped on every issue: “. . . in every home in Brazil, the moral comfort of Science and Art” (figure 12).

The RNE traced its existence to the Instructions to Decree 21.240, of April 1932, which nationalized the film censorship service and instated a “Film Tax for popular education,” which was levied on the exhibition of movies and calculated on a per meter basis. The Provisional Government felt that motion pictures—“a form of entertainment the public can no longer do without”—had great potential in the realm of popular culture as long as they were “duly regulated.” The tax was intended to fund the following: the establishment and maintenance of a National Institute of Educational Cinema, the importation of unexposed film for the production of educational documentaries, a film library at the National Museum, and, last but not least, the publication “of a popular magazine in science, literature, and arts communication” to be distributed to all public teaching institutions. While the RNE was a direct expression of the educational concerns and initiatives of the MESP, its history also had much to do with the government’s newfound attention to cinema, viewed both as a threat and as a potential educational tool in building and strengthening an idealized nation.

The same decree also established a Censorship Commission for films, comprising a representative of the chief of police, someone from the Juvenile Court, the director of the National Museum, a teacher, and a representative of the Brazilian Education Association (ABE). Roquette-Pinto was chair of the hard-working commission, which reviewed 1,200 films in its first year alone; some were classified as educational, others had scenes deleted or were banned in their entirety, and still others were classified as inappropriate for children or minors (see figures 13 and 14). Not long afterward, the government handed down new
instructions that were more standardized and detailed and that established a Commission for the Censorship and Selection of Educational Films; these instructions were signed by Anísio Teixeira, then head of the Institute of Education. It is important to note that all of these actions were centralized within the MESP; furthermore, in practice, the commission concerned itself more with educational matters than with purely moral issues—in fact, it was sometimes criticized for its excessive lenience with regard to the latter.50

Printed on plain paper, the monthly magazine measured 7 by 10.5 inches and averaged ninety-six pages. Light and compact, the publication’s physical simplicity was no doubt intentional, with form complementing content. Once its pages were opened, however, the magazine proved impressive. It offered about sixteen
articles per issue, most short and always written in purposely straightforward, educational language. The magazine was supposed to be inviting—the more accessible it was, the more effective as a tool.

Contributors to the *RNE* were distinguished scientists and intellectuals. A good share of them were on the staff of the National Museum, like Roquette-Pinto, Mello Leitão, and Sampaio, as well as Alberto Childe, Carlos Vianna Freire, Moysés Gikovate, and Raimundo Lopes. The magazine published excerpts by major authors as well, especially Alberto Torres but also great names

![Fox Film salute](image)

**FIGURE 13.** “Fox Film salutes the *Revista Nacional de Educação* and presents an exclusively educational motion picture, the first and only shot entirely in the heart of the African desert! The secret of the African jungles unveiled by the derring-do of men! Watch a white woman do battle with an enraged rhinoceros! Watch a fight to the death between two gorillas! CONGORILLA! With Mr. and Mrs. Martin Johnson. This documentary film was two long years in the making! Special Brazilian edition, with explanations in Portuguese.” *Congorilla* poster, *Revista Nacional de Educação* 1:1 (1932). Courtesy of Sistema de Bibliotecas da UFMG.
Figure 14. “Magic Carpet: The world before your eyes in images and sound! Real motion pictures that entertain and educate!” Tapete Mágico poster, Revista Nacional de Educação 1:3 (1932). Courtesy of Sistema de Bibliotecas da UFMG.
like Euclides da Cunha. Some public officials made their way into its pages too, in the form of transcriptions of their speeches on educational matters. Educators, teachers, professors, and members of the Society of the Friends of Alberto Torres also contributed sporadically. Likewise noteworthy were articles on Brazil by eminent naturalists, some of which were rare texts. The twenty-one issues published from October 1932 to June 1934 offered sixteen excerpts translated directly from Spix and Martius’s *Reise in Brasilien (Viagem ao Brasil)* and six fragments of *Viagem filosófica* (Philosophical voyage), by the Portuguese naturalist Alexandre Rodrigues Ferreira.\(^5\)

In the quest to win over its audience, one of the magazine’s most successful features—besides its pantheon of authors—was its extensive use of high-quality black-and-white images of National Museum holdings or reproductions of classic works of art from around the world. These illustrations fulfilled a number of purposes. For one thing, they made the magazine more attractive. There was no effort to catch the reader’s eye with the cover, which—save for the first issue—was habitually quite solemn. On the left side, there was always a small sketch of the bust of a countryman in whom Brazilians could take pride, like Alberto Torres, Euclides da Cunha, Nísia Floresta, Pedro Américo, José Bonifácio, Carlos Gomes, Santos Dumont, or Diogo Feijó (figure 15). But the unpretentiousness of the cover stood in stark contrast to the images and beautiful photographs inside, which illustrated many of the articles and were printed on better paper than that used for text pages. The message to the reader was that the periodical’s outer simplicity belied the profound content concealed inside, since the *RNE* had made an aesthetic choice to reject any extravagant or misleading appearances. Stripped of what Alberto Torres called the “glitter of discourse,” the magazine wanted to distance itself from the values of so-called coastal culture, whose vanity and ostentatiousness were seen as breeding affectation. Only when the reader opened the magazine and carefully perused its pages would its secrets be divulged. This was true even of the cover, because its deeper meaning could only be found in the Notes and Information section, which offered a brief biography of the person being honored each month, highlighting his published works and other contributions to Brazilian society.

One of the photographs showed an indigenous man from Rondônia—taken by none other than Roquette–Pinto himself. Other photos portrayed illustrious Brazilians, like the painter Vitor Meirelles and the inventor Santos Dumont. The magazine also featured photographic reproductions of classic paintings by masters like Rembrandt, Da Vinci, and Michelangelo, along with works by
FIGURE 15. Cover of Revista Nacional de Educação 2:6 (1933). Courtesy of Sistema de Bibliotecas da UFMG.
Brazilian artists from the National Academy of Art or Itamaraty Palace, such as *Caipiras negaceando* (Hinterlanders on an ambush), by Almeida Junior, and *Bandeirantes* (Frontier adventurers), by Henrique Bernadelli. Biographic information and the titles of other works by the same artists could be found in Notes and Information; in the case of Brazilian artists, exhibits and awards were also listed. The fact that Brazilian artists were intermingled with their foreign counterparts and received just as much fanfare signaled their worth. Another goal was to foster aesthetic appreciation as the cultural foundation of the new Brazilian man. The magazine wanted to provide what it called “the moral comfort” of both science and art, firmly coupling moral elevation with the building of a national culture and sensitivity, in tune with the educational trends of the day.52

The *RNE* also printed long excerpts from the travel accounts of Alexandre Rodrigues Ferreira, together with some of his previously unpublished drawings, such as *Índio Cambeba atirando flecha com a palheta* (Cambeba Indian shooting an arrow with a spear thrower), as well as other images of his: an armadillo against a landscape that had obviously felt the human hand, a snake and a capybara, a capuchin monkey, and a hut of Cururu indigenes. These reproductions appealed to the reader’s aesthetic sensibilities while conveying knowledge that was invaluable to a society that had learned about Rondon’s journeys and was still meeting the challenge of integrating the Amazon into the nation (figure 16).

Some images were placed seemingly at random, without any relation to a specific article—for instance, depictions of Brazilian landscapes like the Tijuca forest, Iguaçu Falls, and the city of Ouro Preto. Many others were strategically placed to enhance comprehension of a given text. Biology texts were illustrated with images of spiders, ants, leaves, stems, and trees, while texts on hygiene were accompanied by drawings of the human body (figure 17).

