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"Supporting the strength and condition of the slaves": Drugs, labor, and knowledge circulation in western Central Africa and the Atlantic World, 1500-1940

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#### Short abstract:

This paper examines drug use in western Central Africa and its Diaspora. It argues that drug *Cannabis*, in contrast to other substances, had limited cultural significance because knowledge of its use originated within merchant capitalism, and circulated within exploitative labor institutions.

#### Abstract:

Laborers have long used drug plants to cope with social, cultural, and environmental marginality. The historical processes through which drug knowledge circulated are often poorly understood, reflecting the subaltern status of users and stigmatizations of drug use. During 1500-1940, laborers in western Central Africa used several plant drugs, particularly *Cannabis*, the source of marijuana. Scholars have asserted that *Cannabis* drug use was "African" knowledge that entered the Atlantic World via slavery. Problematically, scant historical data support this assertion, which parallels racial stereotypes of drug use. Instead, this paper argues that Cannabis drug use arrived in western Africa with merchant capitalism, and that drug knowledge circulated within labor, not ethno-linguistic, institutions. First, sailors on Portuguese ships from the Indian Ocean introduced drug *Cannabis* to coastal Angola and elsewhere (1500s-1600s). Second, commercial slavery increased east-to-west overland migration in Central Africa (1700s-1800s). Some enslaved migrants knew of drug Cannabis from East Africa, and slavers provided the drug to slaves during transport; hard laborers in western Central Africa adopted the drug more generally. Third, after abolition, indentured and forced laborers carried drug knowledge widely, reflecting colonial geographies of labor supply and demand (1830-1940). Finally, Portuguese Angolan planters and merchants developed commercial drug trades to supply former slave populations around the Atlantic (1860s-1910s). Thus, drug *Cannabis* use is "African" only because Africans demographically dominated underclasses in racially segmented labor regimes. Portraying Cannabis drug use as "African" inappropriately conflates cultural and social knowledge transmission.

The idea that drug *Cannabis* was introduced to the Americas via the slave trade was proposed in 1867<sup>1</sup>, and has become widely accepted though barely researched. The main evidence for an African introduction is linguistic similarities between Brazilian Portuguese and several languages spoken in western Central African. For instance, the term *diamba*, including its variant pronunciations *liamba* and *riamba*, means drug *Cannabis* in Brazil, and clearly originated in a Bantu language. Other than this pattern of language geography, the secondary literature has presented no evidence for the African origins of drug *Cannabis* in the Atlantic World (although some of what I present in this paper was published in my recent book<sup>2</sup>).

Language geography is important for understanding the historic dispersal of *Cannabis*, and I will further discuss this evidence below. There are also primary sources that describe how, why, and where slaves from western Central Africa traveled with the plant. The characteristics of the documentary record are an important reason why the relationship between slavery and *Cannabis* has been scarcely researched. First, before the 1920s, the users of drug *Cannabis* left no written records, so we must rely on observations made by others. Worldwide, Europeans began paying significant attention to drug *Cannabis* only after about 1840, at the tail end of the period of transatlantic slavery. There were scattered mentions of the plant prior to this time, enough to reconstruct a basic chronology of its global diffusion, but not enough to say much about the historical processes of diffusion, particularly with regard to sub-Saharan Africa.

In sub-Saharan Africa, after 1840 a primary literature developed, mostly in relation to colonial resource extraction and governance. Drug *Cannabis* was first

considered a potentially valuable resource, and later a drug to control in order to control workers. The colonial-era literature, of course, is not what historians of slavery study. More broadly, historians of labor, whether focused on slavery or post-slave labor systems, have not looked at primary sources that focus on *Cannabis*. The plant has been considered mostly unimportant for understanding colonial Central African society. And histories of *Cannabis*, which focus on the plant, are in general poorly researched, and were written mostly to advocate for or against drugs in current societies.

The documentary record, which again is mostly from the post-slavery period, provides robust evidence that hard laborers in exploitative labor regimes used *Cannabis* to cope with the conditions they faced. This happened in Central Africa, and more broadly in the African Atlantic World. By looking at this evidence alongside language geography and histories of slavery, I can infer aspects of the role *Cannabis* had in transatlantic, chattel slavery. Based on the direct and circumstantial evidence, I argue that Central African slaves did transfer knowledge of drug *Cannabis* across the Atlantic, but that this knowledge was only superficially African. Instead, drug *Cannabis* circulated in western Africa and around the Atlantic as a component of exploitative labor regimes within capitalist economies.

