

Dialogue II: Arboreal Frameworks of Care

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Abstract

This review article pairs two texts that examine trees as socio-ecological mediators shaping spatial relations across the rural-to-urban continuum. Through the Avia tree (*Newbouldia laevis*), Courage Kpodo's *Stewarding Land: Some Architectural Directions* expands understandings of land stewardship in southern Ghana as relational, foregrounding how customary ritual, spiritual authority and arboreal temporalities complicate colonial legal frameworks. By positioning trees as living mediators between humans, ancestors, and land, the article challenges anthropocentric notions of ownership. In *Caring Forest Urbanisms: Human-Tree Relationships of Tenure, Memory and Livelihood in Nairobi* Kathryn Chesebrough draws on fieldwork in Nairobi's informal settlements to examine youth-led tree care as an ongoing re-assembly of spatial, social and political practice through which tenure, memory, and livelihood are

asserted in flood-prone and contested riparian zones. It describes the agency and situated expertise through which young residents collaborate with trees as agents of care and claim-making, enabling provisional commons, restoring degraded landscapes, and generating alternative urban futures through sustained labour and relational expertise. Together, the texts argue that trees function not merely as ecological infrastructure but as active participants in social worlds – holding memories, redistributing power and reorganising time. By foregrounding care as an infrastructural and temporal practice, the review article advances a relational framework for architecture, landscape and urbanism within complex, multi-scalar webs of socio-arboreal relations.

Keywords

Care, arboreal architectures, forest urbanism, stewardship, design research

One sentence summary

This review article foregrounds arboreal care as a framework for architecture, landscape and urbanism within complex, multi-scalar social worlds.

Stewarding Land: Some Architectural Directions

Courage Kpodo

In Ghana, land is traditionally held in collective trust by chiefs or family heads for communal benefit, reflecting an understanding of ownership as temporal and accountable to past and future generations. Ownership, therefore, is better understood as a form of stewardship, extending relations beyond a discrete land parcel to the interconnected phenomena that constitute it, a relationality articulated in Donna Haraway's notion of 'response-ability'.¹ Such forms of stewardship require engagement with the natural world as a network of living and non-living presences whose fluid relations evade representation in survey drawings. This stands in contrast to Eurocentric epistemologies that position humans above other forms of life, and which have shaped Western notions of stewardship. As Denise Hoffman argues, even conservationist discourse remains anthropocentric by privileging humans as ultimate decision-makers.² An alternative paradigm of stewardship emerged in a prayer I witnessed offered by a community elder to a seasonal stream in the Upper West Akim District. In his invocation, Elder Sakyi acknowledges himself as an outsider and a 'young' being on land already inhabited by mystic and ancestral spirits embodied in natural features. Trees, mountains, and the stream are addressed as place-based beings to be appeased and considered in any physical intervention, suggesting a reciprocal and participatory model of land relations.

Me woyii me bae nyinaa mo ani tua

Me na mehwe kuro so

...

Asu yi a wo da ha!

Gye nsa nom

Asuo Nsuma, gye nsa

Bepo bepo a mo wo ha nyinaa, mo nye nsa nom

Mo nkura anpa yi

Mo nena Akomea, mo nena Sakyi na ofre mo

Ene se, seesei ye pe se yeye brigy bi wo wo so, na wo ten a fa mu.

na lorekwan a woye no, eno nso, adi mu.

(When they birthed me, you all bore witness/ I am the steward of this place/ ... / You stream that lies here!/ Drink this/ River Nsuma, drink this/ All mountains present here, receive this drink/ Hold on to it this morn/ Your grandchild Akomeah,/ your grandchild Sakyi is the one who calls out to you// It is such that, at this moment,

we wish to create a path over you,/ That you may flow through/ That the path being created, may be rooted.)³

The prayer reflects a worldview central to many African traditional religions, where nature embodies the Supreme Creator (called *Nyame* among the Akan people in central and western Ghana). Through this cosmology, a multidimensional realm of spiritual forces structures human conduct, shaping how communities inhabit and engage with land. These beliefs organise rural life in ways that extend into cities. For instance, 'taboo days' during which farming is prohibited to avoid disturbing earth spirits, produce intensified market activity, particularly on Thursdays. Increased circulation of goods between farming communities and cities, as far away as Accra (the capital), lowers food prices and attracts urban consumers, illustrating how urban life remains structured by rural cosmologies and social cycles. Such reciprocities challenge the separation between rural and urban, which legitimises a view of humans as distinct from nature, reinforcing extractive relationships with the environment.

The stream over which Elder Sakyi prayed intersects a two-kilometre path connecting the farming community of Yaa-Aso to a five-acre parcel of land I hold atop a cluster of hills, under the traditional authority of Sukrong-Budu. I acquired the lease in early 2022, thinking of it as a way to preserve the land's economic and ecological value. Subsequent research revealed that this transaction reflects a broader regional history. The area constituted Ghana's first cocoa frontier, where, in the early twentieth century, forest land was cultivated commercially. Over subsequent decades, as cocoa production shifted westward, the region declined economically, compelling communities to reimagine their livelihoods.⁴ Once-prized farmlands are now sold by owners seeking more reliable income, as in the case of the seller of my plot, who redirected funds to her provision store in the district capital, Adeiso. This trend is compounded by youth migration to cities, leaving an ageing population behind and prompting further divestment.

The lease document I hold adheres to legal practices established when cocoa became the Gold Coast's dominant export at the turn of the twentieth century.⁵ It is modelled on British common law, which set long-term leases to span ninety-nine years, or approximately three generations.⁶ While this temporal structure superficially echoes customary prohibitions against absolute ownership, it remains anthropocentric. It privileges human lifespans and succession while overlooking the temporal scales of forests, rivers, soils and hills – living and non-living entities central to customary land relations. In several communities, this mode of ownership would be considered inappropriate, even taboo, because it detaches land from its spiritual, ecological and ancestral meanings.

