REVIEW ARTICLE

Whose power is knowledge?

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Republics of Knowledge: Nations of the Future in Latin America, by Nicola Miller, Princeton, NJ, Princeton University Press, 2020, 320 pp., £32.00 (Hardback), ISBN: 9780691176758.

Nicola Miller, a historian of Latin America at University College London, has written a remarkably eclectic social history of the relationship between knowledge and modern nationhood in Argentina, Chile, and Peru during the first one hundred years after independence. *Republics of Knowledge* combines, in elegant prose, sociological inquiry into nineteenth-century Latin America's emerging institutions and practices of knowledge with a transnational history of struggles for, representations of, and discourses about knowledge. For this ambitious undertaking, Miller looks not only to the typical venues where knowledge is made, circulated, and transformed—the university, the museum, the library—but also to lesser-trodden terrains from the agricultural fair to the drawing class. These are all places which, once considered, appear as intuitively relevant but surprisingly neglected sites of the production of knowledge as a hallmark of performing and claiming citizenship.

The book examines the public embrace of and struggles for the scope, production, and circulation of 'modern knowledge'. Through its transdisciplinary set-up and an illuminating combination of social and global history, this is a history of knowledge that speaks particularly well to the project of global intellectual history. Miller invites her readers to think of post-independence educational, pedagogical, and industrial innovations in the structure of how and by whom knowledge could be accessed and put to use as part of a 'republic of knowledge'. The republic of knowledge refers to both knowledge as a means to pursuing republican values *and* the republic as the project of making knowledge public. This was, Miller argues, a never fully achieved ideal political community marked by the hope to realise republican values—'autonomy, equality, liberty, justice'—by way of gaining 'equitable access to knowledge for everyone.'[1]

In this review essay, I first outline my own reading of the book, highlighting in particular the book's treatment of three contexts of knowledge production and utilisation: the library, the

drawing class, and the shipyard. Each of these illustrates the originality of Miller's work while posing serious questions about the materiality of knowledge. Second, I put forward a set of critical questions to the author as a way of adding to the conversation her account opens up. I close by raising a historical question relevant to the book's themes: if knowledge is power, whose was it to wield? I tentatively suggest that originality and ritual physically differentiated knowledge insiders from knowledge outsiders.

Knowledge circulation at the library

Where exactly was knowledge a conduit for imagining nationhood and citizenship? Miller initially takes us to the library, offering a birds-eye view of the radical transformation that the creation of national libraries across the new, independent nations of early nineteenth-century Latin America represented. Though not always public, and even where public far from accessible by everyone, the national libraries were nothing less, the author argues, than 'microcosms of public policies, social attitudes towards knowledge, and conceptions of nationhood.'[2] Of course libraries had initially been composed of Spanish colonial collections. Yet the picture is more complicated than, say, a story about postcolonial mimicry. While Latin American literary cultures could indeed start off as emulations of European scientific modernity, shifts away from the not always theological focus of existing ecclesiastical collections were uneven and reversible.

A sense of superior literary culture further structured not only the relationships between Latin American nations and their former European colonisers, but importantly relationships among nations Argentina, Chile, and Peru as well. Contrasts and comparisons of collections, attendance, and the sheer physical size of the new national libraries served as benchmark of civilisational rank and accomplishment, at the same time as they could serve as signifiers of nationhood.[3] Drawing from an impressive range of archival material, Miller attends to the question of who could actually access the library, and how this reflected varying ideas about who counted as belonging to the public. 'The public' meant, then, in a crucial sense, the *reading* public: those who were able to read, had access to books, and so could harness knowledge as a means of imagining themselves as a part of an emerging modern national community.

Access to books was mediated, of course, by far more than library opening hours. The production of the book was itself a process structured by political choices, hierarchies of language, and economic dependencies. With that in mind, Miller takes her readers on a journey that spans a methodologically provocative range of places and sites of knowledge production and contestation. She introduces the extraordinary role of bookseller-publishers as nodal entrepreneurial agents forging transnational flows of knowledge circulation—but also as patrons and gatekeepers and so determining, at least in part, the conditions of entry into such transnational flows.[4] This emerging knowledge infrastructure was not without contestants, and Miller emphasises the considerable role played by workers' presses in the dissemination of alternative sources of knowledge as much as the generation of a sense of publicity not entirely channelled by a limited commercial interest. Cartoonists, for example, had a significant impact as

their drawings enabled limited knowledge reception by the illiterate, adding non-readers to the public sphere.

