

Decolonial Strategies for Urban Greenery: Insights from Reimagining Planning Through Epistemic Pluralism in Kumasi

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Abstract

In the context of global crises, the field of urban planning is critiqued for reproducing unsustainable practices and excluding non-Western epistemologies. This paper explores how Indigenous knowledge practices in Kumasi, Ghana, reveal alternative value systems for planning rooted in relationality, reciprocity, and care. The study draws on fieldwork carried out through community engagement activities, foregrounding the voices of local actors who are often marginalised in planning discourses. Conducted within a transnational North-South university research collaboration, the research examines how engaging with epistemic pluralism can inform more just and inclusive planning processes. By framing planning as a cultural and value-laden practice, the paper contributes to the growing call for decolonising planning practices through the recognition of diverse knowledge systems.

Keywords: urban greening, epistemic pluralism, decolonisation, community engagement

Introduction

Addressing global environmental challenges requires a comprehensive, interdisciplinary approach that critically engages with the limitations of Euro-modern frameworks and dominant Western scientific knowledge systems. In the urban planning context, achieving transformative outcomes entails confronting the enduring influence of colonial legacies, which often sustain standardised, unsustainable practices at the expense of context-specific and locally grounded solutions. These structures – manifested in dynamics such as the privileging of dominant knowledge systems, the alignment of decision-making with financial interests, and the marginalisation of alternative epistemologies – have been the subject of critique for their tendency to overlook the inherent complexity of ecosystems. By overlooking this complexity, the structures rest on a separation of human and nature rather than symbiotic coexistence (Watson, 2019). The prevailing constraints of Western epistemology are evidenced by the eviction of Indigenous peoples in the name of modern conservation, despite the symbiotic relationship between Indigenous communities and nature that has been in place for millennia (Watson, 2019; Chilisa, 2017). The marginalisation of traditional ecological knowledge (TEK), particularly as expressed through Indigenous epistemologies, calls for renewed attention to its relevance in addressing environmental challenges. Engaging with knowledge systems beyond the Western scientific tradition can offer valuable insights and contribute to more inclusive and context-sensitive understandings of sustainability (Robinson, 2004). The question arises as to how these insights of epistemic pluralism could be applied in the context of reimagining transformative planning practices in urban environments.

As Escobar (2018) suggests, exploring alternative epistemic frameworks beyond the Western tradition can open up new possibilities for novel thinking. This includes engaging with relational ontologies rooted in communities that resist dominant development models – what Escobar refers to as “worlds in struggle” (p. 68). Relational ontology emphasizes the interconnectedness of all living and non-living entities, shaping understandings of existence and knowledge through relationships rather than separation. In contrast to the Western emphasis on individualism and rational thought – often framed through ideas such as “I think, therefore I am” – relational worldviews view identity as emerging from collective relations and mutual responsibilities (Chilisa, 2017). While Indigenous relational ontologies tend to prioritize holism, process orientation, and community, Western ontologies often focus on atomism, output orientation, and individual agency (Andersen & Gabel, 2023). These comparisons are informative as the contrasts are substantial. Concurrently, the interpretation of binaries is exemplary of Western ontology, in contradistinction to inclusive approaches. As Andersen and Gabel (2023, p. 66) argue, the creation of a binary separates and fixes in time and space systems that can otherwise never be separated or fixed. Among other scholars (e.g. Escobar, 2018), they advocate the recognition of ontological and epistemological pluralism.

A decolonising approach to planning brings the marginalised voices and epistemologies to the centre (Simonds & Christopher 2013; Chilisa & Tsheko, 2014). Ontological design, as referred to by Escobar (2018), facilitates ways of imagining design practices that contribute to restoring and sustaining people's agency in their territories and cultures by incorporating culturally specific practices, worldviews, and values into planning processes and solutions. In the planning process, the decolonising approach is a theoretical positioning that guides the methodologies applied to validate traditional knowledge and practices that have been accumulated over generations but are yet excluded from the discourses (Kovach, 2010; Chilisa, 2017). The integration of social and cognitive justice as a fundamental principle in the planning process requires a substantial reorientation of the prevailing rationalist and modernist cultural framework from which contemporary planning originated and within which it continues to function (Escobar, 2018).

The case study presented in this paper explores a process-oriented approach to urban planning that facilitates a platform for ontological and epistemological pluralism. By examining local knowledge practices in Kumasi, Ghana, the study aims to reveal alternative value systems for planning amid planetary crises. The case study is set in the city of Kumasi, the capital of the Ashanti Kingdom, which is one of the largest Indigenous socio-political entities in sub-Saharan Africa. The Ashanti Kingdom has maintained its authority through both British colonial rule and the post-colonial era of modern Ghana. The Asantehene, the King of the Ashanti people, along with the Asanteman Council, continues to wield significant influence over cultural, spiritual, and political life. These traditional institutions are the subject of profound respect and play a vital role in customary governance, particularly in matters related to land tenure, communal identity, and dispute resolution (Hollmén et al., 2025).

