

# ECOLOGICAL BIOPOLITICS IN THE GARDEN CITY

## Cosmopolitanism, Nationalism, and The Discourse on Natural Heritage

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*The coherence of official environmental discourse in Singapore is torn apart by the continued existence of two conflicting visions of the state-led landscaping project. On one hand, the idea of the “man-made garden” favors exotic lifeforms at the expense of native biodiversity. On the other hand, the increasingly popular notion of the “ecological garden” seeks to create a sacred space for native species at the total exclusion of foreign ones.*

*This ideological incoherence directly contradicts the Foucauldian paradigm of ecological biopolitics which takes rational governmentality as its axiom. Consequently, this paper argues for a paradigmatic shift in the field of ecological biopolitics by proposing the “gardening paradigm” as a replacement for the mainstream Foucauldian paradigm of ecological biopolitics. Rejecting the Foucauldian paradigm’s assumption of a rationalist state, the gardening paradigm demonstrates how the aesthetic and ecological imperatives of gardening influence state biopolitical management of non-human populations. The ecological imperative seeks to create a nativist utopia for local biodiversity by entirely excluding all exotic species while the aesthetic imperative seeks to create a cosmopolitan microcosm which often privileges exotic ornamentals at the expense of native species. This zero-sum situation forces the state to practice biopolitics by making non-human populations live and die based upon their overall contribution to the garden.*

*At the same time, this paper will also account for the emergence of biopolitical tensions between the aesthetic and ecological imperatives by using the “gardening paradigm” to trace the historical evolution of official environmental discourse in Singapore. This narrative will illustrate how the ecological imperative, in the guise of “natural heritage,” has broken the continuity of Singapore’s environmental discourse. By creating a parallel discourse alongside the predominant aesthetic imperative, this discontinuity has resulted in the two discordant visions of the garden city.*

## Introduction: A Tale of Two Gardens

The field of ecological biopolitics is in need of a paradigmatic shift. Living under the shadow of the Foucauldian paradigm,<sup>1</sup> ecological biopolitics is simplistically treated as the mere extension of “state and corporate management of biological life” from human populations to the natural world.<sup>2</sup> Being the ultimate sovereign power, the state not only has authority over human populations, but also all non-human life within its territorial boundaries. As a result, the life and death of non-human lifeforms hinges upon impersonal technocratic decisions made by a purportedly rationalistic state.

The philosopher Mick Smith, for example, believes that ecological biopolitics objectifies nature as a “mere resource” to be managed just as biopolitics dehumanizes humanity as “bare life” to be governed. This allows the state to un sentimentally decide which non-human lifeforms live and die, based on their value as assessed by the state’s political calculus. For example, when the state declares non-human lifeforms as natural resources to be exploited for the survival of human life, the state allows millions to die. However, when the state affirms the value of non-human life by declaring a natural reserve, it makes millions live.<sup>3</sup>

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<sup>1</sup> See Michel Foucault, *Society must be defended: Lectures at the College de France, 1975-76*. David Macy, trans. (New York: Picador, 2003), 241.

<sup>2</sup> Mick Smith, *Against Ecological Sovereignty: Ethics, Biopolitics, and Saving the Natural World*. (Minneapolis : University of Minnesota Press, 2011), xi-xii

<sup>3</sup> *Ibid*

Similar assumptions have been made by scholars of ecological biopolitics when they base their analysis around Foucault’s concept of governmentality as an inherently rationalistic means of policing society. Governmentality is defined as a “plane of thinking and acting concerned with the authoritative regulation of conduct towards particular objectives.”<sup>4</sup> It often manifests itself in public parks in order to shape the bodies and conduct of the human population along state-dictated ideological lines. For instance, Terence Young argued that the 19<sup>th</sup> century urban park was seen as a biological “machine to transform a flawed society.” As a mode of social control, parks were “imbued with the power to overcome anarchy, immorality, crime and indolence” and were effectively the “lungs and ‘conscience of the city.’”<sup>5</sup> Similarly, Chiara Certona also places great emphasis upon the “hidden rationality of planning” in public gardens. Building upon Bent Flyvbjerg’s ‘dark side of planning’ theory, he argued that the state has historically disciplined non-human nature through the public garden in order to shape human nature itself. <sup>6</sup> Consequently, Cotera observes that “different kinds of gardens materialized different planning rationality.” As he puts it,

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<sup>4</sup> Thomas Osborne and Barry Rose, eds, *Foucault and Political Reason: Liberalism, Neo-Liberalism and Rationalities of Government*. (London: Routledge, 1996), 737.

<sup>5</sup> Terence Young, *Building San Francisco’s parks, 1850-1930*, (Baltimore: John Hopkins University Press, 2004), 3.

<sup>6</sup> Chiara Certoma, “Expanding the ‘dark side of planning’: Governmentality and biopolitics in urban garden planning”, *Planning Theory* 14:1 (2015): 23-25.

...the 18<sup>th</sup> century ordered botanical gardens, for instance, mainly reflected mercantilist governmentality, while the leisure gardens of the 19<sup>th</sup> century marked the affirmation of liberal governmentality. While botanical garden biopolitics mainly consisted of the categorisation and imposition of order in the micro-cosmos of the garden which symbolized the order of the world; the biopolitics of leisure gardens made them stages for displaying plants, infrastructures and animals, so to fuel specific moral, political and social behaviours.<sup>7</sup>

Unfortunately, the continued existence of two conflicting planning rationalities within the official environmental discourse in Singapore seems to directly contradict the assumptions of the Foucauldian paradigm. This seemingly irrational mode of urban planning is best reflected by the state's contradictory usage of the term "natural heritage." A buzzword that was formally incorporated into the state's ecological rhetoric through the 2009 National Biodiversity Strategy and Action Plan, "natural heritage" was initially intended to signal the beginning of the state's unprecedented focus on biodiversity conservation.<sup>8</sup> Gone were the days when ministers could nonchalantly declare local biodiversity a secondary priority that has to "take into account the competing housing, economic[,] and other demands on our limited land

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<sup>7</sup> Chiara Certoma, "Expanding the 'dark side of planning,'" 34.