Knowledge production in the drawing class

Changing material conditions for the production of the book as a physical medium of knowledge are one side of the coin.[5] The other is the ability—whether by skill or by privilege—to produce knowledge in the first place: a crucial factor for the new independent nations of Latin America trying to forge their own traditions, styles, schools, and perspectives. Teaching and training therefore receive special attention in Miller's book. Drawing teachers are one group of actors with an immense, but easily forgotten, impact on the transformation of knowledge landscapes. Nicola Miller makes the compelling case that drawing teachers were veritable knowledge brokers. 'If the nineteenth-century was a century of engineers,' she writes, 'it was also, more fundamentally, the age of those who could draw.'[6]

The skill of drawing was crucial for emerging ways of seeing, describing, but also understanding —all essential components of nation-building in the shape of 'the surveying of land and sea; cartography; natural history and science; architecture and town planning; civil and mechanical engineering; military strategy; artisanal industry'.[7] Drawing teachers were thus in demand as 'highly prized and sought-after individuals' during the middle decades of the nineteenth century when 'engineers, explorers, surveyors and cartographers, scientists, printers, artists, and politicians' all 'brought about transformations in ways of seeing' by way of drawing.[8] Miller notes in this context a shift underway from the 1790s to the 1820s from drawing as a form of recording to drawing as a method of investigating. During that time, the ecclesiastical monopoly on drawing classes waned as the Spanish Bourbon reforms aimed at reasserting state authority vis-à-vis the church.[9] Ruptures, crises, and wars furthermore changed the demand for drawing skills in areas such as military planning and strategic map-making.

Miller argues that knowledge could only fruitfully be "brought" to the Americas if it was in conversation with local knowledge about the land. The charting of territory and drawing of maps is a case in point: European geologists and geographers have tended to receive the bulk of scholarly attention, but these scientists 'depended upon local expertise' at the same time as their 'knowledge had to be integrated into the methods of those scientists in order to make possible their endeavour of connecting American nature to European science.'[10] Contrasting foreign with local knowledge no longer makes sense once we recognise their necessary intertwinement in a context of knowledge circulation and application. But even further, in the young American republics calls for a citizen-based charting of national territory proliferated. The Italian-born Peruvian naturalist and geographer Antonio Raimondi (1826-1890) wrote, for example: 'Each one of you, oh young Peruvians, from all corners of the Republic, can make your small contribution to science. And just as in Nature small causes can produce great effects, so joining together all these partial works will in a short time give us an exact knowledge of the whole

country.'[11] The collective production of knowledge about one's own lands could then, on Miller's account, offer a participatory form of imagining community by making its extent familiar.

Such inclusive dynamics notwithstanding, profoundly exclusionary logics were at play everywhere. If knowledge could be harnessed in ways that made participation in the imagined community more accessible, it was also attached to unmistakable racial preferences. In his study of European agriculture, for example, the 'first Argentine agronomist' Eduardo Olivera (1827-1910) expressed his sincere hope 'that the almost complete disappearance of the ravaging Indian from our fields, which we are currently witnessing as the happy outcome of the change in our frontier, will give us greater security to work [the land] and to establish permanently the agricultural man (*hombre de campo*) that we so sorely need.'[12] Practical enlightenment through grassroots knowledge production went hand in hand with a taken-for-granted civilising mission on the countryside. Geographers were no mere innocent observers but also providers of knowledge—the production of which they had learned in the drawing class—that enabled, for instance, the brutal internal colonialism of the 1867–1869 Chilean war against the Mapuche.[13]

Knowledge reception at the shipyard

Where and under what conditions was knowledge, as a register of nationhood and citizenship, received and put to use? *Republics of Knowledge* takes an incisive turn in a surprising chapter on infrastructure and the 'engineering' of sovereignty. A standard view posits that prior to the ascent of economic nationalism, Latin American nations 'both needed and welcomed foreign innovation and expertise, especially for technically demanding infrastructure projects.' Based on four in-depth case studies, Miller argues that the opposite was true: whenever *local* experts were not centrally involved, 'projects generated public controversy.' Contestation often went on for years, and crucially was 'framed in terms of questions about the status and legitimacy of knowledge.'[14]

