

## A TROPICAL VIENNA: *The Influence of German Political Economy on Brazilian Independence*

When the future Brazilian independence hero José Bonifácio de Andrada e Silva turned 20 years old in 1783, he left Brazil to study at the University of Coimbra, as his generation's privileged sons did. Upon graduating, he embarked on a lengthy government-sponsored trip to study mineralogy across Europe. From 1790, he immersed himself in the latest scientific doctrines and mining techniques in France, Denmark, Sweden, northern Italy, and most importantly German territories. After 10 years of traveling, he began teaching at Coimbra and Portugal's Mint and then took over a new Intendancy of Mines tailor-made for his new qualifications. He returned to Brazil only in 1819 after 36 years away.

By then, this prodigal son had served the Portuguese imperial apparatus loyally for more than half of his life, during which time his work, similar to that of other reformists, strengthened a budding imperial compact that facilitated the royal household's flight to Brazil in 1807 and even Brazil's accession to the status of co-equal kingdom with Portugal in 1815. And yet, despite his deep commitment to the Crown, in 1822 José Bonifácio suddenly gravitated toward imperial secession. Posterity in fact evokes him as the "father of Brazilian independence" rather than a faithful imperial servant. Significantly, the innovative mining methods and administrative rationales that José Bonifácio picked up on his travels illuminate this incongruous transition, deriving as they did from the German academic science of good governance known as cameralism after the seventeenth-century administrators known as *Kammerrats*. Indeed, the German cameral sciences

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gave José Bonifácio the technical tools to get a faltering empire on its feet in the first two decades of the nineteenth century. By the same token, they provided him with the material resources to get a new empire on the march after 1822.<sup>1</sup>

German knowledge and scientific networks became the very backbone of José Bonifácio's practice as a highly trained imperial savant as well as political luminary who abruptly pivoted toward Brazilian independence. As a form of political economy essentially concerned with ordering the finances of the state to guarantee the general welfare of its people, German cameralism directly shaped his views on statecraft as a form of resource management. Beginning at the Freiberg *Bergakademie* (mining academy) from 1792 to 1794, José Bonifácio underwent an intensive "montanistic" course of study heavily steeped in cameralist doctrines. By then, cameralism had turned into a field of academic training and so no longer referred exclusively to those *Kammerrats* whose chief object was to increase the revenues of princely treasuries (*Kammern*). After 1727, cameralists attended university to become economic administrators, as German centers of higher learning inaugurated chairs in *Kammeralwissenschaften* (cameral sciences) encompassing the three broad core disciplines of Finance, Economy, and Police.

José Bonifácio tried to revamp mining and forestry works in the first two decades of the nineteenth century by borrowing heavily from this German political economy in flux and applying cameralist principles to reallocate resources, maximize production, and promote population growth to increase government proceeds. Incidentally, once the notion of Luso-Brazilian unity entered a period of crisis at the Lisbon Courts in 1821–2, cameralist-guided projects led by him and others offered a foundational basis to sustain a separate Brazilian empire. Through their projects and writings, cameralist-trained individuals in Brazil considerably widened the field of Brazilian autonomy and unwittingly traced the contours of a possible independence by establishing a roadmap to population growth and mining as promising sources of fiscal revenues.

This cameralist undercurrent of Luso-Brazilian governance raises a provocative prospect. Just as Rio de Janeiro turned into a "tropical Versailles" with the arrival

1. See Alex Gonçalves Varela, "A 'viagem de aperfeiçoamento técnico' de José Bonifácio e Manuel Ferreira da Câmara pelas regiões mineiras da Europa central e setentrional (1790-1800)," *Tempos históricos* 13, n.º 2 (2009): 75–102; Junia Furtado Ferreira, "Ciência, diplomacia e viagem: Dom Rodrigo de Souza Coutinho e o tour mineralógico dos luso-brasileiros José Bonifácio de Andrada e Silva e Manuel Ferreira da Câmara Bithencourt em Turim," in *Tanto ella assume novitate al fianco: Lisboa, Turim e o intercâmbio cultural do século das luzes à Europa pós-Napoleónica*, edited by Isabel Ferreira da Mota and Carla Enrica Spantigati, 143–187 (Coimbra: Coimbra University Press, 2019); Jakob Vogel, "Lost In Imperial Translation? Circulating Mining Knowledge between Europe and Latin America around 1800," in *Transnational Cultures of Expertise: Circulating State-Related Knowledge in the 18th and 19th Centuries*, edited by Lothar Schilling and Jakob Vogel, 129–146 (Berlin: De Gruyter, 2019).

of the Bragança household, the city also became a tropical Vienna, or even a tropical Schönbrunn in the likeness of the center of Viennese palatial life.<sup>2</sup> As the new seat of the Portuguese court, Rio welcomed throngs of foreign travelers, businessmen, naturalists, and diplomats, many of whom were Austrian or German and had attended renowned cameralist colleges. In particular, Brazil saw a number of alumni from the University of Göttingen, which was then a hotbed of the cameral sciences. At the same time, many German or Hapsburg sojourners arrived who had not attended cameralist institutions, but rather had apprenticed with their reputable alumni.<sup>3</sup>

Despite this pervasive cameralist imprint, other paradigms of scientific influence and imperial emulation have taken precedence over cameralist connections in studies accounting for the emergent political economy of the Luso-Brazilian empire after 1808. Most commonly, scholars cite the Portuguese Enlightenment as a catch-all for imperial reformism, even though some explicitly recognize its eclectic nature and the fact that its strongest links were with Austrian and Italian intellectual traditions, themselves steeped in cameralism.<sup>4</sup> Alternatively, “British preeminence,” that is, British commercial and diplomatic dominance over the Portuguese court during its time in Rio, offers a weighty heuristic for the new political possibilities of the Joanine era. Some scholars see a kind of informal imperialism materializing in rising Brazilian consumption of British manufactures, Anglo–Brazilian tussles over a growing African slave trade, and the prose of Adam Smith admirers. Finally and most evidently, the cultural mores that stylized Rio de Janeiro into a New World monarchy and seat of empire lays

2. Kirsten Schultz, *Tropical Versailles: Empire, Monarchy, and the Portuguese Royal Court in Rio de Janeiro, 1808-1821* (New York: Routledge, 2001). For a dated but useful overview of Austro–Brazilian relations that does not address cameralism, see Ezekiel Stanley Ramírez, *As relações entre a Áustria e o Brasil 1815-1889*, translated by Américo Jacobina Lacombe (São Paulo: Companhia Editora Nacional, 1968).

3. Botanist Friederich Sellow, for instance, worked under Halle University-trained naturalist Carl Ludwig Willdenow at the Botanical Gardens in the University of Berlin, received support from Alexander von Humboldt (a Göttingen alumnus) before accompanying Prince Maximilian zu Wied-Neuwied (another Göttingen graduate) in his travels in interior Brazil. Miriam Elvira Junghans, “‘Ordenar o mundo e sondar a natureza’: O projeto humboldtano de Friedrich Sellow (1789-1831)” (PhD diss., FIOCRUZ, 2017). For a general introduction to German networks in Brazil, see Sílvia Fernanda de Mendonça Figueróa, “German-Brazilian Relations in the Field of Geological Sciences during the 19th Century,” *Earth Sciences History* 9, n° 2 (1990): 132–137.

4. On the Portuguese Enlightenment, see Maria Odila da Silva Dias, “Aspectos da ilustração no Brasil,” *Revista do Instituto Histórico e Geográfico Brasileiro* n° 278 (Jan.–March 1968): 105–170; Fernando Novais, “O reformismo ilustrado luso-brasileiro: alguns aspectos,” *Revista Brasileira de História* 7 (1984): 105–113; Arno Wehling, “Ilustração e política estatal no Brasil, 1750-1808,” *Humanidades* 1, n°1 (2001): 61–86; Ronald Raminelli, “Ilustração e império colonial,” *História* 31, n° 2 (July–Dec. 2012): 36–68. On the hegemony of French and English models at least in scientific dissemination, see Lorelai Kury, “Homens de ciência no Brasil: impérios coloniais e circulação de informações (1780-1810),” *História, Ciências, Saúde—Manguinhos* 11, n° 1 (2004): 109–129. On eclecticism, Ana Rosa Cloet da Silva, “Ilustração, história e ecletismo: considerações sobre a forma eclética de se aprender com a história no século VIII,” *História da historiografia* 4 (March 2010): 75–87, and on the Austrian and Italian models, Francisco Bethencourt, “Enlightened Reform in Portugal and Brazil,” in *Enlightened Reform in Southern Europe and Its Atlantic Colonies, c.1750-1830*, edited by Gabriel Paquette, 42 (London: Routledge, 2009). For applied enlightened projects arguably leading to independence, see Jurandir Malerba, *Brasil em projetos: história dos sucessos políticos e planos de melhoramento do reino: da ilustração portuguesa à independência do Brasil* (Rio de Janeiro: FGV Editora, 2020).

bare the sway of French influences on the refined new urbanity and power dynamics that turned an old colonial port into a scintillating “tropical Versailles.”<sup>5</sup>

Yet, German-educated individuals at times superseded these currents in terms of their influence. After the Court’s arrival in 1808, they directed their endeavors to areas dear to the cameral sciences, including mining, forestry, and population growth. And while some among them followed enlightened precepts learned at Coimbra, cited agrarian improvement tracts indebted to French physiocracy, and lauded (and at times contributed directly to) British commercial might, when they spoke of mines, forests, and peopling, they did so under the sign of a statist, administrative rationale, rather than a purely philosophical, private, or commercial one. Their ideas and actions, in other words, purposely and explicitly aimed to strengthen the monarchical state by shoring up its administrative capacities. For them, theory, projects, and policy were alloyed from the start in a triptych that saved costs for the crown and put them in charge of streamlining innovations. As such, these individuals’ activities in Brazil highlight a meaningful cameralist intermittence beyond German lands and Middle Europe, and squarely situate Brazil in a century-long arc of Lusophone engagement with German and Hapsburg realms.<sup>6</sup> Moreover, as a foreign student who attended the cameralist mining school at Freiberg, José Bonifácio in particular could bring into high relief the nature and scope of cameralism, whose evolution into a sprawling set of theoretical constructs, discursive systems, or even performative practices of power and patronage, scholars have long debated.<sup>7</sup> As the cameral sciences or “sciences of the state” infused instructional

5. Alan K. Manchester, *British Preëminence in Brazil: Its Rise and Decline. A Study in European Expansion* (New York: Octagon Books, 1972); Leslie Bethell, “O Brasil no século XIX: parte do ‘império informal’ britânico?,” in *Perspectivas da cidadania no Brasil Império*, edited by José Murilo de Carvalho and Adriana Pereira Campos, 15–35 (Rio de Janeiro: Civilização Brasileira, 2011); José Jobson de Andrade Arruda, *Planos para o Brasil, projetos para o mundo: o novo imperialismo britânico e o processo de independência (1800-1831)* (São Paulo: Alameda, 2022); Schultz, *Tropical Versailles*.

6. Ernest Lluch, “Cameralism Beyond the Germanic World: A Note on Tribe,” *History of Economic Ideas* 5, n° 2 (1997): 85–99; Alexandre Mendes Cunha, “Administrative Centralisation, Police Regulations and Mining Sciences as Channels for the Dissemination of Cameralist Ideas in the Iberian World,” in *Cameralism in Practice*, 155–178.

7. The main bone of contention in the scholarship traces back to the distinction between cameralist theoreticians and practitioners set out by Albion Small, *The Cameralists: The Pioneers of German Social Polity* (Chicago: University of Chicago Press, 1909). Among other important works, Keith Tribe’s *Governing the Economy: The Reformation of German Economic Discourse, 1750-1840* (Cambridge: Cambridge University Press, 1988) traced the emergence of cameral sciences as a discursive field that grew out of *Hausväterliteratur*, a genre concerned with household management; underwent a process of disciplinary systematization; and delayed the reception of mercantilism and physiocracy in German universities. In turn, David Lindenfeld’s *The Practical Imagination: The German Sciences of State in the Nineteenth Century* (Chicago: University of Chicago Press, 1997) examined cameralism’s transformation into a complex series of sciences of the state. In a different direction, Andrew Wakefield’s *The Disordered Police State: German Cameralism as Science and Practice* (Chicago: University of Chicago Press, 2009) challenged the distinction between theory and practice by characterizing cameralists as spin-doctors coveting professional appointments. Recent edited volumes more explicitly link academic cameralism and the modes of governance it influenced: Marten Sepple and Keith Tribe, eds., *Cameralism in Practice: State Administration and Economy in Early Modern Europe* (Woodbridge: The Boydell Press, 2017), and Ere Nokkala and Nicholas B. Miller, eds., *Cameralism and the Enlightenment: Happiness, Governance and Reform in*

programs at technical academies such as Freiberg, established in 1765, and its Austrian counterpart in Schemnitz, these mining schools became the quintessential hubs for rearing a technically adept elite oriented toward “cameralistic civil service” for late absolutist monarchies then looking to “supply ores for the mint and for war.” They also revived the sagging economies of backwater towns and villages by attracting foreign students. José Bonifácio fit the bill for both of these facets of cameralism as a foreign student who flocked to these instructional centers and as a member of the elite ready to transpose acquired knowledge into imperial service.<sup>8</sup>

Historian Alexandre Mendes Cunha’s pioneering studies on cameralist engagement in the late-eighteenth-century Lusophone world and Jakob Vogel’s suggestion that cameralist influence extended into the generation that partook in Brazilian independence have prepared the ground for a closer examination of cameralist traces in nineteenth-century Brazil.<sup>9</sup> However, important limitations lurk in this context. For one, the cameral sciences did not circulate in Brazil in textual form as French books and treatises did, so the focus on materiality that has characterized recent scholarship on the history of reading must be supplanted with a kind of erasure of overly explicit textual references or robust circulations of cameralist print. Yet, cameralism did not exist either as an abstract concept defined mainly by its discursive occurrences, so it dodges the analytic approaches practiced by recent strands of intellectual history as well.<sup>10</sup> Rather than write about their ideas and plans, cameralist trainees more often enacted them, leading to a process of tenuous adaptation by which they assimilated quasi-cameralist practices, as proposed by historian Mendes Cunha.