In short, between its covers, the magazine delivered a plethora of information. Simple and unassuming on the outside, it disclosed a whole world to its readers—not a strange and far-off world but a world that would be built into the nation of Brazil. Harmonizing form and content, text and image, the *RNE* clearly intended to construct a shared set of references and address them to a well-educated public comprising teachers, professors, and cultural associations, hopefully reaching peer educators in their midst. Published and distributed free by the Provisional Government, the *RNE* was most assuredly a strategic weapon used by the administration to validate its new political project—a project wherein the scientists of the National Museum consciously strove to negotiate a new role for their institution. The government allocated the magazine an

annual budget of some eight contos de réis. Factoring in advertising revenue and outlays on material, plates, editing, and other labor, each issue was estimated to cost five hundred réis, at a time when the price of a daily newspaper was two hundred réis.°

Brazil’s sheer size and its precarious transportation system were obvious hindrances to circulation, but Roquette-Pinto deemed this problem simply part of the battle to be won; modern conveniences and ideas crept into Brazil slowly, and the very vastness of the territory to be conquered indicated the grandeur of the work under construction. The determination to carry the magazine to far-flung, forsaken corners of Brazil as a herald of state initiative reinforced one of the many ideas then being discussed by intellectuals, that is, that the sertões lay at a great distance from public power and from the government’s modernizing projects. And yet—as the renowned writer Afrânio Peixoto had famously declared in 1922—Brazil’s sertões also lay right on the nation’s doorstep, just a little beyond the end of Avenida Central, then a major thoroughfare in downtown Rio de Janeiro, capital of the republic.

The illustrations in the magazine were a fundamental contribution to the defense of these arguments because they constructed an image of Brazil. The inside covers regularly featured information meant to signify a general idea of the Brazilian nation and its history, people, and territory. In the case of issues 4 to 10, the inside front cover always featured a map entitled “Brazil and Its Borders,” delineating the country’s boundaries with its Latin American neighbors while simultaneously giving a notion of the vastness of the territory to be settled and civilized (figure 18). The inside back cover for these issues displayed a table of statistics on Brazil in 1930. Many in Brazilian society were then calling for data like this, including champions of statistics like Fernando Azevedo, director general of public instruction for the Federal District from 1927 to 1929, who organized the first school census in Rio de Janeiro; another was Teixeira de Freitas, who urged Brazil to get to know itself “in order to become the master of its fate,” saying that the country knew almost nothing about itself or “the splendid legacy that divine benevolence had bequeathed it.” This information was meant to be a source of inspiration for Brazilians, exhorting them to value their natural heritage and their potential as a nation.

Issues 11 to 15 featured other images on their inside covers. The inside front covers showed a map of population zones, drawn up by Roquette-Pinto. These maps underpinned his argument distinguishing “race” from “people”; in his view, the cultural and historical aspects of the category “people” made it the preferable
term. Distinguishing between the zones of caboclos (people of combined Amerindian and European descent), those of African influence, and those of European influence, the map was a product of the author’s thinking as laid out in his article “Brazil and Anthropogeography” (in Portuguese), published in 1927 as part of Roquette-Pinto’s collection of essays on Brazil entitled Seixos rolados (Rolling stones) (figure 19).

The inside back covers highlighted certain key dates in Brazilian history, starting with the country’s discovery and then moving on through the French and Dutch invasions, the private expeditions into the interior of Brazil known as the bandeiras, independence, the founding of the Brazilian Historical and Geographical Institute, the construction of the railroad linking the cities of Rio de Janeiro and Petropolis, abolition, the Proclamation of the Republic, the work of Oswaldo Cruz, the Rondon Commission, the institution of the Provisional Government under President Vargas, finally culminating in an event that seemed to lend meaning and hope to this long journey: the establishment of the MESP.

One inside cover of a later issue featured a geological map of Brazil, related to an article on the topic by the National Museum’s Moysés Gikovate. Other inside covers showed images of the Greek alphabet and Morse code—the latter relevant because of the monumental importance of Rondon’s journeys to the building of the Brazilian telegraph system in distant reaches of the country. Over its last six issues, the inside covers of the magazine featured a world map tracing the routes of the major voyages of discovery. The very last issue also displayed busts of the great navigators, along with brief biographies. These images offered the reader a range of interpretations about Brazil’s territory, population, natural and physical characteristics, economy, and, particularly, its history, all from a perspective that blended people and territory, society and nature, to form a representation of the nation.

THE ABCS OF LIFE

When the RNE compiled these words and images as vehicles of knowledge and then published them in the hopes that they would reach ever wider audiences, its strategy was to present itself as a kind of school primer that was varied, diverse, versatile, and grounded in hard facts, unveiling a world of signs to be decoded, as if Brazil were a giant book to be read and people needed to be properly equipped
for the task. The articles, many of which were part of sections continued across several issues, imparted elementary ideas from different fields of science, the humanities, and the arts.

For one thing, the magazine wanted to be a primer on how to interpret Brazilian flora and fauna, a subject in which the National Museum had a time-honored tradition of study and in which its researchers had played a significant role. A number of contributors worked at the museum, like Carlos Vianna Freire, who appeared in every single issue, in the section “Elementary Notions of Botany.” Written in simple language and interspersed with an abundance of explanatory drawings, the texts in this section provided a thoroughgoing course on leaves, stems, and roots. Another constant presence was Sampaio, who wrote about basic principles of botany, the history of plant taxonomy, and methods of plant classification. Some of his other pieces reflected his involvement with the National Museum’s film library (which received a portion of the funds allocated under the same decree that launched the magazine). Writing about babassu and carnauba, their phytogeography, and their uses and economic potential, Sampaio explained that his texts were the notes for educational movies to be produced by the National Museum.56

Much as the RNE promised to decipher the mysteries of Brazilian flora, it also suggested that it would unveil the secrets of its fauna. Various authors wrote articles on wasps and ants, always emphasizing that these were social insects, “beings of the multitude,” whose collective behavior was analogous to “the spirit of the multitude that characterizes human society.”57 Mello Leitão’s contributions were among the most plentiful and highly diversified. He regularly drew from elements of daily, commonplace life, using myth, legend, and short stories to create an engaging educational experience—a goal that took precedence over specifically scientific considerations.58

Sowing knowledge in every way possible, teaching the “masses” to read “the great book of Nature,” without which they would never learn “to understand the ABCs of life”—this was “the most indispensable of literacy training and the hardest of all.” Such was the goal of the section “Agricultural Matters,” written by Otto Frensel, which taught rural men proper farm practices, like how to get rid of mosquitoes and worms, how best to prune trees, and how to observe eggs, larvae, and cocoons in order to tell the difference between insects that were pests and those that were beneficial to crops. The weather could also be an object of curiosity and a source of knowledge. The section “Meteorological Dictionary,” written by Joaquim de Sampaio Ferraz, director of the Meteorological
Institute, taught the basics of climatology with entries in an A to Z format. The author covered essential practices, tools, and ideas, which were clearly useful in a nation-building project that was experiencing a growing appreciation for the countryside and agriculture.59

A section entitled “The Brazilian Sky” was published from January through December of 1933. It reproduced star charts made by the astronomer Louis Cruls for the Cruls Mission, one of whose key members had been Henrique Morize, mentor and friend of Roquette-Pinto at Rádio Sociedade. Originally published in 1896 under the title *Atlas celeste* (Celestial atlas), the charts showed the firmament at the latitude of Rio de Janeiro as visible on the fifteenth of each month. In the introduction to the series, the RNE pointed out that these guides would be very useful for engineers, geographers, and explorers by helping them identify the stars and thus determine geographic coordinates. Although the charts were of the heavens over Rio, they could be used anywhere in the country by making minor adjustments to take latitude into account.60 So in addition to being a primer on plants, animals, agricultural techniques, and climate, the magazine also encouraged people all over the country to survey the heavens and find their spot in the vast territory that was Brazil.