I began to consider what alternative forms of engagement my leasehold could take on if aligned with Elder Sakyi's prayer. How could architecture support community-engaged land stewardship rather than impose anthropocentric projections? Lesley Lokko's curatorial call at the 2023 Venice Biennial to reimagine Africa's architectural futures catalysed this inquiry. My contribution, '*The Beautiful Ones Always Were*' with Postbox Ghana, juxtaposed Ghana's post-independence modernist legacy with architectural practice that was extra-canonical, rooted in lived traditions, placing experimental land relations at the centre of architectural thinking.

This inquiry was expanded during my travels to coastal Togo and Benin, where I encountered the *Newbouldia laevis*. I first learnt of the tree through stories told to me by my father – how it was a spiritual and protective plant, revered among our people, the *Anlo-Ewe*. Commonly called the 'African boundary tree', it is planted along streets where it grows as a living fence. In the Anlo dialect (of Ewe), it is called *Avia* and is part of a family of plants collectively referred to as *ɛkpotsi*, meaning 'border tree'.⁷ Its spatial and symbolic functions derive from its perceived ability to mediate boundaries, not only between private and public realms, but also between human and spiritual worlds.

The *Avia* is central to practitioners of the Vodun traditional religion, where it is cultivated around shrines and used in rituals.⁸ Before entering the royal pythons' abode in Ouidah's *Temple des Pythons*, I underwent a purification rite, washing my hands with water infused with *Avia* leaves.⁹ In that same town, Vodun historian Martine de Souza explained the tree's centrality in rites of passage, and that the so-called Tree of Oblivion along Ouidah's Path of No Return was an *Avia*, ritually erasing memories so slaves would not resent their captors.¹⁰ She explained how nineteenth-century traders in the city of Abomey buried caches of cowrie shells, once used as currency, beneath *Avia* poles for protection, and that archaeological excavations beneath the oldest *Avia* trees still yield discoveries.¹¹

Cultivators attribute antimicrobial, antimalarial, anti-inflammatory and analgesic properties to the *Avia*. Dassekpo et al. support these beliefs, but emphasise that their validity lies not in scientific confirmation, but in long-established belief and practice.¹² The *Avia* is a sacred mediator and historical witness, whose significance affords it a multidimensional role, mediating ecology, spirituality, medicine, law and architecture across time. *Avia* propagate from stem cuttings planted as live poles, which root and develop vertical shoots within three to four months. As they grow, the poles thicken: an ideal structural scaffold for beams and roofing. Yet such living architectural materials remain underrepresented in Ghanaian architectural

discourse. Although literature on *Avia*'s structural applications remains limited, Bolade et al. demonstrate the tree's uses, from musical instruments to veneer, addressing its functional value, but ignoring its socio-cultural significance.¹³ My approach seeks an affirmative engagement with the *Avia* tree, preserving cultural memory and expanding its architectural depth through layered meanings; a trajectory which began during my Master of Architecture studies at the Massachusetts Institute of Technology as described in the following section. [Fig. 1, 2]

Making the path

The two-kilometre path connecting my land to Yaa-Aso, a community named after its founding matriarch, an early cocoa farmer, ascends a hundred metres through hills, crossing seven farms. It functions as a common, one of several paths transgressing boundaries of privately-owned land, allowing farmers to access their fields. These are the paths that first brought me to the land and historically served as a crucial infrastructure for the cocoa industry, sustaining flows of labour and produce.

Ghana's land-surveying history is rooted in resource extraction, initially serving the rubber and mining industries in the 1890s and the cocoa industry by the early twentieth century. The 1900 Concession Ordinance allowed Gold Coast citizens to obtain land permits under customary law but required concessions to be verified and registered with the Public Works Department, where government surveyors produced official drawings.¹⁴ Many of the colony's forest lands were documented during this period. The land indenture I received, 120 years later, reflects this practice. In the accompanying survey drawings, the boundary line is precisely inscribed, but paths evolving organically in response to terrain or relationships between neighbouring farms are seldom captured. The gently ascending path from Yaa-Aso assumed its present grain by this logic; elevation changes and decades of farmers continuously plying it, and it was the longest I recorded.

Land concessions depend on two frameworks: the leasehold period (typically ninety-nine years) and a definitive site plan. Both operate through anthropocentric logics: abstracting land into a commodity, thus muting alternative forms of kinship. The path, originally introduced to export cocoa, adheres to this logic. However, during fieldwork, I observed diverse crops and functions along its length that resist this conceptual flattening, despite colonial efforts to establish a cocoa monoculture landscape.

Guided by these latent practices, I developed five stations, intended to 'thicken' the path; slowing movement, and transforming edges into metabolic zones rather than lines of control, expanding laterally, folding and mutating into unpredictable relations, where territorial knowledge