The book here offers an engrossing account of the epistemic hierarchies, implicit or not, that alternatively facilitated capture of Latin American economies by multinational capital interest or stimulated the often nationalist contestation of foreign intrusion after independence. Miller retells in a new light the well-known story of Latin American resistance to foreign ownership of infrastructure projects. As in the case of citizen-centred calls for mapping the nation, infrastructure too could never purely result from imported foreign expertise but, where successful, required familiarity with local circumstances and geographical constraints. Failing to draw from such knowledge meant that major projects 'turned into expensive disasters'.[15]

To show how this tension played out in practice, the book offers four accounts of large-scale infrastructure projects: two ports in Peru and Argentina; the invention of the refrigerator ship; and the fabled Transandine Railway. Port works in the late 1860s at Callao, Peru's largest port city, presented engineers and local administrators with a choice between a standard pier (*muelle*) and a more complicated dock (*muelle-dársena*). Despite engineering disagreement about the

technical feasibility and relative merits of either option, Miller argues that at heart, 'the decision turned on different assumptions about which kind of knowledge was most legitimate.'[16]

Callao residents vocally opposed the project. The historian and geographer Mariano Paz Soldán, tasked with assessing the foreign plans put forward by the English company Templeman & Bergman, advanced damning criticism when he concluded that a *muelle-dársena* was neither necessary nor worth the money. In response, the company turned the argument upside down by shifting the terrain from engineering merit to civilisational rhetoric, now insisting that 'their scheme was the only one that constituted true modernisation, exhorting members of the Peruvian Congress to show that they were 'moved by that spirit of progress that tends to elevate modern peoples to the most advanced civilisation'.'[17] Templeman & Bergman ultimately won the concession, benefitting from European capital backing—but local resistance meant that epistemic contestation and the pitting of local against foreign knowledge played a central role in the assertion and thus continued imagination of the Peruvian republic.

Miller identifies a similar dynamic at play in the case of the port of Buenos Aires. In the early 1880s, here once again a decision had to be taken between locally developed plans by Luis Huergo and a foreign-backed scheme. Initially, the local scheme won the day, the success of which Argentinians perceived as, in the words of a contemporary, 'vindication of the plan devised by 'a creole engineer, without authority in the scientific world and in opposition to the powerful opinions of an expert of European fame like Mr Bateman'.'[18] Subsequently however, Huergo's scheme was run over by a national preference for the British engineers Hawkshaw, Son & Hayter. Hugely expensive works were put in motion, later turning out to be utterly inadequate.

Interestingly, as in the case of Peru the foreign entrepreneurs defended the superiority of their plans in the name not of relative technical merit but modern science more generally: they shifted the plane upon which epistemic hierarchies would be assessed and so were able to claim that even if they possessed inferior knowledge of local conditions, they did possess superior knowledge on a *dimension* that counted for more. In an ironic twist, the Argentinian government ultimately had to fall back on 'homegrown expertise to rectify the technical defects in the work of the foreign company'.[19]

Similarly the invention of the refrigerator ship or *frigorífico*, Miller shows, was not a mere import of European scientific knowledge, extant characterisations in the history of technology to the contrary. Instead this invention, crucial for nascent meat-exporting economies such as Argentina, was impossible without 'a transnational process of collaboration, exchange of ideas, mobilisation of contacts and pulling of strings in both the River Plate and northern Europe.'[20] The making of the Transandine Railway likewise was ridden throughout by struggles for knowledge-based authority between national experts, seen as 'the primary source of legitimacy', and foreign capital in the shape of the 'lurking presence' of an 'expansionist New York-based multinational company'.[21]

In each case, Miller concludes, 'European companies aggressively promoted their claim to be at the vanguard of modern science'. Theirs was an epistemic ultimatum, insisting as they did 'that only by supporting their plans could a nation's legislators demonstrate their disinterested commitment to progress, modernity and civilisation.' Opposition to such schemes, epistemic though it always was, 'was attributed to narrow self-interest or even baser motives'.[22] This is a thought-provoking finding in its own right and one that merits further exploration.