The section headed by Othelo Reis related mathematics to daily life, an approach aligned with the Escola Nova. Concepts like proportion and infinity were explained, as were the rules for adding long series of numbers, taking odd measurements, doing sums quickly, and calculating time of day at different latitudes as an aid to travelers. Some of these columns were written by Professor Jonathas Serrano, who used math to give a better understanding of history—for example, how to figure out what century a year falls in, how to understand calendars, and what historical ages are all about.61

The archaeologist Alberto Childe, founding member of the ABC and one of the magazine’s most steadfast contributors, wrote about ancient cultures, especially the Greeks, Romans, and Egyptians. Did this contradict the proposal of proffering knowledge about Brazil? Not at all, because there was a larger goal behind the lengthy explanations of ancient vanities, Greek vases, Roman mirrors, and the reading of hieroglyphics (the author taught readers how to write “National Museum” and “Quinta da Boa Vista” in Ancient Egyptian).62 After all, how else could museum patrons understand the multitude of objects in the exhibit halls devoted to Greece and Rome or in the majestic hall displaying Egyptian mummies and sarcophagi? How else to lend meaning to their visits? Childe was doing nothing more than teaching the magazine’s readers how to
read the museum, arming them to better peruse its halls and enhancing the educational power of its exhibits.

The magazine also showcased the museum’s new trends in anthropological research, particularly through articles on anthropogeography by Raimundo Lopes. Lopes believed that the debate about the budding science of human geography had only just begun in Brazil, through contact with the work of authors like Carl Ritter, Élisée Reclus, and above all Friedrich Ratzel. But the RNE also featured writings by Euclides da Cunha, who imparted a general view of the Brazilian land and people, and by Alberto Torres, with his in-depth exploration of the natural sources of social life. More recently, Lopes explained, there was the work of Roquette-Pinto—for example, his ethnography of the rural poor and his studies of Brazil’s *sambaqui* shell mounds and *estarias* (the remains of dwelling sites)—and articles by Heloísa Alberto Torres on the geographic spirit of Marajoara ceramics.63

Another series of articles was likewise intended to teach readers different interpretations of Brazil. Moysés Gikovate approached the task in a very eclectic fashion, addressing Brazilian geology, the origin of Brazilian legends, and Brazilian literature and its authors, styles, and eras. He also wrote about the origin of calendars and gave illustrated explanations of how primitive peoples made fire.

Keeping pace with these teachings on how to read the nation came suggestions on how to write it, in sections like “Drawing Lessons,” signed by a contributor identified only as Seth, and “Lectures on Photography,” by Guerra Duval. Drawing was considered a tremendous aid to the production of knowledge, one that facilitated its systematization and dissemination, exemplified by the generous use of illustrations in the pages of the RNE. Roquette-Pinto always contended that drawing could be a central ally to education because it could hold students’ attention—of special concern given the “impatient, undisciplined” nature of most Brazilians.64 The articles taught perspective, shading, and other artistic techniques. In the realm of photography, different types of cameras and methods for developing pictures were presented. Like drawing, photography was cited as a friend to science, mainly because it allowed movement to be visualized through film, but also because it made it possible for the microscopic world to be recorded. Furthermore, artworks that previously could not be replicated were now accessible to the public in the form of faithful reproductions, as featured in the magazine. Lastly, the RNE showed that photography was blossoming into an independent art form, where the photographer’s work bore the marks of personal interpretation.65 Because these sections of the
RNE wanted to prove that drawing and photography were within everyone’s grasp, they urged readers to do their own sketches and take their own snapshots of landscapes, loved ones, and plants and animals, a task that demanded powers of observation on top of artistic creation.

In this regard, the RNE was also a guidebook for training the aesthetic sensibilities thought to be characteristic of culturally superior people, capable of partaking in the construction of a great nation. Alongside popular science articles and reproductions of great artworks, readers found poems and even musical scores, in a country where the piano had been a relatively common instrument since the mid-nineteenth century. These scores were simplified renditions of patriotic Brazilian songs, like the Independence Anthem, the Anthem to the Flag, and the Anthem of the Proclamation of the Republic. Published along with their lyrics, this music taught readers how to play and sing the nation’s most important songs.

And what about those who knew nothing of music and for whom scores were unfathomable codes? The magazine had a section just for them: “How to Listen to Music,” written by Friar Pedro Sinzig at the special invitation of Roquete-Pinto. In order to “provide the key” so that readers could “step into this immense palace of ‘One Thousand and One Nights,’” the magazine gave them a guided introduction to the universe of music. In order to really enjoy music, they had to learn its language, elements, words, and grammar. Friar Sinzig wrote about sound, the timber of different instruments, kinds of interpretation, and the meaning of terms like staccato, legato, pianissimo, and andante.66

As we can see, the RNE was busy in many different areas, communicating science and art; coaching its readers to get to know Brazil through the country’s flora and fauna and its physical, social, and historical features; and instructing them as well on how to find pleasure in works of literature, the fine arts, and music. It also sought to transform every reader into a collaborator in the project to educate the Brazilian people and shape the nation. A number of issues contained samples of literacy posters, which could be utilized by anyone willing to do battle against illiteracy, perhaps motivated by the challenge posed at the bottom of the poster in figure 20: “Are you Brazilian? Are you a foreign friend of Brazil? Don’t abandon the illiterate to their fate. Work for Brazil!”67

The RNE also publicized revolutionary literacy methods, like Utilinda brincando (Utilinda has fun), a technique that had been submitted to the MESP by a public school teacher. Through educational games and flash cards that connected phonemes with familiar images, an older, literate child could use this method to teach a number of younger ones to read, and the learning experience
could be part of enjoyable extracurricular activities or everyday situations. The magazine featured an article by the same teacher, complete with detailed information and illustrations, along with an enthusiastic appeal to its audience. The name of the character Utilinda was a play on words that combined the Portuguese adjective útil, or “useful,” with the adverb ainda, meaning “still” or “yet”—an allusion to the method’s strong suit: it was useful yet fun. The magazine risked an optimistic prediction: if it managed to print 15,000 copies from its first anniversary on, and if each one of these were distributed to schools and associations and reached readers who were willing collaborators, then one child trained to be an Utilinda could teach ten other small children to read and write—and soon thousands of young Brazilians would benefit (a figure just as hyperbolic as the estimates of the reach of radio). Here again, we have the image of a people to be “shaped” by educational initiatives.

Printed matter, sound waves, moving images—in these men’s dreams, education should avail itself of every kind of mass media in order to overcome distances, integrate Brazil’s huge territory, and deliver people from their reputed ignorance, all part of the task of “explaining the nation to itself.” Working in
tandem with the institution’s areas of radio and cinema, its Assistance Service for the Teaching of Natural History, and its laboratories, workshops, and print shops, the RNE was one of the strategic initiatives meant to revitalize the role of the National Museum.