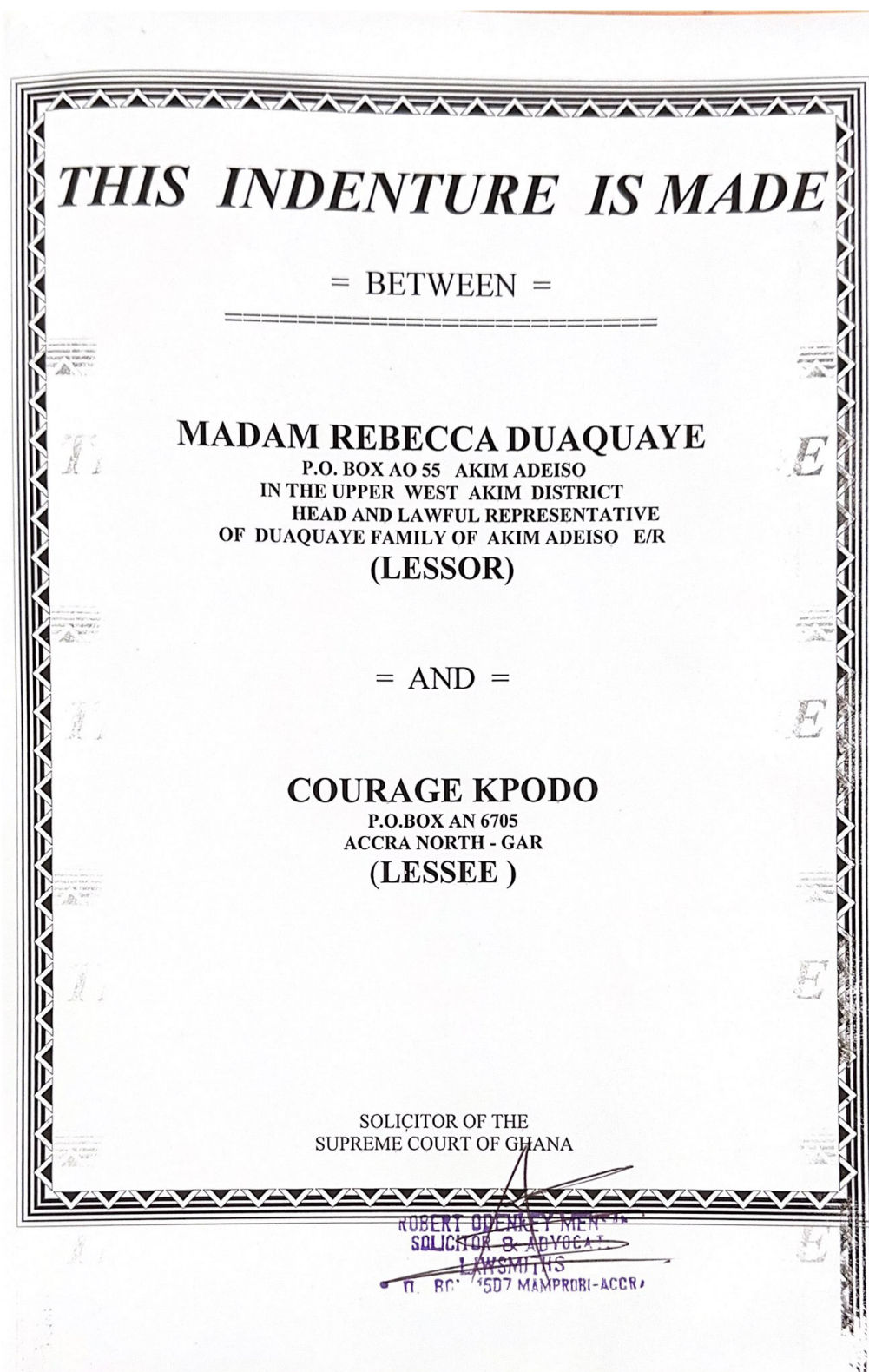


Fig. 1: Indenture of lease-sale by Robert Odenkey Mensah, Solicitor of the Supreme Court of Ghana, 2023.



Fig. 2: Avia tree framing terrace space. Dzita, Volta Region, 2024. Photo: author.

and infrastructures entangle: bodies and energies, ancestors and spirits, soils and waters, human and nonhuman. The Avia tree serves as the primary organisational element, given its cultural, medicinal and technical properties.

The southernmost station cultivates propagative Avia poles; later sent to the other stations as ecological and structural material. Planting follows intersecting grids, creating shaded spatial enclosures for resting and gathering, transforming the perception of the boundary tree. The minimal canopy supports polycultural growth, reinforcing this generative logic.

The topography welcomes additional functions, transforming it away from cocoa monocultures. I entered into deliberations with the farmers and arrived at a collective decision to expand the path to a two-metre width, anticipated by the existing expansions for cargo tricycles transporting produce uphill. We marked cocoa trees for removal, pruning or transplanting. The width was determined by the path's gradual expansion, as cargo tricycles occasionally travelled up the hills to transport farm produce, slowly widening it over time.

At the midpoint, a twenty to thirty-minute walk from Yaa-Aso, two imagined stations alter the rhythm, thickening and framing the path, without obstructing movement. In one, Avia poles support a roof above terraced seating; in the other, the carrying load of a lattice system. Their proximity to the path makes them communal spaces for pausing, gathering, and exchanging propagators, a common practice along the path. By affording these informal functions, they embed temporalities and generative processes into the grain of the path.

Widening the path improves the mobility of ageing farmers while diversifying material flows and synergistic economies. Soon after completion, an elderly farmer, Mr Amuzu, recounted a previous failed attempt to establish a pigsty, using the manure as fertiliser, due to width constraints on logistics. With additional clearance, he foresaw cheaper transport, making this and other circularities viable.¹⁵

The northern terminus in Yaa-Aso, the former Ghana Cocoa Marketing Board distribution building, once part of the export economy, is reimagined as an open-air market. Avia poles extend the building's footprint, accommodating trade. It is inspired by a farmer's observation during our deliberations that a widened path could catalyse local trade at its terminus, thereby minimising the outward flow of produce towards Accra.

This observation revealed to me the potential of thickening the spatio-temporal condition of the path stations. As a legal transgression, the path offered a conceptual scaffold for thinking beyond the five-acre limits demarcated in the survey documents. The project's title, '*Ending Well*', refers to the ninety-nine-year lease and the potential to shape how it unfolds.

