

WHAT IF? WHAT NEXT?

SPECULATIONS ON HISTORY'S FUTURES

ROUNDTABLE 1

THE FUTURE OF THE ARCHITECTURAL (POST)HUMANITIES

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RESPECT FOR OLD AGE AND DIGNITY IN DEATH: THE CASE OF URBAN TREES

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> How can humanist principles of respect, dignity, and care inform and improve design for non-human lifeforms? This paper uses ageing and dying urban trees to understand how architectural, urban, and landscape design respond to nonhuman concerns. It draws on research in plant sciences, environmental history, ethics, environmental management, and urban design to ask: how can more-than-human ethics improve multispecies cohabitation in urban forests? The paper hypothesises that concepts of dignity and respect can underline the capabilities of nonhuman lifeforms and lead to improved designs for multispecies cohabitation. To investigate the implications of this ethical framework, we 1) indicate injustices of current management in relation to natural and cultural histories of trees; 2) outline a conceptual framework that includes large old trees as stakeholders in urban communities; and 3) use this framework in a thought experiment with urban trees in Melbourne, outlining comparative design outcomes. Our findings show that the expansion of dignity to include nonhuman life is possible and plausible. Such an extension can justify and encourage design innovation for multiple species and sites. The resulting design practices will lead to improvements by supporting communities of trees at all stages of their life-cycles, including old age, death, and rebirth. This approach requires substantial shifts in accepted thinking and practices including history, ethics, aesthetics, regulation, and education. Design can play a significant role in the necessary transitions by demonstrating tangible and positive outcomes. In this context, history emerges as an essential tool that can extend societal imagination by situating possible future places in the context of ancient and ongoing geological, evolutionary, ecological, and cultural processes.

Introduction

The material of this paper engages with history and heritage but can be of use in many contexts, from science to policy. We agree with White¹ that historical studies are valuable because they can frame ethical transitions into preferable futures by emphasising the potency of human actions. However, in today's context his emphasis on the plurality of human narratives will not suffice. At the time of the environmental crisis that threatens to undermine human civilisations and arrive – through many tragic extinctions – to the E. O. Wilson's Age of Loneliness² historical studies should seek to include nonhuman actors.

Many historians already work to include nonhuman concerns as is evident in the broader work of environmental humanities³ and histories.⁴ The extension of these efforts can support further development of inclusive more-than-human narratives. The outcomes can take form of 'long histories' such as those of the bacterial populations within the history of Gaia⁵ or 'slow histories' of pants and forests.⁶ Resulting narratives can function as 'universal histories' that span chemical, geological, natural, cultural, and other processes.⁷ This background can provide fertile ground for design experiments informed by and integrated with history. Revitalising Bacon's 'experimental history' and 'experimental philosophy'⁸ this approach responds to the questions posed by the Society of Architectural Historians, Australia and New Zealand (SAHANZ) in the title of the 2020 conference: "What if? What next? Speculations on History's Futures." Our work responds to these questions by considering history and future as a continuous ethical action linked by design. All history is written to influence future generations just as the purpose of all design is to frame preferable futures.

To advance its theme, the paper reflects on the roles of trees in inner cities and uses Melbourne as an example. Melbourne is a globally relevant case because its Urban Forest strategy receives praise as a progressive example of nature-based solutions and green infrastructure. Researchers and practitioners expend substantial efforts to make these approaches more mainstream. We sympathize with their ambitions but observe that the anthropocentric bias of these conceptualisations limits their reach.

Our case is the situation of some 400 trees (mostly English elms, *Ulmus procera* Salisbury) that line the Royal Parade boulevard in Melbourne (Figure 1 and Figure 2). The city planted four rows of these trees in 1913 in response to the then-fashionable "City Beautiful" planning approach. The Victorian Heritage Register lists the boulevard as protected since 2009, recognising its iconic role. 11



Figure 1. The Southern side of the Royal Parade, December 2019. The Royal Melbourne Hospital at bottom right and the University of Melbourne campus above the Parade. Image from NearMap.



Figure 2. A fragment of the Royal Parade, December 2019, showing a variety of existing trees: those with full crowns, mid-size trees, younger trees, and missing trees. Image from NearMap.