The Ashanti capital, Kumasi, was initially founded in the midst of a tropical forest and given the reputation of the Garden City of West Africa. Since then, it has undergone significant urban expansion and now accommodates approximately four million people. Despite growing developmental pressures, the city continues to reflect a dual governance structure in which customary authority and formal state institutions coexist. This duality has a significant impact on planning practices, offering opportunities for the integration of Indigenous knowledge systems into urban development frameworks. Yet, the rapid expansion of the Kumasi metropolis in recent decades has led to the encroachment of traditional villages and their absorption into the urban fabric (Quagraine, 2011). This transformation has contributed to the systematic marginalisation and erosion of traditional knowledge within the metropolitan area. The erosion of traditional knowledge signifies a gradual disconnection from the collective worldview and cultural heritage that has been accumulated over generations. Traditional ecological knowledge evolves from local context in direct contact with nature and provides solutions to local challenges while fostering a symbiotic relationship between all living and non-living (Chilisa & Tsheko, 2014; Watson, 2019). The knowledge, rooted in the local ecosystem, has been mitigating climate challenges for thousands of years and has the capacity to inform planning for climate resilience (Watson, 2019).

Indigenous knowledge systems are inherently participatory, emphasizing the central role of community engagement in shaping ethical and environmental practices. As Adom (2016) notes, such knowledge has historically provided a foundation for moral behaviour within traditional Ghanaian communities. He links the rapid decline in biodiversity to the erosion of these systems, framing environmental degradation as a fundamentally social issue. By influencing collective behavioural patterns, he argues, traditional ethics can be leveraged to address contemporary ecological challenges. Building on this perspective, the case study examines how participatory planning processes in Kumasi might incorporate Indigenous epistemologies into urban planning practice. In this manner, it seeks to conceptualise the city and its futures by exploring cultural connections that extend beyond the limitations imposed by the colonial legacy. This approach facilitates the identification of the constraints imposed by contemporary Western planning principles and provides a framework for exploring potential directions for transformative planning practices in the context of urban development.

North-South University Collaboration

In recent years, the role of North-South university collaborations has gained increasing recognition as a vital mechanism for fostering mutual understanding, advancing decolonial knowledge production, and promoting

culturally relevant research practices. The case study is set within the framework of a collaborative endeavour between Aalto University in Finland and Kwame Nkrumah University of Science & Technology (KNUST) in Kumasi, Ghana. That collaborative endeavour was initiated in 2022 within the framework of the Interplay of Cultures Studio, a master-level course organised by the World in Transition Research Lab at Aalto University (Hollmén et al., 2025). Rooted in the thematic areas of global sustainability and cultural locality, the collaboration emphasises cultural exchange and seeks to deepen awareness of local urban qualities through intensive fieldwork in Kumasi. At the core of this partnership lies a commitment to transforming traditionally hierarchical North-South relations by establishing spaces for integrating cultural knowledge with global knowledge, thereby ensuring that research outcomes remain relevant and accountable to local communities (Chilisa & Tsheko, 2014). This approach is consistent with the broader calls for co-production methodologies in university partnerships, emphasising the significance of experimentation and adaptability in engaging with local communities (Ferlicca & Pedro, 2024). Moreover, universities are gaining recognition as impartial platforms with the potential to encourage discourse, foster capacity-building, and establish partnerships that promote social justice. This positions academic collaborations as pivotal actors in the realm of transformative urban practices (Ferlicca & Pedro, 2024).

Kumasi Trees – Project of the Hearts

Since 2023, Aalto University and KNUST have been engaged in collaborative efforts in a project entitled 'Kumasi Trees – Project of the Hearts'. The project has been embraced by the Asantehene, the King of the Ashante, since its outset as a celebration of his 25-year reign in 2024. The project is founded on the principle of multistakeholder engagement, with the overarching aims of (1) introducing practices to replant trees in urban areas and re-invigorate the urban trees and greenery, and (2) securing the preservation of the trees for future generations by embedding their maintenance into the cultural habits and practices of the city dwellers and authorities alike (Hollmén et al., 2025).

The concept of the Garden City of West Africa is frequently associated with the terminology that Queen Elizabeth II employed during her visit to Kumasi in 1961. In addition, a connection has been established with the 1945 Master Plan of Kumasi, as designed by Maxwell Fry and June Drew. This plan is widely regarded as being inspired by the Garden City movement, which was developed by the British urban planner Ebenezer Howard (Quagraine, 2011). The title of the Garden City of West Africa has thus acquired a colonial connotation. Nonetheless, the designation 'Garden City' had been attributed to Kumasi for a considerable period prior to the visit by Queen Elizabeth II or the 1945 Master Plan, as evidenced by the writings of John Maxwell in 1928 (Maxwell, 1928). Moreover, a depiction of Kumasi encircled by tropical forest and featuring street trees that provide shade for the residents was already introduced at the beginning of the 19th century (Bowdich, 1819, p. 321-323). This observation, in conjunction with the historical narrative of Kumasi being established 'under a Kum tree' (the meaning of Kumasi in Twi), suggests an Indigenous concept of a Green African City, prior to the introduction of the imported associations with the Garden City movement, laden with colonial connotations. The re-establishment of this concept could facilitate the creation of a decolonising strategy for urban greening in Kumasi.

