



# Radical Stories in the Kirstenbosch National Botanical Garden

## Emergent Ecologies' Challenges to Colonial Narratives and Western Epistemologies

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**Abstract** When the Kirstenbosch National Botanical Garden was established in Cape Town, South Africa, in 1913, it was envisioned as a site that served white citizens. Kirstenbosch was presented as a landscape in which plants functioned as representatives of their wild habitats. The botanical garden's curatorial practices silenced histories of colonial occupation, frontier violence, colonial agriculture, and slavery that had shaped the land on which it was built. Narratives that celebrated colonial histories were cultivated in monumental gardening. Throughout its existence, Kirstenbosch has centered Western epistemologies. Where Indigenous knowledge systems were featured, they were mediated through ethnobotany. While human stakeholders lacked commitment to transformation, emergent ecologies evolved that interrupted colonial narratives and Western epistemologies. Discussing histories of wild almond trees, hybrid plants, and cycads, the author suggests that the emergent ecologies around them introduced radical stories to Kirstenbosch. The emergent ecologies' storytelling is radical because it works at the roots of plants and historical genealogies, and it roots different narratives—of ruination and new flourishing, diversity and local becomings, multispecies kinship and love—into Kirstenbosch. In doing so, the emergent ecologies introduce possibilities for reimagining the botanical garden as an institution of environmental governance from within its confines and its disciplines.

**Keywords** botanical garden, colonialism, emergent ecologies, multispecies storytelling, plants

During a visit to the Kirstenbosch National Botanical Garden in Cape Town, South Africa, in December 2016, I was surprised to come across a construction of metal sticks and strings in the display section of annual plants (fig. 1). A notice board informed visitors that the strings were installed to stop Egyptian geese (*Alopochen aegyptiaca*) from eating the seedlings and “give [them] a chance to grow, and flower.” The construction reminded me of a game of string figures about which Donna Haraway writes that they “are like stories; they propose and enact patterns for participants to inhabit, somehow,

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*Environmental Humanities* 13:1 (May 2021)

DOI 10.1215/22011919-8867208 © 2021 Melanie Boehi

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Figure 1. String design at Kirstenbosch. Photograph by Melanie Boehi.

on a vulnerable and wounded earth.”<sup>1</sup> The string design was the result of Kirstenbosch staff members’ hands fastening cords around metal sticks, rising from the earthlike prosthetic fingers. They temporarily drew bright lines and geometric figures against a canvas of brown soil and green vegetation, like stories written in a secret script. As I walked past them, I wondered, What could they be about? If other players took up the strings, how would the plot develop?

The strings ensured that the plants could grow into flower displays for the enjoyment of human spectators. Deterred from feeding on them, the geese had to find food elsewhere. They didn’t have to go far: from grass on the nearby lawn to aquatic plants in the pond and the flora in the many unprotected beds, the botanical garden provided plenty. Because of their penchant for lawns, water bodies, and open landscapes, Egyptian geese have become regular users of Cape Town’s artificial landscapes where human users often opposed their presence.<sup>2</sup> At Kirstenbosch, staff members accepted that they were there to be lived with, even though not on equal terms. Just like Haraway understands string figures as an offering of patterns for inhabiting a fragile world,

1. Haraway, *Staying with the Trouble*, 10.

2. Little and Sutton, “Perceptions towards Egyptian Geese at the Steenberg Golf Estate.”

Kirstenbosch's string design attempted to create a setting in which plants, animals, and humans could get along.

The strings' main purpose was to stop geese; however, they also had the unintended potential to stop human visitors. Not that humans would have threatened the seedlings: except for playful children and unruly photographers, they were seldom found trespassing into plant beds. Rather, in the setting of a botanical garden in which the dominant design principle was to make the displays look natural, visitors would stumble over them with their eyes. The strings made one of the many hidden labor processes visible that went into the production of naturalized space and provided a glimpse into its artificiality and fragility. It showed that what is presented as nature is the making of multispecies sociality; the outcome of complex entanglements of human, animal, and vegetal histories. In front of the string design the garden began to appear as a space full of stories.

The strings gave rise to what Eben Kirksey describes as an *emergent ecology*. Emergent ecologies are “multispecies communities that have been formed and transformed by chance encounters, historical accidents and parasitic invasion.”<sup>3</sup> They evolve when the destruction of established multispecies communities opens up new possibilities for flourishing. The emergent ecology around the strings opened up such possibilities in two ways: the strings physically facilitated the coexistence of geese, plants, and humans, and by disrupting the botanical garden's narrative of naturalization, they could inspire visitors to reconsider how social relationships between people and plants, and also between various groups of people, were constituted in it. They could draw attention to how the narratives presented in the botanical garden reproduced a colonial understanding of a naturalized landscape where plants passively represented taxonomic orders and geographical territories, and in which Black labor was rendered invisible. This article takes up the string design as string figure to be passed on—from the annual plants display to other garden sections, archives, and Kirstenbosch staff members—to ask, What stories do emergent ecologies tell about challenging colonial narratives and Western epistemologies and about possibilities for flourishing in the botanical garden?

### Rooting Colonial Narratives and Western Epistemologies at Kirstenbosch

The Kirstenbosch National Botanical Garden is situated on the eastern slopes of Table Mountain. It spreads across 36 hectares (89 acres) of cultivated land and 528 hectares (1305 acres) of nature reserve, has more than 7,000 plant species in cultivation, and is equipped with a conservatory, herbarium, and research center.<sup>4</sup> Since its foundation in 1913, Kirstenbosch has evolved as the center of a network of national botanical gardens spread throughout the country that the South African National Biodiversity Institute

3. Kirksey, *Emergent Ecologies*, 1.

4. SANBI, “Kirstenbosch,” [www.sanbi.org/gardens/kirstenbosch](http://www.sanbi.org/gardens/kirstenbosch) (accessed May 17, 2020).