**BRASILIANA**

Roquette-Pinto rejected the term *brasileiro* to describe the nationality of his country’s citizens. He wanted to adopt a new term that would induce every last man and woman born in Brazil to assume a change in attitude, outlook, and practice. Like the suffix “-er” in English, the Portuguese suffix “-eiro” often denotes a profession. Brasileiro would thus be a harvester of brazilwood, harking back to the exploitation of colonial Brazil by those who came to carry off the country’s resources and make a living from a destructive extractivist economic activity. At the dawning of a new era, as Roquette-Pinto saw it, someone who had been born in Brazil could only be designated by a Portuguese suffix that denotes nationality—and thus could only be a *brasiliano* (much like the English “-an” or “-ian,” as in American or Brazilian).70

Brasiliana (a term parallel to “Americana”) was the title that Fernando Azevedo chose for a series of books in the Biblioteca Pedagógica (Educational Library), headed by Azevedo himself and launched in 1931 by the Companhia Editora Nacional publishing house. The Brasiliana Collection set out to be “the greatest work of Brazilian nationalist culture,” and its tagline gave voice to Roquette-Pinto’s thinking: “Unveiling Brazil to Brazilians, making it ever more familiar so that it will be ever more beloved.” There is no way to separate the history of this editorial project from “a political and intellectual agenda to re-found the nation,” which sought to nationalize culture and mold “the political face of the country in the 1930s.” We can also discern here the ideas of Monteiro Lobato, first owner of the Companhia Editora Nacional, who once said that “a Nation is made of men and books.” In the assessment of Minister Gustavo Capanema, the Brasiliana Collection eventually came to embody these ideals as “a living portrait of Brazil.” In its first ten years of life, Brasiliana published two hundred titles, a truly remarkable number for the time. The collection set about offering information on a succession of topics and “amassing knowledge and information that open[ed] the way for reading Brazil.” Pointing out “paths to a rewriting of Brazil,” it stood as a “metaphor of the nation.”71
The Brasiliana Collection was part of the bigger Biblioteca Pedagógica, which comprised five series: Scientific Training, Textbooks, Children’s Literature, Education Today, and Brasiliana. The solidification and expansion of the publishing market, urbanization and industrialization, the growth of the middle class, public teaching reforms, the establishment of new colleges and other institutions of higher learning (including Brazil’s first universities), and the artistic and cultural excitement of the day formed a backdrop vital to creating more readers and to this “emphasis on the study and understanding of national reality.” More than meeting existing demand, the project was all about blending educational concepts with editorial strategies in order to “invent” readers. By standardizing the format, paper, and covers of the books in the collection, as well as unifying distribution and advertising plans, publication costs were lowered. The five series in Biblioteca Pedagógica were directed at different audiences. Children were the public for both Children’s Literature and Textbooks; teachers, for Education Today; and nonstudents, for Scientific Training. Brasiliana was tailored to an adult audience with a sound intellectual background and was divided into anthropology and demography, archaeology and prehistory, biography, botany and zoology, correspondence, law, economics, education and teaching, essays, ethnology, philology, folklore, geography, geology, history, medicine and hygiene, politics, and travel.

Roquette-Pinto, Alberto Sampaio, and Mello Leitão were in high demand as authors during the first decade of the Brasiliana Collection, a sign of their stature in the day’s intellectual circles and in the work of constructing knowledge about the nation. The diversity of the classifications into which their works fell within the major divisions of the collection also speaks to the enormous interdisciplinarity of their texts.

**ROQUETTE-PINTO’S ANTHROPOLOGY AND SAMPAIO’S BIOGEOGRAPHY**

Roquette-Pinto wrote three books for Brasiliana. Released in 1933, *Ensaios de antropologia brasileira* (Essays in brasileiro anthropology) was listed in the collection’s catalog under the headings Anthropology and Demography. It contained sixteen texts related to these subjects, including population and nation, race and education, Brazilian anthropological “types,” hygiene and eugenics, heritability, trends in eugenics and biology and theoreticians in these fields, and the First Brazilian Eugenics Congress, in 1929. The book also explored more
wide-ranging themes, like the thinking of Alberto Torres and his construction of a national organism, Brazil’s shortage of labor power and internal migration, debates on Japanese immigration, and the “brasiliano dialect.” Roquette-Pinto engaged in a dialogue with prominent works and authors from the field of biology, including Charles Davenport, Francis Galton, and H. S. Jennings. The book included a bibliography, a list of the main topics explored in each essay, and, unusual for the time, an alphabetical index that allowed readers to locate authors, concepts, or topics.

In 1935, a third edition of Roquette-Pinto’s Rondônia was published as part of the Brasiliana Collection, in the category of Ethnology. Recounting the author’s participation on a Rondon expedition in 1912, the book was plentifully illustrated with photographs, maps, and drawings; it also had lists of indigenous words, phonograms of songs, and an alphabetical index of authors. A fourth edition was released in 1938, this time with footnotes written by friends of the author, including Alberto Sampaio, Mello Leitão, Raimundo Lopes, and Heloísa Alberto Torres, all from the National Museum. Sampaio and Mello Leitão carefully edited the scientific names of plants and animals in the book.

Illustrated and divided into three parts, the last of Roquette-Pinto’s contributions to the collection—Ensaios brasileiros (Brasiliano essays)—was released in 1940 in the category of Essays. Part 1 focused on some of the personalities admired by Roquette-Pinto: Fritz Müller, Friar Leandro do Sacramento, Alberto Torres, Henrique Morize, Emília Snethlage, Manoel Bonfim, and Miguel Couto, among others. Part 2 delved into themes from Euclides da Cunha’s classic Rebellion in the Backlands, frontier adventurers (bandeirantes), pure science in Brazil, settlement, and racism. In the third part, the author saluted the work of Afonso de Taunay and Miguel Osorio.

Sampaio also wrote three books for Brasiliana, all packed with illustrations and all listed in the category Geography—even though each book’s opening page introduced the author as a professor of botany with the National Museum. The first book, Phytogeographia do Brasil (Phytogeography of Brazil), was the offshoot of a course held at the National Museum in 1932 in partnership with the University of Rio de Janeiro. Divided into two parts, the first discusses Brazil’s floral heritage, introduces the concept and theories of botanical geography, and then explores Brazil’s different plant zones. The second part deals with research and covers bibliographic, methodological, and conceptual debates in phytogeography. The theme of protecting nature is the common thread that runs through the two sections. In addition to presenting a conceptual and methodological discussion of the discipline, the book also provides much information
and many suggestions on environmental public policy. Endorsing the rational use of nature, Sampaio suggested the issue of forestry as a fulcrum for changes in people’s relationship with nature in Brazil and argued that this would require the state to approve strict forestry laws. The government should promote forestry as well, so the country’s woodlands would become a source of wealth and valued as such. Sampaio also called for reforestation and the creation of natural reserves under the guardianship of the state.75

The second book, *Biogeographia dynamica* (Dynamic biogeography), released in 1935, came with a foreword by Roquette-Pinto, who lauded Sampaio’s solid experience: Sampaio, he says, had visited some of the world’s leading herbaria and scientific institutions, described newly discovered plants, and traversed “leagues of woodlands, fields, and scrubland.” Through his books, wrote Roquette-Pinto, Sampaio wanted to lay the scientific groundwork for the protection of nature and for phytogeography in Brazil, proposing the latter as a new field. Moreover, the sociologist could not be separated from the naturalist, so “thoroughly entwined are [his] proclivities.” Inspired by Alberto Torres, Sampaio should be read “in all homes and all schools.”76

In this particular book, Sampaio offers his observations on the protection of nature in different countries around the world; he provides information on international debates, a chronology of conferences on the topic, advances in legislation, interventions by public power, and initiatives by scientific, educational, and civil societies. He also begins compiling a list of Brazil’s natural monuments, sketches out some ideas for tourism, gives some suggestions for the government, argues in favor of more country schools and new reforestation laws and measures, and pinpoints specific regions that he feels warrant official protection.