To foster long-term commitment to the care and maintenance of trees and urban greenery, the Kumasi Trees project seeks to restore and strengthen the Indigenous human-nature relationship rooted in Ashanti traditions (Adom, 2016). This is pursued through a multi-faceted, multi-stakeholder approach involving participatory activities and community engagement. Acknowledging the enduring environmental and structural impacts of colonialism is crucial, as these legacies continue to shape urban landscapes long after formal colonial rule ended (Leanui & Burgess, 2023). Such recognition creates space to imagine Indigenous futures free from colonial influence and to develop alternative concepts that can inspire more inclusive and context-sensitive urban planning. The decolonial approach employed in the Kumasi Trees project is characterised by a seamless integration of knowledge creation and action, emphasising a holistic and inclusive methodology that transcends the conventional divide between theory and practice. The participatory methodology is employed in order to ground the project in the local socio-cultural context and thereby enhance the social and environmental resilience of the area. Subsequent to this process, the project aspires to catalyse local action for enhanced environmental sustainability and social justice. The objective of the project is to illustrate a transformative planning process that

can be adapted and initiated by all levels of society within their own contexts.

Methodology

The Kumasi Trees project facilitates the integration of Western scientific knowledge systems and Indigenous knowledge systems, as well as knowledge production methodologies, within a framework that aims to decolonise research and planning processes. The decolonising model for research process proposed by Simonds and Christopher (2013, p. 2185) involves the conduct of research with Indigenous communities, placing Indigenous voices and epistemologies at the core of the research process. In the process of adapting the model to the context of urban planning, a range of qualitative and experimental methods are proposed. Eurocentric research methods and participatory action research methods have been the subject of critique on account of their exploitative nature and tendency to focus exclusively on identifying the unmet needs of communities without seeking to initiate change in the situation (Chilisa & Tseko, 2014). Furthermore, these methods are criticised for their emphasis on external solutions to challenges, thereby facilitating further colonisation of Indigenous communities (Archibald & Davidson, 2023; Chilisa & Tseko, 2014). In light of this, change-oriented approaches have been proposed that position communities as knowers, aiming to foster self-discovery through the imaginative processes of dreaming and envisioning futures – developed in dialogue with strategies for realisation and action (Chilisa & Tseko, 2014).

The ontological, epistemological, and axiological positionality of the project design has a foundational impact on the methodological choices made in the process of collecting and analysing data (Cyprian, 2023). In the context of Western scientific and academic frameworks, Indigenous knowledge systems have historically been marginalised and overlooked. Consequently, the notion of Indigenous research methodologies has only fairly recently emerged as a subject of academic discourse, particularly within the scope of participatory dialogue (Cyprian, 2023; Chilisa, 2017; Kovach, 2010). Within the discourse, the argument is posited that methodologies which are of benefit to Indigenous nations, communities, and people must be utilised, irrespective of their ontological and epistemological background. Furthermore, it is asserted that the development of an ethical research relationship is of greater importance than the manner in which data is collected. (Andersen & Gabel, 2023) In this case study, the methodological decisions are employed to facilitate the integration of marginalised knowledge systems with dominant knowledge systems through decolonising the process.

Case study: 2025 Fieldwork in Kumasi

The fieldwork, which was organised in March 2025, involved an international and multidisciplinary cohort from Aalto University and KNUST. The Aalto cohort comprised nine international master's students, two teacher/researchers, and a professor. All members of the cohort were from the fields of architecture and landscape architecture. A total of 24 participants and multidisciplinary support from seven faculty members from the fields of architecture, sociology, horticulture, Indigenous art and technology, and African studies, participated in the programme from KNUST. Moreover, the programme benefited from the assistance of the Manhyia Palace of the Asantehene, and Manhyia Palace Museum during the fieldwork.

At the inception of the 2025 fieldwork programme, the cohort was assigned a task of creating a transformative concept plan for a streetscape situated along a primary route extending from the Kumasi International Airport to Manhyia Palace. Notwithstanding the exclusive nature of the assignment, which was to enhance the aesthetic appeal of a given thoroughfare, the approach adopted was designed to emphasise inclusivity, cultural significance, and community commitment, in accordance with the principles of the Kumasi Trees project.

The 1.1 km-long streetscape, which was referred to subsequently as the Manhyia Corridor, was identified as having profound cultural significance, accommodating both commercial and residential areas, and functioning as a heavily trafficked main road that occasionally facilitates royal processions. The corridor functions as a culturally significant locale, embodying the Indigenous leadership and cultural pride within the local social context. The cultural significance provided an entry point for engaging the local small business owners and residents along the corridor in the creation of the transformative concept plan. The transformative concept plan aimed to

integrate climate adaptation initiatives with the strengthening of socio-cultural identity in the urban landscape. At the conceptual level, the Manhyia Corridor was connected to a broader strategy of urban greening, with the objective of extending green spaces to all access roads entering Kumasi, thereby creating a network of green corridors throughout the city. Nevertheless, the focus of the participants' work during the three-week fieldwork period remained on the Manhyia Corridor.