(SANBI) manages as “windows into South Africa’s biodiversity.”<sup>5</sup> Like most botanical gardens around the world, Kirstenbosch is today framed as a site of biodiversity conservation, research, and education. With more than a million visitors annually it is among South Africa’s most popular natural heritage sites.<sup>6</sup> This status was further strengthened in 2004 when UNESCO included it in its nomination of the Cape Floristic Region Protected Areas as a natural World Heritage Site, thereby making Kirstenbosch the first botanical garden to be listed under natural criteria.<sup>7</sup>

The understanding of Kirstenbosch as belonging to a sphere of nature that is supposedly separated from culture hides political histories. Most botanical gardens evolved as embedded in colonial and imperial politics; they functioned as sites where plants were collected, studied, and disseminated for economic use and where knowledge and affections were produced that legitimated colonial distributions of power.<sup>8</sup> Botanical gardens contributed not only to the exploitation and destruction of colonized environments but also to the interruption of Indigenous epistemologies and ontologies, as colonized people were forced “to absorb western concepts of nature,” including the dualistic framing of nature and human society as separated and hierarchically ordered spheres.<sup>9</sup> Colonized people were thereby often relegated to the sphere of nature; a stereotype that has lived on in racist assumptions about “Africans as being connected organically—atavistically even—to nature.”<sup>10</sup> Colonial ideas about nature and culture have prevailed in South Africa’s heritage and tourism discourses to this day.<sup>11</sup> In the country’s most renowned natural heritage sites, such as the Kruger National Park, narratives about colonized people’s histories remain marginalized as the category of cultural heritage emerged as secondary to natural heritage.<sup>12</sup>

Elsewhere, botanical gardens have begun to embrace more complex narratives as biodiversity became their primary concern. John Hartigan discusses how in Spanish botanical gardens genetics-based plant science sparked renewed discussions about where species belong and interrupted the dominant taxonomic ordering principle.<sup>13</sup> As sites of “care of the species,” botanical gardens’ aims, which in the past were concerned first with empire and then with the nation, now “increasingly orient toward publics that may well begin to disrupt these older, dominant political frameworks.”<sup>14</sup> Katja Grötzner Neves in *Postnormal Conservation* provides an optimistic outlook on the prospect of

5. SANBI, *Annual Report 2018/19*, 24.

6. SANBI, *Annual Report 2017/18*, 33.

7. UNESCO, “Cape Floral Region Protected Areas,” [whc.unesco.org/en/list/1007](http://whc.unesco.org/en/list/1007) (accessed May 17, 2020).

8. Compare with Brockway, *Science and Colonial Expansion*; Drayton, *Nature’s Government*.

9. Ramutsindela, *Parks and People in Postcolonial Societies*, 2.

10. Dlamini, “‘To Know the African Wild Was to Know the African Subject.’”

11. Rassool and Witz, “South Africa.”

12. Meskell, *Nature of Heritage*.

13. Hartigan, *Care of the Species*, 145.

14. Hartigan, *Care of the Species*, 217.

botanical gardens as agents for change.<sup>15</sup> Neves reminds us that while the history of botanical gardens is commonly associated with European colonial hegemony and epistemologies, some botanical gardens supported counterhegemonic movements. More recently, some of them have begun to critically reflect on their historical legacies and add climate change and social justice to their agendas in an attempt to reinvent themselves as institutions of environmental governance. As “spaces of multispecies conviviality,” they strive to not only manage relationships between people, animals, and plants but also relations among groups of people and institutions.<sup>16</sup> The following discussion of Kirstenbosch shows that the move from being part of a problem to being part of its solution is not always a smooth one. As apartheid came to an end, the South African National Botanical Gardens repositioned themselves as agents of biodiversity conservation and economic and social development.<sup>17</sup> Yet displays continued to center colonial narratives and Western epistemologies, and these existed in parallel with newly added interpretative frameworks in ways that made it difficult for new modes of conviviality to emerge.

Kirstenbosch has throughout its existence been a space where changing understandings of nature and the nation were defined in terms of each other and visitors were educated in citizenship. The idea of establishing a new botanical garden in Cape Town gained sufficient political support after the formation of the South African Union in 1910.<sup>18</sup> The botanist Harold Pearson, who was to become Kirstenbosch’s first director, emerged as its most prominent promoter. He argued that a new “National Botanic Garden” was necessary for the development of the economy, science, horticulture, conservation, and white citizenship formation.<sup>19</sup> Politicians who supported Pearson’s idea framed the botanical garden as a school in patriotism.<sup>20</sup> They thereby deployed the popular trope of indigenous plants as markers of white settler nationalism, which Lance van Sittert shows had evolved since the 1890s.<sup>21</sup> The selection of the site for the new botanical garden intimately connected it to histories of colonial occupation, frontier violence, colonial agriculture, and slavery. On October 27, 1657, the Dutch East India Company allocated the land on which the botanical garden was later established to Leendert Cornelissen, who, using the labor of enslaved people, harvested timber for the company and other settlers.<sup>22</sup> In May 1659 fifty to sixty Indigenous people attacked Cornelissen

15. Neves, *Postnormal Conservation*, chap. 1, part 1.

16. Neves, *Postnormal Conservation*, chap. 3, part 3.

17. Willis, *Gardens for the Nation*.

18. McCracken and McCracken, *Way to Kirstenbosch*, 24–31.

19. Pearson, “National Botanic Garden.”

20. Union of South Africa, House of Assembly, *Debates of the Third Session of the First Parliament 1913*, 2164–79.

21. van Sittert, “Making the Cape Floral Kingdom”; compare with Comaroff and Comaroff, “Naturing the Nation.”

22. Alexander Cook, “Historical Introduction to Kirstenbosch (1657–1915),” 15–16; Leibbrandt, *Precis of the Archives of the Cape of Good Hope, January 1656–December 1658*, 156.

and as a result he began enclosing his land.<sup>23</sup> A few months later the Dutch East India Company considered fencing the entire settlement to prevent Indigenous people from stealing cattle.<sup>24</sup> A fence, part of which ran along Kirstenbosch, was planned in 1660. In the eighteenth and nineteenth centuries, land ownership of Kirstenbosch changed several times. It was used for farming until 1895 when Cecil John Rhodes bought it as part of his scheme to buy as much as possible of the forest slopes of Table Mountain to preserve them from development.<sup>25</sup> Rhodes died in 1902 and left his property along Table Mountain to his trustees for later transfer to a federal South African government.<sup>26</sup> In the years between Rhodes's death and the establishment of the botanical garden, Kirstenbosch became a popular site of leisure for the white inhabitants of Cape Town.<sup>27</sup> It was also used for subsistence harvesting of natural resources and hunting of small game, likely by the inhabitants of Protea Village, a community of descendants of enslaved people who lived nearby until they were forcibly removed during the apartheid era.<sup>28</sup>

With the establishment of the botanical garden the landscape was altered in both material and symbolic ways. Subsistence activities were criminalized and the cosmopolitan multispecies assemblage that reflected precolonial and colonial histories was transformed through processes of *naturalization* and *indigenization*. I use these terms in ways reminiscent of Krista A. Thompson's concept of tropicalization, which describes the visual systems through which the Anglophone Caribbean was imagined for tourist consumption and their impacts on spaces and the multispecies communities inhabiting them.<sup>29</sup> Kirstenbosch was to look natural and its policy was to prioritize the collection of plants classified as indigenous to South Africa. The category of the indigenous was not fixed but evolved as part of imperial formations in the southern African region.<sup>30</sup> Initially, plants from all over Africa were collected, a focus subsequently narrowed down to the territories under South African military influence. Kirstenbosch thereby functioned as a "center of calculation," an institution that works at a distance on events, people, and places by making them mobile, stable, and combinable in a totalizing knowledge system.<sup>31</sup> Exotic plants that were remnants of earlier colonial histories were removed unless they were associated with celebrated figures of colonial history and became subjects of monumental gardening. During the apartheid era, Kirstenbosch

23. Leibbrandt, *Precis of the Archives of the Cape of Good Hope, January 1659–May 1662*, 26.

24. Leibbrandt, *Precis of the Archives of the Cape of Good Hope, January 1659–May 1662*, 59–60.

25. Herbert Baker quoted in Stead, *Last Will and Testament of Cecil John Rhodes*, 16.

26. Stead, *Last Will and Testament of Cecil John Rhodes*, 20.

27. Edwards, "Childhood Recollections of Kirstenbosch at the Turn of the Century," 9.

28. Pearson, *Report of the Hon. Director for the Period July 1–December 31, 1913*, 5; compare with Baduza, "Memory and Documentation in Exhibition Making."