The City of Melbourne tree management and replacement program considered the Royal Parade elms in 2005 and acknowledged that the Royal Parade elms are ageing (see Figure 3 for an example of a large elm). Assessments repeatedly suggest that they will decline and die within 10-15 years. The default response is to sustain avenues in their current state. This objective will require the removal and replacement of trees in large groups (see the examples of group replacements in Figure 4 and individual replacements in Figure 5). Such removal is the preferred approach because individual new trees cannot compete for light and water with their mature neighbours.



Figure 3. A large and relatively intact elm tree at the Royal Parade, November 2020, 4:30pm (late spring). This is the second tree from the right on Figure 2. The traffic is uncharacteristically light on this COVID19-affected Saturday. Image by authors.

The reviews acknowledge that removals of whole sections might lead to (human) community disapproval as this approach will likely destroy some healthy trees. They do not consider alternatives to the avenues of imported European trees, do not systematically include the interests of more-than-human communities, and do not give thought to an approach that would allow the elms to age, die, and decompose in place (see Figure 7 for an image of a tree's afterlife).

Instead, current management intends to replace all elms by trees of the same (or very similar) species to maintain the heritage and aesthetic significance of the boulevards. To alleviate (human) community concerns the plan is to use 5–6m trees grown off-site because they will improve amenity and presentation within the first years after replacement. The 2005 review recommended action within the next five years (or by 2010). More recent Parkville Urban Forest Precinct Plan 2015–2025 confirmed the commitment to heritage protection. At the moment of writing, in mid-2020, no major action occurred. This paper questions the wisdom and ethics of retaining avenues of elms. The purpose of this critical analysis is to motivate the discussion and design of better alternatives. The advancement in this area is impossible without the consideration of human and nonhuman histories that frame the interpretations of the past and the desirability of alternative futures.



Figure 4. A large elm at the Royal Parade and several more recently planted elms at a perpendicular Morrah Street, November 2020, 4:30pm (late spring). This street can be also seen on Figure 2. Image by authors.



Figure 5. A sunnier moment at the same location, November 2020, 4:15pm (late spring). This place can be also seen on Figure 2, on the left. The image shows a larger elm with removed branches, a more recently planted elm in the centre, and a young replacement on the foreground. Image by authors.

This local case is representative of a global trend. Populations of large old trees – a relatively small demographic within each species – are declining in most bioregions. Humans do sometimes value such trees on social, historical, or mystical and religious grounds. However, neglect or active destructions are much more common. By contrast, nonhuman communities value such trees much more consistently because these elders provide many important services to co-dependent flora and fauna, acting as keystone members of their communities.

The disappearance of large old trees leads to 'functional extinctions' because such trees fulfil many roles the younger trees cannon perform. Functional extinction is the loss of these roles in situations where the number of old trees diminish while the total quantity of their species remains relatively stable. ¹⁷ Unfortunately, it is likely that many of the existing plant species are already functionally extinct. ¹⁸ The threat to large, old trees is an example of global biodiversity losses caused by human activities including, agriculture, pollution, and urbanisation. Such practices inhibit the lives of non-humans and humans alike and should be reversed. The awareness of this crisis is expanding. However, the lack of practically plausible ethical frameworks prevents integration of nonhuman concerns into architectural, urban and landscape design. These frameworks derive strength from historical identities that focus on human lives and affairs. We seek to address this damaging gap.

The main idea is to consider whether the removal of urban trees is necessary. Common reasons for such removals are to do with risks to humans. The typical concern is falling trees and branches. However, interested human parties often exaggerate such risks, especially on private land. There is also a lack of knowledge on how to transition to better urban ecosystems where the greening of cities moves away from decorative or symbolic human goals. The affinity of urban human stakeholders to anthropocentric historical narratives that specify these goals renders greening as an acute political challenge. Page 19.

