

Knowing urban nature differently: undervalued nature relationships linked to community parks in the City of Tshwane

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ABSTRACT

Adopted colonial ideologies of ‘protecting nature’ for exclusive use by ‘white’ European settlers to the detriment of local Indigenous communities, have had far reaching consequences for how residents engage with nature in South Africa. Expanding on research seeking locally appropriate conceptualizations of nature, we ask from a landscape architectural perspective: How can local narratives about urban nature places, such as parks, support more inclusive landscape design in cities? Drawing on data collected from three phases of ethnographic research, totaling 52 interviews, and over 50 site visits, we introduce place-specific interpretations of nature benefits for the City of Tshwane. We present three identified ‘cultural ecosystem services’ centered around socio-economic benefits, gendered and generational use of space, and the extensions of home and sense of belonging. The findings show the place-specificity of human-nature relationships in urban settings and illustrate undervalued relationships neglected in landscape design, which challenge current municipal processes and legislation.

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1. INTRODUCTION

1.1 Human nature relationships in landscape design

The richly heterogeneous peoples of South Africa and their different ways of knowing space and nature (Cocks et al. 2016; Shackleton and Gwedla 2021) provide an interesting case study for urban ‘human-nature relationships’ (HNRs) and landscape architectural design responses. Our premise is that, despite knowledge about these unique relationships, they are not manifesting in the development and design of bioculturally diverse urban environments (Shand 2023a). In fact, many urban, public open spaces (POS) in South Africa are generic with limited context specific responses to place, or they are almost entirely informed by historic Eurocentric styles (Shand and Breed 2025; Shackleton and Gwedla 2021; Landman 2016), with insufficient design consideration to local culture and nature in the city. Additionally, little is written on how to approach landscape design in a contemporary and rapidly urbanizing, cosmopolitan South African setting. We concur that landscape architects operate meaningfully at the nexus of the human and natural worlds (Deming & Swaffield 2011), and argue they hold the potential to enhance HNRs in rapidly changing urban environments.

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The term ‘HNRs’ has surged to describe the nuances in how people relate to natural environments (Braitto et al. 2017), and links to the work of landscape architects as drivers of socio-ecological systems in cities (Breed, Cilliers, and Fisher 2015). However, HNRs have been shown to be complex. Socio-geographic realities, including place and context, ethnicity and language, and socio-economic standing (Soga and Gaston 2020), impact nature relationships. Western world views, spread through colonial expansion (Shackleton and Gwedla 2021) have created anonymised, separated entities of people, and ‘nature’ as the functional provider of resources (Kealiikanakaoleohaililani and Giardina 2016), largely resulting in the commodification of nature, argued to have evolved over time from a largely Judeo-Christian philosophy, where nature is seen as subordinate to man [*sic*] (Dovchin, Dovchin, and Gower 2024). Conversely, it is argued that Indigenous views place people in direct, and intimate, relationships with each other, and nature (Kealiikanakaoleohaililani and Giardina 2016; Cocks et al. 2016). Diverse Indigenous peoples and communities experience HNRs as reciprocal, between ‘land, human and non-human beings and the natural world’ (Dovchin, Dovchin, and Gower 2024, 525).

The environmental trajectory has increasingly mainstreamed the goods and services provided by nature, internationally manifesting through the Millennium Ecosystem Services Assessment (2005). This has also had a profound impact on landscape architectural practice, pushing towards design performance with an ecological and sustainability focus (Deming 2015) and the delivery of ecosystem services (ESS) through green infrastructure networks (Pauleit et al. 2017). While the concept of ESS raised environmental awareness, it also caused the homogenization of especially cultural services (Ernstson and Sörlin 2013), overlooking valuable reciprocal and sacred ways that people interact with nature, often overshadowed by commodified service relationships (Kealiikanakaoleohaililani and Giardina 2016). Yet, scholarly engagement with this mainstreaming has also sharpened the focus on people’s unique relationships with nature and natural places (Wartmann and Purves 2018). In the sub-Saharan African context, Du Toit et al. (2018) echo the importance of place-specificity from an urban ecology perspective. In social geography, others warn expressly against adopting such frameworks for fear of perpetuating capitalist commodification tendencies that enforce social and environmental injustices (Cock 2013). Less critique has come from landscape architectural discourse. Thus, our engagement from a landscape design perspective, and ultimate argument that local experiences and place-specificity are key to incorporating cultural representation in urban nature. We focus most on cultural ecosystem services, still poorly represented in the literature, requiring more explicit engagement by designers (Breed, Cilliers, and Fisher 2015).

1.2 Study context and conceptual framework

3In South Africa, mechanisms of control and domination created complex relationships between people and nature, as well as people and public space (as an urban subset of nature). The colonial ‘conservation ideology forged in [South] Africa’ promoted the ‘preservation’ of the natural environment, systematically depicting ‘black African’ people as environmentally destructive (Khan 2002, 18) (a view that persists in development agendas) (Njwambe, Cocks, and Vetter 2019), and actively excluded ‘black’ Africans from involvement in environmental decision making and the use of natural resources (Khan 2002; McDonald 2002). This ‘natural environment’ attracted much financial investment, often for leisure activities (Khan 2002). All while, Indigenous communities were dispossessed of their land and forced into under-resourced rural ‘homelands’, with little financial support (McDonald 2002), resulting in a physical and spiritual estrangement from the land (Khan 2002).