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*Transnational Perspective* (New York: Routledge, 2020). My observation on the melding of theory and policy is directly indebted to Juergnen Backhaus and Richard E. Wagner, “The Cameralists: A Public Choice Perspective,” *Public Choice* 53 (1987): 3–20.

8. Jakob Vogel, “Aufklärung untertage: Wissenwelten des europäischen Bergbaus im ausgehenden 18. Und frühen 19. Jahrhundert,” in *Staat, Bergbau und Bergakademie: Montanexperten im 18. Und frühen 19. Jahrhundert*, edited by Hartmut Schleiff and Peter Konečný, 13–34 (Stuttgart: Franz Steiner Verlag, 2013); Donata Brianta, “Education and Training in the Mining Industry, 1750-1860: European Models and the Italian Case,” *Annals of Science* 57, n° 3 (2000): 267–300; Hartmut Schleiff, “Knowledge Practices in the Establishment and Reproduction of the Mining Elite in Saxony, 1765-1868,” in *The Practice of Knowledge and the Figure of the Savant in the 18th Century*, edited by André Holstein, Hubert Steinke and Martin Stuber, 827–851 (Leiden: Brill 2013).

9. Alexandre Mendes Cunha, “Police Science and Cameralism in Portuguese Enlightened Reformism: Economic Ideas and the Administration of the State during the Second Half of the 18th Century,” *e-JPH* 8, n° 1 (2010): 1–12; “Cameralist Ideas in Portuguese Enlightened Reformism: The Diplomat Rodrigo de Souza Coutinho and His Circuit of Intellectual Exchange,” in *Cameralism and the Enlightenment*, 201–223; “Influences and Convergences in the Dissemination of Cameralist Ideas in Portugal: Enlightened Reformism and Police Science,” *History of Political Economy* 53, n° 3 (June 2021): 497–514.

10. See, for instance, Roger Chartier, *Inscription and Erasure: Literature and Written Culture from the Eleventh to the Eighteenth Century* (Philadelphia: University of Pennsylvania Press, 2007), among other works by the same author informing approaches such as those in Tânia Maria Tavares Bessone, Gladys Sabina Ribeiro, and Monique de Siqueira Gonçalves, eds., *O oitocentos entre livros, livreiros, impressos, missivas e bibliotecas* (São Paulo: Alameda, 2013). For an example of conceptual history, Georges Lomné, Alejandro San Francisco, Pablo Sánchez León y Guillermo Zermeño Padilla, eds., *Diccionario político y social del mundo iberoamericano. Conceptos políticos fundamentales, 1770-1870*, vol. 2 (Madrid: Centro de Estudios Políticos y Constitucionales, Universidad del País Vasco, 2014).

Following him, I propose that figures such as José Bonifácio or several German and Austrian sojourners in Brazil gave away their background through cameralist-like behaviors, that is, by mobilizing endeavors that evoked cameralist concerns with good fiscal governance and by extension the general good of a people at varying degrees of explicitness. Rather than solely or mainly in written texts, then, I suggest that cameralist influence revealed itself when a discreet set of characters actuated it through practices that accrued onto broader processes.

This article surveys German connections and cameralist influences in Brazil from Pombaline times up to the era of Brazilian independence to illuminate the relationship between cameral sciences and specific political trajectories. Given the difficulties in defining cameralism, I assume that a particular work or individual was “cameralist” if, besides engaging with sciences historically tied to cameralism (forestry, mining, finances, etc.) while referring to administrative efficiency or state interests, they meet one or more of the following criteria: their work appears in an authoritative bibliography of cameralist print, they were published in cities with important cameral science programs such as Halle or Göttingen, and/or they graduated from or attended institutions with ties to cameralist teaching, such as the Freiberg Bergakademie.<sup>11</sup>

These broad criteria make sense to apprehend how engagement with Germanic politics, particularly with the Hapsburg dynasty, had long given Lusophone statesmen access to cameralist-inspired reformism. As the first section below details, the future marquis de Pombal’s diplomatic stint in Vienna coincided almost to the date with the consolidation of the cameral sciences in university settings. This encounter inaugurated a durable political tradition, as at least two generations following Pombal—his direct acolytes and the younger reformists they raised—maintained a cameralist orientation amid increasing engagement with German lands. When the Joanine court came to Brazil, Rio de Janeiro’s liaisons with the largest German-speaking courts in Europe strengthened its stead as part of a political constellation beyond British and French orbits. Increasing commerce with the free Hanseatic city of Hamburg, an outlet for Prussian exports, bridged the distance between Rio and Berlin. And the marriage in 1817 of Portuguese Prince Pedro to Archduchess Leopoldina of Austria, daughter of the last Holy Roman Emperor Francis II and granddaughter of the great reformist Empress Maria Theresa, united the Bragança and Hapsburg households, welcomed a new scientific expedition of cameralist-trained experts,

11. Though relying on Magdalene Humpert’s *Bibliographie der Kameralwissenschaften* (Cologne: Kurt Schroeder Verlag, 1937), I am conscious of the problems with selectivity parameters in any ambitious compendium. For a critique, see among others Andre Wakefield, “Books, Bureaus, and the Historiography of Cameralism,” *European Journal of Law and Economics* 19 (2005): 311–320.

and put an assertive Luso-Brazilian empire on a par with mainland European monarchies.

If cameralist connections proved key to the development of a Luso-Brazilian political economy before João VI returned to Lisbon in 1821, I argue that, ultimately, they also crucially informed the outcome of an independent Brazil. Cameralist-guided projects centered on mining and directed migrations between 1808 and 1821 fed expectations of Brazilian autonomy and, in time, even independence. By enacting practical precepts from the cameral sciences, efforts to launch new foundries and worker colonies spelled out tantalizing possibilities for an independent Brazilian polity because, in cameralist fashion, they projected a state with a self-sustaining fiscal basis. Whereas at first, this justified the continuance of Brazil's status as a kingdom within the empire, cameralist-like projects also enabled the option of separating from Portugal in at least two specific ways. On the one hand, mining turned into a more immediately central economic sector than agriculture to imagining—and sustaining—a post-independence Brazil. Cameralist-trained individuals not only laid the groundwork for the entry of British mining firms into Brazil but also directly incited their prospecting endeavors through their expert writing and at times even served as their employees. On the other hand, peopling became a touchstone for both defensive purposes and population growth, as sporadic colonization efforts by German entrepreneurs paved the way for state-directed and later privately led migrations to Brazil. Under the mantle of *Peuplierung* (peopling), a key cameralist activity, a network of cameralist-trained individuals articulated new directed migration schemes that increasingly drew in Brazilian statesmen. These same statesmen later deepened cameralist connections by seeking diplomatic partnerships with Austria and Prussia, and even sending their progeny to study at Göttingen or Freiberg, giving continuity to a long-running but subtle Luso-Brazilian tradition shaped by the cameral sciences.

### **AN EIGHTEENTH-CENTURY AFFAIR: UNDERSTANDING THE CAMERAL SCIENCES WITH AND AFTER POMBAL**

Cameralism existed long before Sebastião José de Carvalho e Melo, future marquês de Pombal, set foot in Vienna in the 1740s. Since the previous century, bureaucrats overseeing the treasuries of the innumerable kingdoms, principalities, and duchies that dotted the Holy Roman Empire were referred to as cameralists. Although their work technically entailed administering and increasing fiscal revenues, they became notorious for their corruption as well as for their lack of practical knowledge about the industries they burdened with

tributes.<sup>12</sup> Yet, a new brand of trained cameralists overtook these unpopular fiscal advisers in the eighteenth century. In 1727, the Prussian monarch Friedrich Wilhelm I established the first professorships in cameral sciences at the universities in Halle and Frankfurt an der Oder, enabling cameralism's transformation into a series of prescriptive university disciplines aiming to issue norms and procedures to maximize revenues in many areas of economic life. By the middle of the century, two theorists, Johann Heinrich Gottlob von Justi and Joseph von Sonnenfels, finessed the cameral sciences into three broad areas—commerce, finance, and “police” (the administration of everyday economic and social activities)—while forestry, mining and other traditional German industries became key targets of cameralist manuals and courses.<sup>13</sup>

Carvalho e Melo thus arrived in Vienna as cameralism's transformation was afoot. As is well known, Carvalho e Melo later became José I's trail-blazing minister from 1750 to 1777, raising Lisbon from the wreckage of a cataclysmic earthquake, upending aristocratic privileges, banishing the Jesuits from Portuguese domains, and overturning the entire edifice of Portuguese education. Some of this do-or-die reformism harkened back to his time in London from 1739 to 1744, when he joined learned associations and imperialist think tanks such as the Royal Society. Yet, arguably, it was his stay in Vienna from 1745 to 1750 that immersed him not only in the uses of absolutist paragons but also in a revitalizing reformism that marched in lockstep with the development of the cameral sciences as beacons of prosperity. Indeed, 1740s Vienna was already under the thrall of very impressive transformations to which Carvalho e Melo had first-row access. Only a year before his arrival, the remodeling of Schönbrunn Palace had begun under the supervision of the Portuguese-born Manoel Telles de Menezes e Castro, Count of Silva Tarouca, who was a close counsel to the Holy Roman Empress Maria Theresa and soon became Carvalho e Melo's mentor in Austrian lands. Thanks to him, Maria Theresa warmly received Carvalho e Melo as a foreign dignitary at her court despite his lesser initial designation as a Portuguese emissary.<sup>14</sup>

12. Andre Wakefield, “Cameralism: A German Alternative to Mercantilism,” in *Mercantilism Reimagined: Political Economy in Early Modern Britain and Its Empire*, edited by Philip J. Stern and Carl Wennerlind, 134–150 (Oxford: Oxford University Press, 2013).

13. Keith Tribe, *Strategies of Economic Order: German Economic Discourse (1750-1950)* (Cambridge: Cambridge University Press, 1995), 8–31.

14. Maria Alcina Ribeiro Correia, *Sebastião José de Carvalho e Melo na corte de Viena de Áustria* (Lisbon: Instituto de Alta Cultura, 1965) and “A vida pública de Sebastião José de Carvalho e Melo em Viena de Áustria (1744-1749),” *Revista de História das Ideias* 4, n° 1 (1982): 29–39; Ludwig Scheidl, “Breves apontamentos sobre as reformas públicas na Áustria no período da missão diplomática de Sebastião José de Carvalho e Melo em Viena (1744-1749),” *Revista de História das Ideias* 4, n° 1 (1982): 19–27; Franz A. J. Szabo, “Cameralism, Josephinism, and Enlightenment: The Dynamic of Reform in the Hapsburg Monarchy, 1740-92,” *Austrian History Yearbook* 49 (2018): 1–14.

To be sure, Carvalho e Melo's time in Vienna did not exactly coincide with watershed reforms that would have warranted his undivided attention, including the academic streamlining of the cameral sciences. Carvalho e Melo returned to Portugal in 1750, almost exactly as von Justi, one of the great systematizers of the cameral sciences, arrived in Vienna to offer the lectures at the Theresianum that came together in a trend-setting work on the economy of the state, the *Staatwirtschaft* (1755). Similarly, the first chair in cameral sciences in Vienna was established only in 1763, 13 years after Carvalho e Melo's departure. Nevertheless, Carvalho e Melo had already witnessed transformative events, including the tail end of the Austrian War of Succession and the creation of the Theresianum itself, upon which he later modeled the Colégio dos Nobres in Portugal. He also established meaningful correspondence with Austrian ministers and diplomats. Having married into Viennese aristocracy in a shrewd attempt to bolster his diplomatic mission, his links to Vienna likely kept him abreast of the evolution of *Kammeralwissenschaften*.<sup>15</sup>

Carvalho e Melo's intellectual ties to the seat of the Hapsburg monarchy informed his ambitious policy makeover for Brazil. Promoting indigenous demographic growth in the Amazon and revamping the mining economy by means of new policing measures such as minting had more than a passing resemblance to cameralist ideas.<sup>16</sup> Such influence was also evident in emergent institutions that made the crossing to Brazil. In 1760, for instance, Carvalho e Melo, by then Marquês de Pombal, set up a General Intendancy of Police, which is frequently described as an offshoot of Nicolas Delamare's *Traité de la police*, but was also clearly in line with German ideas. Following work by Mendes Cunha, one may assume that the Intendancy's first director, Diogo Inácio de Pina Manique, possessed at least some familiarity with cameralist science of police. In 1786, a Portuguese professor of rhetoric from the town of Évora translated a tract ostensibly authored by a Swiss writer. In fact, however, the tract was a French compendium of von Justi's *The Foundations of the Power and Happiness of States, or a Detailed Presentation of the Entire Science of Police* (1760–1). The translation into Portuguese under the title *Elementos da polícia geral de hum estado* was duly dedicated to Pina Manique, who doubtless read them. Some of those ideas may have migrated with the court to Brazil, where the Intendancy was

15. For context on Vienna during these years, see Pieter M. Judson, *The Habsburg Empire: A New History* (Cambridge: Harvard University Press, 2016), 16–102; Barbara Stollberg-Rilinger, *Maria Theresa: The Habsburg Empress in Her Time* (Princeton: Princeton University Press, 2022); Tribe, *Governing the Economy*, 55–90.