Published at a strategic time, the book was a centerpiece in contemporary debates. The previous year, Sampaio had served as rapporteur-general at the First Brazilian Congress for the Protection of Nature, sponsored by the Society of the Friends of Trees on April 8–15, 1934. In 1935, the National Museum published a report on the event in two issues of its journal, *Boletim do Museu Nacional*. The congress had been sponsored by Getúlio Vargas, and a good number of public authorities attended the opening session. All science sessions were held at the National Museum under the chairmanship of Roquette-Pinto. Other museum members took an active part as well, including Mello Leitão, Carlos Vianna Freire, Heloísa Alberto Torres, Raimundo Lopes, and Moysés Gikovate. Several associations were represented there too, like the Society of the Friends of Alberto Torres, the Touring Club do Brasil, the ABE, the ABC, and the Brazilian Historical and Geographical Institute.77
The weeklong event included poetry readings and musical presentations and showcased educational activities that valorized Brazilian nature, like the Friends of Nature Clubs at Schools. There were assessments of legislative advances in the protection of nature and recommendations for reforestation initiatives. Papers and conferences were presented at eight sessions: soil and subsoil (caves, underground rivers, mines, geological monuments); flora (plants, reforestation, forestry); fauna (rare animals, hunting, fishing, entomology, birds); anthropology (children, eugenics, rural habitats, the protection of indigenes); sites, landscapes, and monuments (scouting, tourism, roads, architecture); education (rural education, eugenic education, instruction in the protection of nature); and legislation and laws. There was also an accompanying exhibit of movies, radio conferences, maps, and art.

During the congress, Roquette-Pinto and Sampaio submitted a proposal to create a national park that would be an especially rich resource for the study of marine biology and tropical flora and fauna, extending from Guanabara Bay to the peak of the Serra dos Órgãos Mountains outside Rio de Janeiro. Under their proposal, the mountains of this Atlantic Forest region would be reforested with Amazonian species; the National Museum would manage the park and also set up a few laboratories for scientific research on its grounds. Sampaio also proposed that a number of parks be established in the vicinity of different towns for the enjoyment of Boy Scouts. Roquette-Pinto expressed his regret that nothing was really being done along these lines and pointed out that his proposals had found resonance among different sectors of society. Along with the Touring Club do Brasil and other associations, he said, a “chorus” could be heard “urgently clamoring for brasileiros to quit being men who make or enlarge deserts.”

It was a critical time for museum scientists, who were pushing for public policies to protect nature. The Forest Code, the Game and Fish Code, the Law on Scientific Expeditions, the Water Code, and the Mine Code were all decreed in 1934. Programs and reports from the Congress for the Protection of Nature are rife with flattering references to Vargas and repeated thanks to the government for its sponsorship—no doubt a strategy for maintaining and even boosting this support. Sampaio’s book was written and published in the heat of these events and undoubtedly aimed at reinforcing what he felt was a favorable political climate. He wanted to establish a new field of scientific knowledge at the junction of biogeography and social thought, one that would validate the idea of strong, centralizing measures to protect the environment and advance efforts to get the government to do more. As the author proudly said, “The landscape
has been cleared for the protection of nature in Brazil.”81 Above all, he expected that scientists at the National Museum would be in the forefront of drafting and enforcing nature laws and regulations. In the report mentioned earlier, Sampaio stated that the “masses” should be guided by a small number of thinkers. From his point of view, this actually paid tribute to the people, “pliant to good teachings.”82

The main theme of Sampaio’s last book, *A alimentação sertaneja e do interior do Amazonia* (Eating habits in the sertões and the interior of the Amazon), is also the question of guiding the “docile masses.” The book contains echoes of Alberto Torres in its insistence on encouraging people to remain in the countryside, valuing rural Brazil, and fostering ways to ensure prosperity and permanent settlement there. Defining the sertões as an “uncultured, underpopulated land,” Sampaio outlines strategies for securing regional self-sufficiency by leveraging biogeographical knowledge. He evaluates food resources and examines the potential for changing the eating habits of the rural poor by combating taboos, introducing new crops, and promoting certain dietary and hygienic practices. All of this is pivotal, the author argues, at a moment when public power is concerned with “integrating the nation’s life forces.”

The principal form of action would be to organize a “unit of the Boy Scouts in the sertões,” which, “through the effect of scouting uniforms, graduation ceremonies, marches, and excursions,” would entice hinterlanders to embrace the principles being advocated.”83

The second part of the book contains a detailed glossary of the food, beverages, and spices consumed in rural areas, as well as observations about the food preferred by the more well-to-do living in the interior. It includes a list of harmful, inebriating, and toxic plants and has a vast bibliography and brief alphabetical index. Describing the book as a continuation of *Biogeographia dynamica*, Sampaio said he found inspiration in the thinking of Pereira Barreto, Alberto Torres, Oliveira Viana, Alberto Rangel, Cândido Rondon, Roquette-Pinto, Arthur Neiva, Belisário Penna, and Getúlio Vargas, among others.84

**THE BRAZILIAN FABRE**

Mello Leitão was a tireless author for the Biblioteca Pedagógica; he wrote five titles for the Brasiliana Collection, two for the Scientific Training series, and two compendiums for the Textbooks series. His first Brasiliana title, *Visitantes*
do Primeiro Império (Visitors to the First Empire), is richly illustrated and has a foreword by Afonso d’Escragnolle Taunay, then director of the Paulista Museum and a member of the Brazilian Academy of Letters. Taunay compares Mello Leitão to Roman Emperor Septimius Severus, “who murmured the most noble of advice as he took his last breath: laboremus semper!” (labor always), and presents him as an “arachnologist of renown and the author of major scientific publications and widely used textbooks.” In this book, Mello Leitão collates countless excerpts from the writings of circumnavigators who were in Brazil between 1815 and 1840. In so doing, he composes a narrative of the coastal cities that sheltered the travelers between legs of their journeys—ports like Recife, Salvador, and Rio de Janeiro. The book is based on works that remain largely unread today, works the author intended to excavate “from the dust of libraries inside museums and institutes” and make familiar to “those who love Brazil and are interested in its life”—words in perfect harmony with the goals of the Brasiliana Collection. According to Mello Leitão, the period in question was one of the most important in the history of Brazil, which made access to the knowledge held in these travelers’ accounts especially valuable.

In 1937, Mello Leitão published three books: Zoogeografia do Brasil (Zoogeography of Brazil), O Brasil visto pelos ingleses (Brazil as seen by the British), and A biologia no Brasil (Biology in Brazil). Zoogeografia do Brasil, another illustrated work, was no doubt intended as a reference book. It has a lengthy alphabetical index of cited authors and a detailed index of fauna, with both common and scientific names. In his introduction, the author emphasizes the merit of the subject matter in an age of “promising awakening to what is ours.” The book came out after Sampaio’s Phytogeographia do Brasil and claimed to use the same analytical approach, with the goal of crafting “a harmonious, uniform vision of the whole, representative of the National Museum’s thought on Brazilian Biogeography.”

O Brasil visto pelos ingleses was also in the line of works meant to disseminate information from travelers’ accounts of the country, in this case the British. It was a less ambitious book than Visitantes do Primeiro Império, lacking illustrations, index, and foreword. It had been nearly 130 years since the Portuguese court had moved to Brazil, bringing waves of travelers in its wake, including a substantial number of Brits—merchants, adventurers, naturalists, tourists, engineers. The narratives describe aspects of Brazilian nature but also scenes from everyday life, customs, and political events. Many of the works used by Mello Leitão were hard to come by and had not been translated.
A biologia no Brasil has a foreword by Roquette-Pinto, who characterized the volume as a reliable guide to the history of biology in Brazil, indispensable for anyone who wants to explore the topic and written by a learned, “top-notch naturalist,” master of a robust, clear, and graceful style. The table of contents corroborates the author’s intention to demarcate the field of biology in Brazil by framing it within the nation’s past; it is not a book of natural history but dares to lay claim to the term “biology.” Yet it does not hint at any rupture between the two fields; rather, it suggests a link between them, as if—taking a linear, cumulative view of knowledge—natural history had been a kind of “childhood” of biology. With chapters on each century in the history of Brazil, the book traces the roots of the field back to the 1500s. The analysis then moves on to contemporary Brazil, with special chapters on the state of research in zoology, botany, anthropology, anatomy, and physiology. The book closes with a detailed alphabetical index of cited authors, once again laying bare the author’s and publisher’s shared intention of creating a reference work.