<sup>8</sup> *Conserving Biodiversity: Singapore's National Biodiversity Strategy and Action Plan*, National Parks Board. 2009, 3.

resources."<sup>9</sup> Instead, these non-human lives would have to be valued as legacies to be preserved "for the present and future generations."<sup>10</sup>

Unfortunately, the state's latest effort at preserving "natural heritage" seems to do more harm than good for local biodiversity. In 2016, the government announced plans to redevelop the Mandai forest into "an integrated wildlife and nature heritage precinct."<sup>11</sup> Consisting of a rainforest park and a bird park, the project claimed to be "conserving and nurturing Singapore's natural heritage, so that it can be enjoyed and loved by generations to come." The Rainforest Park would immerse visitors in "the sights and sounds of the tropical rainforest of Southeast Asia" while the Bird Park would conduct research on the "captive propagation of critically endangered species from all over the world."<sup>12</sup> While the conservationist ethic of the two proposed attractions was highly commendable, a local newspaper editor pointed out that the project was ironically compromising local biodiversity in favor of foreign wildlife. By building

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<sup>9</sup> Abdullah Tarmugi, Speech given at the official opening of the Green Hub@Pulau Ubin at the Pulau Ubin Community Centre, Singapore, 2001

<sup>10</sup> Thymio Papayannis and Peter Howard, *Editorial: Nature as Heritage*, in Peter Howard and Thymio Papayannis. Eds. *Natural Heritage: At the Interface of Nature and Culture*. (New York: Routledge, 2007), xi.

<sup>11</sup> Temasek Holdings (Private) Limited, *Temasek Partners Singapore Government To Rejuvenate Mandai Wildlife And Nature Heritage*, 2016, web, 9 Nov. 2016.

<sup>12</sup> Mandai Park Holdings, *Mandai to become integrated nature and wildlife destination for Singaporeans*, 2016, web, 9 Nov. 2016.

attractions stocked with “foreign wildlife” on the same habitat that “local biodiversity” occupies, the project is in a sense attempting to “replace native biodiversity with imported wildlife.”<sup>13</sup>

Viewed from the perspective of the Foucauldian paradigm, the Mandai Project is an anomalous instance of ecological biopolitics. While the state was indeed practicing biopolitics by consciously choosing between which non-human populations “must die” and which “must live,” it does not seem to be basing its decision on an impersonal cost-benefit matrix. Instead, it seems to be caught between the exclusionary nativist pretensions of “natural heritage” and an idealistic cosmopolitan desire to preserve the endangered species of the world. In fact, by wishfully attempting to realize both visions at the same time, the state exhibited a strong aversion towards destroying life, both native and exotic.

In view of the Foucauldian paradigm’s inability to satisfactorily explain the dynamics of ecological biopolitics in Singapore, I propose making a paradigmatic shift towards what I term as the “gardening paradigm” of ecological biopolitics. As I will explain in the following section, “the gardening paradigm” is a distinctive logic of governmentality from the mainstream Foucauldian paradigm. Rejecting the “Foucauldian paradigm’s” characterization of biopolitics as the cold blooded calculation of life and death, the “gardening paradigm” endeavors to emphasize the less rationalistic side of state governmentality by considering the biopolitical tension between aesthetic and ecological imperatives of gardening.

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<sup>13</sup> Audrey Tan, “Of sunbirds, hornbills and Singapore ecotourism,” *The Straits Times*, 15 September 2016, web, accessed 10 November 2016.

The aesthetic imperative seeks to shape the garden into an elegant landscape based upon human artistic sensibilities. By valuing life based on their contribution to the artistic whole, the aesthetic imperative reduces life into mere decorative ornaments. This usually results in native wildlife being displaced by more attractive ornamental exotics. Conversely, the ecological imperative seeks to restock the garden using native lifeforms, valuing life based upon their contribution to the local ecosystem. This usually necessitates the exclusion of exotic species.

This theoretical exposition will be followed by a narrative interpretation of Singapore’s environmental history that traces the development of official ecological discourse in Singapore since independence. This narrative will illustrate how the aesthetic imperative represents an unbroken line of continuity with the historic evolution of Singapore’s environmental discourse. Even with the state’s newfound focus on native biodiversity, the aesthetic imperative has managed to absorb the ecological imperative through the discursive shift from “Garden City” to “City in the Garden.” However, the ecological imperative, in the guise of “natural heritage,” has still managed to form a parallel discourse to the aesthetic imperative, pushing back the cosmopolitan vision of the “Garden City.”

## **The Gardening Paradigm of Ecological Biopolitics**

Most existing works on ecological biopolitics are based upon the tried and tested Foucauldian paradigm.<sup>14</sup> While this traditional framework is still

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<sup>14</sup> See Mick Smith, *Against Ecological Sovereignty*, p.xi-xvii; Connor J Cavanagh, “Biopolitics, Environmental Change, and Development Studies,” *Forum for Development Studies*, 4, 2 (2014): 273-294;

useful, it fails to provide a holistic understanding of state attitudes towards nature. For example, the philosopher Mick Smith believes that the state assesses the value of non-human life in terms of their usefulness as raw material.<sup>15</sup> While this explanation might work on a macro level, it unrealistically assumes that states only involve themselves with nature for economic reasons. After all, not every native species is worth conserving based on its economic value and it simply makes no financial sense to import exotic species when native ones are readily available. More importantly, this paradigm does not hold especially in Singapore, which does not have any natural resources to speak of.