16. Maria Alcina Ribeiro Correia, *Sebastião José de Carvalho e Melo na corte de Viena de Austria* (Lisbon: Instituto de Alta Cultura, 1965); Kenneth Maxwell, *Pombal: Paradox of the Enlightenment* (Cambridge: Cambridge University Press, 1995), 8–10, 53–54, 91–92; Mendes Cunha, "Administrative Centralisation."

reestablished under the command of Paulo Fernandes Viana, a Brazilian bent on continuing Pina Manique's work.<sup>17</sup>

Luso-Brazilian intellectuals continued to dabble in cameral precepts even after Pombal's fall from power in 1777 and despite a mounting agrarianism of physiocratic roots. In Lisbon, the Acadêmia Real das Ciências published innumerable *memórias* pushing for improvement in various industries that made space for mining, particularly at the Arco do Cego press led by a Minas Gerais native José da Conceição Veloso, who employed young Brazilians as translators, including Martim Francisco de Andrada, José Bonifácio's younger brother, and Manuel Jacinto Nogueira da Gama, who later in 1801 also assisted José Bonifácio with his course on assaying (*docimasia*) at the Portuguese Mint.<sup>18</sup> Even in the deep end of the *viradeira*, as the post-Pombal period of (relative) conservative backlash is known, these and other more established intellectuals possessed an unequivocal affinity with Pombaline legacies tinged by cameralist precepts.<sup>19</sup> In 1789, for instance, law professor of *direito pátrio* Pascoal José de Melo Freire proposed refurbishing public law with police science principles.<sup>20</sup> Similarly, the Brazilian-born prelate Azeredo Coutinho explicitly referred to cameralist works, especially the famous *Institutions politiques*, a trendy treatise on how to build a country originally published in French by the Prussian statesman Jakob von Bielfeld and translated to Spanish in five volumes between 1767 and 1781. Azeredo Coutinho's "Discurso sobre o estado atual das minas do Brasil" further betrayed a cameralist tenor, described as it was as an "homage to the science of government and this science that occupies itself essentially with the prosperity of the State."<sup>21</sup> At around the same time, Tomás Antonio de Vila Nova Portugal, who became prime minister in 1817, cited the late Göttingen University professor Albrecht von Haller in the *Revista da Acadêmia das Ciências* to advocate for reduced taxation and continuous markets to replace traditional

17. Von Justi's original title in German: *Die Grundfeste zu der Macht und Glückseligkeit der Staaten; oder ausführliche Vorstellung der gesamten Policy-Wissenschaft*. See Mendes Cunha, "Administrative Centralisation." Pina Manique may have known about von Justi's work already. See Thiago Enes, "A controversa trajetória de Diogo Inácio de Pina Manique, Intendente-Geral da Polícia da Corte e do Reino," *Revista Maracanan* 25 (Sept.–Dec. 2020): 158–169. On the police intendency in Brazil, see Schultz, *Tropical Versailles*, 105–116; Andréa Slemian, *Vida política em tempo de crise: Rio de Janeiro (1808-1824)* (São Paulo: Hucitec, 2006), 51–77.

18. Otávio Tarquínio de Souza, *História dos fundadores do Império do Brasil, vol. I: José Bonifácio* (Brasília: Senado Federal, 2015) [1957], 84; Varela, "*Juro-lhe pela honra*."

19. On the *viradeira*, see Gabriel Paquette, *Imperial Portugal in the Age of Atlantic Revolutions: The Luso-Brazilian World, c.1770-1850* (Cambridge: Cambridge University Press, 2013), 35–44.

20. Mendes Cunha, "Influences and Convergences."

21. Sérgio Buarque de Holanda, "Apresentação," in José Joaquim da Cunha de Azeredo Coutinho, *Obras econômicas de J. J. da Cunha de Azeredo Coutinho (1794-1804)* (São Paulo: Companhia Editora Nacional, 1966), 13–53; Azeredo Coutinho, "Discurso sobre o estado atual das minas do Brasil," in *Obras econômicas*, 187–229. Of significance to this article, another scholar already underlined Azeredo Coutinho's intellectual importance for Brazilian independence but framed his thought more traditionally within the Portuguese Enlightenment and claimed he placed higher value on agriculture than on the "false wealth" of gold. E. Bradford Burns, "The Role of Azeredo Coutinho in the Enlightenment of Brazil," *Hispanic American Historical Review* 44, n° 2 (May 1964): 145–160.

annual fairs. His administrative recommendations explicitly invoked “what we properly call Police—administering monopolies, getting rid of spoiled produce, punishing robberies, curtailing violence,” an nod to an efficiency-driven cameralist vigilance.<sup>22</sup>

Yet, no other figure espoused cameralist influences like Pombal’s own godson, Rodrigo de Souza Coutinho, whose intellectual trajectory began with a diplomatic post in Sardinia (1779–96). As he confessed in his travel journal, Souza Coutinho did not know German. Coming across a chapel containing the bones of fallen Swiss soldiers who fought against Carlos III in the Swiss canton of Neuchatêl, he lamented being unable to read an inscription on the wall by Göttingen’s von Haller—“I believe it must be very beautiful,” he said, “I wish I could understand it!”<sup>23</sup> His lack of German notwithstanding, Souza Coutinho exhibited deep affinities with cameralist concerns in writings such as his “Discurso sobre a mendicidade” (1787–8), which cited Justi and Bielfeld. And, as Mendes Cunha has demonstrated, Souza Coutinho also sustained personal correspondence with Göttingen professor Anton Friedrich Büsching.<sup>24</sup> Whereas Souza Coutinho’s writings co-existed with the eclectic if physiocratic-leaning naturalism of contemporaries such as Italian botanist Domenico Vandelli, they distinguished themselves in their emphasis on mining as a generative economic gateway. With the proper aid of companies and banks, according to Souza Coutinho, mining could undo the external pressures and endless wartime spending that had been weighing on Iberian powers since before the Methuen Treaty (1703).<sup>25</sup> Such insight came in handy for Souza Coutinho when he became Minister of the Navy and Overseas Colonies in 1796, and prepared the ground not only for orchestrating the Portuguese Crown’s desperate flight in 1807 but also for reimagining a new kind of sovereignty thereafter.

## ACTUATING CAMERALIST THOUGHT BEYOND THE COLONIAL PACT: WAR AND FISCAL IMPERATIVES IN BRAZIL

Cameralist doctrines indirectly but decisively informed enlightened reformism in eighteenth-century Portugal. In doing so, these doctrines helped to reorient the

22. Tomás António de Vilanova Portugal, “Memória sobre a preferência que entre nós merece o estabelecimento dos mercados ao uso das feiras de ano para o comércio instrínseco,” in *Memórias econômicas da Academia Real das Ciências de Lisboa*, vol. 2 (Lisbon: Oficina da Academia Real das Ciências, 1790), 1–15.

23. Rodrigo de Souza Coutinho, “Journal de voyage de Paris au Piémont,” in André Mansuy-Diniz Silva, *Portrait d’un homme d’État: D. Rodrigo de Souza Coutinho, Comte de Linhares, 1755-1812*, vol. I: *Les années de formation, 1755-1796* (Lisbon: Fundação Calouste Gulbenkian, 2003), 465.

24. Mendes Cunha, “Cameralist Ideas.”

25. Domingos Vandelli, “Memória sobre a preferência que em Portugal se deve dar à agricultura sobre as fábricas,” in *Memórias econômicas da Academia Real das Ciências de Lisboa* (Lisbon: Oficina da Academia Real das Ciências, 1789), 244–253; Souza Coutinho, “Memória sobre a verdadeira influência das minas dos metaes preciosos na indústria das nações que as possuem, e especialmente da Portuguesa,” in *Memórias econômicas*, 237–243.

uneven “colonial pact” characteristic of Pombaline times toward the goal of a common good.<sup>26</sup> However, with the Napoleonic invasion, wartime needs forced cameralist lessons, however indirect, into newly urgent uses. The Portuguese Crown’s defensive needs required a sound financial basis such as Souza Coutinho had spelled out a decade earlier in his *Memória sobre os melhoramentos dos domínios na América* (1797). Within months of landing in Rio in 1808, Souza Coutinho devised a military plan laying out a grand imperial vision that would, in theory, improve the Portugal’s bargaining position upon the restoration of peace. In the Indian Ocean, military expeditions from Mozambique would seize the Île de France and Île Bourbon (Mauritius and Réunion), while Brazilian forces invaded French Cayenne. And the plan’s focus on forest management for naval construction evoked cameralist forestry not only in its push to establish shipyards across northern Brazil and import drought-resistant trees from Goa to Brazil’s northeast and sandalwood from Macau to the Amazon but even more so in its intention to appoint regional “conservators” to enforce regulations and oversee logging. It also propounded a stratified and racialized division of labor in which these technical savants would oversee the “Indians and Blacks” felling trees. The science of forests also came into play in the identification of appropriate species for given regions and uses. For the southern sub-captaincy of Rio Grande, Souza Coutinho recommended Polish, Flemish, and “Lord Weymouth” pine farms to make up for the Continental Blockade of the timber trade as well as hemp cultivation to replace cordage shipments from Riga. Finally, in a reorganization of mining production, new foundries would produce anchors and copper laminates for ship hulls. Bahia’s shipyard at least seemed to meet these aims, producing one ship, two galleons, five brigs, and three schooners in record time by early 1811.<sup>27</sup>

The Prince Regent heeded Souza Coutinho by authorizing a successful land and sea operation against Cayenne, which he occupied until peace accords in 1817 and, to the south, prevailed over the cracking edifice of the Provincias Unidas del Río de la Plata, claiming Montevideo as his new Cisplatina Province.<sup>28</sup> João also

26. On these points, see José Luis Cardoso and Alexandre Mendes Cunha, “Enlightened Reforms and Economic Discourse in the Portuguese-Brazilian Empire (1750-1808),” *History of Political Economy* 44, n° 4 (2012): 619–641.

27. *Gazeta do Rio de Janeiro* n° 39 (15 May 1811); BN, Manuscritos, Coleção Augusto de Lima Júnior, I-33,28,010, Rodrigo de Souza Coutinho, “Memorial a S.M., respondendo aos seguintes quesitos solicitados” (1808). Polish pine probably referred to Scots pine (*Pinus sylvestris* L.), a widespread species in Poland; “Flemish pine” was black pine (*Pinus nigra*), although it could also be Corsican pine, a non-endemic species abundant in Belgium. Weymouth pine is another name for the white pine of eastern North America. Sandalwood was not used in naval construction but was a lucrative commodity until its price dropped sharply in 1810. On hemp, see Dauril Alden, *Royal Government in Colonial Brazil, with Special Reference to the Administration of the Marquis of Lavradio, Viceroy, 1769-1779* (Berkeley: University of California Press, 1968), 367.

28. “Oyapock, divisa do Brazil com a Guiana Franceza á luz dos documentos históricos,” *Revista do Instituto Histórico e Geográfico Brasileiro* (RIHGB) 58, n° 2 (1895) 215–223; Karina da Silva e Melo, “Historias indígenas em contextos de formação dos Estados argentino, brasileiro e uruguaio: charruas, guaranis e minuanos em fronteiras platinas (1801-1818)” (PhD diss., Unicamp, 2017), 220–302; João Paulo Pimenta, *Estado e nação no fim dos impérios ibéricos no Prata (1808-1828)* (São Paulo: Hucitec, 2002).

followed Souza Coutinho's cameralist-like solutions regarding the problems of peopling and securing state revenues. Initially, Souza Coutinho counseled stationing a naval convoy off the Portuguese coast to "aid the emigration of . . . industrious vassals who wish to come to add to the force and population of the Empire," citing both the Azores' excessive population growth, "which must be culled at times," and the need "to people the interesting frontier captaincy" of Rio Grande do Sul. That very same year the Prince Regent ordered 1,500 Azorean families transported to southern Brazil, concretizing a cameralist-like effort to "see the number of vassals grow" while scrambling for revenues.<sup>29</sup>

Souza Coutinho's quest to spur population growth and attain a healthy fiscality via cameralist-like precepts did not expire with his death in 1812, thanks to his continued patronage of pupils such as Minas Gerais-native Manuel Ferreira da Câmara and José Bonifácio. Upon graduation from Coimbra in 1788, both had joined the Academia Real das Ciências de Lisboa, with Câmara producing a prize-winning submission to the first volume of the Academia's *memórias* on the history of the Brazilian district of Ilhéus, a region seen as ripe for peopling. In 1790, both contributed to the second volume, with Câmara writing on coal stone deposits in Portugal and José Bonifácio on improving whale fisheries and oil production in Cape Verde and Brazil. The improvement zeal they demonstrated compelled the Royal Treasury to sponsor their study travels across northern Europe starting in 1790. When Souza Coutinho took the Overseas Colonies ministry in 1796, he continued to patronize the two Brazilians and eventually appointed them intendant generals of mines and forests in Brazil and Portugal.<sup>30</sup> Fortifying Souza Coutinho's vision of a mining renaissance under these new cameralist technicians, the Arco do Cego translated two eighteenth-century mining tracts of cameralist stock—one by Antoine de Genssane, engineer commissary for the states of Languedoc, and another by Simon Lefebvre, lead engineer of mines in Prussia and member of the Berlin Academy of Sciences—that celebrated the importance of technicians such as Câmara and José Bonifácio themselves, who soon began to apply their Freiberg lessons in new projects that would help meet the Crown's necessities after 1808.<sup>31</sup>

29. Decrees (1 Sept., 25 Nov. 1808), *CLIB* (1808), vol. 1, 129, 166; Souza Coutinho, "Memorial a S.M."

30. François Xavier Sigaud, "Dr. Manoel Ferreira da Câmara Bittancourt e Sá," *RIHGB* 4, n° 16 (Jan. 1843): 515–518; Manuel Ferreira da Câmara, *Ensaio de descrição física, e econômica da Comarca dos Ilheos na América* (Lisbon: Oficina da Academia Real das Ciências, 1789), and "Observações feitas por ordem da Real Academia de Lisboa acerca do Carvão de pedra, que se encontra na freguezia da Carvoeira," in *Memórias econômicas*, vol. 2, 285–294; José Bonifácio de Andrada e Silva, "Memória sobre a pesca das baléas, e extração do seu azeite; com algumas reflexões a respeito das nossas pescarias," *Memórias econômicas*, vol. 2, 388–412.