Close to Yaa-Aso, the path crosses and blocks the flow of the seasonal spirit-stream, so we agreed to restore it by installing six precast concrete culverts under the path, creating a small wetland on the opposite side for cultivating medicinal plants, including taro, moringa, lemongrass and Avia. Following traditional spiritual practices, Elder Sakyi offered a pacification prayer to the spirit-stream, affirming a more-than-human form of stewardship.

The imagined stations revere nature, a quality absent from the colonial legal instruments (leases and survey drawings) through which land claims are still asserted. These instruments simplify intricate landscapes by centring human authority. As an inheritor of these conditions, I aspire to practise an alternative and expanded stewardship through collective engagement. This approach recognises anthropocentric frameworks but resists their limitations, favouring reciprocal, place-based relations with land and its heterogeneous living and non-living forms instead. [Fig. 3]

03 - THE PAVILION
on propagation and assembly

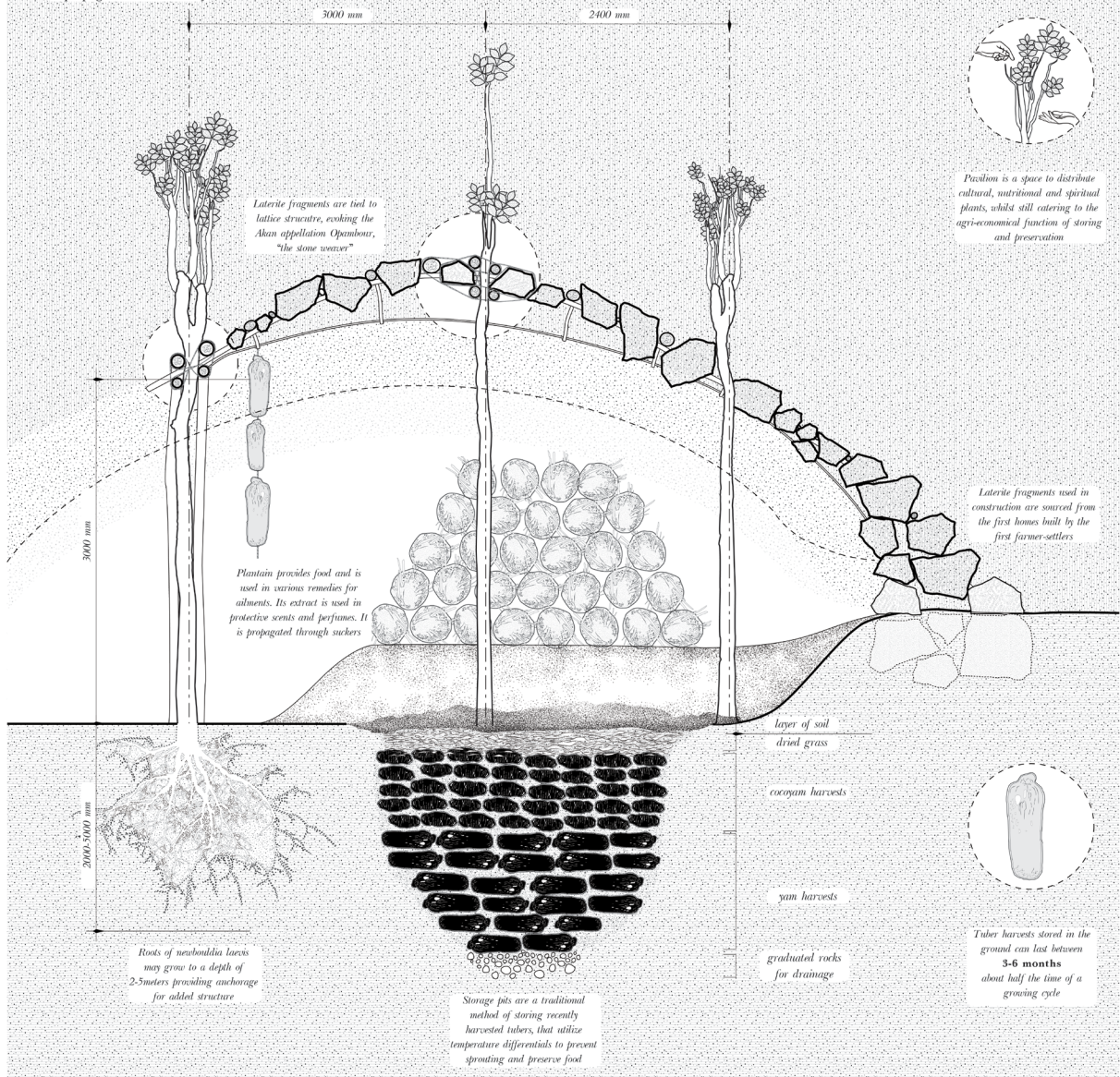


Fig. 3: Distribution pavilion and its assembly, 2024. Drawing: author.

Caring Forest Urbanisms: Human-Tree Relationships of Tenure, Memory and Livelihood in Nairobi

Kathryn Chesebrough

Multiple and competing truths are entangled in the informal settlements of Nairobi, Kenya. In the city's densest neighbourhoods, plagued by socioeconomic inequities, residents carry disproportionate climatic and public health risks resulting from flooding, drought, heat and communicable disease.¹⁶ Inequitably distributed public spaces and the prevalence of exotic tree species alike bear colonial legacies.¹⁷ Life-giving rivers have become fouled by industrial, sanitary and solid waste. Simultaneously, informal settlements are vital to the urban ecosystem, teeming with creativity, entrepreneurship and adaptive strategies.¹⁸ In response, networks of human-tree relations are emerging, indicating adaptive modes of urban living brought into being by youth stewardship and care. [Fig. 4]