It is thus much more useful to adopt the gardening paradigm when studying the state's biopolitical relationship with non-human life. As a microcosm of ecological biopolitics, the gardener's power over life and death in his garden is analogous to the authority the state has over its natural environment. This comparison is particularly appropriate in the context of Singapore, where the state has "manipulated the natural environment to reflect their vision of a planned green, urban landscape...a city in a garden." Just as a gardener tends to his garden, the state has "contained, disciplined[,] and manipulated" its natural environment in order to ensure that "nature has flourished."<sup>16</sup>

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4; R. Youatt, "Counting Species: Biopower and the Global Biodiversity Census," *Environmental Values*, 17, No. 3 (August 2008): 393-417

<sup>15</sup> Mick Smith, *Against Ecological Sovereignty*, 129.

<sup>16</sup> Timothy P. Barnard and Connie Heng, *A City in a Garden*. In *Nature Contained: Environmental Histories*

In my reading of the gardening paradigm of ecological biopolitics, I will show how the state's relationship with non-human life is also governed by what I term the ecological and aesthetic imperatives of gardening. The aesthetic imperative seeks to shape the garden into an elegant landscape based upon human sensibilities; on the other hand, the ecological imperative values life based upon their value to the local ecosystem. The ecological imperative is especially dangerous as it can easily degrade into ecological xenophobia whereby native biodiversity is celebrated while exotic lifeforms are demonized.

Here, I have placed the terms "ecological" and "aesthetic" in opposition to one another not to imply a divide between art and nature, but to convey two distinctive modes of gardening aesthetics. In his study on gardening, art critic Donald Crawford points out that the Western gardening tradition is based upon "harmonious relationships" between art and nature. The garden is not only modeled upon human aesthetics but also modeled upon nature itself.<sup>17</sup> For instance, the "French-style" formal garden is modeled upon the classical aesthetic ideal of symmetry and balance, while the "English-style" nature garden is modeled upon the natural world. Similarly, the ecological imperative takes nature as its model while the aesthetic imperative is based upon human artistic traditions.

The dynamics of the gardening paradigm of ecological biopolitics are best explained in cultural geographer Franklin Ginn's study of the suburban

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*of Singapore*. Timothy P. Barnard, ed. (Singapore: NUS Press, 2014), 283.

<sup>17</sup> Donald Crawford, "Nature and Art: Some Dialectical Relationships," *Journal of Aesthetics and Art Criticism* 42 (1983): 49-58.

garden. To Ginn, the ethos of gardening encompasses “a seemingly paradoxical combination of care and killing.” While the gardener’s main goal is “cultivating plants and their possibilities,” he observes that “these positive life-affirming aspects of gardening cannot be divorced from questions of killing, violence[,] and exclusion.” As he puts it, “the garden, far from a form of a retreat, must take the form of an attack on pests: foxes, greenfly...sycamore trees, unknown microorganisms, ivy, squirrels and others.”<sup>18</sup>

Ginn’s observations suggest that the practice of gardening is inherently biopolitical. Analyzed from the perspective of Foucauldian biopolitics, the garden appears to be a microcosm of biopolitics in action. As the sovereign authority of the garden, the gardener has “the right to make live and let die.”<sup>19</sup> Having taken all ornamental lifeforms in the garden under his care, the gardener has the responsibility to guarantee the life of his biopolitical subjects.<sup>20</sup> To achieve this goal, he subscribes to a form of biological racism to distinguish between the weeds and pests that “must die” and the ornamental plants that “must live.” As all life forms take up valuable space and nutrients, every weed destroyed by the gardener would allow the other plants to “live more.”<sup>21</sup>

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<sup>18</sup> Franklin Ginn, *Domestic Wild: Memory, Nature and Gardening in Suburbia* (Routledge, 2016), 110.

<sup>19</sup> Michel Foucault, *Society must be defended: lectures at the Collège de France, 1975-76*, David Macey, trans. (New York : Picador, 2003), 241

<sup>20</sup> Michel Foucault, *Society must be defended*, 253.

<sup>21</sup> Michel Foucault, *Society must be defended*, 252-255.

It is no wonder sociologist Zygmunt Bauman found the garden to be a compelling metaphor. He compares the state to a gardener and the human populations under its care to a garden. To Bauman, the garden is a utopian construct which exemplifies the “design for an ideal life and a perfect arrangement of human conditions.” In order to subjugate all lifeforms to the “better and necessarily artificial order” of the garden, the gardener classifies them in terms of their overall usefulness to the garden.<sup>22</sup> On one hand, the “useful plants” are identified in order to be “encouraged and tenderly propagated.” On the other hand, the weeds are identified in order “to be removed or rooted out.”<sup>23</sup>

Notwithstanding, Ginn contends that “the shifting circuits of life and death in the garden” are best understood through the concept of “awkward flourishing” rather than biopolitics. Ginn characterizes the gardener as a sentimental personality rather than a cold calculating strategist. As a result, the gardener does not treat unvalued life as “bare life” to be mercilessly slaughtered but rather as objects of ethical concern. Even as pests such as the slug evoke disgust within the gardener, the very act of killing is still an emotionally disturbing experience. Ginn thus observes that many gardeners “often reverse the biological imperative.” Instead of seeking to “secure their desired plants at the expense of unvalued life,” gardeners “begin [with] the question of how much killing they can do, given the constraints of

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<sup>22</sup> Zygmunt Bauman, *Modernity and the Holocaust* (Ithaca: Cornell University Press, 1989), 92.