31. Antoine de Genssane, *La géométrie souterraine, ou traité de géométrie-pratique, appliqué à l'usage des travaux des mines* (Montpellier: Rigaud, Pons & Compagnie, 1776), translated as De Genssane, *Mineiro do Brasil melhorado pelo conhecimento da mineralogia, e metallurgia, e das sciencias auxiliaadoras. Segunda parte. Mineiro Geometra ou geometria prática, e subterrânea, applicada ao uso dos trabalhos das minas*, trans. by José Mariano da Conceição Velloso (Lisbon: Oficina de Rodrigues Galhardo, 1801), viii; Simon Lefebvre *Nouveau traité du nivellement* (Paris: Charles-Antoine

Historians traditionally portray José Bonifácio's ideas as byproducts of a vaguely defined Portuguese Enlightenment. Yet, even if he attended Coimbra, it was his later royal-sponsored studies that informed his views on *geonosia* (geognosy), peopling, and economic planning more generally.<sup>32</sup> This formative experience authorized him to teach at the Portuguese Mint, occupy the mineralogy chair at Coimbra in 1801, and then go on to head the new mining intendency. These positions allowed José Bonifácio to organize a network of mining specialists with the help of the head secretary and later *chargé d'affaires* of the Portuguese embassy in Berlin, the philosopher Silvestre Pinheiro Ferreira, who sent master Prussian miner Wilhelm von Feldner and Göttingen-educated mining expert Wilhelm von Eschwege to serve under José Bonifácio's intendency.<sup>33</sup>

Years later, the details of José Bonifácio's efforts to revamp Portuguese mining came to light in *O Patriota*, a Rio-based monthly published from 1813 to 1814 whose board included Pinheiro Ferreira and the Bahian improver Domingos Borges de Barros, a founding honorary member of the Philadelphia Society for Promoting Agriculture. Run by likeminded reformers, the journal explored the possibilities of Portuguese prosperity in ways that rang of cameralist ideas, dealing often with Brazilian demography and geography, and reporting on peace negotiations with particular attention to Prussia, in part thanks to the firsthand knowledge of Pinheiro Ferreira.<sup>34</sup> In its pages, José Bonifácio revisited his implementation of cameralist-like cost-saving measures at the São Pedro da Cova mines near Porto from 1803 to 1809. These measures, he claimed, ensured the "happiness" and continued reproduction of populations involved in extractive activities. In the main, however, his improvements aimed to bolster fiscal revenues, at least in principle. Linking mining and populationism, José Bonifácio remarked that the former "nourishes and sustains numerous families" and could thus "people barren mountains and useless swamps, and fill them with towns, villages and cities over time." By organizing "mining companies as done in all

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Jombert, 1753); Le Febure [sic.], *Mineiro nivelador, ou hydrometra*, trans. by José Mariano da Conceição Velloso (Lisbon: Oficina de Rodrigues Galhardo, 1801).

32. Geognosy was an epochal science field closely related to mining due to its concern with describing and classifying the inorganic materials that composed the earth's crust. For longer discussions on José Bonifácio's trajectory, see Ana Rosa Cloetel da Silva, *Construção da nação e escravidão no pensamento de José Bonifácio, 1783-1823* (Campinas: Unicamp, 1999); Miriam Dolnikoff, *José Bonifácio: o patriarca vencido* (São Paulo: Companhia das Letras, 2012); Mary del Priore, *As vidas de José Bonifácio* (Rio de Janeiro: Estação Brasil, 2020).

33. BN, Manuscritos, I-32,26,7, nº 8, "Atestado do mestre mineiro do distrito Feldner de entrada nas minas reais de Portugal" (30 Jan. 1803), certified by José Bonifácio (23 Oct. 1806); Alex Varella, *Juro-lhe pela honra de bom vassalo e bom português: análise das memórias científicas de José Bonifácio de Andrada e Silva (1780-1819)* (São Paulo: Annablume, 2006), 159, 177–179.

34. *The Laws of the Philadelphia Society for Agriculture* (Philadelphia Society for Agriculture, 1819); "Silvestre Pinheiro Ferreira: memórias e cartas biographicas," *Anais da Biblioteca Nacional* 2 (1877): 247–314; Maria Renata da Cruz Duran, "Ecletismo e retórica na filosofia brasileira: de Silvestre Pinheiro Ferreira (1769-1846) ao frei Francisco do Monte Alverne (1784-1858)," *Almanack* 9 (Apr. 2015): 115–135; Maria B. Nizza da Silva, *Silvestre Pinheiro Ferreira: ideologia e teoria* (Lisbon: Sá da Costa, 1975).

of Germany, Hungary and the Kingdoms of the North,” mining could further “enrich the Public Treasury with the proceeds from Crown mines and duties on metals” and “taxes on the foodstuffs, clothing and implements needed by miners, a kind of consumption that will grow progressively with the population and its industry.” The resulting increase in the empire’s metal reserves would then allow for new investments in critical infrastructure, fisheries, and forestry.<sup>35</sup>

José Bonifácio also wrote on his efforts in forestry in a way that further confirmed his ties to cameralist referents and practices. Interestingly, despite similarities with Souza Coutinho’s 1808 plans for pine farms to supply the royal navy, José Bonifácio’s *Memória sobre a necessidade e utilidades do plantio de novos bosques em Portugal* (1815) did not allude to his late patron. Instead, it cited his “wise teacher and colleague,” Count Friedrich August Ludwig von Burgsdorff, a renown Prussian forester who had by then published the first volume of his authoritative two-volume *Forestry Handbook* and other practical tracts on forest science (*Forstwissenschaft*).<sup>36</sup> In his preface, José Bonifácio signaled his familiarity with Burgsdorff’s work as well as his friendship, which seemed deeper than his strictly professional relationships with his teacher Abraham Gottlob von Werner and Alexander von Humboldt, a contemporary of his at Freiberg. Indeed, only his closeness with Burgsdorff went so explicitly mentioned in his writing and so evidently guided his reforestation experiments in Portugal. Even though José Bonifácio’s pine plantations drowned under shifting dunes (except for one that reached adulthood in Leiria by 1806), he assimilated other of Burgsdorff’s ideas, including a timber tax and the need to taxonomize native wood species according to their uses. Ultimately, as with mining, José Bonifácio applied this knowledge to pine farms because—as a good cameralist—he saw them as pathways to population growth and believed that “Portugal could easily acquire a population

35. José Bonifácio de Andrada e Silva, “Mineralogia,” *O Patriota* n° 1, 2, 3 (July, Aug., Sept. 1813). On populationism, see Nicholas B. Miller, “Cameralism and the Politics of Populationism,” in *Cameralism and the Enlightenment*, 127–147.

36. *Beiträge zur Erweiterung der Forstwissenschaft durch bekanntmachung eines holz-taxations-instrumentes und dessen leichten vielfachen gebrauchs* (Berlin: 1780); *Versuch einer vollständigen Geschichte vorzüglicher Holzarten in systematischen Abhandlungen zur Erweiterung der Naturkunde und Forsthaushaltungs-Wissenschaft* 2 vols. (Berlin: Joaquim Pauli Buchhändler, 1783); *Anleitung zur sichern Erziehung und zweckmassigen Anpflanzung der einheimischen und fremden Holzarten welche in Deutschland und unter ähnlichen Klima im Freyen fortkommen* (Berlin: 1787); and the first volume of his two-volume *Forsthandbuch; Allgemeiner theoretisch-praktischer Lehrbegriff sämtlicher Försterwissenschaften* (Berlin: independently published, 1788). For more on José Bonifácio’s environmental concerns, see José Augusto Pádua, *Um sopra de destruição: pensamento político e crítica ambiental no Brasil escravista, 1786-1888* (Rio de Janeiro: Zahar, 2002). Pádua identifies José Bonifácio as a proto-environmentalist similar to the early natural resource managers examined by Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1996). However, Pádua attributes José Bonifácio’s practice to a generic “*cultura iluminista*,” which misses his cameralist principles focused on cost-saving rather than a budding environmentalism.

of over 6.5 million souls” with improved agricultural fields in the vicinity of these artificial forests.<sup>37</sup>

Even Anglophile contemporaries such as José da Silva Lisboa, future visconde de Cairu, shared in this cameralist-inspired orientation to see peopling as the quintessential complement to economic pursuits. Silva Lisboa, who after the Court’s arrival in Brazil rose in the empire’s ranks and sat on the Real Junta do Comércio, revered *The Wealth of Nations* to the point that, while serving as director of the Imprensa Régia in 1811, he commissioned its first Portuguese translation to his 18-year-old son. Notably, in 1814 he also commissioned a translation of the *Discours fondamental sur la population* by the Göttingen-trained Swiss economist Jean Herrenschwand. It is possible that Herrenschwand’s ideas about credit, commerce, and agricultural societies, shaped as they were by his cameralist education, and in particular his advocacy of a “system of relative agriculture” mixed with industrial arts, had previously informed Silva Lisboa’s proposals to jumpstart Brazilian manufactures in 1810. Moreover, Silva Lisboa’s championing of mixed agrarian–industrial economic regimes also aligned perfectly with Herrenschwand, and ultimately influenced royal support for a plan to import diary workers from Swiss cantons to establish the colony of Nova Friburgo in 1819.<sup>38</sup>

Yet, within José Bonifácio’s inner circle, cameralist-driven concerns over mines, forests, and peopling leapt beyond the page of such bibliophiles as Silva Lisboa. José Bonifácio’s youngest brother, Martim Francisco Ribeiro de Andrada led efforts to establish an iron foundry in the backlands of São Paulo. Having also studied at Coimbra and worked as a translator at the Arco do Cego, Martim Francisco came home in 1801 to serve as inspector of mines and forests, and as such took on the elusive century-old effort to build a forge at the foot of the ore-rich Araçoiaba Mountain, near Sorocaba. The project won Souza Coutinho’s support because it could bolster the domestic manufacture of weapons such as *espingardas* to support a defensive surge, and so he authorized transferring the

37. José Bonifácio de Andrada e Silva, *Memória sobre a necessidade e utilidades do plantio de novos bosques em Portugal, particularmente de pinhaes nos areas de beira-mar* (Lisbon: Typografia da Academia Real das Sciencias, 1815), 129, 133.

38. Antonio Penalves Rocha, ed. *José da Silva Lisboa, visconde de Cairu* (São Paulo: Editora 34, 2002), 7–50; Jean-Daniel Herrenschwand, *Discurso fundamental sobre a população. Economia política moderna*, trans. Luiz Prates de Almeida e Albuquerque (Rio de Janeiro: Imprensa Régia, 1814) [1786; reprinted in Paris in 1794]; José da Silva Lisboa, *Observações sobre a fraqueza da indústria, e estabelecimento de fábricas no Brasil* (Brasília: Senado Federal, 1999) [1810]. Included among cameralist authors, Herrenschwand wrote such works as *Discours sur la division des terres dans l’agriculture* (London: G.G.J. & J. Robinson & J. Debrett, 1788) (reprinted in London in 1790); *Abhandlung über den auswärtigen Handel der Europäischen Nationen* (Berlin: Petit und Schöne, 1790) (“Treatise on the Foreign Commerce of European Nations”); and *Ueber, die mittel, den öffentlichen Credit in einem Staate herzustellen, dessen Politische Oekonomie zerstört worden ist* (Amsterdam: Kunst-und-industrie-Comtoir, 1810) (“On the Means to Generate Public Credit in a State Whose Political Economy has been Destroyed”). For more, see Joseph J. Spengler, *French Predecessors of Malthus* (New York: Routledge, 2013), 290–296.

