

# The Empire of Plants

*by Pierre Nobl*

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**Can one write a history of colonization through plants? This is the challenge taken up by Samir Boumediene in a book devoted to the modern-age production of botanical knowledge on both sides of the Atlantic.**

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**Review of:** Samir Boumediene, *La Colonisation du savoir. Une histoire des plantes médicinales du «Nouveau Monde» (1492-1750)*, Vaulx-en-Velin, Éditions des Mondes à faire, 2016, 477 p., 24 €.

Samir Boumediene's book is part of a series of works, which, for some decades now, have explored how botany was articulated to projects of overseas imperialist expansion in the modern age.<sup>1</sup> By way of an ambitious investigation, this connection is examined at the scale of the botanical conquest of Spanish America, from the first contacts by traveling explorers to the scientific expeditions of the mid-18th century. The book, which centers on Mexican and Peruvian spaces, traces the appropriation of plants all the way to Spain, as well as the European circulations and rivalries that developed around them, notably in France and Italy. The study is also ambitious in its approach: By conceptualizing medicinal plants as "knowledge-material" (p. 21), Boumediene sets his focus on a multifaceted object. The identification, exploitation, consumption, medicalization, and commodification of plants involve a vast array of practices, knowledges, and actors—from harvesters to patients, including healers, botanists, and merchants. These plants then provide a lens to examine the scientific, but also the social, political, and economic relations between these actors, as these "can illuminate a major aspect of the modern age: the colonization of the Indies" (p. 9).

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<sup>1</sup> See, for instance, the thematic issue edited by Marie-Noëlle Bourguet and Christophe Bonneuil (eds), "De l'inventaire du monde à la mise en valeur du globe. Botanique et colonisation (fin XVIIe siècle-début XXe siècle)," *Revue française d'histoire outre-mer*, 86(322-323), 1999 ; or Londa Schiebinger and Claudia Swan (eds), *Colonial Botany. Science, Commerce and Politics in the Early Modern World*, Philadelphia, University of Pennsylvania Press, 2005.

This process is examined in three steps. First, the book explores how Europeans approached the unknown plants of the New World; it then traces in detail the appropriation of one plant, cinchona bark, along with the transformations that ensued; lastly, it concludes with a more thematic study of the misunderstandings, controls, and resistances associated with the indigenous uses of medicinal plants.

## **Taming the Unknown**

The appropriation of American plants began in the West Indies at the turn of the 16<sup>th</sup> century, as soon as Spanish conquistadors established contacts with this “medicinal New World” onto which they immediately projected the Old World and its expectations. “New” plants such as guaiac wood were mainly regarded as substitutes for European and Eastern remedies, a substitution that shows how much this encounter primarily entailed a “reduction of the unknown to the known” (p. 52). The usefulness of this American pharmacopoeia was gradually reevaluated by the yardstick of scholarly and commercial logics in the context of the “pacification” of the Indies. The interweaving of these logics is illustrated by the work of Nicolás Monardes, a doctor and merchant from Seville who catalogued the “medicinal things” of an America which he had never seen, or by Francisco Hernández’s expedition to Mexico between 1571 and 1577, caught between utilitarian, scientific, and administrative projects. While this knowledge did sometimes prove useful, it nonetheless remained ambivalent, even dangerous, as attested by the censorship and revisions to which Hernández’s writings were subject upon arriving in Europe. By retracing the complex trajectory of these manuscripts until their publication in Rome 74 years later, Boumediene shows that this appropriation came to concern all of Europe, which developed a passion for American plants (such as tobacco and chocolate) whose uses and value (collection or curiosity) it transformed.