<sup>23</sup> Zygmunt Bauman, *Modernity and Ambivalence*. (Cambridge: Polity Press, 1991), 21.

practicality, sentimentality[,] and regret they operate under.”<sup>24</sup>

Ginn rightly points out that gardening does not operate under the Foucauldian biopolitical paradigm. However, Ginn’s failure to analyze the aesthetic imperative of gardening has resulted in a woefully incomplete description of garden biopolitics. Most gardeners do not set up gardens simply for the pleasure of watching things grow. More often than not, the main purpose of the gardener is to create an aesthetically pleasing landscape. As American ecologist Douglas Tallamy puts it, “horticulturalists are artists, and their medium is the garden. Their goal is to paint the landscape with beautiful plants.” This has resulted in the reduction of plant life to mere landscaping features. Tallamy notes that native plants are often removed from garden plots as “it is easier to paint a picture on a blank canvas than one already filled with existing plant communities.” On the other hand, foreign exotics are favored because they provide “a larger palette to work with.” As a result, Tallamy argues, the “wholesale replacement of native plant communities with disparate collections of plants from other parts of the world is pushing our local animals to the brink of extinction.” He thus champions a garden filled solely with native plants in order to create “a beautiful, highly functional landscape in which nature is happy.”<sup>25</sup>

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<sup>24</sup> Franklin Ginn, *Domestic Wild: Memory, Nature and Gardening in Suburbia*, 115-116.

<sup>25</sup> Douglas W. Tallamy, *Flipping the Paradigm: Landscapes that Welcome Wildlife*. In *The New American Landscape: Leading Voices on the Future of Sustainable Gardening*. Thomas Christopher, ed. (Oregon: Timber Press, 2011), 175-176.

Unfortunately, Tallamy’s rejection of the gardening aesthetic does not remove biopolitics from the practice of gardening. The ecological imperative that he champions has a disturbing tendency to degrade into radicalized wildlife xenophobia. One of the most extreme examples is the German *Naturgarten*. The *Naturgarten*, as German biologist Reinhard Witt writes, is “not an environment for exotic perennials or foreign conifer trees. By definition, local nature is privileged. This cogently means native plants and native material.”<sup>26</sup> Witt is vehemently against exotic plants as he believes that they have absolutely no ecological value and are in fact impeding rather than creating “chances for life” for native plants.<sup>27</sup> Unsurprisingly, Witt exhorts his countrymen to “tear out” exotic plants like the rhododendron which he characterizes as dangerous invaders attempting to “conquer the ornamental gardens of Germany.”<sup>28</sup>

Notwithstanding, English gardener William Robinson ambitiously attempted to reconcile the two visions of the garden by proposing the “Wild Garden” in the same manner as the Mandai Project. According to Robinson, the Wild Garden is created by “taking the best wild hardy exotics and establishing them with the best of our wildflowers” in order to produce “the most charming results.”<sup>29</sup> While historian Anne Helmreich notes that Robinson places particular emphasis on the value of

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<sup>26</sup> Reinhard Witt, *Naturoase Wildgarten*, (Munich: BLV Verlag GmbH & Co, 1992), 14.

<sup>27</sup> Reinhard Witt, *Naturoase Wildgarten*, 10.

<sup>28</sup> Reinhard Witt, “Reisst die Rhododendren raus,” *Kosmos*, 1986, 70.

<sup>29</sup> William Robinson, *The Wild Garden* (London: John Murray, 1881), vii.

British wildflowers as essential elements of the island nation's natural heritage, she argues that "Robinson had no interest in assembling a kind of national Swiss or German flora" as the proponents of the German Naturgarten wanted. Instead, he wanted to "visualize various 'plant natures' from many places around the world in his nature garden."<sup>30</sup> In a sense, Robinson wanted to seamlessly integrate native plant life within his gardening aesthetic while ensuring that exotic plant life harmoniously blend in with the local environment.<sup>31</sup>

In a sense, Robinson's "Wild Garden" was an attempt to balance the ecological and aesthetic imperatives by reimagining the garden as a heterotopia. The garden, as Michel Foucault notes, is "the oldest example" of a place which juxtaposes "several sites that are in themselves incompatible" within "a single real space." Using the traditional Persian garden as his example, he argues that the garden was both a sacred space and a microcosm of the world at the same time. On one hand, the garden was a site whose sanctity was defined against the profanity of the outside world. On the other hand, the garden also represents "the totality of the world" despite being "the smallest parcel of the world."<sup>32</sup>

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<sup>30</sup> Anne Helmreich, *The English Garden and National Identity: The Competing styles of Garden Design 1870-1914*. (Cambridge: Cambridge University Press, 2002), 3.

<sup>31</sup> Anne Helmreich, *The English Garden and National Identity*, 20.

<sup>32</sup> Michel Foucault, *Of Other Spaces and Heterotopias. Architecture/ Movement Continuïte*, Translated from French by Jay Miskoweic, (October 1984), 6.

The garden as a sacred space is a utopian vision constructed by the ecological imperative. In this nativist utopia, local biodiversity is restored to its pristine primeval state through the exclusion of all exotic species. Conversely, the garden as a cosmopolitan microcosm is an alternative utopian vision constructed by the aesthetic imperative. In this cosmopolitan utopia, the garden is brought to the heights of artistic magnificence by drawing upon the unique aesthetic properties of every possible life-form that inhabits the earth. Being mutually exclusive by nature, any attempt to harmoniously balance the two contradictory gardening visions within the finite space of the garden would be ultimately futile. This tension is even more pronounced in small countries like Singapore.