In this paper I am building primarily on one theoretical tradition in historical geography. For decades, scholars have sought to understand African roles in the formation of New World societies. Initially, social and historical theorists proposed that Africa provided only labor, not knowledge, to New-World societies, reflecting belief that intact cultures did not survive the Middle Passage across the Atlantic. Since the 1990s, however, scholars like Judith Carney, Robert Voeks, and Walter Hawthorne have

identified numerous African cultural inheritances in the Americas, most notably in economic botanies of food, medicine, and religion<sup>3</sup>. Based on this empirical knowledge, current theory is that enslaved Africans transferred knowledge across the Atlantic, and had significant creative agency in the formation of New World societies, despite the severely constraining conditions of slavery.

I advance theory by arguing that the conditions of commercial slavery produced knowledge in Africa that necessarily survived the Middle Passage. The knowledge Africans developed in Africa to cope with enslavement became integral to the transatlantic slave trade, and flourished in destination societies because exploitative labor relationships flourished too.

Drug *Cannabis* arrived in East Africa from South Asia over one thousand years ago, probably via maritime trade. When the plant arrived, it encountered African ethnobotanies that included pipe smoking. Africans invented smoking about 1,000 years before 1492, and smoked multiple plants before *Cannabis* arrived. Smoking pipes were not invented elsewhere in the Old World. In South Asia, *Cannabis* had been an edible drug. The plant spread slowly across East Africa in the centuries prior to about 1500. By 1500, in sub-Saharan Africa it was found east of the Great Lakes, roughly from modern Eritrea to Malawi.

Only after 1500 did the plant enter southern and western Africa, and, more broadly, the Atlantic World. Four different dispersal pathways carried the plant into the Atlantic.

First, sailors on Portuguese ships carried drug *Cannabis* widely, especially during the 1500s, 1600s, and 1700s. Portuguese travelers encountered *Cannabis* in India and East Africa during the 1500s. By 1563 Portuguese in India had certainly tried drug *Cannabis*<sup>4</sup>. They borrowed the similar Hindi and Swahili names for the plant, calling it *bangue* in Portuguese. In the Atlantic, these terms were published beginning in the late 1600s. In 1689, *bangue* appeared in London, thanks to an English sailor who learned about it from Portuguese sailors in India<sup>5</sup>; in 1768, *bangue* was recorded in Galicia<sup>6</sup>, though nineteenth-century Portuguese scholars believed it was an Arabic loanword that had persisted since before the Reconquest<sup>7</sup>. In Brazil, *pango* was the first name recorded for drug *Cannabis*, in 1829 in Rio de Janeiro<sup>8</sup>. The term was also recorded on the Río de la Plata in the late 1800s<sup>9</sup>. These locations had important trade links to Benguela, in southern Angola, where *bangue* was recorded in the late 1800s in languages including Umbundu and Nyaneka<sup>10</sup>.

In contrast, in northern Angola the primary word for drug *Cannabis* was, historically, *diamba* (and its cognates *liamba* and *riamba*). This word represents the second dispersal pathway that brought the plant into the Atlantic World. *Cannabis* was not present in western Africa when Europeans arrived there in the late 1400s. The first European record of the plant in western Africa was from northern Angola in 1803<sup>11</sup>, though the plant was certainly present well before this. Under the name *diamba*, *Cannabis* arrived from overland, in the flow of slaves that came from eastern Africa. Language geography suggests that *diamba* originated in what is now the borderland shared by Malawi, Mozambique, and Zambia. Histories of population movements and trade routes in Central Africa<sup>12</sup> suggest that people from this area began arriving in

Luanda mostly after about 1720. Most likely, the plant followed trade through the southern Congo Basin, and entered Angola in the upper Zambezi River Basin<sup>13</sup>.

*Diamba* is still spoken in Kimbundu, Kikongo, and other languages in western Central Africa. It belongs to the 5/6 grammatical class of nouns generalized for the Narrow Bantu language family; like other nouns in this class, *diamba* refers to a plant product and its plural form begins with the prefix *ma*-<sup>14</sup>, as in *mariamba*. In contrast, southern Angolan words for *Cannabis*, like the Umbundu word *epangue*, do not fit any Bantu-family noun class, and have no published plural forms. These *bangue*-type words are borrowed from Portuguese.