29. Thompson, *An Eye for the Tropics*, 5.

30. Boehi, "Multispecies Histories of South African Imperial Formations in the Kirstenbosch National Botanical Garden," 81–87.

31. Latour, *Science in Action*, 223.

frequently participated in propaganda activities of the state.<sup>32</sup> In the context of increasing international criticism and boycott in the late 1950s, *botanical diplomacy* emerged as an alternative form of conventional diplomacy to counter international criticism and isolation. Emphasizing that plants and gardens were apolitical, the apartheid state deployed them in its image campaigns and participated in international flower shows, often with plants supplied by Kirstenbosch. Botanists and plants themselves were regarded as effective ambassadors who would spread positive stories about the country.

As apartheid came to an end, the management of the South African National Botanical Gardens acknowledged that they had in the past exclusively served white interests and that they had to become relevant to all South Africans to justify their future existence.<sup>33</sup> In the 1990s, Kirstenbosch introduced several new displays with the aim to attract more Black visitors. The most prominent addition was the Useful Plants Garden featuring African plant knowledge and uses, which opened in 2003 and was presented as a step toward the “Africanising” of the botanical garden.<sup>34</sup> Traditional healers and Rastafari *bossiesdokters* (bush doctors) were consulted during the development phase of the new display.<sup>35</sup> Yet the display itself presented African knowledge systems not on their own terms but through an ethnobotanical lens. Several storyboards emphasized that the featured plant uses were documented in ethnobotanical publications and described African knowledge as oppositional to Western science. Valentin Y. Mudimbe criticized this kind of presentation of African knowledge as needing to be validated by Western science and the ordering into a dichotomizing system as epistemological Eurocentrism.<sup>36</sup> Much of the criticism directed at ethnobotany also applies to the Useful Plants Garden, such as that it “discarded or sanitized” information referring to beliefs and perceptions of plants, exotic plants, and innovative and syncretic practices.<sup>37</sup>

While the Useful Plants Garden marked an Afrocentric spot, the rest of Kirstenbosch continued to function as a racialized space that centered Western science and continued to honor figures of white settler history with monuments and on information boards. Developments in the 2010s, such as the addition of a tree canopy walk and an exhibition of dinosaur sculptures, moved Kirstenbosch further away from addressing past legacies and instead presented it as a benign nature theme park. By not engaging with its colonial and apartheid histories, Kirstenbosch functions as a space of what Ann Laura Stoler calls “colonial presence”; as a space in which multiple temporalities exist and in which colonialism is in the “past but not over.”<sup>38</sup> Nonetheless there have

32. Boehi, “Flowers Are South Africa’s Silent Ambassadors.”

33. Yeld, “Blooming Kirstenbosch!”

34. Viall, “Plants with a Purpose.”

35. Xaba, personal communication, May 16, 2020.

36. Mudimbe, *Invention of Africa*, 15.

37. Ellis, “Plant Knowledge,” 81–87.

38. Stoler, *Duress*, 25–26.



Figure 2. Van Riebeeck's Hedge at Kirstenbosch. Photograph by Melanie Boehi.

been frictions: emergent ecologies have evolved that destabilized colonial narratives and Western epistemologies from within the disciplines and frameworks supposed to reproduce them, some of them literally offering radically different stories. In the following, the article discusses three examples of emergent ecologies that interrupted historical, botanical, and anthropocentric narratives in ways that inspire rethinking how the botanical garden functions as an institution of environmental governance.

#### **Van Riebeeck's Curse and Pharmakon**

Today, Van Riebeeck's Hedge, which consists of a row of densely planted wild almond trees (*Brabejum stellatifolium*), is likely the most famous and controversial monument at Kirstenbosch (fig. 2). Kirstenbosch presents it as a connection to the early years of the colonial occupation of the Cape. It was supposedly planted in 1660, following instructions of Jan van Riebeeck, the commander of the Dutch East India Company, to enclose the colonial settlement. Parts of the colonial fence were designed as a vegetal hedge of wild almond trees and thorny shrubs. Wild almond, which in English is also called bitter almond, is endemic to the fynbos biome in which Kirstenbosch is situated and primarily appears near water.<sup>39</sup> The trees grow large and wide-spreading stems, with branches first growing vertically, and then over time leaning and growing sideways until they

39. Notten and Malan, "Brabejum stellatifolium."

occasionally touch the ground and root into it. Van Riebeeck's crew was presumably inspired to select wild almond for fencing due to its form and because it grew naturally in the area. However, the hedge was likely ineffectual as a colonial frontier because the trees and the colonial expansion grew at a different pace. Kirstenbosch senior botanical horticulturalist Adam Harrower estimated that it would take between at least sixty to eighty years for the trees to grow from seeds into an effective hedge.<sup>40</sup> By the time the trees would have grown into a functional fence, the colonial settlement had long outgrown it.

Upon the establishment of the botanical garden, the wild almond trees became subjects of monumental gardening. Harold Pearson explained in 1914 that the hedge was found with difficulty because it was partly burned down and overgrown. The hedge was cleared and careful preservation was promised for the future. Pearson further suggested that parts of the hedge outside of the garden should also be maintained as a unique "historic link with the Van Riebeeck [sic] period."<sup>41</sup> Botanists discussed whether the trees indeed had formed part of the historical hedge. Wild almonds' growing habit makes it difficult to determine the age of a tree, as old branches rot and fresh stems grow from the new roots. In 1915, E. A. Walker remarked that it was impossible to say whether the existing trees had been planted in 1660, as fires would occasionally have burned everything to the ground, yet the size of the roots indicated that they were older than the shoots.<sup>42</sup> Pearson added to this that also the position of the trees in a line and removed from water pointed to them having been part of the hedge.<sup>43</sup> Not unlike multispecies ethnographers the botanists studied form and assemblage to learn about their social lives.<sup>44</sup>

When Pearson referred to the hedge as a link to van Riebeeck's era he connected it to present historical narratives. Van Riebeeck emerged as a prominent historical figure in the nineteenth century, first in narratives related to Cape Dutch identity, and toward the end of the century also to British settler identity.<sup>45</sup> Yet in the early twentieth century he was not given much attention in public history narratives and his statue on Cape Town's Adderley Street became "green and grimy" due to neglect.<sup>46</sup> The fate of the hedge was similar: despite initial enthusiasm attention was sporadic. A 1917 published panorama of Kirstenbosch and a map published in 1918 did not include it.<sup>47</sup> The author of an article describing a garden walk published in 1918 mentioned passing "a

40. Adam Harrower, interview by Melanie Boehi, Kirstenbosch, December 20, 2016.

41. *Cape Times*, "Botanical Gardens."