During 2023 and 2024, I conducted nine weeks of fieldwork in Nairobi where I observed the transformational impacts that youth groups have, particularly alongside the Mathare and Nairobi Rivers throughout informal settlements.¹⁹ Our meetings were facilitated by Muungano wa Wanavijiji and Slum Dwellers International – Kenya.²⁰ Witnessing uniquely Nairobi urban-forest relations expanded my understanding of the socio-ecological dimensions of trees in these settings. Writings and photographs from interviews during my site tours were interpreted through mapping, diagramming and drawings that illustrate current practices and potential future directions.²¹

Amid glaring infrastructure and resource gaps, youth groups exercise critical leadership in community organising. Many groups form as self-help organisations to mentor young people and prevent crime and substance abuse.²² Among the over 360 youth groups in the Mathare Valley, tree planting has become a popular 'climate action' activity.²³ Planting by hand, and against the odds, youth groups incrementally transform marginalised lands into new spaces, economies and publics: new territories of care.

Waste proliferates across informal settlements, and dump sites degrade neighbourhoods and riverbanks. As youth groups clear waste, they sort materials for recycling, plant saplings as markers of change, and maintain reclaimed spaces.²⁴ The trees catalyse networks of care embedded into everyday life and are material expressions of labour, love and ambitions.²⁵ Care affirms waste work, and tree cultivation asserts value for systems and bodies often rendered invisible by the dominant forces of capital.²⁶ The youth groups' work is proactive, ambitious, and reparative – a present-future-past tense of responsibility. Tenacious seeds take root through collective effort,

allowing new relationships to grow through trees and sustained caretaking actions of young people. Their practices lend new temporal and spatial dimensions to Nairobi's informally settled riparian landscapes.

Trees as tenure

In Mathare Valley, trees cooperate with young people, asserting rights to access, use and shared resources. Within these highly contested settlements, land and property tenure is unstable and fraught with corruption.²⁷ For the youth groups I convened with, growing trees created shared spaces that both resisted development by 'land-grabbers' and stood as testament to community negotiations.²⁸ By reclaiming former dump sites, youth groups claimed marginalised land and carved out space for themselves, albeit within zones officially owned and overseen by government entities. These arboreal interventions adapt traditional land practices, where trees serve as boundary-markers and signifiers of long-term commitment.²⁹ Designated shared green spaces are rare in Nairobi's informal settlements.³⁰ Growing trees is, therefore, employed as a practice of space-making. Trees produce new grounds, volumes and atmospheres, creating outdoor 'rooms' in neighbourhoods where daily public life unfolds. Where left undisturbed, seeds take hold, saplings assert their existence and trees propagate freely in contested and contaminated ground, thus radically defying power dynamics that favour privatisation. As tenure is neither granted to individuals nor to the public as a whole, youth groups serve as claimants, conciliators and custodians. Just as roots resist erosion, taking care of trees allows youth groups to claim space, a stability that allows for planning and imagining futures.

Trees as memory

Trees create and embody relationships between land and people across time in the Mathare Valley. Memory is inscribed through genetic adaptations or expressed in native species that evolve through increasingly irregular drought and flood cycles.³¹ Urban conditions are etched into tree bodies, living tissues that 'keep the score', inscribed by pollution, flood, and competition for space.³² Native species speak volumes more to Kenya's history than exotic species that are common in Nairobi.³³ Their bark, roots, fruits and leaves provide remedies that are often more affordable than western pharmaceuticals.³⁴ Urban forests support traditional land-based practices, carrying memory and knowledge into the rapidly urbanising contexts, and integrating rural caretaking into contemporary urban identities.³⁵ The forests demonstrate how, accessible and shared, traditional knowledge and native tree species connect lifeways across spatio-temporal scales.³⁶ Trees growing in memory of extrajudicial killings preserve painful histories while allowing



Fig. 4: Former dump sites are transformed into verdant publicly accessible amenities, as seen in Mathare Community Park. Photo: author.

gradual healing.³⁷ Youth groups cultivate restorative spaces for stressed bodies and minds, in response to busy urban environments and traumatic experiences of injustices prevalent in Mathare. Memories created with and within trees connect young people in informal settlements to multiple temporalities and landscapes.³⁸ As trees and youth endure harsh conditions, they embody a shared resilience amid unpredictability.

Trees as livelihood

Trees are part of the patchwork of resources that supports young people in informal settlements. Youth are chronically under-employed throughout Nairobi; caring for trees provides an outlet for their time and energy while building transferable skills. In Mathare, distinctions between traditionally rural and urban land uses blur as young people tend urban farms amid dense development. Consuming fruits supplements nutritional needs, offering immediate returns on human and ecological labour.

The time needed to care for trees is itself a commodity; tending to trees is a longer commitment than other economic endeavours. Trees supplement diets and incomes over lifetimes slower than those of their human caretakers and provide long-term dividends. The spaces created through tree planting accommodate micro-industries and the exchange of more-than-capital resources, including tacit ecological knowledge. Community cohesion grows in these accessible, open spaces, fostering mutual aid and social resilience. The hum of hustling is ubiquitous as youth co-produce and expand opportunities to fulfil their needs for food, shelter and income through tree care.³⁹ They form a caretaking corps in direct and evolving relationship with the landscape.

Temporalities of trees and care

Relationships with trees multiply expressions of property, value and time.⁴⁰ Acute circumstances give rise to emergent practices; tending the trees over time extends urgent decisions and marginal spaces into the social and spatial fabric of the settlement. While these emerge within capitalist, functional and utilitarian realities, they enable reciprocal encounters between trees, people and urban environments. Intimacy with plant time becomes a re-enchantment of the city.⁴¹ Trees embody simultaneous pasts and presents; they become materially and structurally stronger in death; await opportunities; and possess knowledge beyond human capacities.⁴² Temporal scales are revealed at the nexus between care practices and tree provisions: fruit, medicine and incomes derived in cooperation with trees meet corporeal, present needs, while dreams grow with saplings as youth project their visions for tenure, empowerment, and resilience into the future.