German metallurgists employed by José Bonifácio in Portugal, including Feldner, Eschwege, and Friedrich Varnhagen, a military engineer from Hesse.<sup>39</sup>

The new iron foundry of São João do Ipanema broke new ground with an innovative corporate form and imported specialized labor. According to future political heavyweight Nicolau Vergueiro, as a chartered corporation the foundry secured a significant participation from the Prince Regent himself.<sup>40</sup> However, lapses in the cameralist practice of close supervision by trained specialists led to an inauspicious start. The Portuguese minister in Stockholm received orders to contract personnel for the foundry but delegated the task to his local consul, who in turn passed it down to a debtor of his, a Swedish clerk in the local mining industry by the name of Karl-Gustaf Hedberg. Drowning in loans, Hedberg contracted several of his creditors and their kin to serve at the foundry and receive salaries directly from the Royal Treasury. By 1813, it was discovered that Hedberg had fraudulently charged the Luso-Brazilian government for his hiring expenses and underpaid his countrymen, who were also unqualified. On the heels of this human resources fiasco, the foundry recorded a loss equivalent to 19% of total production and only recovered thanks to Varnhagen's subsequent management. By 1821 it was fully operational with a workforce of genuine German molders and about 89 enslaved persons under their supervision.<sup>41</sup> Meanwhile, Eschwege had successfully raised another foundry in Minas Gerais, the Fábrica Patriótica, just west of Vila Rica (Ouro Preto), in lands belonging to Romualdo José Monteiro de Barros.<sup>42</sup> Even though this forge would terminate operations when Eschwege left for Portugal in 1822, the decade-long experiment bolstered the career and finances of a wealthy if non-educated man such as Monteiro de Barros, who went on to sit in the provincial council of Minas Gerais from 1825 until 1833 and eventually obtained a barony as the barão de Paraopeba. Taken together, these foundries laid bare the predicaments of stoking specialized industries in a cash-strapped kingdom with a largely agrarian economy. But they also illuminated how cameralist alumni could spur and spread

39. Martim Francisco Ribeiro de Andrada, "Diário de uma viagem mineralógica pela província de São Paulo em 1805," *RIHGB* 2, n° 9 (Oct.-Dec. 1847): 527-547. On Varnhagen, see Manoel Pinheiro Chagas, *Dicionário popular, histórico, geográfico, mitológico, biográfico, artístico, bibliográfico e literário*, vol. 13 (Lisbon: Typographia da Viuva Sousa Neves, 1884), 251. Eschwege trained in law at Göttingen, and later studied at the University of Marburg and the mining school at Clausthal. See Francisco Barbosa, *Dom João VI e a siderurgia no Brasil* (Rio de Janeiro: Biblioteca do Exército, 1958), 49-51, 56-57; Friedrich Toussaint, "Baron von Eschwege and his Bloomery Ironworks, Fábrica Patriótica," *Steel Times* 223, n° 12 (Dec. 1995): 482.

40. Vergueiro's original account was published in *Typographia Rollandiana* in Lisbon in 1822, and then again in "Sobre a fundação da Fábrica de Ferro de S. João do Ipanema, na Província de S. Paulo," in *Subsídios para a história do Ipanema*, ed. Frederico A. P. de Moraes, 1-150 (Lisbon: Imprensa Nacional, 1858).

41. João Pandiá Calógeras, *As minas do Brasil e sua legislação*, vol. 2 (Rio de Janeiro: Imprensa Nacional, 1905), 79-88. The enslaved persons working at the foundry were owned by the state—see Ilana Pelicari Rocha, *Escravos da nação: o público e o privado na escravidão brasileira, 1760-1876* (São Paulo: Edusp, 2018).

42. Wilhelm Ludwig von Eschwege, *Pluto Brasiliensis: memórias sobre as riquezas do Brasil em ouro, diamantes e outros minerais*, vol. 2, trans. Domício de Figueiredo Murta (São Paulo: Companhia Editora Nacional, 1944); Toussaint, "Baron von Eschwege."

prosperity for the few against significant odds after 1815 in the newly minted Brazilian Kingdom.

### IN LANGSDORFF'S WAKE

Besides José Bonifácio's network, a Göttingen-trained doctor who organized a colony in the outskirts of Rio in cameralist-like fashion left a lasting mark on the meanings and uses of directed migrations for fiscal purposes. In late December 1803 the Russian ship *Nadezhda* dropped anchor near Desterro (Santa Catarina). Aboard was Georg Heinrich von Langsdorff, a naturalist educated at Göttingen University who immediately perceived the setting as a potentially "inexhaustible source of the richest commerce" and "very thinly populated."<sup>43</sup> Langsdorff was part of the Russian circumnavigation mission of Ivan Kruzenshtern, an ambitious gamble sponsored by the recently created Russian-American Company, which was then transforming the fur trade from Alaska to northern California into a colonial settlement project.<sup>44</sup> By birth, Langsdorff hailed from the Rhineland-Palatinate, a region next to Hesse and Frankfurt that would see massive emigration after the Napoleonic wars. At Göttingen he not only attended Johann Blumenbach's lessons on natural history but also witnessed the consolidation of administrative disciplines related to "statistics." At the time, according to David Lindenfeld, Göttingen had become a "knowledge factory," the only place where "a student could be both exposed to the historical-statistical sciences of state, Beckmann's cameralism, and the new classical philology."<sup>45</sup> By the 1790s the university was also a magnet for nobles of smaller German states such as the one whom Langsdorff befriended and accompanied to Portugal in 1798 once he obtained his medical degree.

When his patron and travel companion died of a fatal edema, Langsdorff stayed in Portugal as a private physician at the behest of war minister Luís Pinto de Sousa Coutinho, who had lived in Brazil. As soon as he returned to German lands in 1803, he heard of the expedition headed by Kruzenshtern, who, as a Baltic German, did not find it a problem to hire Langsdorff for the mission.<sup>46</sup> After his first visit at Desterro, Langsdorff returned to Brazil only in 1813, accompanied by an assistant naturalist from Frankfurt, Georg Wilhelm Freyreiss. Langsdorff

43. Georg. H. von Langsdorff, *Voyages and Travels in Various Parts of the World, during the Years 1803, 1804, 1805, 1806, and 1807* (London: Henry Colburn, 1813), 51, 61. For details on Langsdorff, I also draw from José Juan Pérez Meléndez, *Peopling for Profit in Imperial Brazil: Directed Migrations and the Business of Nineteenth-Century Colonization* (New York: Cambridge University Press, 2024), 39–44, 48–51.

44. See Mary E. Wheeler, "The Origins of the Russian-American Company," *Jahrbücher für Geschichte Osteuropas* 14, n° 4 (Dec. 1966): 485–494.

45. Lindenfeld, *Practical Imagination*, 39–41; Wakefield, *Disordered Police State*, 68–80.

46. Langsdorff, *Voyages*, vii–xi. Baltic Germans were part of the Russian Imperial Navy elite due to their seafaring traditions and played a prominent role in Russian expansion to North America. See Alix O'Grady-Raeder, "The Baltic Connection in Russian America," *Jahrbücher für Geschichte Osteuropas* 42, n° 3 (1994): 321–339; Russell Bartley, "The Inception of Russo-Brazilian Relations (1808-1828)," *Hispanic American Historical Review* 56, n° 2 (May 1976): 217–240.

now came as Tsar Nicholas I's appointed consul to Brazil after extensive travels beyond the Russian-American Company headquarters in Sitka (Alaska) that included a visit to the Franciscan missions of northern California, and an overland trek from Siberia to St. Petersburg, where he parted to Rio.<sup>47</sup>

At the Luso-Brazilian Court, Langsdorff earned respect as the Russian ambassador and gained notoriety due to his pioneering inland river voyage from Porto Feliz, São Paulo, to Belém do Pará from 1824 to 1829. Less known is about how in the interim Langsdorff put in motion cameralist-like designs on his own plantation. Langsdorff acquired his *fazenda* Mandioca in 1816. Located on the northern end of Guanabara Bay and along the Inhomirim River in the present-day municipality of Magé, the *fazenda* was ideally situated at the foothills of the Serra da Estrela and very close to the Estrela port. Though a bit distant from the bustle of the court and Rio's harbor (which was up to 6 hours away on a windless day), Langsdorff's property was a thoroughfare for muleteers and travelers along the Caminho Novo, the main artery between Rio and Minas Gerais. Because Langsdorff was one of the first Germans to find sure footing in Rio, Mandioca became a meeting place for a German-speaking intelligentsia. Resident experts employed by the Crown such as Eschwege visited often, as did prominent sojourners such as Prince Maximilian Wied von Neuwied, another Göttingen alumnus who traveled around Brazil in from 1815 to 1817 in the company of Freyreiss, Langsdorff's erstwhile assistant. Mandioca also welcomed the members of the Vienna scientific expedition that accompanied Princess Leopoldina to her marriage with Pedro de Bragança in 1817. Thomas Ender, one of the illustrators in the mission, produced some of the few surviving images of the *fazenda* and its environs, including one of a "rancho," suggesting its role as a rest-stop up the sierra.<sup>48</sup> It may be that José Bonifácio also visited Mandioca upon returning to Brazil in 1819, and perhaps kept it in mind when in 1820 he urged Vilanova Portugal to settle specifically German craftsmen around gold mining endeavors in the Paraíba River Basin (Figure 1).<sup>49</sup>

47. Joshua Paddison, ed., *A World Transformed: Firsthand Accounts of California Before the Gold Rush* (Berkeley: Heyday Books, 1999), 95–134.

48. Maxmilian Wied-Neuwied, *Travels in Brazil in the Years 1815, 1816, 1817* (London: Henry Colburn & Co., 1820); Georg Wilhelm Freyreiss, *Beiträge näheren Kenntniß des Kaiserthums Brasilien nebst einer Schilderung der neuen Colonie Leopoldina und der wichtigsten Erwerbzweige für europäische Ansiedler, so wie auch einer Darstellung der Ursachen, wodurch mehrere Ansiedelungen mißglückten* (Frankfurt: Johann David Sauerländer, 1824); Ernst Ebel, *Rio de Janeiro und seine Umgebungen im Jahr 1824. In briefen eines Rijaer's* (St. Petersburg: Kayserlichen Akademie der Wissenschaften, 1828). Members of the Austrian expedition included Johann Spix, Carl von Martius, Johann Natterer, Johann Emmanuel Pohl, and Thomas Ender, among other prominent naturalists and artists from Munich and Prague. See Maria de Lourdes Viana Lyra, "União dinástica e relações científico-culturais," *RIHGB* 180 (Jan.-Apr. 2019): 89–100.

49. IHGB, Coleção José Bonifácio, lata 175, pasta 62, José Bonifácio de Andrada e Silva to Tomás António de Vilanova Portugal (18 May 1820).

FIGURE 1

Thomas Ender, “Ranch on the Way to Fazenda Mandioca” (1817). Image courtesy of The Graphic Collection of the Academy of Fine Arts Vienna.



Following the arrival of Swiss *colonos* (migrant settlers) destined for the new royally sponsored colony of Nova Friburgo, in 1820 Langsdorff embarked to Europe driven by a hallmark improvement scheme for Mandioca. Recruiting his own *colonos* would allow him to showcase the best agricultural techniques from Europe while turning Mandioca into a model—and lucrative—establishment. Landing first in Paris, he published a “guide for emigrants” that circulated widely and quickly, appearing in an updated footnoted edition of Abbé Raynal’s *Histoire des deux Indes* that very year. Langsdorff followed up with an expanded German edition in Heidelberg, probably with the help of the Prussian consul in Rio, who had graduated from Heidelberg University, another center of cameralist training. Langsdorff claimed that his goal “was not to hire colonists, nor to encourage European migrations to Brazil, but simply to bring the incontestable facts of a little-known country to those who may be interested.” And yet, he went on to print a government decree in full that, as a kind of emigration agit-prop, defined rules for the admission of *colonos*, listed the favors they would receive, and clarified what travel costs fell upon them. Langsdorff reprinted the decree in his German version, adding its author, Minister Vilanova Portugal, as well as a section with “Special Thoughts” for those who wished to settle in Brazil with the help of an *Unternehmer* (contractor). Crucially, he recommended a contractor of

his own named H.G. Schmidt. Langsdorff victoriously returned to Rio with at least a hundred German-speaking *colonos* in tow.<sup>50</sup>

In cameralist-like fashion, Langsdorff taxed *colonos*' activities. At Mandioca, he required his hires to pay 10% of their harvests starting 2 years after arrival, plus an extra 10% government impost legally set to begin after a decade of residency but applied by Langsdorff with the excuse that the funds would help him cover property and transport expenses. Millers using Mandioca's waterways were subject to an additional 10% levy. In exchange, *colonos* would benefit from land, work tools and lumber, food rations, usufruct from communal plots, and a few beasts of burden. Coming at a considerable private expense, these conditions were somewhat onerous but somewhat promising for *colonos*—if only Langsdorff had personally followed through with them. Instead, in 1824 he left for his pioneering journey up to the Amazon, leaving no guidelines for his manager, a Bavarian agronomist named Friedrich von Weech, for keeping Mandioca up and running.

Yet, Langsdorff's *colono* recruitment activities had wider political resonances when the Lisbon *Cortes* met in 1821 and Portuguese liberals expressed their intention to "recolonize" Brazil.<sup>51</sup> Opposing Brazil's reversion to a colonial status, Brazilian representatives, including José Bonifácio, crafted their own colonization proposals. While not mentioning Langsdorff's experiment, he suggested substituting *sesmarias* (royal land grants) with land sales, the revenue of which would pay for a very diverse kind of colonization including "poor Europeans, Indians, mulattos and free blacks." In a memoir of 1821, he added that, besides civilizing "wild Indians" and "improving the luck of slaves," colonization could also facilitate establishing a new "seat" for the Court in interior Brazil, where rivers and roads would connect the Brazilian capital to port cities, and where forest preservation and land surveying would give rise to other "Cities and Settlements."<sup>52</sup> These ideas belied José Bonifácio's cameralist veer as

50. Georg H. von Langsdorff, *Mémoire sur le Brésil, pour servir de guide à ceux qui désirent s'y établir* (Paris: L'imprimerie de Denugon, 1820), *Bemerkungen über Brasilien: mit gewissenhafter Belehrung für auswandernde Deutsche* (Heidelberg: Karl Groos, 1821); Jacques Peuchet, *État des colonies et du commerce des européens dans les deux Indes, depuis 1783 jusqu'en 1821, par faire suivre à l'Histoire philosophique et politique des établissements et du commerce des européens dans les deux Indes*, vol. 1 (Paris: Amable Costes et Cie., 1821), 152, 159; Débora Bendocchi Alves, "Langsdorff e a imigração," *Revista do Instituto de Estudos Brasileiros* n° 35 (1993): 167–178; Guenrikh Manizer, *A expedição do acadêmico G.I. Langsdorff ao Brasil, 1821-1828* (São Paulo: Companhia Editora Nacional, 1967). Sources vary, citing between 80 and 103 *colonos*, and at times referring to 102 heads of households, which excludes accompanying women and children. See Joseph Friedrich von Weech, *Brasilien gegenwärtiger Zustand und Colonialsystem, besonders in Bezug auf Landbau und Handel, zunächst für Auswanderer* (Hamburg: Hoffman und Campe, 1828), 225–227.