Once it arrived in Angola, *Cannabis* entered its third dispersal pathway—transatlantic slave shipping. Primary sources indicate that slaves as well as slavers valued the plant. Slaves valued it for medicinal and recreational uses. Key accounts are mostly from British sources associated with naval suppression of the slave trade and the resettlement of liberated slaves. These sources described liberated Benguela slaves on St. Helena in 1845; liberated Congo slaves in Sierra Leone in 1850 and Jamaica in 1862<sup>15</sup>. In the 1850s, near the end of the transatlantic trade, an American in Gabon recorded that he "once [...] saw a few [...] seeds in the possession of a slave [... who] was carefully preserving them, intending to plant them in the country to which he should be sold" In the early 1900s, a Brazilian naturalist collected folklore that slaves tied *Cannabis* seeds in pouches along the edges of their scant clothing 17. These are the clearest accounts of transatlantic seed transport by slaves that exist for any plant.

Language geography also provides evidence of *Cannabis* dispersal from Western Central Africa. As I've mentioned already, people have recognized this pattern since

1867, but looking only at Brazil. A broader view of plant names around the Atlantic show a much stronger pattern. In most places where Central African slaves (or liberated slaves) arrived after about 1770, their words for drug *Cannabis* were recorded historically, and often have persisted to the present. I have found no relevant sources for many destination societies, but for all places I've found evidence, I've found their words: *jamba* in São Tome, Sierra Leone, Liberia, Jamaica, Brazil, and Uruguay; a different word, *maconha*, was spoken in Panama into the 1910s, and is still spoken in Brazil; and in Brazil, Colombia, and Central America the plural form *mariamba* was adopted. In Central American Spanish, this word was pronounced *marihuana*. *Maconha* and *mariamba* are both plural nouns; *maconha* formally means tobacco, but informally means marijuana. In Kimbundu and related languages, the plural form was used historically to mean 'some amount of material to smoke', so *mariamba* meant 'some *Cannabis* to smoke'.

Slavers also valued the drug plant in their attempts to manage slave health, and thus also helped it disperse across the Atlantic. In Angola, in the 1840s an English botanist recorded that there was an active commerce in *diamba* because it was "a useful remedial agent [...] highly esteemed [for] supporting the strength and condition of the slaves on their long and toilsome marches toward the place of their embarkation". This use seems to have extended aboard the *tumbeiros*, although I have found no direct accounts of *Cannabis* on slave ships. Most accounts of smoking certainly describe tobacco, but others are unclear. One slaver, for instance, observed Central Africans surreptitiously smoking a pipe below deck in the 1820s, but could not identify what was smoked<sup>19</sup>. Angolan slave-ship captains encouraged sailor loyalty by supplying brandy

and 'tobacco', and presumably Angolan captives were at least rarely given alcohol and 'tobacco', in line with Dutch, French, and English practices<sup>21</sup>. Slaves may have shared *Cannabis* with slave-ship sailors. The liberated slaves in Jamaica in 1862 called the plant *fumo*<sup>22</sup>, suggesting that they had used the word when aboard a Brazilian ship (Portuguese ships had exited the trade in the 1830s).

Slavers may have unwittingly supplied marijuana because 'tobacco' was not necessarily the tobacco plant, *Nicotiana*. Names for *Cannabis* in Brazil, spoken by slaves and slavers, include *fumo de negro* and *fumo de Angola*, and *maconha*<sup>23</sup>. Elsewhere drug *Cannabis* was called 'Congo tobacco' and 'African tobacco'<sup>24</sup>.

The fourth dispersal pathway was via commercial trade in drug *Cannabis*.

Beginning in the 1840s, Europeans began to notice that drug *Cannabis* had market value in Angola, where slave caravans carried it to the coast from far inland<sup>25</sup>. It was packed in long, narrow cones, tied in a packet of tree leaves. Trade in *Cannabis* similarly extended into the Congo Basin from eastern Angola, seemingly entering the lower basin mostly via the Kasai and Lulua Rivers. This commerce gave rise to the Bena-Riamba movement along the Kasai<sup>26</sup>, which was a political/religious movement centered on drug *Cannabis* use. This commerce enabled the plant to colonize settled areas throughout the entire Congo Basin by the end of the 1800s.

Commercial trade also carried *Cannabis* overseas. When the transatlantic slave trade ended, the Angolan economy plummeted and colonial Angolan businessmen began to seek new export products. Portuguese colonists displayed *diamba* at world's fairs in London and Paris in the 1860s, and later fairs in France, Belgium, and Britain<sup>27</sup>. At least one enterprising merchant advertised Angolan *Cannabis* in a Brazilian magazine, in

1883<sup>28</sup>. By 1870 *diamba* was certainly an export crop, shipped from Angola to Gabon<sup>29</sup>. During the following three decades, published records from Gabon show significant *Cannabis* imports. For instance, in 1890, *Cannabis* was the fifth most valuable import, after cloth, clothing, rifles, and copper. In Gabon and throughout the Congo Basin, the primary buyers seem to have been laborers in colonial industries, particularly construction and mining.