### **Gardening Biopolitics: A Singapore Story**

The biopolitical tension between the ecological and aesthetic imperatives seems to be a persistent feature of Singapore's environmental history. As early as November 1991, this tension had been already anticipated by outspoken journalist and academic Cherian George when he expressed his disapproval over what he saw as an "ideological conflict" between "two diametrically opposed" visions of Singapore's green areas.<sup>33</sup>

On one hand, the newly established National Parks Board (NPB) marked an unambiguous paradigmatic shift in official environmental discourse towards the vision of the "ecological garden."<sup>34</sup> Consisting of nature reserves set aside

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<sup>33</sup> Cherian George, "Manicured Lawns vs Untamed Wilderness," *The Straits Times*, 4 November 1991, web, accessed 20 August 2017.

<sup>34</sup> The Parks and Recreation Department was founded in 1973. See Neo Boon Siong, June Gwee and Candy

for the conservation of Singapore's natural heritage, the "ecological garden" was to be characterized by an "exuberant explosion of life that covered this place millions of years before man [had] appeared: the equatorial rain forests, wetlands[,] and mangrove swamps".<sup>35</sup>

Yet, on the other hand, this discursive shift seemed to be directly contradicted by the continued existence of the Parks and Recreation Department (PRD), which embodied the state's historic obsession with turning Singapore into a "man-made garden." Consisting of the ever ubiquitous "housing estates and man-made parks" that perforate Singapore's physical landscape, the "man-made garden" was a highly artificial construct consisting of "loose-cropped lawns, pruned bushes[,] and orderly rows of trees." In this vision of the Garden City, local biodiversity was instead treated as pests that the state needed to "flatten, cut, control."<sup>36</sup>

Despite categorically denying the existence of any ideological conflict between the PRD and NPB, the state seemed to have heeded George's warnings.<sup>37</sup> In June 1996, the PRD was subsumed under the NPB, signaling the apparent triumph of the

"ecological garden" over the "man-made garden."<sup>38</sup> Even as the NPB now manages both man-made parks and natural reserves, its mission to preserve Singapore's natural heritage cannot be clearer. As the revised National Parks Board Act puts it, one of the main functions of the reconstituted NPB is "to propagate, protect[,] and preserve the animals, plants[,] and other organisms of Singapore and, within the national parks, nature reserves and public parks, to preserve objects and places of aesthetic, historical[,] or scientific interest".<sup>39</sup> Yet, institutional restricting has done little to resolve the ideological tension between the "ecological garden" and "man-made garden." In fact, as illustrated by the self-contradictory objectives of the Mandai Project, the same issues have manifested themselves almost two decades later.

In the following narrative, I will place this biopolitical tension in historical perspective by studying the development of official environmental discourse through the lens of the "gardening paradigm." My narrative begins on 12 May 1967, when then Prime Minister Lee Kuan Yew announced a bold plan to transform Singapore into "a Garden City beautiful with flowers and trees."<sup>40</sup> According to him, apart from making life more pleasant, a "Garden City" would more importantly "give Singapore a very good reputation abroad." By being one of the "most beautiful cities in Asia with trees, flowers[,] and shrubs in all the public places,"

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Mak, "Growing a City in a Garden" in June Gwee, ed. *Case Studies in Public Governance: Building Institutions in Singapore* (London: Routledge, 2012), 35-36.

<sup>35</sup> Cherian George, "Manicured lawns vs untamed wilderness."

<sup>36</sup> *Ibid*

<sup>37</sup> Ang Gek Choo, "No ideological battle between NParks, PRD," *The Straits Times*. 9 November 1991, web, accessed 20 August 2017.

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<sup>38</sup> Neo Boon Siong, June Gwee and Candy Mak, "Growing a City in a Garden," 40.

<sup>39</sup> See National Parks Board Act (Chapter 198 A, 2012 Rev Ed), s 6 (1).

<sup>40</sup> "S'pore to become beautiful, clean city within three years," *The Straits Times*, 12 May 1967, pg. 4, retrieved from NewspaperSG.

Lee Kuan Yew hoped to reinforce Singapore's status as a First World "oasis in Southeast Asia."<sup>41</sup> This would in turn attract more tourists and foreign investors to Singapore.<sup>42</sup>

Since then, the state has always managed nature through the gardening paradigm. Notwithstanding, the state-led landscaping project is never static. The state is constantly revising its landscaping aesthetic, favoring different landscaping arrangements along with different plants at different times. This led Manson Tan to periodize Singapore's environmental history into three distinct "landscape periods."<sup>43</sup> By closely following the development of these "landscape periods," we would be able to observe the emergence of the biopolitical tension between the aesthetic and ecological imperative.

During the 1960s to early 1980s, the government managed nature by creating a "survival landscape." In this landscaping period, minimalism was the dominant aesthetic. As Lee Kuan Yew wanted Singapore to be transformed into a Garden

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<sup>41</sup> Lee Kuan Yew, *Transcript of Speech by the Prime Minister at a Celebration in the Toa Payoh Community Centre on 21<sup>st</sup> February, 1967, Held in Connection with the Conferment of Public Service Star Awards on Tan Tong Meng and Inche Buang B. Siraj*, 21 February 1967, retrieved from National Archives of Singapore.

<sup>42</sup> Lee Kuan Yew, *From Third World to First—The Singapore Story: 1965-2000* (Singapore: Singapore Press Holdings, 2000), 199-202.

<sup>43</sup> See Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, keynote lecture presented at Conference on Greening the City: Bringing Biodiversity Back, Royal New Zealand Institute of Horticulture, October 2003.