Gatekeepers in frock coats

Miller's work speaks to Benedict Anderson's well-known thesis on nations as imagined communities. Her history adds that knowledge, along with attendant conceptions about its proper place and scope, placed pivotal conditions on how communities were and could be imagined. During the Latin American wars of independence, 'the *purpose* of writing changed along with the new means of dissemination, printing.' Aspiring sovereignty, Miller argues, was a matter of more than 'constitutions, laws and borders; it was to conceive of a people to be mobilised and a citizenry to be instructed.' Knowledge—its acquisition, but even more so its communication—was central to the imaginability of national community.[23] Contestation around '[w]hat was socially recognised as knowledge and who was entitled to it' was at the heart of this transformation.[24] Knowledge acquired in exclusive institutions shielded away from society was increasingly disregarded and replaced with the ambition to promote *useful* knowledge. Miller does not draw out the utilitarian undercurrents that clearly informed much of this orientation, nor does she tell a story about Latin American utilitarianism. Instead she choses to focus on distinctly Latin American practices reflecting such an understanding of the role of knowledge—an elegant alternative to a historiographical Eurocentrism that reduces other regions to receptacles for imported European ideas.

Miller makes three general points about the history of knowledge and its role in conceptions of nationhood and citizenship. I would like to respond to each with a set of questions the book importantly poses but choses to leave open. First, Miller posits that 'the recognition of knowledge matters as much as the production or distribution in analysing outcomes of past and present struggles to extend access to knowledge.'[25] This is an exciting historiographical imperative. But are struggles to extend access to knowledge always genuinely committed to knowledge as a pathway to inclusion, transparency, and participation—or do some such struggles instead aim for knowledge as selective means of social closure? By what factors does this vary?

Second, Miller argues that 'a nation-state can be revealingly interpreted as a community of shared knowledge, which provides a more flexible and more grounded analytical framework than Anderson's idea of an imagined community.'[26] It remains unclear, however, how Anderson's and Miller's framework compare, owing to an unaddressed conceptual puzzle of much significance for historians of knowledge: what exactly is the relationship between 'knowledge' and 'imagination'? When we speak of political imaginaries, the shared cultural imagination of a given set of actors, or the imagined bonds that tie together an otherwise disconnected collective—do

we assign knowledge the same role in each? When we study 'knowledge', 'knowledges', or 'republics of knowledge', is it the *knowing* that makes the difference or the purposes and meaning knowledge is *imagined* to have?

Third and finally, Miller posits that 'the knowledge order of a society will affect its capacity to achieve integration, constitutional legitimacy and political participation.'[27] If this conclusion holds, it has considerable consequences of interest to historians, comparative political scientists and political theorists, as well as international relations scholars. A host of questions, not fully answered so much as suggested, are attached to this bold claim: what exactly is a 'knowledge order'? In what ways might it affect the integrative, legitimising, and participatory capacities of a nation-state? Inversely, in what ways—under what conditions—might it leave those untouched? Does knowledge empower every citizen equally, or do the conditions for its acquisition and application curtail this? And not least, who sets the parameters of a knowledge order: those who own the means of knowledge production, those who host the archives of its accumulation, or those who deploy knowledge as their way into political participation?

Originality and rituals of knowledge

Republics of Knowledge invites speculation about what knowledge hierarchies are made of other than knowledge. Each context of knowledge production and utilisation discussed in the above—the library, the drawing class, and the shipyard—poses serious questions about the materiality of knowledge. What knowledge was useful for, and so what counted as useful knowledge, was shaped by material interests involved in the circulation, production, and reception of knowledge. Whether bookseller-publishers as elite gatekeepers, drawing teachers as promoters of national unity, or national engineers competing with their foreign counterparts for expert authority: epistemic actors were never concerned purely with their knowledge, but with maintaining the material conditions for their knowledge-based status. This is an important difference and one that easily falls by the wayside of accounts that treat knowledge as a free-floating object untouched by imperial and capitalist hierarchies of class, gender, race, and ability. Reorienting the historical study of knowledge in such a way raises the question: if knowledge is power, *whose was it to wield*—in the sense of both ownership and participation?

Throughout the nineteenth century, the European 'travelling show' of knowledge drew from a wide array of practices and 'props': 'the invention of the romanticised figure of the scientist; the creation of disciplines, with their international congresses and supposedly open journals; the validation ceremonies conducted by men in frock-coats'.[28] Hierarchies of knowledge, excavated in a range of places throughout this instructive volume, played an incredibly central role in the dynamics of inclusion and exclusion structuring nineteenth-century modern nationhood. Based on my reading of Miller, I want to highlight two aspects pointing us to the materiality of knowledge hierarchies: originality as a proxy for imperial rank; and ritual as a marker of acceptable knowledge.