During this same time, published Angolan customs records—which are very clearly incomplete—show exports to Gabon, Portugal, Britain, and Germany, but nearly two-thirds of reported exports went to São Tome. The primary buyers there were the *serviçais*, the nominally free laborers who replaced slaves on the island's plantations. Most of these people came from Angola, where they were often forcibly recruited into service, and kept on the island with no means of returning to the mainland. Drug *Cannabis* plants grew on São Tome by 1869, when plantation workers smoked it<sup>30</sup>. Primary documents show that laborers continued to use the drug at least through the end of the century<sup>31</sup>.

I would like to raise a question to begin my conclusion. Is drug *Cannabis* in the Atlantic World African? My answer is that it is, and it isn't, and I have two reasons for both possibilities—that it is, and it isn't. First, drug *Cannabis* isn't African, because the plant entered the Atlantic in association with multiple migrations, only one of which was African. I mentioned the *bangue* tradition of Portuguese sailors, but I haven't mentioned the *ganja* tradition brought to the Caribbean by indentured laborers beginning in the 1840s. I also haven't mentioned the hashish tradition that came out of the Mediterranean.

However, these other traditions arrived in very few places and with very few people. *Diamba* was transferred much more widely, by many more people. Although people are now more widely aware of other traditions of drug *Cannabis* use, the *diamba* tradition deeply underlies current knowledge of the plant throughout the Atlantic. For instance, *fumo* and *diamba* were the words that initially accompanied the plant to Jamaica, where liberated slaves smoked it African water pipes. *Ganja* became the primary name for *Cannabis* in Jamaica because colonial administrators used this term in Jamaica's first laws against *Cannabis*, based on their knowledge of drug use in British India and amongst indentured Indian laborers<sup>32</sup>. Globally, the paraphernalia of drug *Cannabis*, water pipes and small dry pipes, traces back to pre-Columbian African technology. *Marihuana*, possibly the most widely recognized term for the plant, is ultimately an African word. So, in a very deep sense, yes, drug *Cannabis* in the Atlantic is African.

And yet it is not African. Current drug cultures have basically nothing to do with African antecedents, other than very faint echoes in language and technology. More importantly, the *diamba* that was transferred throughout the Atlantic was only superficially African. It was instead part of the globalized and capital-based economy that developed in the post-Columbian Atlantic. This economy both produced and depended upon exploitative labor systems, hazardous tasks and technologies, and risky nutritional and disease environments. Within this economy, drug *Cannabis* was an environmental resource that helped enable workers to perform physically demanding, mentally dulling tasks in perpetuity.

Consider, for instance, the Portuguese *bangue* tradition. Initially, in India

Portuguese men used it, like Indian laborers did, to "to forget their labour" in the words
of a source from 1600<sup>33</sup>. They also used *bangue* to treat gastrointestinal illness<sup>34</sup>,
probably because the drug can relieve cramps and encourage eating despite illness.

Mortality and morbidity rates for European sailors were notoriously high because they
had poor diets, risky work, and frequent exposure to infectious diseases<sup>35</sup>. Common
sailors were crucial to mercantile shipping, but represented low socioeconomic classes in
their native societies, and were made to supply hard labor in often miserable conditions.

Similarly, *ganja* came from India with indentured laborers beginning in the 1840s. There is a rich literature on drug use amongst these people and amongst laborers in India. *Cannabis* was used to stimulate work, to assuage hunger sometimes and to stimulate hunger other times, and to provide a temporary escape from difficult realities.

Central African laborers probably endured the worst conditions of these three groups. *Diamba* had a similar role for laborers in and from western Central Africa—both slaves and nominally free laborers. In St. Helena, liberated slaves in 1845 found *Cannabis* to be a "sovereign remedy against all complaints". With what little they had, they purchased *Cannabis* from South Asian lascars—sailors—who stopped at the island, because in addition to whatever medicinal value it had, the liberated slaves appreciated that it "exhilarat[ed their] spirits". In Angola, in the late 1800s, *carregadores*—porters—used *diamba* in the mornings as a stimulant before work, and in the evenings to treat aches and pains, and to escape temporarily their difficult realties. Colonial European travelers observed this practice in porters from Nigeria to Angola. In Brazil, laborers in the mines used *diamba*, and paid for it with cash in at least some instances, in

the 1860s<sup>37</sup>; sugarcane workers grew patches on rocky hillsides unsuitable for cash crops<sup>38</sup>.