City "within three years",<sup>44</sup> the state needed to make Singapore look green as quickly as possible. This resulted in life being valued more for their function rather than aesthetic or ecological value. Under the "Standardization Planting" regime, exotic plants were valued over native life forms because they had a discernible purpose as defined by the state. For example, the *Bougainvillea* flower from South America was used for decorating overhead bridges while the creeping fig (*Ficus pumila*) from East Asia was used to cover the bare concrete of walls.<sup>45</sup>

Notwithstanding, even as the state began its landscaping project with a minimalistic aesthetic, the aesthetic imperative quickly seeped in. In order to distinguish the "Garden City" from undeveloped nature, exotic plants were favored over native plants.<sup>46</sup> It was thus unsurprising that former Prime Minister Lee Kuan Yew imported nearly 8,000 species of exotic plant life from places as far abroad as Africa, Central America[,] and the Caribbean in order to beautify the streets of Singapore.<sup>47</sup> As life is now valued based upon their

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<sup>44</sup> "S'pore to become beautiful, clean city within three years," *The Straits Times*, 12 May 1967, 4.

<sup>45</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 242.

<sup>46</sup> See Turner, T., *English garden design: history and styles since 1650* (Antique Collectors Club, 1986) 147-9.

<sup>47</sup> Lee Kuan Yew, *From Third World to First—The Singapore Story: 1965-2000* (Singapore: Singapore Press Holdings, 2000), p. 204; see also Timothy Auger, *Living in a Garden: The Greening of Singapore* (Singapore: National Parks Board, 2013), 30-37 for a detailed description of the exotic plant life introduced

aesthetic contribution to the Garden City, Tan compares the prevalent gardening aesthetic in that period to the “Gardenesque Planting” style.”<sup>48</sup>

With increased economic prosperity in the 1980s, the gardenesque aesthetic was replaced by a “mosaic landscape.” Replacing the dull homogenous landscapes of the 1960s, “mosaic landscape” involved the creation of themed gardens. Ranging from Japanese gardens to Balinese gardens, Tan dismissed the “mosaic landscape” movement as “green spaces designed and planted in isolation of its larger context.”<sup>49</sup>

The incessant replacement of the natural environment with “alien landscapes” resulted in exotic life flourishing at the expense of native biodiversity.<sup>50</sup> This was a source of concern to many. While foreign free-flowering species were generally acknowledged to be “superficially more attractive” than native plant life,<sup>51</sup> eminent Dutch architect Rem Koolhaas thought otherwise. To him, these exotic species represented “the reconstructed

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into Singapore by the National Parks Board during the 1970s and 80s.

<sup>48</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 242.

<sup>49</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 242-243.

<sup>50</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 243.

<sup>51</sup> Min Geh and Ilsa Sharp, “Singapore’s Natural Environment, Past, Present and Future: A Construct of National Identity and Land Use Imperatives.” In *Spatial Planning for a Sustainable Singapore*, Tai-Chee Wong, Belinda Yuen, Charles Goldblum, eds. (London: Springer, 2008), 187-188.

tropicality of landscaping” built upon a *tabula rasa* once occupied by native species.<sup>52</sup> *Straits Times* editor M. Nirmala, on the other hand, was not particularly concerned about the artificiality of the “Garden City.” In fact, the journalist described this “artificial creation” as “marvelous.” Instead, he was more concerned about the unthinking manner in which the state “bulldozed through” Singapore’s “natural and architectural heritage.”<sup>53</sup> He was particularly pained by:

“the loss of part of the jungle to build the Bukit Timah Expressway; the partial destruction of the habitat for animals and plants because of the quarrying at Bukit Timah; the destruction of the coral reef formations at some parts of Singapore’s coastline ...”<sup>54</sup>

While Nirmala appeared to be writing as a green activist, he makes it clear that he was no tree-hugger. As he puts it, he was “no kneejerker opponent of whatever officialdom does to the environment.”<sup>55</sup> What Nirmala was more concerned about was rather the erosion of the Singaporean sense of place. By associating jungles and reefs with recognizable place-names such as Bukit Timah, Nirmala was in fact attempting to

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<sup>52</sup> Koolhaas Rem and Mau BS, “Singapore Songlines: Portrait of a Potemkin metropolis ... or thirty years of Tabula Rasa,” in Koolhaas Rem, *Office for Metropolitan Architecture* (New York: Monacelli Press, 1995), 1075.

<sup>53</sup> M. Nirmala, “When Conservationists Do Not See People for the Trees,” *The Straits Times*, 26 Nov 1989, 32.

<sup>54</sup> *Ibid*

<sup>55</sup> *Ibid*

reconnect the city dwelling Singaporeans with nature.

A sense of place is particularly important in Singapore given the highly erratic nature of the state-led gardening project. From austere tree-lined roads to manicured Japanese gardens, the landscapes inhabited by Singaporeans never seem to stay the same. This is particularly disorientating as there is nowhere for Singaporeans to identify themselves with. The natural environment “provides a safe haven from this psychosis” as it “remain[s] eternal, offering a stable reference point throughout.”<sup>56</sup> By destroying what remains of Singapore’s natural environment, the state is effectively subjecting Singaporeans to “the systematic erosion of ... tradition, fixity, continuity – a *perpetuum mobile*”.<sup>57</sup>

Unsurprisingly, human geographer Harvey Neo observes that the rise in public support for the local conservation movement in the 1990s was motivated by a desire to fight “to secure a sense of place” and to foster a “broader sense of identity among the citizenship.”<sup>58</sup> For example, the Nature Society of Singapore managed to convince nearly 25,000 people to support its petition to save the bird sanctuary in Senoko.<sup>59</sup>

In response to the demands of a more environmentally conscious citizenry, the state began to incorporate the discourse of natural heritage within its aesthetic imperative. Instead of creating “alien landscapes” that are “manicured and ordered,” the government now focused on using native biodiversity to create gardens that closely resemble nature.<sup>60</sup> The turn towards a “wilder look” is signaled by the discursive shift from “Garden City” to “City in the Garden” As Prime Minister Lee Hsien Loong puts it, the “City in the Garden” consists of “green spaces” where local biodiversity such as “butterflies, birds, all sorts of interesting flora, fauna” are brought “closer to our homes and workplaces.”<sup>61</sup>

Unfortunately, natural heritage serves as a vehicle through which the ecological imperative slips into official discourse. Taken by itself, the ecological imperative is based upon the dry and abstract notions of food webs and taxonomic classifications. However, when presented as natural heritage, the ecological imperative becomes an irresistible means of grounding the Singapore identity with a sense of place. By linking nature with the Singaporean sense of place, “natural heritage” is able to tap into the emotional need to construct a parochial local identity.<sup>62</sup> It was thus

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<sup>56</sup> Min Geh and Ilsa Sharp, “Singapore’s Natural Environment,” 188.