Alternative systems posit varying reasons for the inclusion of nonhumans into moral considerations, including the intrinsic value of life or the ability to suffer. However, most of these approaches exclude plants and other 'lower' organisms. For example, common critiques of 'speciesism' focuses on animals as the only plausible sentient beings, excluding plants and other organisms.²¹ Critiques of such 'animal chauvinism'²² do exist but are rare. The job of theorising the ethical treatment of plants into a systematic account that can guide future practices is incomplete. Philosophical deliberations attempt to absorb recent scientific advances on intelligence and communication in plants but are inconclusive. For example, Marder points out limitations of human concepts such as empathy²³ but also encourages ongoing reconsideration of vegetative lives, for example in relation to the human practice of eating plants.²⁴

A growing body of interdisciplinary research demonstrates rich capabilities of all life and the importance of the resulting persistent relationships. This scholarship provides an opportunity to reconsider historical contexts and possible futures in more-than-human terms. In relation to trees, this consideration can begin with their reinterpretation as valuable community members and historical actors. This framing provides an opportunity to integrate the achievements of ethical models that prioritise reciprocal relationships. The ethics of care for aging human populations provides one example.

Related approaches already exist in landscape architecture. For example, the "cues to care" framework proposed in 1988–1997 aims to overcome misalignments of "environmentally beneficial elements" with human cultural values. Raxworthy similarly seeks to resists human cultural expectations by theorising landscape architecture as a form of gardening with growth as its central expressive element. He argues for the acceptance of change in all designed landscapes and for the integration of ecosystem behaviours into maintenance regimes. Such approaches provide concrete and plausible examples for subsequent steps. At the same time, they continue to strive for anthropocentric goals such as human aesthetic values or ecosystem services that benefit human communities. This paper proposes that future research should aim to extend this important work by reframing the analysis of culture in ecocentric terms and focusing on nonhuman stakeholders, such as trees.

This opportunity provokes a question: how can more-than-human approaches improve multispecies cohabitation in urban forests? A possible answer to this question and our working hypothesis is that more-than-human approaches to history and design can improve multispecies cohabitation in urban forests by considering communities of trees at all stages of their lifecycles, including old age, death, and rebirth.

We explore this hypothesis in three steps by:

- 1. indicating injustices of current management in relation to natural and cultural histories of trees:
- 2. outlining a conceptual framework that includes large old trees as stakeholders in urban communities; and
- 3. using this framework in a thought experiment with urban trees in Melbourne, outlining comparative design outcomes.

Dignity for Melbourne Elms

Servitude: Issues with Current Governance

Management of human safety and human aesthetics depends on understandings of ageing and death. Senescence and the perceptions of disease come into play. For example, human-safety guidelines prescribe reduction of naturally decaying matter from aging trees and removal of trees that are likely to fall. Aesthetic concerns prescribe the removal of ailing trees, snags, logs, fallen leaves and woody debris. These practices deplete habitat opportunities for many lifeforms and confine the capabilities of trees.

As a result, urban trees live dramatically diminished lives. At the level of individuals or small groups, they suffer from unavailability of sexual (or other forms) of reproduction. Where this reproduction is possible, reduced choice in small groups can result in degradation within 'genetic ghettos'.²⁷ Broken community dependencies cause further damage. When individuals or whole species can sustain their bodies but cannot participate in their communities as reproductive members, they become 'living dead'.²⁸ This term indicates species that can no longer reproduce because their partners are extinct, as is the case for large trees that drop their fruit to the ground to present it to megafauna. These dead may live again through restoration practices that place multiple bets in the hope that some might result in functional replacements to extinct mutualistic guilds.²⁹ These examples demonstrate that more than human worlds require a substantial expansion of ethical imagination and that this imagination depends on an informed historical outlook.

Academic research and activist practices – and to a lesser degree some forms of urban governance – increasingly acknowledge the services trees provide. These services include ecological, cultural, historical, and financial contributions. Tangibly, large old trees provide shelter and food. Some of these habitat features take hundreds of years to develop. The presence of such trees reduces heat through shading, mitigates stormwater runoff, and lessens soil erosion reducing maintenance and infrastructure costs. Intangibly, large old trees play important roles in human religion, family traditions, and cultural practices. Increased awareness of the services provided by trees is important as a foundation of solidarity and human support for their livelihood. This is the first step in understanding trees as members of multispecies communities. However, mere recognition is not sufficient.

Underlying trees' useful services to others are their own interests. A detailed discussion of this topic is beyond the scope of this paper, but one approach might be through an extended consideration of capabilities. Common interpretations respect the human entitlement to express capabilities. Plants share many capabilities with humans and other organisms and their lives can go well or badly. If a living being has evolved to express certain capabilities, denying it such an expression is wrong and unethical.