42. Walker, "Old Cape Frontier," 136.

43. Pearson, "Postscript," 138.

44. Tsing, "More-Than-Human Sociality," 32.

45. Witz, *Apartheid's Festival*, 38–43.

46. Witz, *Apartheid's Festival*, 47.

47. Goldman, "Birds-Eye View of the National Botanic Gardens, Kirstenbosch"; Page, "Sketch Plan of Kirstenbosch."

thick clump of *Brabeium* [sic] *stellatifolium*” and described it as a remnant of the hedge.<sup>48</sup> An artist commissioned to sketch sites at Kirstenbosch in 1922 reported that he “could find no trace of anything that suggested a hedge” until he was shown “two great clumps of bushes about ten feet high.”<sup>49</sup> He compliantly sketched them but worried they were not recognizable as Van Riebeeck’s Hedge. The hedge had thus slowly been rooted into popular knowledge of Kirstenbosch geography but not yet become a subject of consistent horticultural care.

To transform the clumps into a hedge they had to be curated as such. In the annual report for 1929 Kirstenbosch’s second director, Harold Compton, wrote that the silver trees (*Leucadendron argenteum*) surrounding it were thinned out to increase visibility and protection from fire, and *Watsonia* bulbs were planted around it to “provide a charming display of flowers against the dark background in spring and early summer.”<sup>50</sup> The choice of bright flowers suggests that Compton did not trust that the hedge would attract the attention of visitors whose “plant blindness” might make them incapable of appreciating the trees with their greyish-brown bark and dark green leaves.<sup>51</sup> In 1936 the part of the hedge at Kirstenbosch was declared a national monument, and in 1945 the remains located outside of the garden were also added to it.<sup>52</sup> As a living monument the hedge had once more evolved together with South African public history.<sup>53</sup> In the 1940s and 1950s van Riebeeck emerged as a central figure in the historical narrative of a nationalist ideology that unified whites in a genealogy of settlement.<sup>54</sup> In 1952 a Jan van Riebeeck Tercentenary Festival was staged to honor his arrival at the Cape, which established him at the center of South African public history. Probably inspired by this, Kirstenbosch organized a celebration of the tercentenary of the hedge. On April 30, 1960, young wild almond trees were distributed to members of the public for replanting along the original fence.<sup>55</sup> The *Cape Argus* published an article on the occasion titled “Apartheid Started with Bitter Almonds,” in which the author argued that even if the hedge had not been effective “there is no reason why the original trees plus the young ones handed out to-day [sic], should not still be marking the original bitter-almond apartheid line three centuries from to-day.”<sup>56</sup> In the apartheid era, the hedge was regarded as suitable for rooting the ideology of racial segregation into both the past and the future. In the postapartheid era, information boards were installed that provided a more critical account of early settler history. Yet the new information boards also reproduced colonial narratives. A text about the history of Indigenous people was accompanied with a

48. White, “Some View-Points at Kirstenbosch,” 7.

49. Porte, “Kirstenbosch the Beautiful,” 14.

50. Compton, *Report of the Director to the Trustees for the Period January 1st to December 31st, 1929*, 5.

51. Wandersee and Schussler, “Preventing Plant Blindness.”

52. South African History Online, “Van Riebeeck’s Hedge, Kirstenbosch Botanical Gardens, Cape Town.”

53. Simmons and Berman, “First Cape Frontier Is Living Monument to van Riebeeck.”

54. Rassool and Witz, “1952 Jan van Riebeeck Tercentenary Festival.”

55. *Cape Times*, “Van Riebeeck’s Almond Hedge.”

56. D’Ewes, “Apartheid Started With Bitter Almonds.”

photograph of a group of people described as the “Tsumkwe tribe. Namibia today,” thus suggesting that Indigenous people in southern Africa lived in a timeless ethnographic world. The reference to Namibia further connected uncomfortably to South Africa’s military occupation of the neighboring country. By presenting a narrative about the hedge that limited its history to the early colonial period Kirstenbosch silenced the fact that it had effectively come into being as a site of colonial power not in the sixteenth but in the twentieth century.

The celebration of van Riebeeck has not gone uncontested. The 1952 tercentenary festival had been prominently opposed and boycotted by resistance movements.<sup>57</sup> The commemoration of the hedge in 1960 seemed to not have attracted protestors, possibly because it was a much smaller occasion. In 1955, a plaque put up at the hedge had been stolen; however, this was suspected to be an act of souvenir hunters.<sup>58</sup> A replacement plaque was vandalized in 2001 and as a result the South African Heritage Resource Agency removed it.<sup>59</sup> Interestingly, the protester(s) had not targeted the trees themselves. Authors of essays and newspaper articles critically discussed the hedge, but none of their contemplations sparked a lasting debate about its future.<sup>60</sup> More likely than human intervention, changing perspectives on it will be the work of *Armillaria* and the emergent ecology that it has formed together with wild almond trees.

*Armillaria* is a genus of several species of fungi that cause root rot in woody plants. In 1996 scientists identified *Armillaria mellea* on diseased oak trees (*Quercus rubur*) in the Company’s Garden in central Cape Town.<sup>61</sup> The Company’s Garden, today a popular public park, is the remnant of the provision garden established by the Dutch East India Company. DNA sequencing and other molecular analyses showed that the fungus found on the oaks was likely introduced from Europe in the mid- to late 1600s by the early Dutch settlers together with potted fruit and ornamental trees. Because of it being part of van Riebeeck’s multispecies community, *Armillaria mellea* was given the nickname “van Riebeeck’s curse.”<sup>62</sup> In May 2000 *Protea* and *Leucadendron* plants at Kirstenbosch were dying and diagnosed with *Armillaria* root rot. Parts of Van Riebeeck’s Hedge were infected too and several of its trees died. Scientists identified two different fungi species present at Kirstenbosch: *Armillaria mellea* and *Armillaria gallica*.<sup>63</sup> *Armillaria mellea* was most likely introduced via air-dispersed basidiospores from the Company’s Garden.<sup>64</sup> Another possible route of infection could have been the introduction of infected

57. Rassool and Witz, “1952 Jan van Riebeeck Tercentenary Festival,” 460.

58. *Cape Times*, “Plaque Still Missing.”