<sup>57</sup> Koolhaas Rem, “Singapore Songlines,” 1035.

<sup>58</sup> Harvey Neo, “Challenging the Developmental State: Nature Conservation in Singapore,” *Asia Pacific Viewpoint* no. 48, 2 (Aug. 2007): 187.

<sup>59</sup> “25,000 Appeal for Senoko Bird Habitat to be Saved,” *The Straits Times*, 21 Oct 1994, 3.

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<sup>60</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 243-244.

<sup>61</sup> Lee Hsien Loong, “The People’s Garden, In Our City in a Garden,” speech by Prime Minister Lee Hsien Loong at the opening of Gardens by the Bay, Singapore: Prime Minister’s Office, 28 June 2012.

<sup>62</sup> Harvey Neo, “Nature and the Environment as an Evolving Concern in Urban Singapore” In *Changing landscapes of Singapore: Old Tensions, New Discoveries*, Elaine Lynn-Ee Ho, Chih Yuan Woon &

unsurprising that the state started to incorporate native lifeforms within its landscape designs. According to Prime Minister Lee Hsien Loong, local biodiversity is used to ensure that the manmade canal in Bishan-Ang Mo Kio Park becomes “naturalized.” With the presence of “water plants”, “waterfowl” and “*longkang* (Hokkien for canal) fish,” the canal would look more like a “naturalized river” that had been in existence “since time immemorial.”<sup>63</sup>

The entry of natural heritage into official ecological discourse is a potentially dangerous discursive move. By appealing to natural heritage, the state is in fact legitimizing the ecological imperative and by extension an identity based biopolitics. The once cosmopolitan “Garden City” is now bearing an increasingly uncanny resemblance to the xenophobic German *Naturgarten*. In his proposal to make natural heritage the basis of “a definitive Singapore garden style,” Manson Tan suggests that local wildlife be given a degree of sacredness.<sup>64</sup> He argues for the establishment of “ecological treatment zones,” which are effectively exclusionary sacred spaces dedicated solely to native biodiversity. Within these virgin natural spaces, local species would be given a chance to thrive so as to heal Singapore’s fragmented “local identity.” Exotic species, however, were to be kept out of these

spaces and “confined to the more culturally related rural and urban communities.”<sup>65</sup>

Manson Tan is not alone. The dangerous dream of natural heritage has already infected many. *Straits Times* journalist Natalie Huang, for example, essentializes the arbitrary categories of native and alien species. Using the fine grained comb of citizenship to differentiate between native born common mynahs from foreign born Javan mynahs, she demonizes the Javan mynah as an “aggressive” and “invasive” intruder while characterizing the common mynah as “shy, sensitive to disturbance, rare[,] and threatened.” Based upon this shaky argument, she asserts the importance of ensuring that “exotic species do not enter our more pristine forests, where our rarer species live.”<sup>66</sup> Marcus Chua’s celebration of native biodiversity goes one step further. He gives native species honorary citizenship as “Temasekians.” Exalted as the “original Singaporean[s],” “Temasekians” were described to be “the life and soul of the land first known as Temasek.”<sup>67</sup> By adopting the exclusionary discourse of citizenship, Chua’s work is also implicitly implying that alien species have no place in Singapore.

The rigid native/alien dichotomy created by the discourse of natural heritage has resulted in several ecological dilemmas. Take for example the

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Kamalini Ramdas, eds. (Singapore: NUS Press, 2013), 72.

<sup>63</sup> Lee Hsien Loong, “The People’s Garden, In Our City in a Garden.”

<sup>64</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 246.

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<sup>65</sup> Manson Tan Beng Jin, *Urban biodiversity and greening strategies in Singapore*, 244.

<sup>66</sup> Natalia Huang, “When nature’s feathers are ruffled.” *The Straits Times*, 8 May 2015, web, accessed 5 November 2016.

<sup>67</sup> Marcus A.H Chua. ed. *Temasekia: 50 Plants and Animals Native to Singapore* (Singapore: Armour Publishing, 2015), 12-13.

presence of the Asian Arowana as alien species in local reservoirs. While the fish is highly endangered in its native habitats throughout Southeast Asia, the government is highly reluctant to take any positive action to conserve this species. As the Arowana is an alien species that is not part of Singapore's natural heritage, the state appears to have no responsibility to save it. Yet, from a more internationally minded perspective, all endangered species have the right to be saved.<sup>68</sup>

It is worth noting that natural heritage is actually an "invented tradition" rather than a scientific reality. In Eric Hobsbawm's formulation, natural heritage is "an attempt to establish continuity with a suitable historical past" which is more often than not "factitious."<sup>69</sup> Natural heritage is based upon nostalgia for a pristine natural environment "before the human footprint made its mark" by introducing alien species.<sup>70</sup> Unfortunately, such a past is non-existent. Far from a virgin tropical rainforest before the arrival of Raffles in 1819, Tony O' Dempsey notes the

existence of human habitation since the 14th century.<sup>71</sup>

Even the supposedly unassailable native/alien dichotomy is questionable. In reality, the concept of alien species is a fluid one. What we think to be a native species today might actually be an alien one in the past. *The Natural Heritage of Singapore*, an authoritative textbook on biodiversity conservation, notes that the tiny carp *Rasbora altoni* which was long thought to be an "endemic freshwater fish" was later found to be a food fish introduced into Singapore by Chinese immigrants during the 1800s.<sup>72</sup>