In short, within the labor underclasses upon which the Atlantic economy was built, all cultural groups used drug *Cannabis*. This was not an African thing. *Cannabis* was part of exploitative labor systems within mercantile, capitalist, and colonial economies. In political-economic terms, *Cannabis* enhanced the capacity of people to exist as exploited laborers, and thus enabled capitalists and colonialists to extract increased surplus value from their labor. Of course, from the perspective of the people who were in these exploited positions, drug *Cannabis* was often an important resource that somehow abetted survival.

It is in this way that *diamba* is, at last, African. *Diamba*, unlike *bangue* or *ganja* or other traditions of drug *Cannabis* use, was an African response to the exploitative labor conditions that emerged during the modern era. *Diamba* may have originated somewhere about Malawi before it traveled west in slave caravans, but the practices and knowledge that eventually dispersed throughout the Atlantic originated in the slave society of eighteenth- and nineteenth-century western Central Africa. The knowledge people developed for coping and surviving in those conditions was inherently suited to both enduring the Middle Passage and thriving in the exploitative labor regimes in the Americas. Some types of African knowledge necessarily crossed the Atlantic and persisted in the Americas, because this knowledge arose in the same broad economic system that existed on both sides of the Atlantic.

#### Works cited

- Bilby, Kenneth (1985), 'The Holy Herb: Notes on the background of cannabis in Jamaica', *Caribbean Quarterly*, Monograph, 82-95.
- Burton, Richard F. (1869a), *Explorations of the highlands of Brazil* (Vol. 2; London: Tinsley Brothers).
- --- (1869b), Explorations of the highlands of Brazil (Vol. 1.; London: Tinsley Brothers).
- Carney, Judith A. (2001), *Black rice: the African origins of rice cultivation in the Americas* (Cambridge, MA: Harvard University Press) 240 pp.
- Carney, Judith A. and Rosomoff, Richard Nicholas (2009), *In the shadow of slavery: Africa's botanical legacy in the Atlantic World* (Berkeley, CA: University of California Press).
- Chatelain, Héli and Summers, W.R. (1893), 'Bantu notes and vocabularies. No. I. The Language of the Bashi-Lange and Ba-Luba', *Journal of the American Geographical Society of New York*, 25 (4), 512-41.
- Clarke, R.O. (1851), 'Short notice of the African plant Diamba, commonly called Congo Tobacco', *Hooker's Journal of Botany*, 3, 9-11.
- Cunnison, Ian (1961), 'Kazembe and the Portuguese 1798-1832', *Journal of African History*, 2 (1), 61-76.
- Daniell, William F. (1850), 'On the D'amba, or dakka, of southern Africa', *Pharmaceutical Journal and Transactions*, 9 (8), 363-65.
- de Almeida, Carlos (1883), 'Generos coloniaes [advertisement]', in Rodrigues Cordeiro, A.X. (ed.), *Novo almanach de lembranças Luso Brazileiro para o anno de 1884* (Lisbon: Lallement Frères), 189.
- de Saldanha da Gama, Antonio (1839), *Memoria sobre as colonias de Portugal: Situadas na costa occidental d'Afrique* (Paris: Typographia de Casimir).
- Demuth, K. (2000), 'Bantu noun class systems: Loan word and acquisition evidence of semantic productivity', in Senft, G. (ed.), *Classification Systems* (Cambridge, UK: Cambridge University Press).
- Derham, W. (ed.), (1726), *Philosophical experiments and observations of the late eminent Dr. Robert Hooke* (London: W. Derham, printed by W. and J. Innis).
- Du Chaillu, Paul B. (1861), *Explorations and adventures in equatorial Africa* (New York: Harper Brothers).
- Duvall, Chris S. (2015), Cannabis (London: Reaktion Press).
- Fabian, Johannes (2000), Out of our minds: Reason and madness in the exploration of Central Africa (Berkeley: University of California Press) 320 pp.
- Ferreira Ribeiro, Manuel (1871), Relatorio ácerca do Serviço de Saude Publica na Provincia de S. Thomé e Principe no Anno de 1869 (Lisbon: Imprensa Nacional).
- Ficalho, Francisco Manuel Carlos de Mello, Conde de (1947 [1884]), *Plantas úteis da África portuguesa* (2d ed. edn.; Lisbon: Agéncia Geral das Colónias) 301 pp.
- Flückiger, Dr. (1867), 'Pharmaceutische Reiseeindrucke [part I]', *Pharmaceutische Centralhalle für Deutschland*, 8 (49), 436-42.
- Freyre, Gilberto (1937), Nordeste: Aspectos da influencia da canna sobre a vida e a paizagem do Nordeste do Brasil (Rio de Janeiro: José Olympio) 267 pp.
- --- (1943), Casa-grande e senzala (4th ed. edn.; Rio de Janeiro: J. Olympio).