Methods

The Interplay of Cultures studio course at Aalto University commences annually in January. The preliminary phase is oriented towards deepening the understanding of the themes of the prerequisite courses for the studio, including issues of global development, decolonisation, and culturally informed architecture. The objective of this phase is to enable students to develop the conceptual tools required to identify how cultural values and assumptions are embedded within methods and theories, and to recognise the value of non-Western methods and theories (Simonds & Christopher, 2013). The re-orientation and positioning exercises continued upon arrival in Kumasi in March and upon meeting with the local peers. In the initial meetings, a series of exercises were scheduled to promote team cohesion in the context of intercultural relations, facilitating re-orientation, and establishing a shared vision. The preliminary stage of the collaborative fieldwork is of fundamental importance in establishing a shared comprehension of the project's methodology and principles, of ethical partnerships among the Aalto and KNUST participants, as well as in the context of community engagement, and ultimately, the success of the forthcoming weeks of work (Hollmén, 2018; Lenzerini, 2011; Andersen & Gabel, 2023). The participants from Aalto and KNUST were also prepared with academic research ethics, culturally appropriate research methods, and information regarding the project site.

During the site visits to the corridor leading from Manhyia to the airport, the experiences of the residents and users were examined by studying actions and interactions in their naturally occurring setting to gain a deep understanding of the locale. The physical infrastructure along the streetscape was examined by encompassing ethnographic methods, including observations, field notes and diary, photographs, videos, audio recordings, and mapping. A conversational method was employed in order to gather the experiences of 29 residents, employees, and business owners located along the street. A dialogic approach, characterised by open-ended and semi-structured questioning, was employed to encourage storytelling about participants' relationship with the living environment. The conversational interview enabled the interviewee to direct the discussion towards subjects of relevance to their perspective, thereby mitigating the interviewer's capacity to steer the narrative towards issues deemed significant from the interviewer's perspective and own worldview (Kovach 2010; Chilisa, 2017). The emphasis placed on the role of community members as the expert knowers of the local context is a key aspect of the framework, which is designed to facilitate process-oriented research activities. In this framework, community members are engaged to enhance the existing features of the living environment, rather than merely defining primary issues for external resolutions. Depending on the interviewee, the conversations were conducted in English or Twi and subsequently translated to English for further analysis. The utilisation of the native or common language facilitated the employment of terminology and proverbs that are pertinent to the local context, including native plant species, specific occasions, and intangible heritage, which would only be comprehensible to individuals who possessed the culturally specific knowledge. Therefore, the Aalto and KNUST participants were divided into small groups with the objective of fostering intercultural diversity and ensuring that each group contained at least one participant who spoke Twi. The interviews were all recorded, and the transcripts were translated into English for analysis. The possibility of losing culturally specific information during the translation phase was mitigated by having a local expert panel review and supplement the field data during the following fieldwork phase.

Subsequent to the site visits, the collected data was converted into a digital format, systematically organised, and preliminary analyses were conducted within the student groups. The student groups presented and discussed their findings with a board consisting of faculty members from Aalto and KNUST participating in the project and the curator of the Manhyia Palace Museum. The purpose of the presentations was to seek further validation of the data and to gain a deeper cultural and context-specific understanding of the site before moving

to the initial design stage. Prior to the conceptualisation of design interventions, it was fundamental to ensure that these were derived from the culture, traditions, and lived experiences of the local community. This approach was deemed essential to guarantee the relevance and utility of the proposals for the local population, as more comprehensive co-design was not feasible to be organised within the limited time frame of the three-week fieldwork. By the end of the fieldwork, the transformative concept plan of Manhyia Corridor was presented to the leadership of KNUST to seek administrative approval and further processing in the administration. While the field work in Kumasi was brought to a conclusion at this point in time, it should be noted that the project will continue to be pursued in subsequent instances.

The field data collected during the fieldwork constituted the foundation for the analysis conducted for this paper. The findings, which comprised 29 conversational interviews of residents, employees, and business owners located along the street, supported by field notes and observations, were subjected to a thematic analysis through a qualitative coding process. The grouping of the themes that emerged from the interviews into thematic categories resulted in the identification of the six main categories, which are discussed in the following section. Following this, the categories and findings will be discussed in parallel with culturally specific knowledge and global literature.

Results

1. Indigenous Leadership as the embodiment of the culture

"You see, when you come to the Ashanti region, it is a place of culture and Manhyia Palace is the culture itself."

Interviewee 7, a local employee

"I believe that when the King gives an order asking people to make sure their animals do not become a threat to the success of the project, the people will obey." Interviewee 2, a local business owner

"Because dignitaries use the Dichemso route, planting trees along the road will provide a beautiful scenery. And will restore Kumasi's reputation as the Garden City." Interviewee 23, a local resident

The interview data revealed a strong connection between Indigenous leadership and a deep sense of cultural pride and dignity within the community. Unlike elected political governance, Indigenous leadership was perceived as less subject to public scrutiny, suggesting a different form of legitimacy rooted in tradition and cultural continuity. In this context, hierarchical structures based on top-down authority appeared inapplicable, with leadership viewed instead as relational and embedded in communal values. In conceptualising alternative futures devoid of colonial influence, the significance of Indigenous leadership remains paramount. Moreover, the shared sense of cultural pride and unity identified through the interviews offers a valuable entry point for fostering community engagement and long-term commitment. Such engagement supports the cultivation of cultural integrity, which is essential for context-appropriate urban development.