Fortunately, the state usually treats natural heritage as a rhetorical strategy rather than as a static ideology. In fact, it is still very much committed to the cosmopolitan tendencies of the aesthetic imperative. Even as recently as 2011, the state spared no expense to build the Gardens by the Bay. As the very embodiment of cosmopolitanism, the garden boasts nearly 225,000 species of plants "ranging from species in cool, temperate climates to tropical forests and habitats."<sup>73</sup> The Garden even placed special emphasis on the fact that the plants were "not commonly found in Singapore."<sup>74</sup>

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<sup>68</sup> Kiat, Hun and Hun, Joseph, *The Asian Arowana*, web, LSM4262 15 April 2013, accessed 5 November 2016.

<sup>69</sup> Eric Hobsbawm, Terence Ranger, eds., *The Invention of Tradition* (Cambridge: Cambridge University Press, 1983), 1-2.

<sup>70</sup> Hugh T.W Tan, L.M. Chou, Darren C.J Yeo, Peter K.L Ng, *The Natural Heritage of Singapore*, 3rd ed. (Singapore: Pearson Education, 2010), 5; Tan Kiat Wee, *Naturally Yours, Singapore* (Singapore: National Parks Board, 1992), 6.

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<sup>71</sup> Tony O' Dempsey, "Singapore's Changing Landscape since c. 1800," in *Nature Contained: Environmental Histories of Singapore*, Timothy P. Barnard, ed. (Singapore: NUS Press, 2014), 17.

<sup>72</sup> Hugh T.W Tan, L.M. Chou, Darren C.J Yeo, Peter K.L Ng, *The Natural Heritage of Singapore*, 250-251.

<sup>73</sup> Gardens by the Bay, "Our Story," accessed 24 February 2017.

<sup>74</sup> Gardens by the Bay, "Fascinating Facts about the Iconic SuperTrees," accessed 24 February 2017.

Unsurprisingly, such unabashed embraces of globalization were not well-received by Singaporeans. A particularly scathing critique by blogger Joanne Leow described the garden as “an imposed, artificial construct of nature and history.”<sup>75</sup>

In order to avoid attracting similar criticisms in the future, the state attempted to use the emotive appeal of “natural heritage to legitimize the Mandai project. By associating its project with local biodiversity conservation, the state hoped to deflect public attention away from the project’s other focus: the conservation of non-native endangered species. Admittedly, such a weak discursive move appears to be counterproductive. Not only did the state fail to legitimize its Mandai project, it also damaged its public reputation as its statements look suspiciously like official hypocrisy.

In a sense, the biopolitical tension between the aesthetic and ecological imperatives reflect a governmentality in transition. Pitting the pull of nativism against Singapore’s long established cosmopolitan ethos, this tension is in fact the ecological embodiment of Singapore’s “social schizophrenia”, a term used by prominent businessman Ho Kwon Ping to describe the city-state’s severe identity crisis. On one hand, Singapore aspires to be a “Global City” in order to remain on par with its competitors. Yet, on the other hand, the same immigrants which make the “Global City” cosmopolitan dilute Singapore’s distinctive national identity. In a bid to make sense of its dual identities as a “global city” and as “a parochial *kampong*” (Malay for village), Singapore’s public discourse has increasingly been defined by

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<sup>75</sup> Joanne Leow, “On Supertrees, Neo-Colonialism and Globalisation,” 5 July 2012, web, accessed 24 February 2017.

the “tension between the Singaporean core and foreign talent.”<sup>76</sup> From this perspective, the alien/native species dichotomy is merely a reflection of the local/foreign divide that has surfaced in nearly all areas of public discourse.<sup>77</sup>

## Conclusion

In this paper, I have attempted to contribute to the nascent sub-field of ecological biopolitics by proposing the gardening paradigm as a replacement for the mainstream Foucauldian paradigm of ecological biopolitics. Rejecting the Foucauldian paradigm’s assumption of a rationalist state, the gardening paradigm demonstrates how the aesthetic and ecological imperatives of gardening influence state biopolitical management of non-human populations. I then went on to trace the biopolitical tensions between the aesthetic and ecological imperatives within the historical development of Singapore’s official environmental discourse. On one hand, the ecological imperative seeks to create a nativist utopia for local biodiversity by entirely

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<sup>76</sup> Lee Yen Ne, “Local-foreigner tension can make Singapore irrelevant: Ho Kwon Ping,” *TODAY*, 05 Nov 2015, web, accessed 10 November 2016.

<sup>77</sup> See William Chong Kian Wee, “It is about overcrowding, not xenophobia,” *TODAY*, 16 January 2014, web, accessed 10 November 2016; Malcom Moore, *Singapore’s ‘anti-Chinese curry war,’ The Telegraph*, 16 August 2011, web, accessed 10 November 2016.

See also Lai Ah Eng, *Viewing Ourselves and Others: Differences, Disconnects and Divides among Locals and Immigrants in Singapore*, report prepared for the CSC-IPS The Population Conundrum-Rountable on the Singapore Demographic Challenge, 3 May 2012. for a detailed discussion on the local/ foreigner divide.

excluding all exotic species. On the other hand, the aesthetic imperative seeks to create a cosmopolitan microcosm which often privileges exotic ornamentals at the expense of native species. As a result of the contradictory visions of the two imperatives, the “ecological garden” and “man-made garden” are fundamentally incompatible.

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