Existing axiologies, including ecocentrism, biocentrism, zoocentrism, perfectionism, and personhood based on sentientism can plausibly extend to include plants.³² By contrast, management that ignores capabilities will likely lead to known and unknown damages. For example, old oak trees gradually lower their limbs to touch the ground. This process compensates for the gradually hollowing trunks. Strong winds can easily topple older oaks if humans prevent this branch patterning. Left to their own devices, oaks can prop themselves and continue for

hundreds of years. Their appearance might not agree with human aesthetics on how oaks should look like, but this is a problem of human biases. The notion of 'shifting baselines' is but one example of where such biases emerge from short-sighted historical narratives.³³ Further, old oaks can feed themselves by using nutrients from their own branches dropped down when the trees were full of vigour and actively growing. Human practices of removing such branches as litter deprive oaks of their evolved capability to age.³⁴

These examples call for a revaluation of senescing and dying trees. The next section outlines a possible approach by considering existing attitudes to these pervasive phenomena.

Emancipation: Toward Dignity and Respect

Researchers distinguish between disease (a biological state) and illness, or a lived experience of disease that incorporates social and ethical issues.³⁵ Illness is socially constructed. Existing critique points out medical practices that focus on clinical routines potentially undermining unique personal circumstances and treating human persons like objects, thus compromising their dignity. Sickness is a social role that others (or some systems) ascribe to an individual (or a community). This can be helpful or harmful.

One approach to overcoming objectification is illness narratives or stories of sickness. These stories can describe people aging 'successfully' while living with frailty³⁶ or disability. Mapping these perspectives to the perception of trees can be instructive. Humans typically interpret trees' natural ageing as disease. The outcome of this view is that trees lose opportunities to express or support themselves and to continue as members of their communities.



Figure 6. Collingwood Childrens's Farm, a lane towards the Convent, September 2020, showing two cork oaks (*Quercus suber*), European imports just like elms. One of the oaks has fallen but continues to grow and provide a place of play for human children, a destination for human adults and a habitat for the local nonhumans. Image by authors.

For humans, the notion of good death is very important. Current healthcare systems do not always manage to support this. There are many reasons for this, but one important aspect is that many attributes of a good death are explicitly or implicitly social. Researchers sought to establish the notion of dignity empirically, from the interviews with terminally ill humans.³⁷ This research demonstrated the existence of repertoires that can preserve dignity, with many of the items in such repertoires depending on social contexts. Examples include the ability to have one's affairs in order and not burden the family or society. Researchers have termed the approaches that seeks to take such concerns into account 'dignity conserving care'.

Considerations of plant existence in terms of good life or flourishing do exist but are not widely known or used. By contrast, the discussion of 'good death' in relation to plants does not occur (consider Figure 7 and Figure 8 for examples of 'good' and 'bad' deaths). This omission in human awareness negates the natural death and the roles of trees after death. This negation curtails trees' participation in the community of life and their contributions to future generations or their ability to be the agents of histories.

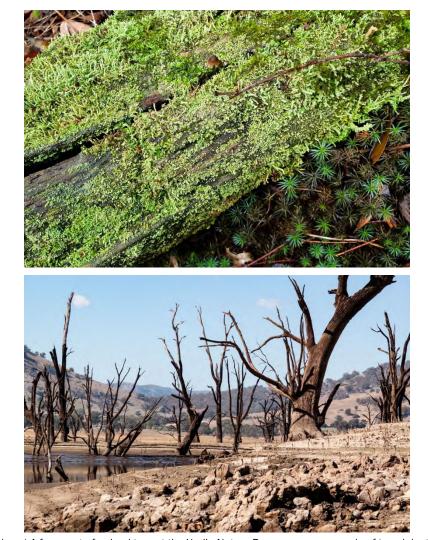


Figure 7. (Above) A fragment of a dead tree at the Uralla Nature Reserve as an example of 'good death'. Image by authors.

Figure 8. (Below) Dead trees at the artificial Lake Hume during low water levels, April 2019, as an example of 'bad death'. Humans killed these trees by drowning as the reservoir filled with water after the extension of the Hume Dam (original construction: 1919–1936) in the period from 1950 to 1961. Only the top branches of drowned Lake Hume trees protrude above the water when the reservoir is near capacity. Image by authors.