But these plants in turn transformed European societies, as shown by the appropriation of cinchona bark—or “bitter gold of the Indies” (p. 169)—for use in a Europe then ravaged by malaria. Here, Boumediene addresses the trajectory of an already widely studied plant, whose circulation in the 18<sup>th</sup> century was recently revisited by Matthew Crawford.<sup>2</sup> His work stands out from previous studies by focusing on the medical dispute that followed the introduction of cinchona bark in Europe in the mid-17<sup>th</sup> century, an opportunity for him to examine “how one behaves in the face of something mysterious” (p. 210). The mystery stemmed as much from confusions between different species of cinchona bark as from the latter’s therapeutic action— it being incompatible with Galenism, the system whereby universal remedies (such as bleeding or purgatives) were prescribed to restore the balance of humors in patients. The unexplained effectiveness of cinchona bark led to its adoption as a specific remedy for a particular disease, which made it possible to identify the

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2 Matthew J. Crawford, *The Andean Wonder Drug. Cinchona Bark and Imperial Science in the Spanish Atlantic, 1630-1800*, Pittsburgh, University of Pittsburgh Press, 2016.

latter; consequently, there occurred a reversal of the relationship between disease and medicine in European theories, along with a revision of the classification of fevers.

These theoretical adjustments should not obscure the social dimension underlying the accreditation of cinchona bark. Boumediene illustrates this process by showing how the latter was applied in France to the body of King Louis XIV, who was treated in 1686 with febrifuge, and to the bodies of his subjects at the court, in hospitals, and in the armies. This accreditation also played out in interpersonal relations between actors of the care economy, the equilibrium of which was based on trust and was undermined by the rising number of falsifications that accompanied the increase in demand. At the time, the European powers sought the solution to such frauds at the root of the problem: They launched scientific expeditions which, like those of La Condamine and Jussieu in the 1730s, had as their aim to identify the plant, but also to steal it in order to acclimatize it. In reaction, the Spanish monarchy tried to complete the appropriation of cinchona bark by establishing a monopoly on its exploitation.

## Seeing Plants Differently

The last section of the book deals with “communication breakdowns,” the origins of which lie in misunderstandings, prohibitions, or dissimulations. Here, the author examines the appropriation of American plants from a reverse perspective, via the non-transfers and erasures of knowledge which mainly concerned plants associated with indigenous ritual practices, such as peyote. Rejecting a hermetic and monolithic dichotomy between European and indigenous knowledges, he highlights the tensions that played out among heterogeneous actors around the separation of the medical and non-medical domains. This porosity was manifest in increased borrowings by *curanderos* (healers), or in the diffusion of divinatory practices to the Spaniards. But it did not prevent the Inquisition from opposing this dissemination, nor did it stop the authorities from controlling practitioners and consumption patterns. Nevertheless, in their desire to regulate ways of life, the authorities were often torn between policing and economic imperatives; they were also confronted with various forms of resistance—from dissimulation to poisoning or revolt.

It is striking to observe how much the last section of the book differs from previous ones, not only in its object, but also in its method, which is transformed to account for a radically different way of thinking about medicinal plants. The step-by-step retracing of the path left by naturalists and their writings gives way to a more fragmentary approach, one that depends on normative gazes and on the blinders of inquisitorial and commercial sources. The medicinal properties of plants, hitherto placed under the microscope of botanists and historians alike, fade into more diffuse practices, reflecting a shift towards a world in which these plants were not dissected into autonomous elements, but were inseparable from a “set of

connected gestures” (p. 330). In this manner, Boumediene gives substance to the tension he describes between knowledge as “lived knowledge”—embodied in “ways of living”—and knowledge as an externalized “object of knowledge” (pp. 424-425).

Thus, Boumediene pays close attention to the construction of knowledge via processes of confrontation, reconfiguration, and selection, presenting the knowledge of American plants as one of the battlefields for the gradual conquest of the Indies. The frontispieces commented on throughout the book bear witness to the ambivalence manifest in the transmission of such plants—which were a gift as much as a booty—and reflect the roles that these were able to play in the power relations between the four quarters of the world.