Mello Leitão’s last title for Brasiliana was História das expedições científicas no Brasil (A history of scientific expeditions in Brazil), an outgrowth of his work as rapporteur for the Congress on the History of Brazil, held in Rio de Janeiro in 1938. The book is devoted entirely to scientific expeditions that sought to survey and study nature. Its analysis is divided into two parts: “A terra” (The land) discusses accounts of the discovery and exploration of Brazil’s coastline, borders, rivers, soil, and riches, while “A vida” (Life) presents botanical, zoological, and ethnological findings from the expeditions. There are no illustrations, although the book does have an index of cited authors.

In addition to writing these five titles, Mello Leitão collated, translated, and annotated a collection of texts about the Amazon, written by the Dominican Gaspar de Carvajal in the sixteenth century and by the Jesuits Alonso Rojas and Cristobal Acuña in the seventeenth century. Mello Leitão also translated and annotated (with over 500 footnotes) The Naturalist on the River Amazons by Henry Bates, published in Portuguese under the title O naturalista no Rio Amazons. He stated that the book should “be read and reflected on by all Brazilians,” since it suggested that there was “nothing more agreeable, nothing more empathetic than our people and our culture.”

Mello Leitão was one of the few authors who had a hand in other Biblioteca Pedagógica series, in addition to his five titles for Brasiliana. Under the grouping Textbooks, he published a four-volume basic course on natural history and a single-volume work on general biology (Curso elementar de história natural and
He also wrote two best sellers for the series Scientific Training: *A vida maravilhosa dos animais* (The wonderful life of animals) and *A vida na selva* (Life in the jungle).

*A vida maravilhosa dos animais* was released in 1935 to great critical acclaim and was reviewed in a number of newspaper literary columns. Múcio Leão, of the Brazilian Academy of Letters, wrote a glowing review in which he said Mello Leitão had the ability to combine the rigor of science with the pleasure of learning intriguing facts about the animal world. Lúcia Miguel Pereira, a reputed writer of short stories, emphasized that the book had prompted her to ponder how the study of animals could impart lessons on human life and society. Another, an anonymous appraisal, stated that the book was a voyage “through the enchanted kingdom of zoology” which entertained as much as it taught; there was much to praise and much to gain from this “book by the master,” according to this unnamed reviewer, because its explanation of the “complex and harmonious” machinery of life revealed the *prima causa*—which rules, foresees, and provides all things. Maurício de Lacerda, a member of the National Liberation Alliance, pointed out how the descriptions of parasitism and commensalism by Mello Leitão—whom he called “the Brazilian Fabre”—shed light on various practices of the Brazilian elites, an interpretation no doubt unauthorized by the conservative, religious Mello Leitão.

Lacerda was referring to Jean-Henri Fabre (1823–1915), the French entomologist famous for his opposition to Darwin’s theory of natural selection. Fabre tended to indulge in flights of poetry, the key to the popularity of his books. He was well received among Europe’s conservative and Catholic groups because of his dogmatic apologetics for the humility of intelligence before the unknowable and his perception of biology as a true and natural catechism of theology. The comparison with Fabre was far from gratuitous—the cover of *A vida maravilhosa dos animais* featured a large photograph of the French entomologist (figure 21).

Mello Leitão’s book was a compilation of lectures that interpreted nature from an eminently political perspective, using scientific arguments to justify certain conceptions about society, the fight against Darwinism, and notions of harmony and organicity. Written in a flowing literary style, the work was a tribute to erudite learning meant to counter popular misconceptions bred by commonsense beliefs. Observing the social life of animals, Mello Leitão ranked them in a hierarchy where the level of superiority of a species was associated with its ability to engage in social life. Ants belonged on a high plane because they were capable
of friendship, language, tidiness, solidarity, goodness, and, above all, obedience to collective rules. “Following the strictest discipline and the most perfect order,” they sacrificed themselves to a brutal regime. Men should learn from this—and since men were superior, their inevitable fate was to make pleasure out of work. Every man was “an anonymous, diligent ant” and should give the best of himself to his home, city, and fatherland and to humanity, until death laid him to rest. Rejecting the idea of conflict, the author underscored the interspecies solidarity demonstrated by birds, elephants, and insects, pointing out that “nature always displays great harmony, where mutual dependence, aid, and, and, I would go so far as to say friendship, are the general rule.” While the Vargas administration promoted a subservient brand of unionism paired with social corporatism, Mello Leitão sang the praises of spiders, which were, “in their patient maneuvers, unflappable worker-bees,” “unassuming and quiet.” He called attention to the sophistication of monkeys and their societies, grounded in the division of labor, solidarity, feelings of compassion between individuals, and, particularly, “utmost, blind obedience to their leaders.” Similar arguments were applied to pelicans, storks, marmots, termites, penguins, sparrows, and many other animals.

In 1940, Mello Leitão published a kind of continuation of this book, *A vida na selva*, which centered on the tropical forest and its plants and animals. One chapter was devoted to the importance of inaugurating parks and nature sanctuaries, another to a compilation of poems and literary excerpts about forests. The book was translated into Spanish and published in Buenos Aires shortly after the author’s death, as part of the collection Biblioteca de Autores Brasileños Traducidos al Castellano (Library of Brazilian authors translated into Spanish), which had previously released works by major authors like Pedro Calmon, Oliveira Viana, Euclides da Cunha, and Gilberto Freyre.

As we have seen, Roquette-Pinto, Alberto Sampaio, and Mello Leitão made substantial contributions to the Biblioteca Pedagógica editorial project, and especially the Brasiliana Collection. In tune with the grand nationalist educational endeavor promoted by Fernando Azevedo, their contributions fell within the scope of the National Museum’s projects and activities and were commensurate with what they saw as the institution’s new role in “national reconstruction.” From this perspective, their books should be understood as manifestations of a markedly political praxis.

Their books were also interconnected with their scientific research, as exemplified by Mello Leitão’s *Zoogeografia do Brasil*, which clearly lent continuity to Sampaio’s *Phytogeographia* and to Roquette-Pinto’s theories on Brazilian
anthropogeography. They recognized and supported each other as authorities, as we see in Roquette-Pinto’s foreword to *A biologia no Brasil* and in Mello Leitão’s and Sampaio’s painstaking notes and editing of the scientific names of flora and fauna in the fourth edition of *Rondônia*. They defined new fields, worked to launch new disciplines (e.g., Sampaio in his *Biogeographia dynamica*), and laid the groundwork for establishing biology as a stage in advance of natural history, as in Mello Leitão’s work. They disseminated the wealth of material stored in the museum’s libraries, as in Mello Leitão’s three books *Visitantes do Primeiro Império*, *O Brasil visto pelos ingleses*, and *História das expedições científicas no Brasil*. They expanded on debates initiated at major conferences, such as the First Brazilian Eugenics Congress, held in 1929 and discussed by Roquette-Pinto in *Ensaios de antropologia brasileira*, or the First Brazilian Congress for the Protection of Nature, held in 1934 and analyzed by Sampaio in *Biogeografia dynamica*. Each book “is caught up in a system of references to other books, other texts, other sentences,” within a complex web of discourses, where “it is a node within a network.”