In response to these precedents, our proposition is to consider how the notion of dignity can extend beyond human beings. Applications to animals are more common but even in the case of animals the discussion is far from settled. The Swiss constitutional process provides an example of the discussion about plants and the difficulties in deriving practical guidelines from this

discussion. Thus, Federal Ethics Committee on Non-Human Biotechnology reports that the sole criterion on which its members have agreed was that humans should not harm plants arbitrarily.³⁸ The notion of dignity comes with specific human-cultural capital. Some conceptions of dignity cannot apply to nonhumans because they intentionally emphasize the exceptionality of *Homo sapience*. Others inherit the original Latin use that indicated high status and also struggle to include nonhuman lifeforms (or many unfortunate humans).

Existing discussions about the dignity of plants often refer to biotechnology and not ecosystems. Plants within ecosystems look very different. The existing considerations of dignity tend to focus on intrinsic properties. Instead, we wish to emphasize the communal, relational, or ecological notion of dignity. Examples include the functional roles of a dignified entity in respect to others. As mentioned above, this can apply to gravely ill or disabled humans as well as dead bodies and their treatment. These entities retain or, in the judgement of community members, deserve dignity. Understood in this way, dignity is a social construction with specific symbolic and pragmatic functions. It does not matter if the dignified entity is alive or dead, human or nonhuman.

While this brief paper cannot accommodate an in-depth discussion of ethics, this section sketches a brief outline of a possible attitude towards urban trees. The suggested approach assumes an inclusive view and is compatible with recent science. The following list situates the approaches based on mutual care and co-constructed commons among other positions:

- Ecosystem services and nature-based solutions are the increasingly common approaches that retain a strong anthropocentric position.
- Biodiversity-sensitive urban design leans toward biocentrism but values large-scale criteria such as ecosystem productivity or species variety.
- Approaches that emphasise urban ecology can align with a variety of (more or less) anthropocentric positions but in all guises tend to emphasise the interactions between species with relatively little emphasis on individual organisms or cultural interactions within human/nonhuman communities.
- Ethics of care is a close match, but many approaches discussed under this rubric tend to
 prioritise and valorise of the custodianship provided by humans. This problematic
 paternalism can also intersect with residual speciesism and exploitative attitudes
 towards nonhumans, among other things.
- Ethics of commoning provides the most promising template. It integrates the ideas of embodied, dependent freedom and autonomy. It can integrate the notion of care understood in social or mutualistic fashion. Such commoning emerges from individuals' relationship to their interspecies communities where options for self-realization emerge from thriving living and cultural systems. In this view, more-than-human communities are ecological commons rather than (or as well as) the fields where species compete under selection pressures.³⁹ Such communities are not mechanistic. They have symbolic functions and depend on gradually constructed (historical) patterns of belonging.

Care ethics seeks to base decisions on respectful attitudes towards life and country.⁴⁰ This position encourages decision-makers to go beyond human needs to encompass the historically contingent futures of entire ecosystems. The task of such ethics is to describe responsibilities and the distribution of resources (energy, materials, time) within a collective. In contrast to the ethics based on the preservation of individual autonomy, ethics of care is an ethics of relationships.

Human decision-makers can incorporate non-human needs into care. There are existing discussions of trees in terms of ethics of care, ⁴¹ including the implications for their assessment. ⁴² However, the common 'useful life' metrics see trees as amenities and do not incorporate the ecological process of tree death (Figure 9). In a more-than-human framework, the elms are community members with the right to age in place (for an alternative, consider Figure 6 for a fallen tree that successfully continues in an urban setting).

This strategy resonates with contemporary views within the medical field on how to care for patients who cannot maintain independence. Approaches include palliative and hospice care. They focus on maintaining the quality to life without the pressure to heal the patient. It is care for care's sake, depending on the needs of the patient.

Similarly, in the case of the declining elms, designers must engage with and understand dying. Tree death is an ecological process, a mortal spiral causing various turns of susceptibility or recovery until a point of no return results in a final decline and eventual death. This is, however, natural, and vital to many of the contributions that trees provide to their dependent communities of flora and fauna, including humans. Processes that result in damage, decay, and subsequent recovery produce habitat resources such as hollows and dead leaf/branch litter that many lifeforms have co-evolved to rely on. Respect towards these community members would lead to a substantial change to the cleaning regimes that remove any debris or prevent tree damage.