By protecting, engaging and otherwise valuing trees and their material and immaterial provisions, caretakers acknowledge the fragility of biological time shared by human and arboreal communities.⁴³ As youth groups promote self-help, tree care offers healing for human, tree, soil and water bodies. Maintenance animates 'the world at hand' in the present tense.⁴⁴ The organisation of trees generates complex spatial relations that emerge from novel landscapes while asserting a situated ethic of care.⁴⁵ [Fig. 5]

Aligning themselves with trees, youth stake claims in entangled futures that will outlive them, motivated by goals beyond individual benefit.⁴⁶ The communities I spoke with adopt a language of care, describing themselves as 'growing', not merely 'planting', trees. Care is leveraged to inspire others, gain recognition, build support, attract resources, and assert influence. The spectre of the future looms large in environmental outreach by NGOs and government initiatives in Nairobi.⁴⁷ In the rush toward progress, the material reality and labour of caretaking become obfuscated.⁴⁸ When caretaking is overlooked, abstract goals to enhance ecosystems remain posturing.⁴⁹

As the bodies of youth, trees, contaminated rivers, and densely settled informal environments tumble together, their negotiations manifest in urban groves and networks of care.⁵⁰ These intimate assemblages create 'care time', moving beyond 'productivity' values as more-than-capital provisions accumulate across multiple temporalities.⁵¹ They compost lived experiences and value intuition as a critical input, a form of empowerment.⁵² The distance between present conditions and desired futures is the site of contestation, where competition and uncertainty are generative. Caretaking in the Mathare Valley stems from the volatility of socioeconomic precarity, flood disturbances and increasingly unpredictable rain and heat cycles.⁵³ Here, care is a stabilising force among chronic, uncontrollable and abstract issues, forming active hope despite the entwined threads, and threats, of seizure and flood.⁵⁴

Caring forest urbanisms

In spring 2024, flooding in Nairobi claimed many lives and displaced tens of thousands.⁵⁵ Subsequent state-led demolitions abruptly enforced rote thirty-metre no-build zones along riverbanks. An oversimplified interpretation of the riparian zone loses sight of the nuance and possibility enacted by youth and trees, compounding traumas felt disproportionately by the urban poor.⁵⁶ These devastating events create a potent counterpoint to advocate for rebuilding with care-based expertise that resists permanent dispossession and cultivates resilience. With this contribution, I propose a speculative expansion of 'forest urbanism' as a commons of native Kenyan species within Mathare Valley's riparian areas, to actively centre human-tree relationships



Fig. 5: Caretaking efforts are legible in accessible urban groves that create new relationships of tenure, memory and livelihood, as seen at LEWMO Park. Photo and image: author.

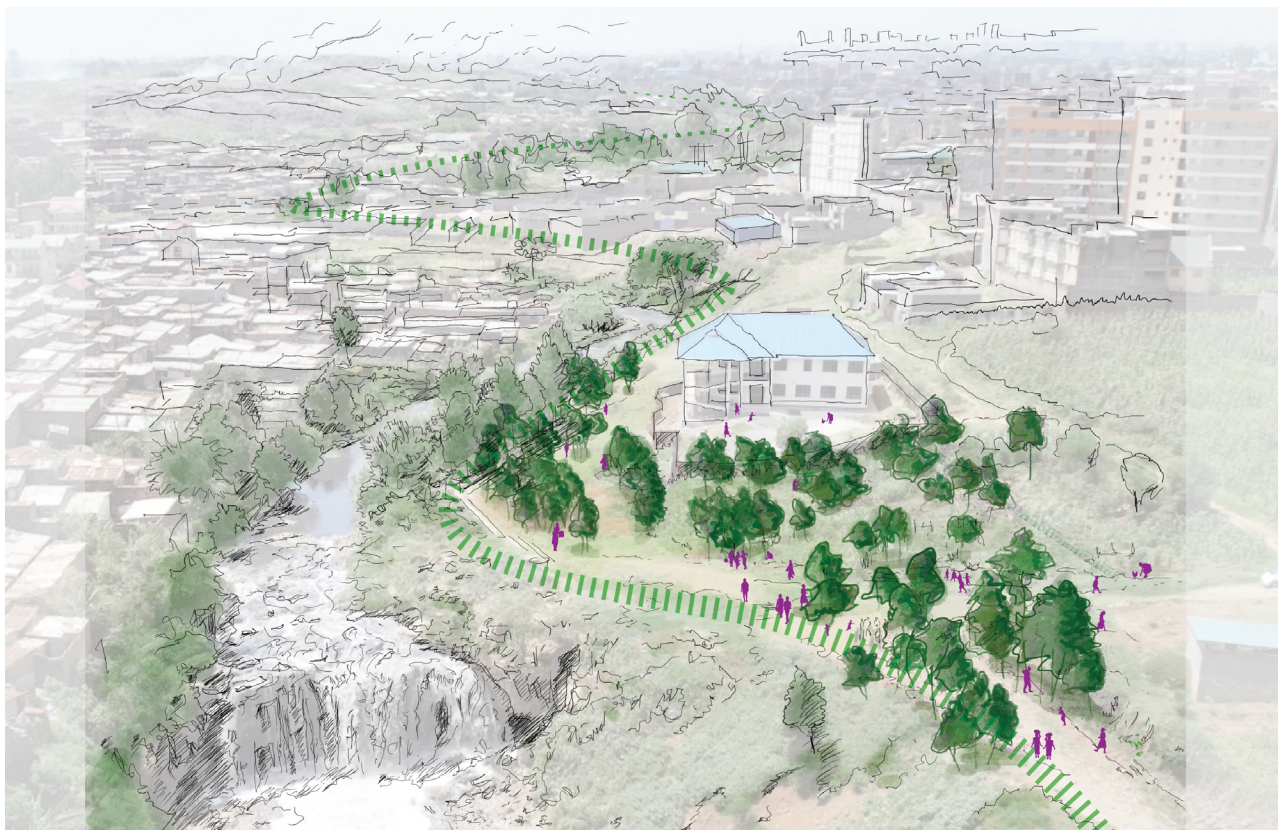


Fig. 6: Forest urbanisms can provide meaningful adaptations with a spectrum of forest and urban occupations. Image: author.