- Granada, Daniel (1890), *Vocabulario Rioplatense Razonada* (Montevideo: Imprenta Rural).
- Hawthorne, Walter (2010), From Africa to Brazil: Culture, Identity, and an Atlantic Slave Trade, 1600-1830 (New York: Cambridge University Press) 259 pp.
- Ivens, Charles (1898a), 'L'Angola méridional', *Société d'Études Coloniales (Belgium)*, 5 (5), 233-69.
- --- (1898b), 'Consulat général de Belgique à Sainte-Croix de Ténériffe', in Ministère Des Affaires Étrangères (Belgium) (ed.), Recueil consulaire contenant les rapports commerciaux des agents belges à l'étranger publié en execution de l'Arrêté royal du 13 novembre 1855. Tome 100 1898 (Brussels: P. Weissenbruch), 5-66.
- Lartigue (1870), 'Contributions à la géographie médicale: La lagune de Fernand-Vaz et le delta de l'Ogo-Wé', *Archives de Médecine Navale*, 14, 163-91.
- M'Henry, George (1845), 'An account of the Liberated African Establishment at St. Helena', *Simmond's Colonial Magazine*, 5, 172-83, 434-41.
- Miller, Joseph C. (1988), Way of death: Merchant capitalism and the Angolan slave trade, 1730-1839 (Madison, WI: Wisconsin University Press).
- Moller, Adolf Friedrich (1886), 'Exploração botanica nas possessões Portuguezas', *Jornal de Horticultura Pratica*, 17, 40-43.
- Monteagudo, Henrique (ed.), (2002), *Martín Sarmiento: Sobre a Lingua Galega: Antoloxía* (Madrid: Editorial Galaxia).
- Mott, Luiz (1986), 'A maconha na história do Brasil', in Henman, A. and O. Pessoa, Jr. (eds.), *Diamba sarabamba* (São Paulo: Ground), 117-35.
- Padres Missionarios (1896), *Diccionario Portuguez-Olunyaneka* (Huilla, Angola: Typographia da Missão).
- Sanders, William H. and Fay, William Edwards (1885), *Vocabulary of the Umbundu language* (Boston: Beacon Press).
- Silva Porto, António Francisco Ferreira da (1942 [c. 1885]), *Viagens e Apontamentos de um Portuense em África* (Lisbon: Divisão de Publicações e Biblioteca, Agência Geral das Colónias).
- Sluyter, Andrew (2012), *Black ranching frontiers: African cattle herders of the Atlantic World, 1500-1900* (New Haven, CT: Yale University Press).
- Vansina, Jan (1962), 'Long-distance trade-routes in Central Africa', *Journal of African History*, 3 (3), 375-90.
- --- (2008), 'Communications between Angola and East Central Africa before c. 1700', in Heintze, B. and V.O. Achim (eds.), *Angola on the Move: Transport Routes, Communications and History* (Frankfurt: Verlag Otto Lembeck), 130-43.
- Voeks, Robert A. (1997), Sacred leaves of Candomblé: African magic, medicine, and religion in Brazil (Austin, USA: University of Texas Press) 236 pp.
- Voeks, Robert A. and Rashford, John (eds.) (2013), *African Ethnobotany in the Americas* (New York: Springer).
- Welwitsch, Friedrich (1862), Synopse explicativa das amostras de madeiras e drogas medicinaes e de otros objectivos normente ethnographicos colligidos na provincia de Angola (Lisbon: Imprensa Nacional).

<sup>1</sup> Flückiger, D. (1867) Pharmaceutische Reiseeindrucke [Part I], *Pharmaceutische* Centralhalle für Deutschland, 8/49 436-42.

<sup>2</sup> Duvall, C.S. (2015) *Cannabis* (London: Reaktion Press).