## **A Colonial History of Knowledge**

These power relations are central to the book’s historiographical positioning. The decision to speak of “colonization,” as highlighted in the title, appears to take the opposite view to works like those of John Elliott, which reject the term colony in the context of the modern age and insist on the polycentric structure of composite monarchies. In reality, this merely sidesteps the issue. Boumediene is indeed less concerned with the legal and political framework than with the colonial content of the projects associated with these territories, which were regarded above all as reservoirs of resources, bodies, and souls to be monopolized (p. 23). Colonization is construed here as objectification and exploitation of the world—an operation intrinsically linked to the conquest of knowledge. As a result of this historiographical positioning, which is territorially anchored in domination and in the greatest inequalities of expansion in the Americas, the book moves away from connected history, as developed in studies of commercial imperialism in Asia (p. 29). Thus, Boumediene warns against a disproportionate fascination with the encounters and flows of globalization, which, as he emphasizes, is punctuated by broken connections. While the study of circulations is not always naive with respect to the transformations and appropriations that accompany them,<sup>3</sup> the author’s position has the undeniable merit of drawing attention to the equally important need to explore non-transfers. In this sense, it is part of a rising trend that expresses a form of disenchantment with an overly “idyllic” global history (p. 30). In stating that “the connection between worlds is never so apparent as when it is broken” (p. 242), the book seems to anticipate Jeremy Adelman’s recent call to produce narratives that focus on the disintegration as much as on the integration of societies on a global scale.<sup>4</sup>

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3 See, for instance: Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900*, New York, Palgrave Macmillan, 2007 ; or Kathleen Murphy, “Translating the Vernacular: Indigenous and African Knowledge in the Eighteenth-Century British Atlantic,” *Atlantic Studies*, 8(1), 2011, pp. 29-48.

4 Jeremy Adelman, “What is Global History Now?,” *Aeon Magazine*, 2 March 2017.

To account for these ruptures, Boumediene also seeks to go beyond the “history in equal parts” proposed by Romain Bertrand, which he reproaches for obscuring the asymmetry of sources. He himself prefers to pursue a “contrapuntal history” (p. 29-30) that examines the tensions, the games between the lines, and the conflicts suggested by documentary imbalance, though without aiming to correct it. The book nevertheless relies on the cross-analysis of various sources consulted on both sides of the Atlantic. These sources allow Boumediene to study the appropriation of medicinal plants as a disruption and a transformation of knowledge, which profoundly altered “ways of life” (p. 28) in both Europe and America through a process that was always asymmetrical, often destructive, but never all-powerful.

## **The Power of Investigation**

The book highlights within this process the role of questionnaires and investigation as tools for the conquest and transformation of knowledge. It retraces the development of investigation, from the work of missionaries and inquisitors to the Council of the Indies’s development of questionnaires, which were sent to overseas representatives of the Crown in the 1570s. Far from viewing investigation as mere data collection, Boumediene insists on the asymmetry of the relationship it created. This asymmetry stemmed first from the manner in which investigators imposed their questions, and thereby from the framework within which answers could be expressed, and second from the ambivalent vocation of the investigation itself—inherent in the very terms of the question—which was to collect while prohibiting (p. 93-95). Preselection was thus performed in ways that led to ignoring knowledges and practices which investigators could not or did not want to consider, and whose extinction was brought about by the destructuring and standardization of indigenous societies concomitant to these data gatherings.

By lifting the veil of questionnaire neutrality, the book reveals the violence euphemized in the sources’ claim that they extracted such knowledge from the natives themselves, or else from their bodies on which remedies were experimented. It also reverses some of the *topoi* of travel relations, such as the bad faith of indigenous auxiliaries, in order to unveil strategies of dissimulation and secrecy. Halfway through the book, Boumediene highlights the transformative power of investigation, whereby, for instance, an investigator like Francisco Hernández came to “think like those questioned” (p. 112), when the Nahuatl name of the plants he collected led him to adopt a new taxonomic logic—though this did not stop him from disqualifying the indigenous botanical knowledge associated with it.

This uncompromising examination of the driving force and modalities of investigation that permeates Boumediene’s history of questionnaires is worthy of this remarkable book, which shows the extent to which the colonization of American knowledge was accomplished as much through erasure as through appropriation.

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