First, the idea of the original as a proxy for imperial rank will be especially familiar to art historians.[29] The World Fairs from the middle of the century are one example: where art was on display to represent national culture, Europeans seized the opportunity to question the cultural authenticity of Latin American exhibits. A French art critic at the 1855 *Exposition Universelle* in Paris was able to assert his epistemic superiority by saying of a Peruvian's artwork, "This is not Peru".[30] Miller's study amply shows that questions of style and authenticity served as parameters for negotiating the relationship between European-imported knowledge, the knowledge repertoires of the former coloniser, and locally produced knowledge. The modern librarians of Argentina, Peru, and Chile could not avoid this dynamic when creating and curating national collections and literatures. Throughout, "European' ways of knowing became the standard by which other kinds of knowledge were evaluated and normally found wanting.'[31] Originality determined not only what types of knowledge were acceptable, but also whether any application of European-imported knowledge could ever count for more than an imitation. As Miller writes, 'some acts of imitation were celebrated as of wide general applicability while others were dismissed as only of relevance in the specific locale of their production.'[32]

Second, ritual as a marker of acceptability played a historical role in the constitution of knowledge-based political authority in Latin America and elsewhere. Once the library, the newspaper, or the primary school were inscribed in day-to-day rituals of citizenship, Miller effectively shows, knowledge became key to participating in a shared sense of nationhood. By knowing what the nation was about and knowing what was happening in it, one could play a passive part in its enactment; by writing about the nation, organising lectures, or creating one's own periodicals one could participate more actively. Both implied that affordability, financial means, and literacy were requisites for taking part in the rituals of the republic of knowledge. Miller also alerts her readers to ranks of respectability in the context of knowledge rituals: 'knowledge derived from emotional experiences' may appear as less respectable than 'knowledge validated as factual', as much as 'knowledge offered by experts' may be preferred over 'knowledge of the common people.' Rituals of scientific validation and expert approval-—the 'props' of the 'travelling show'—engrained these knowledge-centred hierarchies and set the terms for their contestation.[33]

The republic of knowledge, finally, was both an ideal geared towards opening up popular participation in forging modern Latin American nationhood, and an unstable conception the terms of which were easily determined by those owning or exerting control over the means of knowledge production and contestation. 'In the specific historical conjuncture of the first quarter of the nineteenth century,' Miller writes, 'what started out as a move against formal colonialism ended up opening the door to informal empire.'[34] And yet contestation was real: women, labourers, peasants, indigenous peoples, and other marginalised groups—those whose knowledge was for the most part *not* immediately power—could in their own ways actively participate in the 'struggle to give meaning and substance to the founding ideal of enlightenment for all.'[35] *Republics of Knowledge* is a historically rich account of the material cultures that enabled both sides of this struggle.

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Notes

[1] Miller, *Republics,* 6.

[2] *Ibid.*, 17.

[3] *Ibid.*, 32–6.

[4] *Ibid.*, 70–2.

[5] Johns, *Nature of the Book*.

[6] Miller, *Republics*, 82.

[7] *Ibid.*, 82.

[8] *Ibid.*, 84.

[9] *Ibid.*, 85–6.

[10] *Ibid.*, 146.

[11] *Ibid.*, cited at 147.

[12] *Ibid.*, cited at 154.

[13] Crow, *The Mapuche*; Pairican and Urrutia, "The permanent rebellion: An interpretation of Mapuche uprisings under Chilean colonialism."

[14] Miller, *Republics*, 181.

[15] *Ibid.*, 182.

[16] *Ibid.*, 184.

[17] *Ibid.*, 185–6.

[18] *Ibid.*, cited at 188.

[19] *Ibid.*, 190.

[20] *Ibid.*, 193.

[21] *Ibid.*, 196.

[22] *Ibid.*, 196–7.

[23] *Ibid.*, 109.

[24] *Ibid.*, 115.

[25] *Ibid.*, 218.

[26] *Ibid.*, 218.

[27] *Ibid.*, 218.

[28] *Ibid.*, 219–20.

[29] For example Mitter, *Art and Nationalism*, chapter 9 and Brzyski, *Partisan Canons*.

[30] Majluf, "'Ce n'est pas le Pérou,' or, the Failure of Authenticity: Marginal Cosmopolitans at the Paris Universal Exhibition of 1855."

[31] Miller, *Republics*, 220.

[32] *Ibid.*, 219.

[33] *Ibid.*, 229.

[34] *Ibid.*, 220.

[35] *Ibid.*, 224.