51. Gladys Sabina Ribeiro, "A construção da liberdade e de uma identidade nacional. Corte do Rio de Janeiro, fins do XVIII e início do XIX," in *História e cidadania*, ed. Ismênia Martins et al., 487–503 (São Paulo: Humanitas, 1998); Antonio Penalves Rocha, *A recolonização do Brasil pelas Cortes* (São Paulo: Editora Unesp, 2009).

52. José Bonifácio, *Lembranças e apontamentos do governo provisório da província de São Paulo para os seus deputados* (Rio de Janeiro: Typographia Nacional, 1821).

much as his deep identification with German lands, which he described as a *pátria* in an intimate letter to a friend.<sup>53</sup>

Bahian improver Domingo Borges de Barros, who had edited *O Patriota* with Pinheiro Ferreira and José Bonifácio, gave life to an even stronger proposal linked to German ideas thanks to Langsdorff's contractor H.G. Schmidt. By 1822, Schmidt figured among Foreign Affairs staff as a loosely defined but well-paid "encarregado de certas diligencias" at the Lisbon Courts.<sup>54</sup> As Pedro de Bragança prepared to proclaim Brazil free from Portugal, Schmidt forwarded a *memória* to the Courts presenting a comprehensive series of measures to sustain settler migration to Brazil in greater volumes than to Russia or the United States.<sup>55</sup> On the basis of his residency in Holland, the United States, Germany, and Brazil, Schmidt recommended speedier embarkations to cut mortality rates, and *juntas* (provincial colonization boards) organized by elections and funded by a tax of one-sixth the harvest of settled *colonos* from their fourth year of residence. Besides coordinating maritime and land transports, distributing lands and supplies, and administering citizenship requests, *juntas* would keep a *colono* recruiter in the German territories, possibly himself. This was as systematic a peopling proposal as had been articulated for Brazil to that date.

So complete and thorough was Schmidt's plan that *Cortes* delegate Borges de Barros in fact copied and slightly adapted many of these ideas in his own proposal to fellow deputies, which envisioned a centralized, five-member Junta de Colonização with provincial *caixas* (treasuries) spread across Brazil to support private migration and settlement drives.<sup>56</sup> Reputedly, Schmidt's suggestions "found no echo in Portugal and Brazil," as one French newspaper reported more than half a century later. And according to one historian, Borges de Barros's project remained a "plan for the future" due to its impracticality. Yet, in truth, both delineated a foundational framework for the orchestrated peopling of Brazil as blueprints for the first land law project advanced by a special commission in 1827, which stipulated an almost exact colonization bureaucracy to oversee the entire span of the Brazilian Empire.<sup>57</sup>

53. IHGB, lata 192, pasta 52, doc. 2, "Notas sobre administração e agricultura" (undated).

54. *Gazeta Universal* (Lisbon) n° 44 (24 Feb. 1823).

55. AN, Diversos, Códice 807, Vol. 11, ff. 95–106.

56. 18 March Session, *Diários das Cortes Gerais, Extraordinárias, e Constituintes da Nação Portuguesa*, vol. 5 (Lisbon: Imprensa Nacional, 1822), 538–542.

57. *Economiste français* 1, n° 24 (16 June 1888): 746; Márcia Motta, *Direito à terra no Brasil: a gestação do conflito, 1795-1824* (São Paulo: Alameda, 2009), 221-227; BN, Manuscritos-I-32,09,019.

## CAMERALIST IMPRINTS IN POST-INDEPENDENCE BRAZIL

From 1808 to 1821, the mining and peopling endeavors led by José Bonifácio, Langsdorff, and others moored the Bragança Crown to a novel, cameralist-inspired vision of prosperity. These individuals' cameralist training materialized in plans to overhaul mining works and metallurgical production as well as in ambitious initiatives to people plantations with European craftsmen from whom they could exact tributes. Surely, slavery continued to grow and remained a fiscal bedrock for the Luso-Brazilian state in Rio, which depended on the credit furnished by slave traders.<sup>58</sup> Nor was slavery ever far from schemes involving German know-how or individuals. Enslaved persons, often *escravos da nação* (government-owned enslaved persons), manned the new foundries headed by Varnhagen and Eschwege, and the Prussians and Saxons settling in southern Bahia around 1816 also rapidly took to slaveholding to prop up their new plantations.<sup>59</sup>

However, cameralist-like calculations also led Brazilians to begin considering alternate modes of labor organization as they assayed the negative externalities and inefficiencies of slavery and began to imagine alternative futures for Brazil. Silva Lisboa, for instance, went on to argue that slavery was the least cost-efficient of labor options vis à vis directed migrations of trained European workers. José Bonifácio in turn chastised slavery in an address he failed to deliver at the Constitutional Assembly of 1823 but published anyway 2 years later. In it, he invoked metallurgical metaphors to speak of what he saw as the need to “amalgamate” a “nation” into a “homogenous and compact whole” within a few generations. Moreover, he couched his call for a society made of smallholders with an extensive footnote on the need to preserve “virgin forests” for multiple reasons, once again echoing precepts of Burgsdorff’s forest science. Whereas French references (to Say, for instance) dominated this tract published during José Bonifácio’s exile in Bordeaux, cameralist-like knowledge more substantively informed the fiscal calculations and scientific values that transposed slavery to alternative paths for securing Brazilian prosperity (Figure 2).<sup>60</sup>

58. On this point, see João Fragoso, *Homens de grossa aventura: acumulação e hierarquia na praça mercantil do Rio de Janeiro (1790-1830)* (Rio de Janeiro: Arquivo Nacional, 1992), and, more briefly, Malerba, *Brasil em projetos*.

59. On escravos da nação, see Ilana Pelicari Rocha, *Escravos da nação: o público e o privado na escravidão brasileira, 1760-1876* (São Paulo: Edusp, 2018).

60. José Bonifácio de Andrada e Silva, *Representação à Assembléa Geral Constituinte e Legislativa do Império do Brasil sobre a escravatura* (Rio de Janeiro: J.E.S. Cabral, 1840).

FIGURE 2

Jean-Frédéric Bosset de Luze, “Fazenda Pombal, Colonia Leopoldina, Bahia.”  
Image courtesy of the Pinacoteca de São Paulo.



After Brazilian independence in 1822, such calculations turned to the service of a new, self-sustaining empire. If up to 1821 the influence of the cameral sciences bore out on wartime capacity-building and innovative proposals for organizing plantations, the same influence informed personal trajectories in post-independence Brazil. Certainly, the luminaries who had trained at Freiberg or Göttingen left a trail of mixed successes that nonetheless revealed key aspects of their cameralist heritage. Langsdorff’s *Mandioca* continued to function as a meeting place for Germans, according to the pleasant descriptions of Ernst Ebel, a Baltic German from Riga who visited in 1824. However, by 1826 the *fazenda* had fallen into disrepair, as stated by the German caretaker left behind by Langsdorff.<sup>61</sup> *Mandioca* then became government property and folded into the terrains of the Fábrica de Pólvora da Estrela, a new gunpowder factory set up in 1831, next to the Estrela road works, which also employed German *colonos* as would the royal colony of Petrópolis built from 1845. For his part, José Bonifácio returned to Brazil from his exile in 1829, stationing himself on the island of Paquetá, less than a stone’s throw away from Port Estrela, and for a time he tutored the young emperor-to-be, Pedro de Alcântara. After José Bonifácio’s death in 1838, his library was donated to the Public Library and to the National Museum. With a “particularly extensive [...] collection on chemistry and on

61. Ernst Ebel, *Rio de Janeiro und seine Umgebungen im Jahr 1824. In briefen eines Rigaer’s* (St. Petersburg: Kayserslichen Akademie der Wiffenschaften, 1828); Weech, *Brasiliens gegenwärtiger Zustand*, 225–227; Renata Menasche, “O guia de Friedrich von Weech: impressões de um imigrante alemão no Brasil do século XIX,” *Estudos Sociedade e Agricultura* 5 (Nov. 1995): 132–140; Luiz Barros Montez, “Um relato sobre o Brasil na constituição do gosto pela leitura na Alemanha oitocentista: memórias de Joseph Friedrich von Weech no Rio de Janeiro (1823-1827),” *Caderno de Letras* n° 29 (July-Dec. 2017): 171–191.

mining [...] rich in Swedish and German authors,” José Bonifácio’s library informed new generations of Brazilians interested in montanistic disciplines, mining, and, by association, also the cameral sciences. At the National Museum, these younger pupils of the natural sciences could also benefit from the collections available at the mineralogy department, which a US Methodist pastor described as “well arranged” but dominated by “many more foreign than native specimens” due to the samples that José Bonifácio brought from Europe.<sup>62</sup>

To be sure, many other Brazilian statesmen engaged with cameralist practices or texts after 1822 without José Bonifácio’s intermediation. In 1823, botanist Baltazar da Silva Lisboa (brother of José da Silva Lisboa) published a treatise on tropical woods organized by their uses. Baltazar, who Souza Coutinho had appointed forest conservator in Bahia, listed trees offering a luscious palette of pigments and inventoried species apt for naval construction as if conforming to Burgsdorff’s teachings.<sup>63</sup> Similarly, Brazilian statesmen continued to cite Baron von Bielfeld, part of whose work was translated to Portuguese in 1823. The great lawyer and jurisconsult Antonio Pereira Rebouças, for instance, invoked Bielfeld in the parliamentary debates of 1830 next to Beccaria and Diderot, as did the Pernambucan *deputado* and constitutional assembly veteran Francisco Muniz Tavares in 1845. Other politicians expanded the field of cameralist referents, as when in 1847 conservative deputy José Pereira da Silva cited the work of Halle University alumnus and Göttingen law professor Johann Stephan Pütter in his biographical compendium of prominent Brazilians, specifically in his entry on José da Silva Lisboa.<sup>64</sup>

Cameralist influence ran deeper among the few Brazilians who attended German universities and who later obtained prominent government positions in line with the professional opportunism among cameralists described by historian Andre Wakefield. Sebastião de Rego Barros, for instance, was the scion of a powerful Pernambucan family who received his math degree from Göttingen in 1826. A decade later, he became the Brazilian Minister of War and later still led the effort to recruit German veterans of the Schleswig-Holstein War to man Brazilian forces in the war against Juan Manuel de Rosas (1850–1).<sup>65</sup> Similarly, Guilherme Schüch Capanema—the son of an Austrian naturalist and metallurgist by the

62. Graham, *Journal of a Voyage*, 303; Daniel Parrish Kidder, *Sketches of Residence and Travels in Brazil* (Philadelphia: Sorin & Ball, 1845), vol. 1, 109–110.

63. Baltazar da Silva Lisboa, *Riqueza do Brasil em madeiras de construção e carpintaria* (Rio de Janeiro: Typographia Nacional, 1823).

64. On the Bielfeld translation, see Cardoso and Cunha, “Enlightened Reforms.” *Anais da Câmara dos Deputados*, 15 Sept. session, vol. 2 (1830), 516; 31 March session, vol. 2 (1845), 364; José Pereira da Silva, *Plutarco brasileiro*, vol. 2 (Rio de Janeiro: Eduardo e Henrique Laemmert, 1847), 206.

65. Daniel Parrish Kidder and James Cooley Fletcher, *Brazil and the Brazilians* (Philadelphia: Childs & Peterson, 1857), 409–410; Joaquim Manuel de Macedo, *Brazilian Biographical Annual*, vol. 2 (Rio de Janeiro: Typographia e Lithographia do Imperial Instituto Artístico, 1876), 485–488.

name of Rochus Schüch who served as Leopoldina's librarian from 1817 and eventually became young Prince Pedro's German tutor—went on to study at the Polytechnic Institute in Vienna and then at the Freiberg Bergakademie between 1842 and 1847. Barely 2 years Pedro's senior and a very close friend of the future emperor, Capanema's education demonstrated how sites of cameralist knowledge still attracted Brazilian elites half a century after José Bonifácio attended them.<sup>66</sup>

Brazilians educated in German institutions with historical links to the cameral sciences did not fit the model of the *bacharel*, the law student educated at Coimbra and then in Brazil once the first universities were established in 1828, nor even of the mathematicians, medics, or engineers who pursued advanced degrees in Paris or Montpellier.<sup>67</sup> Yet, these unorthodox Brazilian students attended places such as Göttingen at a crucial juncture in the transformation of properly cameralistic disciplines of Finance, Economy, and Police to an expansive series of "sciences of the state" that increasingly divorced themselves from the natural sciences and tended toward the study of law, offering them an entryway to connect with the institutional and political culture of *bacharéis*.<sup>68</sup> The members of another Pernambucan dynasty related to Rego Barros are a case in point. Pedro Francisco and Manoel Francisco de Paula Cavalcanti de Albuquerque received their degrees in law at Göttingen in the mid-1820s (despite their stated difficulties with German).<sup>69</sup> Upon his return to Brazil, Pedro Francisco took a professorship in the newly created Brazilian law school at Olinda. Notably, his first cohort of students included future liberals technocrats and reformers such as Bernardo de Souza Franco, João Lins Vieira Cansação de Sinimbú, and Nabuco de Araújo. In accordance with the didactic nature of the cameral sciences, Pedro Francisco handed down the knowledge acquired in Göttingen to a rising generation of politicians who later championed a unique kind of northeastern reformism that preceded the US-oriented outlook of the Paulista coffee elites at the tail end of the century.<sup>70</sup>

66. *Österreichisches Biographisches Lexikon*, vol. 11 (Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 1999), 285.