The process of dying differs between species and assumes different significances for those who can live for centuries or even millennia. Incorporating temporal scales that can include historical accounts of these megaflora into urban planning would dramatically alter cultural accounts of cities and their bioregions reframing design objectives and design outcomes.

Designing for Commons: Comparative Outcomes

This section outlines two contrasting scenarios for the future of Melbourne elms. The first extrapolates the most likely management pathway and the second outlines alternative approach that integrates ageing and dead trees.

Scenario 1: Ordered but Failing

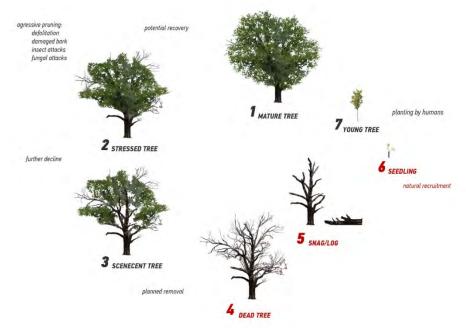


Figure 9. The cycle of life stages of trees. The red colour highlights life stages and events that human management makes impossible in the cities. Management of stressed trees often leads to their decline and death, but recovery is possible. Image by authors.

The first scenario extrapolates the current commitment to the heritage-protected colonial imagery. The City of Melbourne's Urban Forest's strategy does pay explicit attention to the life space and age of trees. However, it does not see trees that are in 'poor health' as valuable because they cannot be effective in providing 'environmental benefits' such as cooling or cleaning the air (see Figure 9 for the permitted and excluded stages of typical tree lives). If the health of

an ailing tree cannot be expected to improve, the management kills and removes it to free space for a replacement.⁴³

The desire for uniform, symmetrical avenues with 'wonderful vistas' is a driving reason for this practice. Upon consideration, these vistas should appear less attractive because they represent deprivation and hardship for the trees and their communities. Planting of identically aged trees leads to the 'need' for simultaneous replacement of large groups that line road sections. Myopic aesthetic preferences of humans that exclude non-European and nonhuman histories underpin and justify this constructed and misguided need.⁴⁴

Climate change models predict that Melbourne's climate will exceed the elms' natural tolerances relatively soon (Figure 10 and Figure 11 show the visual contribution of elms to the character of the street).⁴⁵ The City of Melbourne on one hand states that elms will not survive this climate change but on the other proposes health management plans that aim to ensure the ongoing viability of the elm population.⁴⁶ If introduced, the next generation of elms will most likely suffer greatly due to higher heat and water restrictions and be very costly to maintain.

Furthermore, the replacement of senescent trees with young specimens will result in a successional gap in habitat resources. The existing trees took more than one hundred years to reach the current state of maturity indicating the likely duration of such a gap. The conditions for their replacement trees will be much harsher and most likely unsustainable. This approach will result in extended displays of stressed and mutilated trees.

The eventual removal of all elms and their replacement with new species seems inevitable.⁴⁷ If this occurs, the European character of the city will rapidly become invisible and forgotten but the image of impoverished tree lives will remain.





Figure 10. (Above) The Royal Parade in its current state, August 2020. Image by the authors.

Figure 11. (Below) The Royal Parade without its elm trees, a simulated impression of a possible future state. Image by authors.

Scenario 2: Wilder and Dirtier

The Urban Forest Strategy acknowledges that retaining some of the senescing trees will support biodiversity by providing habitats for hollow-dwelling fauna and invertebrates. Our second hypothetical scenario discussed in this section seeks to extend this approach to include all trees across multiple generations. The premise is that due to the forecast discussed above, the City of Melbourne does not replant Royal Parade with elms. Instead, it implements design measures that allow the elms to age in place. They are given the respect of a dignified death and an opportunity to fulfil a broader range of their evolutionary roles.