59. Witz, “Apartheid’s Icons in the New Millenium,” 209.

60. Compare with Martin, “Rainbow Nation,” 3; Malala, “Is Cape Town a Racist City?”; Vearey, “Amandelboomgrense.”

61. Coetzee, et al., “Root Rot Fungus *Armillaria mellea* Introduced into South Africa by Early Dutch Settlers,” 388, 394.

62. Le May, “‘Van Riebeeck’s Curse’ Killing Off Historic Oaks in Gardens.”

63. Coetzee, et al., “Discovery of Two Northern Hemisphere *Armillaria* Species on Proteaceae in South Africa,” 609–10.

64. Coetzee et al., “*Armillaria* Root Rot Spreading into a Natural Woody Ecosystem in South Africa,” 888.

plant material or infested wood mulch.<sup>65</sup> *Armillaria gallica* originated in Asia and was likely introduced to Kirstenbosch in the early nineteenth century together with potted plants. Thus, the presence of both species was related to colonial agriculture.

In unmanaged forest ecosystems *Armillaria* plays an important role as wood decomposers that contribute to carbon and mineral cycling.<sup>66</sup> The fungi's killing of trees enables the replacement of individuals or entire species, which in turn has positive impacts on biodiversity and regeneration. However in artificial or semiartificial managed ecosystems, it can have devastating consequences. So far no remedy is known against *Armillaria* root rot. Locally it spreads through rhizomorphs and root contact. The most effective way for countering parasitic *Armillaria* is to remove infected plants, including their entire root system. However this is expensive and practically often impossible.<sup>67</sup> Soil fumigation with methyl bromide or carbon disulphide has been used elsewhere to kill the fungal mycelium in infected roots with variable success, but due to high toxicity this method is generally prohibited. The planting of resistant species, increase of species diversity, density reduction, and natural regeneration can contribute to damage control. But none of these measures could be implemented at Kirstenbosch without fundamentally changing the botanical garden.

It seems, in a case of historical irony, that van Riebeeck himself introduced the agent that would become part of the emergent ecology that radically challenged his commemoration. Ruining Van Riebeeck's Hedge, the emergent ecology could free the botanical garden of its most prominent colonial monument. Storytelling with *Armillaria* brings to the fore narratives that remind us that colonialism was not the work of human settlers alone but also of their multispecies companions.<sup>68</sup> This is an ongoing story: the fungi continue their trajectory of environmental destruction as *Armillaria* root rot has begun to appear outside the garden, on Table Mountain. *Armillaria* does not act as a reliable agent of decolonization but rather like a *pharmakon*, which, depending on dosage, circumstances, or context, is remedy or poison.<sup>69</sup>

### Reproductive Entanglements

In 1921 a committee set up to advise on the future developments of Kirstenbosch suggested the addition of a display of plants that resulted from hybridization and other horticultural practices.<sup>70</sup> Likely the committee referred to the many South African species that European breeders had imported and developed into popular garden plants.<sup>71</sup>

65. Wingfield, et al., "Fungal Phoenix Rising from the Ashes?," 151.

66. Heinzelmann, et al., "Latest Advances and Future Perspectives in *Armillaria* Research."

67. Adam Harrower, interview by Melanie Boehi, Kirstenbosch, December 20, 2016.

68. Crosby, *Columbian Exchange*.

69. Kirksey, *Emergent Ecologies*, 39.

70. Louis Peringuey, "Report of the National Botanic Gardens Advisory Committee," July 5, 1922, National Archives of South Africa, National Archives Repository, SAB UOD 85 Z20/9.

71. Fraser and Fraser, *Smallest Kingdom*, 115–31.

The display would have created awareness for plant breeding as a source of wealth on which South Africa had so far missed out. The suggested section was not introduced at the time. Garden displays were initially designed according to criteria of taxonomy and phytogeography. Thematic sections followed later and only in 2009–10 was a display of “Kirstenbosch Selections” introduced, which showed plants that had been selected or bred from the wild in the botanical garden.<sup>72</sup>

Hybrid plants troubled the perception of Kirstenbosch as a site of pristine nature. In 1974 Kirstenbosch’s third director, Brian Rycroft, told the participants of a horticultural congress that he loathed plant breeders’ “uncouth” genetic modifications and that the botanical garden’s task was “to preserve the country’s native flora as it was evolved by nature” and to safeguard the “national character of the country’s wild flowers.”<sup>73</sup> In Rycroft’s logic, plants evolved in the wild and their entering into the botanical garden’s collection equaled being frozen in time and space. The labor of humans who collect, classify, and care for them is crucial for reproducing their wild status. Staff members reproduce plants in processes that involve complex social practices. Reproduction evolves in entanglements of plants with animal and human pollinators and propagators, which result in emergent ecologies that challenge narratives of purity and naturalization. The emergent ecologies’ social lives are more diverse than official garden narratives acknowledge. The marginalization of diversity is not unique to Kirstenbosch, as historically all disciplines rooted in Western culture have discriminated against diversity.<sup>74</sup> In the following, a selection of Kirstenbosch staff members’ encounters with emergent ecologies is discussed to argue that while dominant narratives have marginalized diversity, individual staff members have acknowledged and even encouraged it for a long time.

Already in 1919 Kirstenbosch curator J. W. Mathews observed unusual color variations in some of the plants in the bulb section that “indicated there ha[d] been intercrossing between the species at some time or other.”<sup>75</sup> Since its establishment, Kirstenbosch collected plants from a large geographical range. As a result plants grew in closer proximity and higher density within the botanical garden than in their original habitats and birds, insects, and wind could cross-pollinate them. This happened frequently, especially with smaller plants that were arranged in masses to create full displays. Because of open pollination in the garden, staff members did often not “trust” seed and rather used seeds collected in the wild or cloned plants.<sup>76</sup> Yet the control of sexual reproduction has been neither total nor uncontested. In 1955 horticulturalist Harry Hall argued that for succulents, it was impossible and not desirable to exclusively use “pure” seeds.<sup>77</sup> He explained that at Kirstenbosch “the industrious bees pollen-gathering

72. Phakamani Xaba, personal communication, May 16, 2020.

73. *Cape Argus*, “Some Newer Flowers ‘Uncouth.’”