These books were written in the heat of the scientists’ enthusiasm about revitalizing the National Museum and engaging it in school outreach work; they factored into an earnest need to put the institution at the service of popularizing science and to project its scientists as learned authorities well suited to weighing in on the directions the nation should take. What these men put into the Brasiliana Collection also reflected their interest in a collection that was built at the intersection of a number of fields; it was not their goal merely to “invent” readers but also to invent forms of knowledge built at the convergence of disciplines and the crossroads of specialties.

**THE RISE AND FALL OF THE NATIONAL MUSEUM IN THE VARGAS ERA**

Under the leadership of Edgard Roquette-Pinto, the National Museum earned its place as an institution devoted to producing and disseminating knowledge and as a space for experimenting with new modalities of communication and new scientific and cultural practices. During those years, its members worked assiduously to vanquish any trace of the antiquated image of natural history museums as deposits for exotic items and dusty objects, frequented by eccentric collectors. Looked at from today, many of its initiatives still seem robust and
pertinent. The researchers invested in “scientific popularization” that targeted a broad, diversified public, and they wanted ordinary Brazilians to have access to science and art. They offered distance learning, founded educational radio stations, and were pioneers in educational cinema. They were active in the defense of nature, built knowledge at the crossroads of a variety of fields, and fell under the spell of the fascinating potential of communication technologies. They participated in international scientific networks by attending congresses and visiting different institutions while also nurturing correspondence with scholars all over the world. And they endeavored to influence public policy.

For a time, optimism ruled the day. Guided by a “pedagogical illusion” and a firm belief in the redemptive power of scientific reason, men like Roquette-Pinto, Mello Leitão, and Alberto Sampaio were confident their work would help mold a nation befitting their expectations, and they threw themselves into a task that they thought was only “the start of the beginning,” in the words of Director Roquette-Pinto.98

The museum’s scientists were convinced they could find a noteworthy spot for themselves as policymakers in the realms of nature and education, and they labored for the success of their initiatives inside the world of government power. From 1930 to 1934, the Provisional Government threw major support behind these ideas. The scientists were accepted as authorities who deserved to be heard and consulted, as in the case of the bill for the Game and Fish Code or the participation of museum members on major commissions. But they were soon to suffer a series of setbacks.

In July 1934, Roquette-Pinto had to swallow a bitter pill. When the Department of Propaganda and Cultural Promotion opened its doors that year, film censorship passed into the hands of the Ministry of Justice and Internal Affairs, and the Revista Nacional de Educação became the ministry’s official voice. A few months later, in a letter to the modernist writer Mário de Andrade, Roquette-Pinto classified the act as “one of the worst blows that our government leaders, in their unscrupulousness, have ever to my knowledge struck against the loftiest, purest of ideas.” The magazine was the “apple of my eye,” “spiritual manna for my poor people.” Although the publication was not making money, Roquette-Pinto was thrilled by the letters of praise (over 2,000) that had poured in from all over the country, and the government had received nothing but applause for the initiative. However, he wrote, since the magazine had published “no portrait of living people”—that is, it had not sought favor by highlighting influential personalities—and had not “feted” any of that ilk
who “use power to abuse,” he saw years of labor, and the fruit of his decades-long dream, suddenly go to waste. The reshuffling in fact signaled the end of the magazine, and not a single issue came out after that. At a time of swift change in the direction of the Vargas administration, the decision had a more profound political significance as well. Communication media were no longer an educational matter but were now subject to new methods of coercion and control by the executive branch, allegedly as a matter of national security.99 In 1935, Roquette-Pinto stepped down from his post at the museum to join the National Institute of Educational Cinema, where he found an environment conducive to his work on behalf of educational film.

On October 28, 1936, the title of “professor,” reserved for department heads, was replaced by the term “naturalist,” pursuant to Law 284. In his annual report, Alberto Betim Paes Leme, a geologist and the museum director, lodged a protest against the new law with the education minister, Gustavo Capanema, on behalf of his colleagues at the museum. According to Paes Leme, the exhibits organized by the museum were living lessons for the public at large, as were the classes and lectures offered there. The title of professor placed staff on equal footing with their colleagues at other natural history museums around the world, and now they had been stripped of this “true right.”100 The law was specifically meant to target the museum. Capanema intended to deny museum researchers the status that recognized their efforts to renew natural history and make it an integral part of the biological sciences. The minister used the term “naturalist” pejoratively, belittling the institution as if it were a mere storehouse for collections and its members, antiquarians.

Radio projects were also abandoned. In 1936, having absolutely no funds to sustain it, Roquette-Pinto donated Rádio Sociedade to the government, with the caveat that it remain under the aegis of the MESP. In 1937, he also abandoned the educational radio station PRD-5, at a time when Anísio Teixeira, its cofounder, had become a persona non grata in the political arena, now dominated by Catholic groups and harsh critics of the Escola Nova. Under Roquette-Pinto and Teixeira’s original plans, the radio would have extended a vital hand to the University of the Federal District, which was supposed to provide research, teaching, and extension work.

In 1937, Mello Leitão left the National Museum as well and went to teach at the Higher School of Agricultural Science and Veterinary Medicine. His book A biologia no Brasil, published that same year, lamented the museum’s precarious facilities and collections, the premature demise of the Revista Nacional
de Educação, the end of many other exciting initiatives led by Roquette-Pinto, and—above all—the way the MESP, with Capanema at its helm, was treating the museum. Sampaio stayed at the museum until retiring in 1941, but he was forced to take a series of leaves for health reasons during his last years, and he wrote much less. Just as dismayed as his colleagues, he bemoaned the uncertain climate that the “naturalists” at the museum faced, including lower salaries and poorer working conditions, all while the professors at the new University of Brazil who had similar scientific and teaching duties were treated to special perks.

Scientists at the National Museum had never constituted a homogeneous group. Roquette-Pinto was of a nonreligious bent, and his views on society and education were rooted in positivist ideals. He fought against both racism and the extinction of indigenous societies and cultures. Although he had been responsible for organizing and coordinating film censorship in the post-1930 era, he battled to keep educational radio and the National Institute of Educational Cinema free from the propaganda intentions of the Vargas administration, coordinated by the Department of Propaganda and Cultural Promotion, which was transformed into the Press and Propaganda Department in 1939. Mello Leitão was a creationist (not unlike most biologists in his day) and a deeply religious anticommunist who had espoused eugenics-based racist positions in the early 1920s. His relationship with Roquette-Pinto, however, softened his stance. He was a colleague of Roquette-Pinto during the founding of the ABE, and although he did not sign the Pioneers Manifesto, he was in practice a loyal defender of the principles of the Escola Nova. Sampaio, for his part, was an admirer of Italian fascism who harbored blatant militaristic propensities, manifested in his obsession with scouting. And none of his writings leave any doubt about his extremely authoritarian tendencies. The men apparently worked around their differences and did not allow them to get in the way of their collective efforts, as attested by the fruitful products of their endeavors. They conducted their activities within the walls of the museum but also worked together with innovative professionals outside the institution, including liberal thinkers like Anísio Teixeira and Fernando Azevedo.