67. See Sérgio Adorno, *Os aprendizes do poder: o bacharelismo liberal na política brasileira* (Rio de Janeiro: Paz e Terra, 1988); Andrew Kirkendall, *Class Mates: Male Student Culture and the Making of a Political Class in Nineteenth-Century Brazil* (Lincoln: University of Nebraska Press, 2002).

68. Lindenfeld, *The Practical Imagination*, 89–141; Richard Devetak, "Historiographical Foundations of Modern International Thought: Histories of the European States-System from Florence to Göttingen," *History of European Ideas* 41, n° 1 (2015): 62–77.

69. Another sibling, Francisco de Paula de Holanda Cavalcanti de Albuquerque, was a renown liberal deputy and later senator who often worked very closely with the brothers of José Bonifácio. For more on the family's role in Pernambuco, see Paulo Henrique Fontes Cadena, "Ou há de ser Cavalcanti, ou há de ser cavalgado: trajetórias políticas dos Cavalcanti de Albuquerque (Pernambuco, 1801-1844)," (MA thesis, Universidade Federal de Pernambuco, 2012).

70. Clóvis Beviláquia, *História da faculdade de direito do Recife* (Recife: Editora Universitária UFPE, 2012), 47–48. Among the modernizing projects proposed by these students figured Souza Franco's proposals for a head tax on slaves employed in mining, Nabuco de Araújo's plans for prison reform in the 1860s, and Sinimbú's vision for establishing central mills in sugar-producing regions in the 1870s. On the São Paulo-US orientation of later

Indeed, in light of these connections, cameralist-like ideas related to the “sciences of the state” circulating among northeastern Brazilian elites call for deeper inquiry. Eusébio de Queirós, who sanctioned the definitive slave trade ban of 1850, was an Olinda graduate, which begs a closer consideration of his background and training. And even beyond Olinda, for a brief time the Brazilian northeast became a hub of emergent institutional settings for the dissemination of cameralist-like improvement philosophies. Significantly, Ferreira da Câmara, who trained in Freiberg with José Bonifácio, became president of the Sociedade de Agricultura, Comércio e Indústria da Bahia, an improvement association established in 1832. And his mere presence had important ripple effects among his closest interlocutors. The vice-president of the Sociedade, Miguel Calmon du Pin e Almeida, began launching colonization projects to populate the Brazilian Empire and deal with feared labor shortages in 1835, and by 1854 became president of the new Sociedade Estatística do Brasil, which promoted historical statistics as a discipline in the service of the state in line with cameralist tradition.<sup>71</sup>

The trajectories of Göttingen or Freiberg graduates facilitated even larger processes critical for Brazilian independence. Eschwege’s mining boosterism, for instance, did not precede as much as incite financial negotiations on Brazil’s first sovereign loan while inspiring new British prospecting endeavors in the new South American country. After leaving Rio, Eschwege acted as a good cameralist propagandist by seeking José Bonifácio’s continued patronage. In an 1822 letter to his old colleague, who was then at the helm of a movement for Brazilian independence, Eschwege detailed his return trip to his German homeland by way of Lisbon, London, and Paris. Along the way, he authored several *memórias* on the future of Brazilian mines.<sup>72</sup> Eschwege’s writing laid the literal groundwork for foreign parties interested in renewing Brazilian mining. In 1822, he began to point out the detailed location and nature of different deposits. In an 1825 *memória* published by the Academia Real das Ciências de Lisboa, Eschwege made a dramatic appeal to train administrators in montanistic sciences and to authorize mining companies across Minas Gerais.<sup>73</sup> Together with his prior surveys, this piece informed a map completed by a provincial *mineiro* official that became the most minute cartographic rendering of the province by including

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modernization efforts, see Roberto Saba, *American Mirror: The United States and Brazil in the Age of Emancipation* (Princeton: Princeton University Press, 2021).

71. Nilton de Almeida Araújo, “Pionerismo e hegemonia: a construção da agronomia como campo científico na Bahia (1832-1911)” (PhD diss., Universidade Federal Fluminense, 2010); Miguel Calmon du Pin e Almeida, *Memória sobre o estabelecimento d’uma companhia de colonização nesta província* (Bahia: Typographia do Diário de G. J. Bizerra e Companhia, 1835); Nelson Senra, *História da estatísticas brasileiras*, vol. 1: Estatísticas desejadas (1822-c.1889) (Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 2006); Lindenfeld, *The Practical Imagination*, 193–197.

72. BN, Manuscritos-1277774, Eschwege to José Bonifácio (1 June 1822).

73. Wilhelm von Eschwege, “Notícias e reflexões estadísticas a respeito da província de Minas Geraes,” *Memórias da Academia Real das Ciências de Lisboa IX* (1825): 1–27.

topographic measurements, population estimates, district boundaries, river courses, and the location of cities, towns, indigenous villages, and plantations. Eschwege's work, then, made a vast, historical mining region geographically intelligible to Brazilians and foreigners alike precisely as he characterized it as ripe for further exploitation. Later, in an 1827 tract, he explicitly referred to the diamond deposits awaiting exploration across the province and carried on with a similar boosterism in his well-known *Pluto brasiliensis* (1833).<sup>74</sup>

Such enthusiasm gave impetus to the Brazilian search for sources of sovereign finance that began in 1823. Indeed, mining speculations greased the tracks of loan negotiations, particularly when Latin American polities—except Brazil—defaulted on their debts following the 1825 bubble crisis.<sup>75</sup> Interestingly, characters not trained in cameralist institutions, but who were close to those who had, played an important role in munificent financial and mining deals during these years. For instance, the finance minister who oversaw loan negotiations was none other than Manuel Nogueira da Gama, the Arco do Cego translator and assistant to José Bonifácio during his years in Portugal. And almost as quickly as negotiations began, the Brazilian government started to hand out mining privileges. One of the initial beneficiaries, Edward Oxenford, later attempted to insinuate himself as a middleman between the Brazilian ministers and British private bankers and ran afoul of Brazilian politicians.<sup>76</sup> Others proved more savvy and relied on more seasoned acquaintance with mining techniques: Rochus Schüch, by then directing the collections at the National Museum, obtained mining privileges and later sold them to the British-owned St. John d'El Rei Company, whose operations lasted for nearly 125 years.<sup>77</sup>

The frenzied momentum of these speculations became evident as early as 1825, when Brazilian statesmen themselves started articulating administrative logics to better manage these new enterprises. The Empire minister warned of abuses as the concessionaries of special mining privileges began selling them forward. Two

74. Eschwege went as far as noting that Câmara himself seemed unconcerned with diamond deposits, believing that they no longer existed. *Brasilien die Neue Welt in topographischer, geognostischer, bergmännischer, natur-historischer, politischer und statistischer Hinsicht während eines elfjährigen Ausenthaltes von 1810 bis 1821* (Braunschweig: Friederich Vieweg, 1827), 149–150; *Pluto Brasiliensis: Eine Reihe von Abhandlungen über Brasiliens Gold-, Diamanten- und anderen mineralischen Reichthum, über die Geschichte seiner Entdeckung über das Vorkommen seiner Lagerstätten, des Betriebs, der Ausbeute und die darauf bezügliche Gesetzgebung u.s.w.* (Berlin: Reimer, 1833). On later maps with increasing geological detail by similarly trained engineers in Eschwege's wake, see Tomás Bartoletti, "Global Territorialization and Mining Frontiers in Nineteenth-Century Brazil: Capitalist Anxieties and the Circulation of Knowledge between British and Habsburgian Imperial Spaces, ca. 1820-1850," *Comparative Studies in Society and History* 65, n° 1 (2023): 81–114.

75. On Brazil's capacity to avoid defaulting, see William Summerhill, *Inglorious Revolution: Political Institutions, Sovereign Debt, and Financial Underdevelopment in Imperial Brazil* (New Haven: Yale University Press, 2015).

76. Edward Oxenford, *Resposta á defeza dos negociadores do empréstimo brasileiro, contra as invectivas do parecer da Comissão da Câmara dos Deputados*, dated Sept. 11, and *Illustríssimo e Excellentíssimo Senhor, visconde de Barbacena* (Rio de Janeiro: Typographia Imperial de Plancher, 1826).

77. Marshall C. Eakin, *British Enterprise in Brazil: The St. John d'el Rey Mining Company and the Morro Velho Gold Mine, 1830-1960* (Durham: Duke University Press, 1989).

years later, another Brazilian statesman who had studied at Coimbra and served as deputy at the Lisbon Courts echoed Eschwege's calls for reviving old fiscal oversight tools by reactivating the *quinto do ouro*, the royal one-fifth tax on mining production in colonial times, which showed how far the ideas of a cameralist-trained officer had influenced Brazilian elites' thinking about possible government proceeds. While some politicians extolled mining companies' tendency to pay for themselves "at no cost to the Public Treasury," this particular statesman saw the need to govern over—and exact fiscal revenues from—a growing but still unbridled industry.<sup>78</sup> By 1836, seven British mining companies had launched operations in Minas Gerais. And as a further testament of the continued role of cameralist mining sciences in Brazil, some continued to rely on individuals trained in institutions with cameralist backgrounds. The Imperial Brazilian Mining Association, for example, hired mining engineer Virgil von Helmreichen, who, having trained in the Schemnitz Mining Academy, prospected Brazilian regions and disseminated mineralogical knowledge about Brazil's subterranean riches. Cameralist-informed mining knowledge and profits thus continued to reciprocate one another, with notable yields into the 1860s, when another 13 mining companies were established.<sup>79</sup>

Peopling policies underwent an even more drastic transformation in style and substance under the sign of cameralist influence in Brazil. Population had long been a central concern of various Enlightened traditions among Brazilian intellectuals. But a paradigm shift in their own conception of those traditions and their uses became noticeable precisely in the 1810s and early 1820s at the hand of cameralist disseminators in Brazil. In terms of style, this shift materialized momentarily in the writings of José Bonifácio and his brother Martim Francisco right before Brazilian independence. In 1819 or 1820, following his early mentor Domingos Vandelli, the former posited the need for a sound "political arithmetic." Yet, his definition was not exactly the same as the proto-statistical doctrine developed by John Graunt and William Petty over the second half of the seventeenth century in England, which posited "sound knowledge" as the basis for adequate policymaking. Rather, to obtain his definition of "political arithmetic" as an "art of reasoning" concerned with, in this order, "population, subsidies, finances, and armed forces," José Bonifácio cited Bielfeld, the Prussian

78. Decree (12 Aug. 1825), in *Collecção de decretos, cartas imperiais e alvarás do Império do Brazil de 1825* (Rio de Janeiro: Imprensa Nacional, 1885), 78–79; José Bernardino Baptista Pereira's speech in 18 July session, *Diário da Câmara dos Deputados* n° 55 (1826): 895–897; José Antônio da Silva Maia, *Memória da origem, progressos, e decadência do quinto do ouro na província de Minas Geraes* (Rio de Janeiro: Typographia Imperial e Nacional, 1827).

79. Fábio Carlos da Silva, *Barões do ouro e aventureiros britânicos no Brasil* (São Paulo: Edusp, 2012), 34–39. On the significance of Helmreichen, see Bartoletti, "Global Territorialization."

cameralist so in vogue over the latter half of the eighteenth century.<sup>80</sup> In cameralist fashion, then, José Bonifácio pivoted toward an application of “political arithmetical” demographic measurements that evoked a cameralist-like population management. As political tensions arose in the Lisbon Courts between 1821 and 1822, a *memória* attributed to Martim Francisco went even further by casting aside the political arithmetic that had guided old-regime peopling initiatives. His text championed statistics rather than political arithmetic because the former “drew consequences” from its calculations. Yet, similar to José Bonifácio’s text, Martim Francisco’s aligned not only with cameralists’ conception of *Peuplierung* (peopling) as a quintessential governmental concern but also with their view of population increase as a precondition for the growth of revenues and thus of “happiness” in general. Moreover, Martim Francisco’s position ran parallel to that of European monarchs who had embraced populationism, such as Catherine II. Asserting that the first works on statistics came from Germany, Martim Francisco listed means for promoting population that repeated almost verbatim those listed in Bielfeld’s *Institutions politiques*. He then offered model “tables” for the collection of information on geographic features of a territory, but also of its population, among which the category of “*novos colonos*” (new settlers or migrant settlers) epitomized a rising interest in colonization as a populationist policy tool.<sup>81</sup>

Substantively, peopling underwent an even more drastic transformation. A number of Göttingen-educated individuals and their numerous collaborators came to Brazil over the span of a few decades and harnessed old-regime peopling initiatives toward a profit-oriented form of colonization. Besides the notorious case of the royally sponsored colony of Nova Friburgo, the origin point of these networks overlapping across time was Langsdorff, whose Mandioca venture served as an early precedent for private colonization schemes. More important, however, was Langsdorff’s relationship with Anton von Schäffer, a Göttingen alumnus from Bavaria who stopped in Brazil in 1813 on his way to the Pacific as an employee of the Russian-American Company, very much as Langsdorff had. Langsdorff received Schäffer and introduced him at the Court, including to Princess Leopoldina, with whom Schäffer struck up a friendship on his return voyage in 1818.<sup>82</sup> Under Leopoldina’s patronage, Schäffer obtained a royal land

80. José Bonifácio de Andrada e Silva, “Notas sobre a ‘aritmética política’ ou ‘estatística,’” *Revista Brasileira de Estatística* 7, n° 25 (Jan.–March 1946): 119–121; Peter Buck, “People Who Counted: Political Arithmetic in the Eighteenth Century,” *Isis* 73, n° 1 (March 1982): 28–45.