The current elms remain standing (or fallen) as fading monuments to a version of Melbourne that no longer exists. Humans can accept their aging, death, and gradual disappearance. As Harrison argues, forgetting is essential to remembering.⁴⁸ Alternatively, future urban population can choose to reinterpret their collective memories⁴⁹ of the elms through cultural devices such as literature, maps, museums, or buildings. In either case, the passing of the elms can give Melbournians an outlet for a mournful farewell and an opportunity to learn about and take solace in the lives and needs of more-than-human communities in that part of the city.

As the decaying elms return nutrients to the soil, they nurture the next generation of trees. Saplings and dead trees do not compete and can coexist. The elms life cycles complete and loop into a novel form. The Urban Forest Strategy recognises the importance of structural diversity and strata that include groundcover, shrubs, tree roots, trunks, branches, and canopies. It also mentions the value of deadwood.⁵⁰ In agreement, our scenario proposes retention of all debris and logs. Street planting then also shifts to expand understory plantings, preventing access to or indicating potential drop zones, providing more habitat opportunities, and minimizing the visual intrusion of decaying matter.

Within this scenario, applications of care at the end of life begin to inform the spatial arrangements at the time of planting leading to more appropriate allocations of space towards non-human thriving. Natural recruitment is encouraged where possible. These redistributions of space come at the same time as the spatial influence of cars on cities continues to decrease due to automation and evolving public transit.⁵¹ Urban infrastructure takes on a more-than-human and maximally autonomous, wild character. This character refreshes older and more inclusive historical narratives and visions of heritage at the expense of more recent and indefensible human-dominated periods of exploitation of the Indigenous humans and nonhumans alike.

Benefits and Difficulties

We acknowledge that the proposed approach requires substantial shifts in accepted thinking and practices including ethics, aesthetics, law, education and – significantly – history. Examples of tensions include the invasive status of Melbourne elms in contrast to their recently acquired global heritage value as rarities that might be the last of their kind. Very few elms remain alive after the global devastation of the Dutch elm disease. The contradiction between elms as a beloved part of Melbourne's identity and their presence as a symbol of the brutal colonial dispossession is another example. The desire to support ageing in place within the increasingly stressful conditions is in tension with the concern about unstable trees that might (and do) cause injury. Some form of compromise will be necessary when addressing such issues.

In response, this paper proposes moving beyond the solutions for humans, instead considering trees in urban setting as fully self-realising subjects within interconnected communities. They participate in such communities through the historically accumulating sharing of meanings in open exchanges with others. Suitable ethics should support their practices of realizing themselves through such connections. If tree needs and capabilities influence the outcomes of collaborative, interspecies design, the outcome will be better balanced and justified.

Avoidance of trimming or litter removal, provision of adequate life conditions including sufficient root space and opportunities for procreation only begin the necessary conversation on appropriate management practices in urban spaces (see Figure 12 for an example of a typically trimmed tree and debris-free surfaces). In this context, aesthetics will play an important role. Within proposed interspecies cultures it will serve not as an optional stylistic addition but function as an expression of relationships between diverse living beings as experienced through their own subjectivities.⁵²



Figure 12. A typical treatment of an urban tree deprived of dignity. Human management resulted in a split trunk and a pruned crown to accommodate the electric wiring. The younger tree on the foreground will have the same future. Both trees live limited lives in the impermeable surfaces. Page Street, Clifton Hill, April 2020. Image by authors.

Conclusion

In conclusion, this paper integrates research in plant sciences, environmental history, ethics, environmental management, and urban design to indicate important research directions for future practice. Our findings demonstrate that the expansion of dignity to include nonhuman life is possible. Making it plausible is the task for design innovation. Resulting designing will likely lead to better multispecies cohabitation in urban forests by supporting communities of trees at all stages of their lifecycles, including old age, death, and rebirth.

Let us return to the questions posed by the Society of Architectural Historians, Australia and New Zealand: "What if"? and "What next?" We suggest that the commitment to the ethics of care that is inclusive of nonhumans will lead to a substantial restructuring of cities. Resulting environments will have larger biomass, greater biodiversity, stronger resilience, greater autonomy for more types of stakeholders, and less substantial maintenance needs. Significantly, the resulting multispecies communities will invite more participants to express a broader range of their capabilities, enriching everyone's life. Such a transition will depend on historical narratives but will also restructure the history itself. This restructuring will integrate many parallel stories and will restore the history's slow narrative by putting in context enormous – and disastrous – consequences of recent human affairs.

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