- <sup>3</sup> Carney, J.A. (2001) Black Rice: The African Origins of Rice Cultivation in the Americas (Cambridge, MA: Harvard University Press) 240 pp, Carney, J.A. and R.N. Rosomoff (2009) In the Shadow of Slavery: Africa's Botanical Legacy in the Atlantic World (Berkeley, CA: University of California Press), Hawthorne, W. (2010) From Africa to Brazil: Culture, Identity, and an Atlantic Slave Trade, 1600-1830 (New York: Cambridge University Press) 259 pp, Sluyter, A. (2012) Black Ranching Frontiers: African Cattle Herders of the Atlantic World, 1500-1900 (New Haven, CT: Yale University Press), Voeks, R.A. (1997) Sacred Leaves of Candomblé: African Magic, Medicine, and Religion in Brazil (Austin, USA: University of Texas Press) 236 pp, Voeks, R.A. and J. Rashford (eds.) (2013) African Ethnobotany in the Americas (New York: Springer).
- <sup>4</sup> Garcia da Orta, *Colloquies on the Simples and Drugs of India*, 1895 translated edn (London, 1913 [1563]), p. 56.
- <sup>5</sup> Derham, W. (ed.), (1726) *Philosophical Experiments and Observations of the Late* Eminent Dr. Robert Hooke (London: W. Derham, printed by W. and J. Innis).
- <sup>6</sup> Monteagudo, H. (ed.), (2002) Martín Sarmiento: Sobre a Lingua Galega: Antoloxía (Madrid: Editorial Galaxia).
- <sup>8</sup> Mott, L. (Date 1986) A Maconha Na História Do Brasil. In Henman, A. and O. Pessoa, Jr. (eds.), Diamba Sarabamba (São Paulo: Ground), 117-35.
- <sup>9</sup> Granada, D. (1890) *Vocabulario Rioplatense Razonada* (Montevideo: Imprenta Rural). <sup>10</sup> Padres Missionarios (1896) *Diccionario Portuguez-Olunyaneka* (Huilla, Angola: Typographia da Missão), Sanders, W.H. and W.E. Fay (1885) Vocabulary of the Umbundu Language (Boston: Beacon Press).
- <sup>11</sup> De Saldanha Da Gama, A. (1839) *Memoria Sobre as Colonias De Portugal: Situadas* Na Costa Occidental D'afrique (Paris: Typographia de Casimir).
- <sup>12</sup> Cunnison, I. (1961) Kazembe and the Portuguese 1798-1832, *Journal of African* History, 2/1 61-76, Miller, J.C. (1988) Way of Death: Merchant Capitalism and the Angolan Slave Trade, 1730-1839 (Madison, WI: Wisconsin University Press), Vansina, J. (1962) Long-Distance Trade-Routes in Central Africa, Journal of African History, 3/3 375-90.
- <sup>13</sup> Vansina, J. (Date 2008) Communications between Angola and East Central Africa before C. 1700. In Heintze, B. and V.O. Achim (eds.), Angola on the Move: Transport Routes, Communications and History (Frankfurt: Verlag Otto Lembeck), 130-43.
- <sup>14</sup> Demuth, K. (Date 2000) Bantu Noun Class Systems: Loan Word and Acquisition Evidence of Semantic Productivity. In Senft, G. (ed.), Classification Systems (Cambridge, UK: Cambridge University Press).
- <sup>15</sup> Clarke, R.O. (1851) Short Notice of the African Plant Diamba, Commonly Called Congo Tobacco, Hooker's Journal of Botany, 3 9-11, M'henry, G. (1845) An Account of the Liberated African Establishment at St. Helena, Simmond's Colonial Magazine, 5 172-83, 434-41.

<sup>16</sup> Du Chaillu, P.B. (1861) *Explorations and Adventures in Equatorial Africa* (New York: Harper Brothers).

<sup>17</sup> Manoel Pio Corrêa, *Diccionario das Plantas Úteis do Brasil e das Exóticas Cultivadas* (Rio de Janeiro, 1926), vol. I, p. 472.

<sup>18</sup> Daniell, W.F. (1850) On the D'amba, or Dakka, of Southern Africa, *Pharmaceutical Journal and Transactions*, 9/8 363-65.

<sup>19</sup> William Butterworth, *Three Years Adventures of a Minor in England, Africa, the West Indies, South-Carolina and Georgia*, 2<sup>nd</sup> edn (Leeds, UK, 1831), p. 127.

<sup>20</sup> Rediker, *Slave Ship*, p. 195.

<sup>21</sup> Handler, 'Middle Passage'.

Luis da Câmara Cascudo, Made in Africa (pesquisas e notas) (Rio de Janeiro, 1965), pp. 179-180; José Rodrígues da Costa Doria, 'Os Fumadores de Maconha; Effeitos males do vicio', in Proceedings of the Second Pan American Scientific Congress, ed. G. L. Swiggett (Washington, D.C., 1917), Section VIII, Part 1, pp. 151-161.