81. Martim Francisco Ribeiro de Andrada, “Memória sobre a estatística ou análise dos verdadeiros princípios desta ciência e sua aplicação à riqueza, artes e poder do Brasil,” (1822) in Alex Gonçalves Varela, “Um manuscrito inédito do naturalista e político Martim Francisco Ribeiro de Andrada,” *História, Ciências, Saúde—Manguinhos* 14, n° 3 (July–Sept. 2007): 973–990. For historical background on peopling as policy, see Pérez Meléndez, *Peopling for Profit*, 1–26.

82. Pérez Meléndez, *Peopling for Profit*, 42–43. For an in-depth study of Schäffer’s trajectory and its implications for Brazilian state-building, see Miquéias Henrique Mtigge, “Building an Empire in the Age of Revolutions: Independence and Immigration in the Brazilian Borderlands,” *Topoi* 23, n° 51 (Sept.–Dec. 2022): 870–896. On Schäffer’s exchanges with

grant in southern Bahia, where he brought some 40-odd *colonos* from Saxony. His colony, Frankental, was in the vicinity of Leopoldina, an even larger pursuit organized by Langsdorff's travel mate Georg Freyreiss in collaboration with a group of rag-tag merchants from Hamburg and Neuchâtel, which as a Prussian-controlled principality until 1814, existed in the orbit of cameralist influences. Indeed, it was the president of Neuchâtel's Chamber of Forests and Game, an institution with strong cameralist undertones, who painted the landscape portrait of one of the plantations in the Leopoldina colony, the aptly named Fazenda Pombal. The image is a panegyric to systematic improvements leaving no room for waste. Incipient coffee groves are flanked by fallen trees from the thick Atlantic Forest, signaling that land clearing gave new settlers' their first commodity in manufactured potash (potassium carbonate), a rich but short-lived fertilizer obtained from burnt lumber. In the following decades, Leopoldina grew on the back of enslaved Africans rather than *colonos*, and its lumber trade carried on. Fittingly, the most thorough assessment of Leopoldina's development up to 1858 was completed by a former resident of the colony, Carl Tölsner, when he graduated from Göttingen.<sup>83</sup>

With Brazilian independence, Princess Leopoldina recommended Schäffer to Pedro I and his counselors. As a result, in 1823 José Bonifácio tasked him with recruiting soldiers for the Brazilian emperor in German lands. Here, the Göttingen-trained doctor effected his most important contribution by building a web of collaborators that quickly grew and continued to bolster Brazilian peopling for decades. Most immediately, Schäffer found support in Prince Adolphus, Duke of Cambridge, and in learned circles such as the Société Royale de Sciences de Paris, taking advantage of such access to publish a tract in 1824 publicizing Brazil as a land of opportunity worth emigrating to.<sup>84</sup> In the longer term, Schäffer propagated the practice of *colono* recruitment among aides whose promotion he helped secure. One by the name of Friedrich Kalkmann, for instance, quickly became Brazilian vice-consul of Bremen and went on to launch

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Leopoldina, Angel Bojadsen, Bettina Kann, and Patrícia Souza Lima, eds. *Cartas de uma imperatriz: D. Leopoldina*, trans. by Guilherme João de Freitas and Tereza Souza de Castro (São Paulo: Estação Liberdade, 2006).

83. *État des emplois et offices de la souveraine Principauté de Neuchâtel et Valengin, et des personnes qui en sont revêtues pour l'an 1791* (1791), 20; Carl August Tölsner, *Die colonie Leopoldina in Brasilien* (Göttingen: W.E. Kaestner, 1858), 59, 75. On Leopoldina, German *colonos*, and slavery, see Carlos H. Oberacker, "A colônia Leopoldina-Frankental na Bahia meridional: uma colônia européia de plantadores no Brasil," *Jahrbuch für Geschichte von Staat, Wirtschaft und Gesellschaft Lateinamerikas* 24, n° 1 (Dec. 1987): 455–479; Eugene Cassidy, "The Ambivalence of Slavery, The Certainty of Germanness: Representations of Slave-Holding and its Impact Among German Settlers in Brazil, 1820-1889," *German History* 33, n° 3 (2015): 367–384; Yuko Miki, *Frontiers of Citizenship: A Black and Indigenous History of Postcolonial Brazil* (New York: Cambridge University Press, 2018), 37–48.

84. Pérez Meléndez, *Peopling for Profit*, 62–64; Mügge, "Building an Empire," 885–888. For a more general narrative, see Carlos H. Oberacker, *Jorge Antônio von Schaeffer, criador da primeira corrente emigratória alemã para o Brasil* (Porto Alegre: Editora Metrópole, 1975). In cameralist fashion, Schäffer's 1824 tract spoke of mining as a "reasonable gold-making art" that could feed public finance, which Schäffer defined "not a science but an art . . . of getting hold of money and . . . being able to create it." Georg Anton von Schäffer, *Brasilien als unabhängiges Reich in historischer, mercantiler und politischer Beziehung* (Altona: J. F. Hammerich, 1824), 254–255.

his own shipping company to assist in emigrant conveyance and even floated a colonization proposal to the Brazilian government with his partner Friedrich Koeler, the engineer in charge of the Estrella road and later Petrópolis.<sup>85</sup> Schäffer and his men set the stage for other businessmen who saw the value and profits in the emergent emigrant trade, most prominently a businessman from Frankfurt named Johann Jakob Sturz, who arrived in Brazil in 1830 to work for the Gongo Soco mine and, after a failed navigation and colonization company run, became the Brazilian consul in Berlin up until the 1850s, during which time he became a leading emigration promoter.<sup>86</sup>

Emigrant recruiters familiar with cameralist ideas on population such as Schäffer and Sturz collaborated closely with and had an instructive effect on Brazilian elites, including those such as Nogueira da Gama and Calmon, who went on to experiment with private colonization. But most notably, they played a part in convincing enterprising statesmen such as Nicolau Vergueiro, a liberal who initially disapproved of peopling initiatives, of the inherent value of private colonization. When in the 1840s some government contracts for bringing in migrants from German lands ran into trouble, Vergueiro hired some of these recruiters to establish his own colonization emporium in the new coffee frontiers of São Paulo. Not coincidentally, he also sent his eldest son Luís Vergueiro, who would inherit the family business, to study at Göttingen, while his second-born, José Vergueiro, trained at the Prussian military academy and went on to serve in the Prussian infantry. Two other sons learned their trade in commercial houses in Hamburg. In the late 1840s and early 1850s, the Vergueiros launched an ambitious enterprise to bring German emigrants to work under the *parceria* (sharecropping) system in São Paulo, setting a precedent that would inform successive migration schemes for the province. Surely, scholars continue to attribute this scheme to a non-descript liberalism intending to replace slavery with free labor. Yet, in more concrete terms, it was the Vergueiros' German education in erstwhile centers of cameralist learning and their immersion in

85. Louis Friedrich Kalkmann, *Reisebriefe aus Brasilien, mit besonderer Rücksicht auf die Auswanderung* (Bremen: S. Schünemann, 1847); Luís Frederico Kalkmann, "Estado das colonias estrangeiras," in *Anuario político, histórico e estatístico do Brazil: 1847* (Rio de Janeiro: Firmin Didot, 1847), 412–439; Arquivo do Museu Imperial (Petrópolis, Brazil), II-DJK-18.01.1847-Bri.a, Empire minister Joaquim Marcelino de Brito to Pedro de Araújo Lima, visconde de Olinda (18 Jan. 1847); IHGB, Coleção Olinda, Lata 217, doc. 1, "Parecer da seção do Império do Conselho de Estado sobre representação de L.F. Kalkmann e J. Fr. Koeler que se propõem a formar uma companhia para estabelecer colonias no Império" (undated, c.1844–1847).

86. "Plano para a organização de uma sociedade com a denominação de—'Companhia Brasileira Rio Doce'—1832" [J.D. Sturz to Paulo José de Souza (20 Oct. 1832)], *Revista do Arquivo Público Mineiro* 4 (1899): 792–801; *Memorial apresentado ao corpo legislativo do Império do Brasil pela Companhia de Navegação, Comércio e Colonização do Rio Doce e seus afluentes* (Rio de Janeiro: Typographia Nacional, 1835). See also Haruf Espindola, *O Sertão do Rio Doce* (Bauru: Edusc, 2005), 387–404, and Judy Bieber, "'The Brazilian Rhône': Economic Development of the Doce River Basin in Nineteenth-Century Brazil, 1819–1849," *Journal of Latin American Studies* 48, n° 1 (Feb. 2016): 89–114.

German emigration ports that lay at the core of their intellectual upbringing and their problematic yet influential innovations in Brazilian peopling activities.<sup>87</sup>

Between 1807 and 1821, German cameralism pervaded Luso-Brazilian efforts to redefine an imperial political economy. Yet, after 1822 those cameralist-infused endeavors helped define the lineaments of Brazilian independence. British mining enterprises arrived in post-independence Brazil only after German-trained engineers had prospected the land and prepared the ground for them. Colonization frontiers, especially in Rio Grande do Sul and São Paulo, expanded dramatically after 1822 thanks to the directed migration dynamics initiated by Göttingen alumni. At José Bonifácio's behest, Schäffer in particular contributed to Brazil's defense with his mercenary recruits and paved the way for their resettlement in São Leopoldo, one of the largest migrant colonies in southern Brazil after 1828.

Indeed, post-independence mining development and peopling processes bring into perspective the long arc of Germanic and particularly cameralist influence on political and economic processes in Brazilian lands. From Carvalho e Melo's Viennese stay to the heyday of Pombaline reformism to its redirection by Pombal's acolytes Souza Coutinho and Vilanova Portugal, German and Austrian ideas of good governance and the cameralist traditions that informed them offered Portuguese and Luso-Brazilian statesmen a repertoire of useful knowledge with which to revive their empire's struggling political economy. Freely assimilating improvement practices geared toward higher efficacy and yields for the benefit of the state and its people gave the Portuguese Enlightenment a heretofore underestimated cameralist spirit kin to the "civil cameralism" found in other contexts.<sup>88</sup> The unprecedented challenges arising after 1808 only heightened the recourse to cameralist applications in the face of defensive necessities, and later in the search for avenues to develop Brazil as the centerpiece of Portugal's imperial constellation. Rio de Janeiro thus became a tropical Vienna of a kind, a court society through which a long-running Luso-Brazilian engagement with the cameral sciences grounded itself. This process did not stop short with the crisis opened by the Lisbon Courts in 1821, but rather intensified when cameralist-trained individuals turned their managerial know-how to the cause of Brazilian independence.

87. Kidder and Fletcher, *Brazil and the Brazilians*, 409–410.

88. In the Scottish Highlands, for instance, Enlightened thinkers mobilized a variety of schemes to control, improve, and profit from the environment that had their grounding in natural history as informed by Swedish botanist Carl Linnaeus, a prominent cameralist propagator at the University of Uppsala. See Frederik Albritton Jonsson, *Enlightenment's Frontier: The Scottish Highlands and the Origins of Environmentalism* (New Haven: Yale University Press, 2013); Lars Magnusson, "Comparing Cameralisms: The Case of Sweden and Prussia," in *Cameralism in Practice*, 17–38.

The cameral sciences shaped the contours of Brazil's post-independent development in ways that doubtless require further study. Available evidence situates them at the heart of the rationales, values, and intellectual traditions of key figures who strove for imperial reform in the 1810s and quickly pivoted to the cause of independence. As such, cameralist traditions elicit a rethinking of the trajectories of the likes of Langsdorff or even more pressingly of “founding father” figures such as José Bonifácio, who appears as a precursor to liberalism, abolitionism, environmentalism, and other political vanguards when examined through loose definitions of moral philosophy, natural rights, scientific rationality, or enlightenment ideals of equanimity.<sup>89</sup> Indeed, if anything, cameralism points to the foundational shrewdness of these early “patriotic” figures. In line with cameralist outlooks and practices, José Bonifácio and the cameralist-trained were guided by the search for good government administration, economic efficiency, and stable revenues as much as by the realization that their doings would translate to patronage, government positions, and personal gains. It is hard to unsee how cold calculations for fiscal earnings underwrote José Bonifácio's abolitionist, environmental, and liberal credentials. Moreover, adding to his contradictions as “patriarch of Brazilian independence,” José Bonifácio heralded new forms of inequality by lifting the privileged few who, by their own standards, thought they knew better than those without direct access to cameralist ideas. And by serving as handmaiden to modern mining, he also gifted posterity with a dawning sense of devastation.

## AUTHOR BIOGRAPHY

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89. Emília Viotti da Costa, *The Brazilian Empire: Myths and Histories* (Chicago: University of Chicago Press, 1985), 24–52; Pádua, *Um sopra*; Ivan Colangelo Salomão, “Liberalismo, industrialização e desenvolvimento: as ideias econômicas de José Bonifácio de Andrada e Silva,” *Revista Almanack* 1, n° 26 (2020): 1–47.