that create many provisions, functions and publics.⁵⁷ In my proposal, caring forest urbanisms go beyond one-dimensional 'greening' or infrastructures. Such an approach puts a face to process orientations of landscape urbanism and materialises across multiple temporal, spatial and social scales.⁵⁸ Caring forest urbanisms can generate networks of public space, flood adaptation infrastructure, urban river restoration, and expand urban ecologies in Nairobi.⁵⁹

Central to this vision are networks of care that are empowered to produce space and guide transformations for socio-arboreal futures. An accessible public realm animated by communally managed tree provisions keeps city-making active and alive. Commoning through care counteracts 'depleted imaginaries' by generating spaces of indeterminacy, inviting caregivers and trees into spatial decision-making and confronting power structures.⁶⁰ Human-tree relationships hold meaningful potential for adapting informal settlements in place in response to shifting climatic regimes. Diverse spatial types, social practices and temporal perceptions are possible as trees and caretakers negotiate, innovate and hybridise the built environments. Temporal shifts with cyclical rains, tree provisions, tending, and harvests can expand perceived timelines of the forest and the city. [Fig. 6]

Community and ecological relationships are powerful design agents, creating multiple potential futures over time. Youth and trees in the Mathare Valley hold many truths at once, creating new worlds. Their experiences of tenure, memory and livelihood expand through socio-arboreal agencies and temporalities. Nuanced, effective, and novel occupations are growing in informally settled riparian edges as spatial and relational strategies. This moment calls for caring forest urbanisms as ambitious, generous, and vital as responses emerging from the margins.

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7. It is important to highlight that tree-planting has historically been used to territorialise spaces by both indigenous and colonial groups, though with different motives. In the plantation system, trees are organised to control the landscape to maximise profit. By contrast, the use of the border tree is about delineating public from private and providing protection.
8. Geographically, this would be along the West African coast that begins from the Volta Region of Ghana, across southern Togo and Benin and into south-western Nigeria.
9. The *Temple des Pythons* is a Vodun shrine in Ouidah dedicated to *Dan* or *Dangbé*, the rainbow/serpent deity associated with continuity, protection, fertility and the cosmic cycle. Royal pythons are kept and ritually cared for there.
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Notes: Caring Forest Urbanisms

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19. This research was undertaken as an Urban Forest Research Fellow at the Centre for International Forestry and Agroforestry Research (CIFOR-ICRAF) at their Nairobi headquarters. More about these experiences: <https://cals.cornell.edu/news/2024/02/>

[caring-urban-forests-nairobi-informal-settlements; https://www.cifor-icraf.org/news/corporate-news/seminar-on-nairobi-urban-forest-heralds-new-area-of-work-for-cifor-icraf/](https://www.cifor-icraf.org/news/corporate-news/seminar-on-nairobi-urban-forest-heralds-new-area-of-work-for-cifor-icraf/). During fieldwork, I met with youth groups who are growing trees in the informally settled communities of Mathare, Korogocho, and Lucky Summer, all located within the riparian corridor of the Mathare Valley. This piece was written based on observations from 2023–24 which continue to be relevant in the current context of the post-2024 flood, albeit in a markedly different environment of regulations and power dynamics which are beyond the scope of this work.

20. 'Muungano wa Wanavijiji is a social movement of "slum" residents and urban poor people in Kenya. We believe that slum upgrading is possible when communities themselves are at the centre of their development.' Muungano website, n.d., <https://www.muungano.net>. For information about Slum Dwellers International – Kenya, see their website: <https://www.sdikenya.org>.
21. I kept an extensive blog during the first six weeks of fieldwork during summer 2023 as an informal record: <https://kichesebrough.wordpress.com>. This study was undertaken as design research, with drawings and fieldwork both approached as ways of thinking-with sites and generating new knowledge. This perspective derives from my education and experiences as a landscape architect in the United States. Thorough discussion of landscape architectural design research fieldwork is beyond the scope of this paper; see: M. Elen Deming and Simon Swaffield *Landscape Architectural Research: Inquiry, Strategy, Design* (New York: Wiley, 2011); Steffen Nijhuis and Jeroen de Vries, 'Design as Research in Landscape Architecture', *Journal of Landscape Architecture* 38, no. 1-2 (2019): 87–103.
22. Slum Dwellers International – Kenya and Muungano wa Wanavijiji, *Nairobi Eastern Region Voices for Climate Action Groups Profiling Report* (Nairobi: Slum Dwellers International – Kenya, 2022), 37.
23. Ibid.
24. Waste work is a prevalent activity among youth groups. This is difficult, often dangerous work, and young people who I spoke with take pride in their abilities to derive income from waste; this is evident in slogans such as 'Taka ni Mali', Swahili for 'Waste is Wealth', as seen on jumpsuits worn by members of the Lucky Summer Environmental and Waste Management Organisation (LEWMO) youth group.
25. Trees are central to networks of care as direct or indirect ways of meeting the needs of Mathare Valley residents. Examples include trees that beautify the bath house managed by Vision Bearerz in Mathare; programmes such as community meals held in the green spaces managed by Komb Green Solutions in Korogocho; the nascent green corridor linking public open spaces managed by LEWMO; and the connection between clearing waste and growing