74. Roughgarden, *Evolution’s Rainbow*, 3.

75. Mathews, “Curator’s Report, 1919,” 9.

76. Phakamani Xaba, interview by Melanie Boehi, Kirstenbosch, December 9, 2016.

77. Hall, “‘Pure Seeds’ — or Otherwise. . .,” 16.

amongst the bushy Mesems have no regard for man-made rules.” He was not opposed to bees “working” in the Lithops section when twenty or thirty species of them were flowering as they relieved him of the time-consuming “task of wielding the pollinating brushes.” He trusted the process: “We can but rely upon Nature to decide whether a species will utilise pollen from a flower of the same, or that from some other species. To a lesser degree this goes on in the wild for in many instances species of the same genus flower together.”

Hall explained that the concern for purity was partly derived from people in Europe who underestimated South African plant diversity because they were only familiar with plants that resulted from vegetative propagation—which brings forth less diversity than sexual reproduction—from one or two individuals introduced in the eighteenth century. Besides practicality and science Hall also listed beauty as a reason against insisting on pure seeds. He had himself collected seeds of *Muiria hortenseae* in the wild from which hybrid plants of *Muiria* x *Gibbaeum album* grew. He described them “as one of the loveliest sights I know” and assumed that even staunch defenders of pure species would relent unless they were “totally indifferent to the family of the Aizoaceae” (16). Throughout the decades more hybrid plants aesthetically moved Kirstenbosch staff members. One of them, a hybrid offspring of *Erica patersonii* and *Erica nana*, was even released to the horticultural industry as *Erica Gengold*.<sup>78</sup>

Sometimes while walking through Kirstenbosch, staff members pointed out hybrid plants to me that I had failed to notice. To visitors whose eyes are not trained to spot them, much of the botanical garden’s diversity remains invisible. However, there are a few exceptions where diversity is highlighted, especially in the cycad display section. Cycads have been cultivated at Kirstenbosch since its beginnings. They do not naturally occur in the area and were first collected in the Eastern Cape. Staff members were initially not aware of how cycad reproduction functioned.<sup>79</sup> Cycads are dioecious plants and their natural pollinators are insects living in the crevices of the plants’ stems, where they hibernate until a change in temperature and chemical compounds motivates them to move. These pollinators were unintentionally introduced together with the cycads. Two species, *Encephalartos altensteinii* and *Encephalartos trispinosus*, were prone to cross-breeding because they cone and get pollinated at the same time. As a result of the proximity in the botanical garden several hybrid offspring (*Encephalartos altensteinii* x *trispinosus*) evolved (figs. 3 and 4). This emergent ecology of hybrid cycads has been allowed to thrive like the plants introduced from the wild. The cycads were equipped with a plant label that instead of the plants’ natural habitat included the description “ex hort”—short for *ex hortus*, from the garden. In his discussion of *etiquetas* (the Spanish term for plant labels, which in English translates as *etiquettes*) Hartigan writes that they “open up an attention to the manifold layers of interaction and

78. Hitchcock, “Erica ‘Gengold.’”

79. Phakamani Xaba, interview by Melanie Boehi, Kirstenbosch, December 9, 2016.



Figure 3. Display of *Encephalartos altensteinii* x *trispinosus* at Kirstenbosch. Photograph by Melanie Boehi.

identification established or promoted in botanical gardens between plants and people.”<sup>80</sup> Sharing the same design with other plant labels at Kirstenbosch, the ones of the hybrid cycads framed them as firmly belonging to the botanical garden while also drawing attention to their specificity. They interrupted the otherwise rigid ordering according to categories of the indigenous and exotic, and registered diversity that otherwise went unacknowledged. The labels tell a story about how the emergent ecologies around cycads produced their own time and space: they kept their own time because they defied notions of frozen time, and shaped their own space because they were no longer only of their original habitat but also of the garden.

To avoid more cycadean cross-pollination staff members began to “emasculate” them. When the male plants reached a mature stage the horticulturalists cut off the cones and took them to the nursery where they would shed the majority of the pollen. The pollen was then cleaned, sieved, and stored at minus 20° Celsius, which let them last for about five years. They were then used to pollinate the female plants of the same species in the garden as well as endangered plants in situ. Phakamani Xaba, a horticultural scientist and curator of Kirstenbosch’s Cycad Living Plants Collection, explained that many horticulturalists were “passionate about conserving threatened plants through scientifically enhanced methods ensuring species’ or genes’ survival,”

80. Hartigan, *Care of the Species*, 218.



Figure 4. Plant label for *Encephalartos altensteinii* x *trispinosus* at Kirstenbosch. Photograph by Melanie Boehi.

knowing that without their intervention, they would probably be extinct.<sup>81</sup> Thus, in the service of conservation Kirstenbosch staff members not only introduced measures to help stop sexual reproduction but also actively participated in it.

Not all interventions in cycads' sexual reproduction aimed at avoiding hybridization: in the case of *Encephalartos woodii*, it was actively facilitated. In 1895 the botanist John Medley Wood encountered a clump of four plants of the species on the fringes of the Ngoye forest near Mtunzini in KwaZulu-Natal.<sup>82</sup> All of them were male and originated from one plant. To this day these have remained the only plants of the species ever observed by botanists. In 1903 offsets were collected and in 1907 two of the larger trunks were collected, all to be established in the Durban Botanic Gardens. One of the remaining plants died and in 1916 the Forestry Department removed the last one and sent it to the Government Botanist in Pretoria. Since then, the species has been regarded as extinct in the wild. Also in 1916, Kirstenbosch received a sucker of *Encephalartos woodii* from Durban. It has since grown into a large plant and stands out because of a metal cage that was built around its stem to prevent theft (fig. 5). Because all surviving

81. Phakamani Xaba, interview by Melanie Boehi, Kirstenbosch, December 9, 2016; compare with Xaba, "Pollination and Germination as Limiting Factors in the Propagation of Threatened Cycads"; Xaba and Donaldson, "Factors Affecting Seed Production and Viability in Threatened Species of *Encephalartos*."

82. Notten, "*Encephalartos woodii*."



Figure 5. Display of *Encephalartos woodii* at Kirstenbosch. Photograph by Melanie Boehi.

specimens are male and genetically identical, sexual reproduction of the species is impossible. However, staff members embarked on a journey of breeding hybrid plants with the aim that they will gradually become more like *Encephalartos woodii*. For this they collected its pollen, pollinated its closest relative *Encephalartos natalensis* with it, and crossed the hybrid female offspring again with *Encephalartos woodii*. Botanists also hope that sexual reproduction within the species might once more become possible, either if a female plant were found in the wild, or if a male offspring underwent a sex change.

Plant and animal species that reproduce asexually, undergo sex changes, or in which all members are of the same sex exist, but *Encephalartos woodii* is not among them. Yet despite the lack of female plants the species has not disappeared. Altogether it is estimated that about five hundred specimens are in cultivation in collections around the world; all of them are male and genetically identical. Since the early twentieth century, the reproduction of *Encephalartos woodii* has not been sexual but instead has been enabled by social relationships between the plant and its people. The interest of cycad enthusiasts will likely ensure that they continue to be cared for in their collections in the future. These are not equal relationships but rather such in which humans exercise power in the form of care.