2. Abandonment of traditions due to urbanisation

"Yes, they have some rivers in the forest in which they pour libations, and that is why the forests have been so well preserved." Interviewee 7, a local employee

"As you can see the neem tree over there people come and cut it to treat malaria. These trees have some hidden medicinal purposes that is unknown to us as of now." Interviewee 15, a local resident

"The city has become so busy that people don't even pay attention to them [trees]." Interviewee 1, a local business owner

The interview data revealed that urbanisation has impacted many traditional practices and partially lead to the abandonment of traditional practices, knowledge, and epistemics in urban settings. A minority of respondents identified customs that they considered to be covered by traditional knowledge. However, the majority of

respondents indicated that traditional knowledge existed but was ignored. In this regard, the most frequently cited subjects among respondents focused on spirituality and nature. Such practices are indicative of an acknowledgement of spiritual values, including the tradition of having a designated day of the week on which to refrain from entering the forest, and the utilisation of traditional medicine. However, the responses also revealed a disconnection from the natural environment and an unfamiliarity with a holistic understanding of natural processes. The two natural areas within the designated planning area are physically separated from the surrounding environment by high walls, the primary purpose of which is to restrict interaction with the natural area. The walls were referred to as a source of security, as the wooded areas were perceived as dangerous due to the encroachments that had taken place there during the past few years. Secondly, they also function as a preventative measure against the informal spread of business into the area. One interviewee cited a phenomenon that has also been observed in other parts of the city, wherein natural areas are regarded as undeveloped land that could be utilised for urban development purposes.

3. Cleaning up the beauty of the Garden City

"About 20 years ago, when I was young, when we were talking about Kumasi. It was quite a garden city, because it was one of the cleaner cities in Ghana." Interviewee 7, a local employee

"In some places of the city they can claim the title 'The Garden City', but not even the road where the King passes can claim that title." Interviewee 2, a local business owner

The most distinctive feature of the field work site is the pollution of the soil and water bodies, a phenomenon that is also prevalent in much of the city of Kumasi. In the responses to the interviews, littering and environmental pollution were associated with a lack of collective concern and a rejection of traditional practices. The responses further emphasised the correlation between the concept of cleanliness and the beautification of the environment, as well as the perception of the Garden City.

The high volume of waste was also linked to the flooding issues along the streetscape, as the accumulation of refuse in the gutters resulted in overflow of water and waste materials onto the street level. In certain interviews, the construction of a bridge was proposed as a solution to the challenges posed by flooding. The restoration of the natural environment to serve as a non-polluted, flood-prone zone was a consideration in one interview. In accordance with this observation, the interviews revealed that the presence of fallen leaves on the ground was perceived as a stress-inducing factor. This perception has resulted in the decision to remove trees in close proximity to private residences or commercial establishments. These two cases demonstrate a dissociation from natural processes and a tendency to adopt modern urban solutions that prioritise the separation of humans from nature.

4. Urban space as a facilitator of cultural connectivity

"Cultural parks where the children could go and talk to the elders would be useful. The elders would be able to educate them and tell narratives and stories about the culture. - - This would be useful for the parents who are busy at work." Interviewee 3, a local business owner

"It would be good to have intergenerational parks with artworks that depict the Ashante culture. I believe this will help children to learn the culture as well." Interviewee 2, a local business owner

"Green signifies hope, and I am willing to give hope to my community." Interviewee 23, a local resident

The interviews revealed a disconnection within the cultural continuum, raising concerns about the transmission of cultural knowledge to younger generations. In the course of dialogues concerning aspirations for the urban environment, respondents emphasised a framework for the transmission of cultural knowledge through oral tradition between generations. Furthermore, the presence of Ashanti cultural symbols, such as adinkra, in the street scene to spread cultural awareness and create a sense of community was considered important. In addi-

tion to the utilisation of symbols, dance, and movement were identified as significant modes of communication.

5. Urban services for contemporary needs

"I'd love to see trees, but as a businessman, I'm concerned they could affect my business. If the trees are too big or planted too closely together, it could reduce parking space for buyers with cars. I suggest considering this carefully and providing additional lighting too." Interviewee 9, a local business owner

"The problem will be cattle destroying the plants. So, until we solve that issue, plants will hardly survive." Interviewee 3, a local business owner

"Beyond the environmental solutions, the park will provide jobs for the people and revenue for the government. So, I am in full support." Interviewee 10, a local employee

The interview data demonstrated an emphasis on both traditions and cultural practices, as well as modern needs and practicalities. The long distances to parks and other amenities were perceived as challenging in terms of transportation as well as in establishing social connections. Parks were regarded as providing opportunities for households to send their children to learn and spend time in a safe environment while attending to work. A further requirement for urban services identified was for enhanced security measures in the area, with particular reference to street lighting and pedestrian crossings. In addition, there was a need for improvements to public waste management services. In order to ensure the preservation of vegetation, the necessity to implement sheltering structures to protect against the presence of cattle and goats in the street was also discussed.