<sup>24</sup> Clarke, 'Short Notice'; Doria, 'Os fumadores', p. 151; Les Missionaires, Dictionnaire Pongoué–Français (Paris, 1881), p. 128; Ladisláu Netto, Investigações Historicas e Scientificas Sobre o Museu Imperial e Nacional do Rio de Janeiro (Rio de Janeiro, 1870), p. 254; Augusto Carlos Teixeira de Aragão, Breve Noticia Sobre o Descobrimento da America (Lisbon, 1892), p. 37.

<sup>25</sup> Daniell (On the D'amba, or Dakka, of Southern Africa, Silva Porto, A.F.F.D. (1942 [c. 1885]) *Viagens E Apontamentos De Um Portuense Em África* (Lisbon: Divisão de Publicações e Biblioteca, Agência Geral das Colónias), Welwitsch, F. (1862) *Synopse Explicativa Das Amostras De Madeiras E Drogas Medicinaes E De Otros Objectivos Normente Ethnographicos Colligidos Na Provincia De Angola* (Lisbon: Imprensa Nacional).

<sup>26</sup> Chatelain, H. and W.R. Summers (1893) Bantu Notes and Vocabularies. No. I. The Language of the Bashi-Lange and Ba-Luba, *Journal of the American Geographical Society of New York*, 25/4 512-41, Fabian, J. (2000) *Out of Our Minds: Reason and Madness in the Exploration of Central Africa* (Berkeley: University of California Press) 320 pp.

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<sup>28</sup> De Almeida, C. (Date 1883) Generos Coloniaes [Advertisement]. In Rodrigues Cordeiro, A.X. (ed.), *Novo Almanach De Lembranças Luso Brazileiro Para O Anno De 1884* (Lisbon: Lallement Frères), 189.

<sup>29</sup> Lartigue (1870) Contributions À La Géographie Médicale: La Lagune De Fernand-Vaz Et Le Delta De L'ogo-Wé, *Archives de Médecine Navale*, 14 163-91, p. 175.

<sup>30</sup> Ferreira Ribeiro, M. (1871) *Relatorio Ácerca Do Serviço De Saude Publica Na Provincia De S. Thomé E Principe No Anno De 1869* (Lisbon: Imprensa Nacional), pp. 104, 258.

<sup>31</sup> Ivens, C. (Date 1898b) Consulat Général De Belgique À Sainte-Croix De Ténériffe. In Ministère Des Affaires Étrangères (Belgium) (ed.), *Recueil Consulaire Contenant Les Rapports Commerciaux Des Agents Belges À L'étranger Publié En Execution De L'arrêté Royal Du 13 Novembre 1855. Tome 100 — 1898* (Brussels: P. Weissenbruch), 5-66, p. 12, Ivens, C. (1898a) L'angola Méridional, *Société d'Études Coloniales (Belgium)*,

5/5 233-69, Moller, A.F. (1886) Exploração Botanica Nas Possessões Portuguezas, *Jornal de Horticultura Pratica*, 17 40-43, p. 41.

<sup>32</sup> Bilby, K. (1985) The Holy Herb: Notes on the Background of Cannabis in Jamaica, *Caribbean Quarterly*, Monograph 82-95.

<sup>33</sup> van Linschoten, *Voyage*, p. 116.

<sup>34</sup> Robert Knox, *An Historical Relation of the Island Ceylon in the East-Indies* (London, 1681), p. 154.

John H. Parry, 'Ships and Seamen in the Age of Discovery', *Caribbean Quarterly*, II (1951/1952), pp. 25-33; Dorothy Denneen Volo and James M. Volo, *Daily Life in the Age of Sail* (Westport, CT, 2002); Roger C. Smith, 'Vanguard of Empire: The Mariners of Exploration and Discovery', *Terrae Incognitae*, XVII (1985), pp. 15-27.

<sup>36</sup> M'henry (An Account of the Liberated African Establishment at St. Helena.

<sup>37</sup> Burton, R.F. (1869b) *Explorations of the Highlands of Brazil* (Vol. 1.; London: Tinsley Brothers), Burton, R.F. (1869a) *Explorations of the Highlands of Brazil* (Vol. 2; London: Tinsley Brothers).

<sup>38</sup> Ficalho, F.M.C.D.M., Conde De (1947 [1884]) *Plantas Úteis Da África Portuguesa* (2d ed. edn.; Lisbon: Agéncia Geral das Colónias) 301 pp, Freyre, G. (1937) *Nordeste: Aspectos Da Influencia Da Canna Sobre a Vida E a Paizagem Do Nordeste Do Brasil* (Rio de Janeiro: José Olympio) 267 pp, Freyre, G. (1943) *Casa-Grande E Senzala* (4th ed. edn.; Rio de Janeiro: J. Olympio).