The collection, cultivation, and display of plants in the botanical garden leads to the formation of emergent ecologies with diverse ways to reproduce. Humans actively

participate in some of these emergent ecologies, be it as enabler or disabler of sexual reproduction, but plants and their pollinators also evolve without human interventions and out of human control. The reproduction of plants in the botanical garden involves complex multispecies interactions and ways of making sense of them that do not readily fit into the colonial model of the botanical garden, where plants represent a particular time and space. Rather, these emergent ecologies demonstrate that the botanical garden is a space where boundaries between species are not only defined but also transgressed and diverse new life forms and social relationships evolve.

### Cycad-I-Graphies

Kirstenbosch follows the dominant Western epistemology of presenting plants as passive objects to be known by active human subjects. Contrary to this model, many southern African Indigenous knowledge systems frame plants as agentic subjects that are entangled with the spheres of the human and the spiritual. Anthropologist William Ellis writes that the healers and plant practitioners in South Africa's Western Cape and Northern Cape provinces whom he has done research with engage in processes of plant knowledge generation that have epistemological as well as ontological dimensions.<sup>83</sup> For instance, Rastafari healers and plant practitioners explained to Ellis that knowledge of plants and their powers cannot simply be gathered but must be received by persons who prepared themselves by cultivating the right physical, mental, spiritual, and at times altered psychic states of being. Plants that are not harvested in the right way refuse to work. Ellis describes plant practitioners' knowledge as "not just a scientific method but an active process of becoming and knowing in the moment."<sup>84</sup> Researcher and artist Zayaan Khan similarly describes the interaction between herself and plants in the context of the preparation and consumption of food made from indigenous plants of the Cape as "inherently inherited."<sup>85</sup>

In an attempt to move beyond the anthropocentrism and "author-ity" inherent to single author ethnographies, Tihana Nathen, an anthropologist who has studied the plant practices of Rastafari *bossiesdokters* (bush doctors) and *kruiemanne* (herbalists) in the Matzikama Local Municipality, suggests the concept of "herb-I-graphies" to emphasize plants and humans as subjects within research.<sup>86</sup> With this concept she highlights plants' subjectivity ("herb"), the subjectivity of the assemblage of plants, plant practitioners and researchers ("I"), and a process of coauthored describing and interpreting ("graphies"). Nathen's concept also offers a productive approach for registering stories about subject formation in emerging ecologies in the botanical garden in which human participants animate and "relationally frame" plants in ways that divert from botany.<sup>87</sup>

83. Ellis, "Plant Knowledge," 80.

84. Ellis, "Plant Knowledge," 89.

85. Khan, "Inherently Inherited," 48.

86. Nathen, "Being Attentive," 115–26.

87. Bird-David, "'Animism' Revisited," S68.

In the following the article focuses on two emergent ecologies involving Kirstenbosch staff members and cycads in which the human participants encountered the plants not only as objects but also as subjects. Both staff members are scientists who would be expected to approach the plants as objects of science and horticultural care, yet they at least temporarily framed them as more than that. Stretching the concept of herb-I-graphies from describing research to storytelling in general, these two instances can be described as cycad-I-graphies. These cycad-I-graphies entered into the botanical garden's archive because they unfolded during times of crisis. The fact that the human participants held management positions further contributed to their stories being documented and archived. Likely, numerous similar emergent ecologies and many more "plant-I-graphies" have evolved at Kirstenbosch without entering into its archive; especially when their "I" included Black, working-class employees or convict laborers.

In 1898, Harold Pearson published his first article that was concerned with the anatomy of the seedling of *Bowenia spectabilis*, an Australian cycad.<sup>88</sup> Pearson wrote the article based on a photograph of an old root and observations of seedlings grown at the University Botanic Garden at Cambridge. When he became a botany professor at the Cape Town College in 1903, he looked forward to observing South African cycads in their natural habitats. In a 1906 article he wrote that they had so far been underresearched because their remote locations prevented systematic fieldwork.<sup>89</sup> This challenge, together with his personal research interest, likely motivated him to build up a cycad collection. At Kirstenbosch, Pearson and other employees tasked with caring for cycads became part of their emergent ecologies, which changed not only their perception of cycads but likely also of themselves.

Pearson took great pride in the cycads growing at Kirstenbosch and reportedly participated himself in planning and planting their display section together with a laborer.<sup>90</sup> In early 1915, he wrote to his mentor A. C. Seward who had visited Cape Town in 1914 that he wished he could see the cycads, as the slope that during his visit only harbored one plant of *Encephalartos altensteinii* now featured three hundred plants and he considered them to likely represent all known and unknown South African cycad species.<sup>91</sup> Julie Archambault argues in her writing about affective human-plant relationships in gardens in the Mozambican city Inhambane for taking love for plants seriously not only as a metaphor but also as an ontological relation.<sup>92</sup> Such an approach is suitable for studying Pearson's interactions with cycads, as he framed them not only as objects of scientific interest and care but also living beings whom he encountered

88. Pearson, "Anatomy of the Seedling of *Bowenia spectabilis*, Hook, F."

89. Pearson, "Notes on South African Cycads," 341.

90. Seward, "H. H. W. Pearson," xiv.

91. Seward, "H. H. W. Pearson," v.

92. Archambault, "Taking Love Seriously in Human-Plant Relations in Mozambique," 244–71; compare with Hartigan's discussion of "plant lovers" and "friends" of botanical gardens, Hartigan, *Care of the Species*, 231–36.

affectively. In another letter to Seward he described cycads as “the most fascinating things” and explained that “they grow upon you.”<sup>93</sup> He was aware that other people might find his emotional attachment to the plants strange and judge him for it. However this didn’t bother him and he even seemed to take pride in it, as he explained that he was “rapidly acquiring a reputation for incipient imbecility” in the Eastern Cape, as people found it exceptional that he would undertake a four-day train journey to spend three days with cycads.

Being with cycads gave Pearson a sense of rootedness in an increasingly chaotic time. In 1916 he wrote to a friend who was serving in the army during the First World War:

The Cycads [at Kirstenbosch] are increasing in numbers and have reacquired the native dignity of beings that have seen the world make a fool of itself many times and expect to see it again many more times and still remain detached. Almost my greatest satisfaction just now is derived from the contemplation of Cycads.<sup>94</sup>

Pearson described how he encountered cycads as living beings with whom he had an affective relationship. He admired them and enjoyed their company; perceived them as dignified witnesses of the foolishness of the warring human species and as subjects who were equal or even morally superior to humans. He was open to not only allow cycads to grow on him but also to grow together with them, even though he was aware of his perspective being limited by positionality, acknowledging that the cycads remained detached.