The primary issue concerning the vegetation is the limited space available for planting and the maintenance of the trees. The interviews revealed a concern regarding the spatial demands of trees, which were considered to be encroaching upon the already confined street layout. This was a particularly pressing concern for small business owners and employees, who expressed apprehension that the trees would compromise their visibility for potential customers or existing parking spaces near their premises. The intense competition to attract customers and the visibility of the formal and informal businesses along the main road have motivated the business owners to place the items for sale on the street for customers to see. During the discussions, there was a certain degree of hesitancy regarding the prospect of sharing the space with a tree; however, this hesitancy was mitigated by the consideration of potential benefits, such as shade, that the tree could offer to the business. The primary concern expressed in the interviews was the potential impact on livelihoods. This was accompanied by a complementary discourse centring on the prospective employment opportunities associated with urban green spaces.

6. A maintenance strategy based on reciprocity

"We care less, because it is not my property. But we have to care about our environment, because if there are any sicknesses, any diseases, we will catch them." Interviewee 7, a local employee

"The previous tree planters did not educate us on what to do. They just planted and left it. I think you should educate us on what to do. Whether we should water it or you will do the watering." Interviewee 12, a local employee

"I'm concerned with maintenance issues. If there should be trees, the community should be engaged to take care of them, they should have a sense of ownership. This would happen by making them feel like they are part of the project or maybe employ them." Interviewee 1, a local business owner

"We used to have a Town Council, 'Tankas', responsible for cleaning gutters and the environment, but that no longer exists." Interviewee 7, a local employee

The subject of previous tree-planting efforts along the road was a recurrent theme in the interviews. The inadequate maintenance and oversight that followed the previous planting initiative by the party responsible for planting the seedlings have resulted in several factors contributing to the mortality of the seedlings. These

factors include dehydration, consumption by goats and cattle herded along the road, and removal by local residents. The discussions revealed a consensus among the local business owners and residents that the most effective strategy for ensuring the success of a tree-planting initiative is to engage or employ community members to take care of the trees. Upon questioning, the majority emphasised their commitment to take care of the trees planted in front of their businesses or accommodations, if they were engaged in the project during the planning stage and received sufficient instructions for doing so. The analysis revealed that the primary concern expressed by respondents was related to the prospect of eviction and subsequent exclusion from the project, suggesting a potential link between these concerns and the reluctance to participate in tree-planting initiatives.

In conclusion, the interview data revealed that the profound link between Indigenous leadership and cultural identity provides an entry point for community engagement in Kumasi, particularly in relation to stimulating cultural connectivity in urban greening initiatives. The deterioration of cultural connectivity and identity is perceived to be due to urbanisation and the urban lifestyle. However, the interview data also show a sense of pride and commitment to strengthening cultural identity. The setting has the potential to facilitate an urban transformation that is deeply rooted in cultural heritage and traditional knowledge. This transformation would respond to the contemporary needs of residents as part of the urban ecosystem and would envision an Indigenous future disconnected from colonial associations. Thus, it cultivates social and spatial justice while restoring the regenerative relationship between humans and nature.

Discussion

Decolonial Strategy for Urban Greening in Kumasi

The historical encounters with the forthcoming colonial ruler, dating back to the 19th century, have had a significant impact on the urban landscape of Kumasi. The colonial administration has leveraged the built environment to demonstrate and maintain its dominance, both physically and psychologically (Yeboah, 2019). The destruction and reconstruction of urban and rural communities in accordance with imperial principles has resulted in the loss of traditional building expertise (Swithenback, 1969), thereby contributing to the discontinuity in the transmission of traditional knowledge. As demonstrated in the results of interviews and observations conducted in the field, the most prominent contradiction with the Indigenous epistemology is the evident absence of symbiotic coexistence with nature. In the field study site, the evidence of this is apparent in the extractive consumption of natural resources, the pollution of the environment, the separation of the natural environment from the human, and the incapacity to perceive the functioning of the ecosystem and the effects of one's own actions as part of the complex system. Yeboah (2019) observes that, in the colonial era, urban and land use planning was primarily oriented towards the economic benefits of the colonial power. Moreover, since the colonial power presented itself as the owner of the land, it was able to instigate invasions on terms of its choosing (Yeboah, 2019). This may have contributed to the erosion of the sense of ownership and connection to the territory felt by local communities. Furthermore, it has resulted in a legacy of overlapping land-use planning structures and exploitative practices in Kumasi.

The objective of the case study is to illustrate how urban planning can function as a decolonising and transformative action that is reflective, restorative, and regenerative. Such action would be characterised by its deep roots in heritage, its strategic leverage of existing resources, and its imaginative vision for unique futures that promote environmental and social justice. This shift in approach, from owners of the land to stewards, necessitates a re-evaluation of the metanarrative that constructs the planning principles and structures. As Salami (2014) notes, to facilitate a change in structure, it is necessary to first alter the existing narrative around that structure. Salami (2014) continues to elaborate that unethical knowledge production only results in the generation of unethical knowledge. In the urban planning context, the exclusion of the voices of Indigenous communities will further marginalise communities through biased practices (Simonds & Christopher, 2013). Planning, when approached as a process-oriented action, has the capacity to employ methodologies that are suitable in the local context. Such methodologies contribute to restoring and sustaining people's sense of agency in their territories and cultures. This is achieved by incorporating culturally specific practices, worldviews, and values into planning

processes and solutions (Escobar, 2018).