- trees, particularly along riparian edges, as practiced by many groups.
26. Notions of caretaking as undervalued are derived from feminist and eco-feminist perspectives. See, among many others, work by Donna Haraway; Maria Puig de la Bellacasa; Mary Mellor; Anna Tsing, all referenced here, in brief.
 27. Thorn et al., 'Autonomous Adaptation to Global Environmental Change in Peri-Urban Settlements.'
 28. Young people I spoke with during fieldwork made frequent mention of 'land grabbers' to describe individuals or entities that seize lands for privatisation, typically for residential development; their descriptions included processes of corruption at many levels that lead to dubiously sanctioned development of lands that are otherwise understood to be publicly accessible. The complexities of insecure land tenure and development in informal settings of Nairobi are beyond the scope of this work; see Sophie Schramm and Amiel Bize, 'Planning by Exception: The Regulation of Nairobi's Margins', *Planning Theory* 22, no. 3 (2023): 316–37, <https://doi.org/10.1177/14730952221137706>, and Thorn et al., 'Autonomous adaptation'; According to youth group members I spoke with, trees – and the spaces they create – play the role of 'maintaining' community safety in the bath house managed by Vision Bearerz, while many other accounts described removal or thinning of unwanted trees and vegetation in 'bushy' areas that were havens for crime.
 29. Peter Dewees, 'The Evolution of Kikuyu Land Tenure', in *Social and Economic Incentives for Smallholder Tree Growing: A Case Study from Murang'a District, Kenya* (Food and Agriculture Organization of the United Nations, 1993).
 30. Andersson et al., *Nairobi Public Space Inventory and Assessment*.
 31. Zoë Schlanger, *The Light Eaters: How the Unseen World of Plant Intelligence Offers a New Understanding of Life on Earth* (HarperCollins, 2024); Najma Dharani, *Field Guide to Common Trees & Shrubs of East Africa*, 3rd ed. (Struik Nature - Penguin Random House of South Africa, 2019); Patricia Nying'uro et al., *Climate Change Impacts in Kenya: What Climate Change Means for a Country and Its People* (Kenya Meteorological Department, 2024).
 32. Zoë Schlanger, 'The (Plant) Body Keeps the Score', in *The Light Eaters: How the Unseen World of Plant Intelligence Offers a New Understanding of Life On Earth*, (New York: HarperCollins, 2024).
 33. Gerow et al., 'Street Tree Communities Reflect Socioeconomic Inequalities and Legacy Effects of Colonial Planning in Nairobi, Kenya.'
 34. Takuya Furukawa et al., 'Multiple Use Patterns of Medicinal Trees in an Urban Forest in Nairobi, Kenya', *Urban Forestry & Urban Greening* 18 (August 2016): 34–40. During fieldwork, young people shared anecdotes of medicinal uses of trees, including the species *Markhamia lutea* and *Warburgia ugandensis*. These informal accounts came from members of the LEWMO youth group in Lucky Summer and Memradi Network in Mathare along the Gitathuru River.
 35. Manuel Herz and Shadi Rahbaran, *Nairobi, Kenya: Migration Shaping the City* (Lars Müller Publishers, 2014).
 36. Amiel Bize, 'On Fallen Wood', *Stitching Etnofoor* 34, no. 2 (2024): 33–48.
 37. Members of the Mathare Social Justice Center and Green Park Self-Help Youth Group, both located in Mathare, invited me to visit trees that they are growing in memory of group members and others in their community who have been extrajudicially killed by police.
 38. Alberto Tundo, 'The Metaphysics of Plants: In Conversation with Emanuele Coccia', February 13, 2020, <https://www.maize.io/cultural-factory/metaphysics-plants-emanuele-coccia/>.
 39. Tatiana Adeline Thieme, 'The Hustle Economy: Informality, Uncertainty and the Geographies of Getting By', *Progress in Human Geography* 42, no. 4 (2018): 529–48.
 40. Bize, 'On Fallen Wood.'
 41. Tundo, 'The Metaphysics of Plants: In Conversation with Emanuele Coccia.'
 42. Robert Moor, 'Dendrochronology', *Emergence Magazine*, 2024, <https://emergencemagazine.org/essay/dendrochronology/>; Tundo, 'The Metaphysics of Plants: In Conversation with Emanuele Coccia'; Schlanger, *The Light Eaters: How the Unseen World of Plant Intelligence Offers a New Understanding of Life on Earth*.
 43. Jérôme Denis and David Pontille, 'Cultivating Attention to Fragility: The Sensible Encounters of Maintenance', in *Ecological Reparation*, ed. Dimitris Papadopoulos et al. (Bristol University Press, 2023); Rayén Quiroga-Martínez et al., 'Explorations: Feminist Ecological Economics', *Feminist Economics* 11, no. 3 (2005): 107–50.
 44. Julia E. Corwin and Vinay Gidwani, 'Repair Work as Care: On Maintaining the Planet in the Capitalocene', *Antipode* 0, no. 0 (2021): 1–20.
 45. Sara Jacobs, 'From Novel to Relational: An Approach to Care for Relational Landscapes', *Journal of Landscape Architecture* 14, no. 3 (2019): 24–33.
 46. Young people I spoke with described their motivations in various terms; primarily, they described a desire to improve the environmental quality of the city and the rivers; they also described desires to provide beautiful open spaces for themselves and for their communities; to grow healthy food; to restore the quality of the river to provide habitat to Kenyan wildlife; among others.
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Biography

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