Pearson passed away unexpectedly in 1916 and was laid to rest close to his beloved cycads at Kirstenbosch. A Celtic cross with the inscription “If ye seek his Monument, look around” and a cedar tree (*Cedrus atlantica* var. *glauca*), which is endemic to the Atlas Mountains in the Maghreb and had been given to Pearson by Kew, were chosen to mark his grave (fig. 6). This seems somewhat incongruous for the man who considered contemplating cycads among his greatest pleasures. But maybe burying him among the cycads, with an indigenous plant instead of an exotic tree sent via the center of British imperial botany, would in the eyes of the trustees of Kirstenbosch have been a step too close to blur the lines between the human and the cycadean, lines that had faded in the cycad-I-graphies Pearson participated in.

A theft in Kirstenbosch’s cycad section that occurred a century after Pearson had initiated it brought cycad-I-graphies into local and international media.<sup>95</sup> Cycads have become sought-after collectables and collectors around the world are willing to pay large amounts of money for them. This resulted in the development of an international

93. Seward, “H. H. W. Pearson,” v.

94. “Miscellaneous Notes,” 278.

95. Smith, “South Africa’s Ancient Cycad Plants under Threat from Poachers”; Yeld, “Endangered Cycads Stolen from Kirstenbosch.”



Figure 6. Harold Pearson's grave at the edge of the cycad section at Kirstenbosch. Photograph by Melanie Boehi.

market for illegally poached cycads. In 2014, thieves targeted Kirstenbosch during two nights and stole twenty-four cycads, many of which were critically endangered. The plants were estimated to be worth around ZAR 700,000. However it is difficult if not impossible to put a figure on the loss. Phakamani Xaba told a journalist that “these plants become almost like your kids. . . . When one is missing, part of you is missing as well.”<sup>96</sup> He explained that the impact of the theft was not only financial but also “about the patience and tender loving care” as well as the loss of data. Xaba (pers. comm., May 16, 2020) equaled the theft to “abruptly ending an experiment that has been running for years without any results.” He related to the cycads as objects of science and care, but also as beloved beings and kin. He mourned the loss of data because research constituted a way to contribute to keeping them alive.

Xaba encountered some of the cycads that Pearson had met a century before him, although their contexts differed considerably: as an African, Xaba would during Pearson's time have been excluded from any professional management position, as he now held. If Pearson had lived as long as his cycads and met Xaba, would he have expanded his friendly affections to him? Would Xaba have welcomed him into his multispecies

96. Smith, “South Africa's Ancient Cycad Plants under Threat from Poachers.”

family? What about the cycads? Kirksey reminds us that multispecies families “often involve queer sensibilities, in the sense that they are based on relationships involving choice and love,” yet choice in this context “is often asymmetrical, with humans keeping others in condition of captivity.”<sup>97</sup> What both encounters demonstrate is that parallel to the botanical garden’s promotion of a Western epistemology that distinguishes clearly between humans as active producers of knowledge and plants as its passive objects, there have been staff members who at least temporarily related to cycads as subjects and participated in cycad-I-graphies. The relationships and knowledge generated in these encounters are not representations of Indigenous knowledge systems that exist outside of the botanical garden but are rooted within its confines and disciplines.

The Kirstenbosch cycad-I-graphies are also love stories. Archambault writes that the love for plants among the Mozambican young men she worked with was both literal and also a response to the commodification of love and intimacy, participation in which their marginalization in the postsocialist, postwar economy prevented.<sup>98</sup> Similarly, we can read Pearson’s and Xaba’s cycad love stories as expressions of their affective encounters and also as critiques of the politics of their respective eras; in Pearson’s case of war, in Xaba’s case of capitalism and the global market for endangered plants. Either way, the love stories are radical in the sense that they root undisciplined, affective relationships into the botanical garden.

### Conclusion

In botanical gardens curators assemble plants as “a narrative argument.”<sup>99</sup> They design displays according to plants’ needs, but also with a story in mind. At Kirstenbosch, a wide range of stories have been told since the establishment of the botanical garden in 1913; most prominently stories about South Africa’s floral wealth and biodiversity as well as stories about colonial settler history, taxonomy, and botany in the Western tradition. Natasha Myers reminds us that botanical and state gardens “go a long way toward naturalizing imperialist forms of extraction” but “that this violence doesn’t have to be the end of the story.”<sup>100</sup> Defining gardens “as sites where people *stage relationships with plants*,” she suggests that “it is also within the space of the garden enclosures that gardeners, architects, artists, laborers, and visitors have the opportunity to subvert and redefine what counts as ‘proper’ relations among plants and people.”<sup>101</sup> At Kirstenbosch, reimagining proper relationships among various groups of people who have been segregated by histories of colonialism and apartheid must be added to the project of continuing the story. Emergent ecologies can also contribute to this future story.

97. Kirksey, *Emergent Ecologies*, 135.

98. Archambault, “Taking Love Seriously in Human-Plant Relations in Mozambique,” 247.

99. Hartigan, *Care of the Species*, 161.

100. Myers, “From Edenic Apocalypse to Gardens against Eden,” 126.

101. Myers, “From Edenic Apocalypse to Gardens against Eden,” 116, 126.

The emergent ecologies that evolved at Kirstenbosch around Van Riebeeck's Hedge, hybrid plants and cycads show that while setting the scene humans are not in full control of the plot. On multiple occasions emergent ecologies challenged the narratives and knowledge systems that were centered in the garden's displays and demonstrated the presence of other stories. As a *pharmakon*, *Armillaria* began the work of ruining a colonial monument while also putting the future of the botanical garden and its surroundings at risk. Hybrid plants transgressed species boundaries, claimed their own time and space, and came close to insisting on new names. Cycad-I-graphies demonstrated that the dichotomy of human subjects and plant objects at least temporarily dissolved when individuals entered into affective relationships with one another. These emergent ecologies tell stories that are radical as they suggest that relationships and activities that interrupt colonial narratives and Western epistemologies have taken root within the institution of the botanical garden, putting forth new narrative arguments that can contribute to reimagining botanical gardens' functioning as institutions of environmental governance.

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#### Acknowledgments

I would like to thank Phakamani m'Afrika Xaba, Adam Harrower, and all the other SANBI employees who participated in my research over the years and generously shared their knowledge with me. I presented a first draft of this article at the internal seminar of the Wits Institute for Social and Economic Research (WISER), and I am grateful for the comments that I received there. I am also very thankful to Eben Kirksey, Achille Mbembe, Leslie Witz, Percy Zvomuya, the anonymous reviewers, and the editorial team of *Environmental Humanities* for their valuable comments and encouragement at various stages of this article.

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