The city of Kumasi has an ontological essence that has been shaped by its location in a fertile region surrounded by tropical forest. The landscape was once dominated by large trees, which created a canopy over the city. The notion of a subsequent Garden City is arguably conceptually misguided, as in a Western context, a garden is generally perceived as a constructed and sustained environment, a subordinate to human action. However, in the case of Kumasi, it can be argued that vegetation was an inherent feature of the environment from the outset. This paper outlines a decolonial strategy to urban greening in Kumasi that moves beyond Western epistemics and aims to restore its glamour as a Green African City that stems from the local ecosystem and forms the foundation for traditional knowledge and practices. As previously outlined, the application of traditional ecological knowledge has been instrumental in informing the design of climate-resilient systems for multiple generations (Watson, 2019). Despite being largely overlooked and ignored, it is crucial that the potential is re-evaluated in terms of restoring more symbiotic coexistence with nature, as traditional knowledge has the capacity to evolve with time and adapt to shifting circumstances (Adom, 2016). In light of the contemporary planetary crises, which manifest across all geographical locations, this represents a shared responsibility for universal engagement with local solutions that respond to local context-specific challenges.

As posited by Maldonado-Torres (2016), the decolonial movement is distinguished by a holistic integration of knowledge and action. A decolonial and transformative planning cannot be considered the responsibility of a single individual or entity; rather, it may involve a dynamic interaction between organised communities, social movements, academic institutions, and governmental authorities. This interactive process enables overcoming the dichotomy of bottom-up (autonomy) versus top-down (institutionalisation) and moves towards an understanding of a co-produced urban process as described by Ferlicca & Pedro (2024). This approach to planning is characterised by a process-oriented and change-focused methodology, informed by existing capacities, identities, value systems, and practices in a culturally specific manner. The framework has the capacity to facilitate the revitalisation, restoration, and protection of valued entities and to establish more meaningful connections with other relevant systems (Chilisa, 2017). As Chilisa (2017) asserts, this approach aims to restore dignity and integrity that have been compromised by colonial practices.

In the context of planetary crises, embracing epistemic pluralism is not only an ethical imperative but also a practical one. By foregrounding Indigenous knowledge systems as legitimate sources of planning knowledge - rather than marginal ones - the planning field can begin to dismantle fixed epistemic hierarchies and open itself up to alternative urban futures. As Chilisa (2017) reminds us, methodologies grounded in African knowledge systems can decolonise sustainability science and recalibrate global knowledge relations. In this light, Western planning traditions must approach non-Western urbanisms with humility and curiosity, ready to learn from ways of knowing that challenge dominant assumptions and expand the repertoire of planetary planning possibilities (Robinson, 2004).

Conclusions

This paper has explored how Western-centric knowledge systems in urban planning often marginalise Indigenous epistemologies, reinforcing unjust and extractive practices. Utilising Kumasi as a case study, the research underscored the significance of process-oriented planning founded on epistemic pluralism as a decolonising approach. The findings of the fieldwork conducted in this area demonstrate a considerable erosion of cultural identity and connectivity, which appear to be largely attributable to rapid urbanisation. This transformation has had detrimental effects on the environment and Indigenous knowledge systems alike, which are deeply embedded, place-based forms of knowledge developed in intimate relation with local ecosystems. Despite their marginalisation, these systems offer valuable insights for climate-adaptive planning by providing contextually relevant, socio-culturally attuned solutions. The analysis emphasises the significance of acknowledging planning as a practice that is inherently embedded within and driven by cultural values. The adoption of this alternative approach to urban planning has the potential to create opportunities for transformative action. It facilitates the incorporation of existing socio-cultural structures, addresses local needs, fosters individual and collective

agency, and challenges prevailing colonial structures. Acknowledging the complexities of multi-stakeholder engagement, the study also sheds light on the challenges associated with incorporating diverse epistemologies into mainstream planning processes. Nevertheless, it asserts the critical need for future planning efforts to consciously reflect on the epistemic frameworks that guide methodological choices. The continued exclusion of non-Western ways of knowing risks reinforcing systemic biases and further marginalising already vulnerable communities. This, in turn, further diminishes the shared ownership and exacerbates the environmental destruction of urban areas, thus weakening the liveability of cities. In conclusion, it can be posited that the incorporation of principles inherent to Indigenous knowledge systems – such as process orientation, holism, and collectivism – can catalyse genuinely transformative planning processes. These approaches have the potential to initiate locally grounded action, strengthen community ownership, promote spatial justice, and inspire ecologically regenerative practices. The establishment of a decolonised planning framework that values epistemic diversity is both possible and essential for the fostering of equitable and sustainable urban futures.