The problems that began to plague the National Museum in 1934, along with the Capanema ministry’s sudden denigration of the institution, must be framed within the larger context of the educational question in Brazil and the complex web of political groups that occupied the national stage. When the Provisional Government first came to power, its political platforms and creation of the
MESP had raised great hope for true educational renewal. But as an increasing number of actors entered the fray, other ideals gained strength. Education was an arena of disputes, with the greatest tensions being between Catholic groups and the advocates of secular education. The fight for education was experienced as a political fight for the country’s soul. This climate gave rise to very different projects on how to reverse Brazil’s backwardness and steer it down the path toward civilization.104

Adamantly opposed to the ideals of the Escola Nova, Catholic groups were aggressively making headway in the political realm. While they had initially condemned the movement of 1930, they soon came to see the new conjuncture as an opportunity to undo the radical separation of church and state written into the Constitution of 1891, a legacy of positivist republican activism. Catholics had been reorganizing since 1922, when they had founded the Dom Vital Center, headquartered in Rio de Janeiro. The center’s key goals were to bring nonpracticing Catholics into the church and to intercede in debates and initiatives in the national public sphere. Top leaders at the Dom Vital Center, like Jackson de Figueiredo and Alceu Amoroso Lima, argued that the educational reforms underway were prejudicial to the Christian formation of young people. They also criticized the emphasis on scientific training rather than on a humanist education, and accused proponents of the Escola Nova movement of encouraging the advent of a Bolshevik pedagogy, placing boys and girls in the same classroom and promoting equal schooling for students from different social strata.105

Rancorous articles published in the magazine A Ordem, launched in 1921, pressured authorities to cede Catholics more political influence. They found a strategic ally in the education minister Francisco Campos. He was not a militant Catholic and had in fact been an enthusiastic educational reformer in Minas Gerais, but he felt that support from the church and lay Catholics was strategic to strengthening the new government. In April 1931, an MESP decree allowed public schools to offer religious teaching as an elective, breaking with the secular tradition instituted under the Constitution of 1891. Catholics celebrated the decision while continuing to demand greater space in the Vargas administration. This rapprochement between the government and Catholic interests was not without its paradoxes. Campos’s reform of secondary education, initiated in April 1932, displeased Catholic groups, who were critical of the emphasis on technology and science in the teaching curricula, the prevalence of secular premises, and the pedagogical principle of practical education. These
groups also attacked the work of Anísio Teixeira and Fernando Azevedo, who held top posts in public education in the states of Rio de Janeiro and São Paulo. They accused these men of being communists and of destroying Christian faith among young people. The same year that Campos enforced his reform, activists from the Catholic movement deserted the ABE, signifying a declaration of war on Escola Nova proponents and evincing the deep divide between the nonreligious and Catholics when it came to education policies.106

Brazilian Catholics were jubilant when the name of God was included in the preamble of the new constitution in 1934, and when collaborative ties were re-established between church and state. They also applauded Capanema’s appointment as minister of education and public health, which ushered in the development of a new educational project for Brazil and the swift overthrow of Escola Nova principles. Against this backdrop, Anísio Teixeira was openly persecuted. Despite his fondness for U.S. liberal thought and the fact that he had introduced Dewey’s educational ideas to Brazil, he was labeled a communist. As director of the Department of Education for the Federal District since 1931, Teixeira had been working to implement far-reaching educational reform from elementary through university levels. As part of this effort, he had spearheaded the founding of the University of the Federal District, which realized the educational dreams of liberal Rio intellectuals. In his July 1935 speech at the inauguration of the university, Teixeira delivered a veritable ode to freethinking as he proclaimed the new institution’s commitment to the great liberal and humanist traditions. Alceu Amoroso Lima, powerful head of the Dom Vital Center, took the occasion to write a letter to Minister Capanema in which he declared this to be the straw that would break the camel’s back and unleash Catholic discontent.

Those were days of major political upheaval. Vargas was candidly unhappy about the new constitution, which called for elections in 1938 but did not allow him to run. Across the country, workers were going out on marches and strikes. Right- and left-wing radicalization was visible in the ascension of the fascist movement known as integralism and in the communist movement. In March 1935, a small group of intellectuals and military officers formed the National Liberation Alliance (ANL), whose ultimate goal was to fight fascism and imperialism. Luis Carlos Prestes, a member of the Brazilian Communist Party, was nominated president of the alliance, and thousands of people quickly swelled its ranks. The confrontation between the government and the ANL sparked strong anticommunist sentiment. Vargas handed down a National Security Law on
April 4 of the same year, and a communist uprising was crushed on November 23—and used to justify a harsh crackdown by the regime.107

The wave of repression reached Teixeira, who was removed from his post at the University of the Federal District. He responded by leaving Rio de Janeiro and taking refuge in his hometown of Caetité, located some four hundred miles from Salvador in an isolated area of the Bahian sertões, where he remained until the end of the Estado Novo in 1945.

Fernando Azevedo also suffered with the rise of the Catholics. In 1935, Amoroso Lima wrote to Capanema to complain about the possibility that Azevedo might be appointed to the General Directorate of Public Instruction. According to Amoroso Lima, Azevedo’s technical skills and intelligence were irreproachable, but his presence would serve as a kind of rallying point, because he stood for an educational program that was all too familiar and had already been rejected. In Catholic circles, his appointment would bring nothing but “bewilderment and indignation.”108

Capanema’s reign as minister, from 1934 to 1945, reframed the education question in Brazil. The Catholic Church earned the right to take part in religious teaching at public schools. Gender differences made their way into the educational system: the instruction of girls would focus on domestic skills, while vocational education in business, industry, and agriculture would be introduced for the sons of working-class families. Children of the elite would follow the classic or scientific track upon entering high school, but major emphasis would be placed on the study of languages and on a patriotic, humanist education, to the detriment of the biological, physical, and chemical sciences. Emphasis was put on higher education, which was ascribed the task of training intellectual leaders; in addition, a single teaching standard was to be followed by all universities in Brazil, including the University of São Paulo, founded in 1934 by the state government.109 Capanema founded the University of Brazil in 1937 and fought against alternative higher education projects. The operations of all universities had to be sanctioned by his ministry. In 1938, he asked Vargas to abolish the University of the Federal District, arguing that it did not meet the benchmark for approval—burying Anísio Teixeira’s initiative for good.110

It was in this context that the National Museum lost the prestige it had won under the Provisional Government. While its members did not openly challenge Capanema’s projects, the museum’s renaissance under Roquette-Pinto had been propelled by the ideas of the Escola Nova and belief in scientific teaching, secular education, and dissemination of the knowledge produced
at the museum with young patrons, girls and boys alike, through a variety of museum initiatives. The museum had become emblematic of a set of ideals embraced by its “professors,” who championed the Escola Nova idea that egalitarian education was a way of offsetting social inequality. Museum scientists had thus taken the opposite tack to Catholic groups, who felt education had “as its purpose, the adaptation of the unequal to a naturally hierarchical social order.”

It is worth noting that during the days of hardship, it was a woman who was the central figure of resistance: the anthropologist Heloísa Alberto Torres, museum director as of 1938. While Capanema worked to tailor the education of girls to the development of domestic skills (some high schools offered classes that awarded a “housewife” certificate), Director Torres fought bravely within an institution so bereft of resources that it was sometimes forced to close its exhibit halls to visitors. At the end of the Estado Novo, the museum was attached to the University of Brazil. Currently part of the Federal University of Rio de Janeiro, it still occupies the same building in the Quinta da Boa Vista that harbored the dreams of Roquette-Pinto and his team.

Putting aside their lamentations about the museum’s sad situation, Mello Leitão and some of his colleagues launched a promising new initiative: the Society of the Friends of the National Museum. A clear response to the museum’s fall from grace, the new society was yet another sign of the vitality and creativity of its members. By then, Mello Leitão had become a successful arachnologist with an enviable scientific résumé and contacts the world over. He still held the respect of the government and in 1937 and 1945 was appointed Brazil’s cultural representative on two major international trips. He had illustrious disciples, such as the ecologist and ornithologist Augusto Ruschi, who in 1948, together with the Society of the Friends of the National Museum, founded the Prof. Mello Leitão Museum of Biology, in Santa Teresa, Espírito Santo State, now one of Brazil’s centers of biological research. The next chapter will explore the establishment of the society and some aspects of Mello Leitão’s later career, particularly his participation in international science circles and his role as an influential educator in the field of biology.