Contributors

The Kumasi Trees Project is a multistakeholder strategy for re-greening the city of Kumasi. In addition to the authors, the Kumasi Trees framework has been co-created by an interdisciplinary team of academics, with vital and substantial contributions from University Teacher Taru Niskanen from Aalto University and Professor Daniel Duah, Dr. Alexander Marful, Dr. Irene Idun, and Professor Esmeranda Manful from Kwame Nkrumah University of Science & Technology (KNUST).

References

- Adom, D. (2016) Ashante Indigenous Knowledge Systems: Repositories of Conservation Ethics for Ghana's Biodiversity. Proceedings of the Academic Conference of Interdisciplinary Approach, 7(2), Uthman Danfodio University, Sokoto State, Nigeria.
- Andersen, C. & Gabel, G. (2023) Deciding in relation with community: An Indigenous Studies critique of the Canadian Indigenous Methodologies field. In: Sumida Huaman, E. & Martin, N.D. (eds.) Indigenous research design: Transnational perspectives in practice. Toronto: Canadian Scholars.
- Archibald, J. & Davidson, S.F. (2023) Shaping research preparation and design through Indigenous storywork. In: Sumida Huaman, E. & Martin, N.D. (eds.) Indigenous research design: Transnational perspectives in practice. Toronto: Canadian Scholars.
- Bowdich, T.E. (1819) Mission from Cape Coast Castle to Ashantee: With a statistical account of that kingdom, and geographical notices of other parts of the interior of Africa. London: J. Murray.
- Chilisa, B. (2017) Decolonising transdisciplinary research approaches: An African perspective for enhancing knowledge integration in sustainability science. Sustainability Science, 12, pp.813–827. <https://doi.org/10.1007/s11625-017-0461-1>
- Chilisa, B. & Tsheko, G.N (2014) Mixed methods in Indigenous research: Building relationships for sustainable intervention outcomes. Journal of Mixed Methods Research, 8(3), pp.222–233. <https://doi.org/10.1177/1558689814527878>
- Cyprian, C.M. (2023) Afrocentric research ethics: Decolonial possibilities for Indigenous research and research design. In: Sumida Huaman, E. & Martin, N.D. (eds.) Indigenous research design: Transnational perspectives in practice. Toronto: Canadian Scholars.
- Escobar, A. (2018) Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds. Durham: Duke University Press.
- Ferlicca, F. & Pedro, B.H. (2024) Insurgent planning practices and university-community engagement in popular urbanization: The Urban Planning Commission in the reclamation of Guernica, Buenos Aires. In: Rocco, R. & Silves-

ter, G. (eds.) *Insurgent planning practices*. Newcastle upon Tyne: Agenda Publishing, pp.115–131.

Hollmén, S.H. (eds.) (2018) *Interplay of Cultures: 25 years of education in global sustainability and humanitarian development at Aalto University*. Aalto University. ISBN:978-952-60-8207-3

Hollmén, S.H., Marful, A., Niskanen, T., Duah, D.Y.A., Manful, E., Pitkänen, M. & Idun, I.A. (2025) Kumasi trees – project of the hearts: Decolonial strategies for advancing urban greenery in a sub-Saharan city. *International Planning Studies*, 30(1-2), pp.256–271, DOI: 10.1080/13563475.2025.2461664

Kovach, M. (2020) Conversation method in Indigenous research. *First Peoples Child & Family Review*, 5(1), pp.40–48. <https://doi.org/10.7202/1069060ar>

Leanui, P. & Burgess, P. (2023) On reframing or transcending colonial and other patterns in life. In: Sumida Huan, E. & Martin, N.D. (eds.) *Indigenous research design: Transnational perspectives in practice*. Toronto: Canadian Scholars.

Lenzerini, F. (2011) Intangible cultural heritage: The living culture of people. *European Journal of International Law*, 22(1), pp.101–120. <https://doi.org/10.1093/ejil/chr006>

Maldonado-Torres, N. (2016) *Outline of ten theses on coloniality and decoloniality*. Frantz Fanon Foundation.

Maxwell, J. (1928) Ashanti: Kumasi – The Garden City of West Africa. *Journal of the Royal African Society*, 27(107), pp.219–233.

Quagraine, V.K. (2011) Urban landscape depletion in the Kumasi Metropolis. In: Adarkwa, K.K. (eds.) *Future of the tree: Towards growth and development of Kumasi*. Kumasi: University Printing Press (UPK), Kwame Nkrumah University of Science and Technology, pp.212–233.

Robinson, J. (2004) Cities between modernity and development. *South African Geographical Journal*, 86(1), pp.17–22. <https://doi.org/10.1080/03736245.2004.9713803>

Salami, M. (2020) *Sensuous knowledge: A Black feminist approach for everyone*. London: Bloomsbury Publishing.

Simonds, V.W. & Christopher, S. (2013) Adapting Western research methods to Indigenous ways of knowing. *American Journal of Public Health*, 103(12), pp.2185–2192.

Swithenback, M. (1969) *Ashanti Fetish Houses*. Accra: Ghana Universities Press.

Watson, J. (2019) *Lo-TEK: Design by Radical Indigenism*. Cologne: Taschen.

Yeboah, T. (2019) Phoenix rise: A history of the architectural reconstruction of the burnt city of Kumase, 1874–1960. *Journal of West African History*, 5(1), pp.53–82.