In urban contexts, apartheid city planning relegated all ‘non-white’ population groups to high-density, underserviced ‘townships’, on urban peripheries, which were designated as ‘temporary’ accommodations for labour pools (Shackleton and Gwedla 2021). Moreover, recreational places demarcated for use by ‘non-white’ communities were limited and inferior (Venter et al. 2020). Additionally, public space was often developed with a very clear identity and character, to claim the space as symbolic of the dominant political regime or views of the time (Landman 2016).

Many parks are still characterized by alien ornamental vegetation, representing prior ideologies about urban nature planning, and remain a tangible example of spatial limitations in supporting socio-cultural associations for a broader South African demographic and in ESS provision in cities (Shackleton and Gwedla 2021).

Studies by Njwambe, Cocks, and Vetter (2019), Cocks et al. (2016), Cocks et al. (2020) and Shackleton and Gwedla (2021), formed a conceptual framework for this paper, by illustrating the place-specific and nature-related relationships that African people hold to land and open spaces. Further highlighting the spatial legacies of ‘green apartheid’ that persist 30 years past the ‘democratic turn’ (Venter et al. 2020), authors explicitly call for promotion of ‘Afrocentric’ and ‘decolonized’ ideals in urban open space planning that also reflect local activities and species (Shackleton and Gwedla 2021; Cocks et al. 2020). Yet, the implications for urban landscape design are not discussed in the literature. Moreover, studies remain largely concentrated on South African Indigenous cultural groups in the Eastern and Southern Cape Provinces and less so on the transitioning and increasingly cosmopolitan people of Gauteng – which includes urban migrants, immigrants, and other South African peoples (e.g. South African Indian communities). Consequently, our study focuses on this lack of critical discourse currently facing the local landscape profession, which has refrained from truly engaging with or implementing Afro-centric and locally contextual informants for the authentic yet contemporary development of local, urban nature places.

Expanding on the former critique of the landscape profession, by Fourie (1993) and Young (1993) – who indicated a need for a more locally contextual and appropriate landscape architectural response, and the work of Breed (2022) on unique local nature values in the profession, we aim to expand the landscape design discourse, specifically responding to how people relate to urban nature places and how this must impact on the design of such spaces. The central question that focused the study was: How can local narratives about urban nature places, such as parks, support more inclusive landscape design in South African cities? With this question, we aimed to (1) identify local, HNRs and (2) contemplate how they can support inclusive, place-based landscape design in the City of Tshwane, Gauteng.

Along with Ekpo and Sidogi (2021), we argue that African urbanity needs to find its own expression that counters the sentimental ‘primitivizing’ and homogenization of the African culture, and instead celebrate the knowledge and identities of local communities in the twenty-first century and beyond. This is particularly important when considering that South African cities are home to a complex make-up of cultural groups.

2. Methods & materials

2.1 Research context

The City of Tshwane Metropolitan Municipality (Tshwane), Gauteng, is characterized by rapid urbanization, great socio-cultural diversity and many urban environmental and spatial injustices (Mulaudzi and Liebenberg 2013; Venter et al. 2020), which makes it a good case study to consider for HNRs. Humans relate to nature differently, impacted by (amongst others) place and context, ethnicity and language, and socio-economic standing (Soga and Gaston 2020). Thus, in selecting the study sites, all the Tshwane regions were geovisualized against socio-economic realities and spatial context. The western periphery of the city was identified as housing several socio-culturally diverse neighbourhoods, at risk of experiencing environmental injustice. Next, the 45 parks within this area were systematically narrowed down to three focus parks through site visits and consideration of park quality and amenities (see Shand 2023a).

The parks selected were Jacaranda Park (Laudium), *Soetdoring* Park (Danville), and *Lehabe* Park (Atteridgeville) (Figure 1). For context, Laudium, historically designated as an ‘Asian/Indian’ township and Danville as a historically ‘white’ neighbourhood, are in transition of change in population statistics (StatsSA 2018). Atteridgeville, furthest from the city centre, remains almost entirely a

'black African' community. All three neighbourhoods include differing levels of affluence, property size, and upkeep, but with a tendency towards lower incomes and higher social inequalities than the central and eastern suburbs (Shand 2023a). There is also a trend towards progressively smaller erven, and lower income, along the east–west trajectory away from the CBD, which applies to the above neighbourhoods.

2.2 Data collection

Data was collected in two phases, through urban ethnography fieldwork, including semi-structured and photo-eliciting interviews with three stakeholder groups, and observations through park visits – see Table 1 for a summary. The research design and methods (supported by Deming & Swaffield 2011; Campbell et al. 2016) allowed for an immersion in the context, exposure to the realities of the parks, and an intimate interpretation of the day-to-day use of, and relationships to the parks as urban nature. The three participant groups include (1) landscape architects and designers of urban landscapes, (2) city officials who manage, and develop urban open space (Phase 1) and (3) the park users (Phase 2). The main focus was on the narratives of the park users, but the dataset is enriched by, and triangulated against, the narratives of landscape architects and city officials in a final and third reflective 'consolidation' phase of research (Phase 3).

During phase 1, in-office interviews with park designers targeted a purposively selected demographically diverse sample of 15 practising landscape architects, equalling 13% of the total population of registered professionals in Gauteng. The five municipal employees were all key informants, purposively selected with detailed knowledge of park provisioning and management in Tshwane. Figure 2 summarizes the topics covered in interviews, which for the above groups included questions on the value of parks and nature in the urban environment.

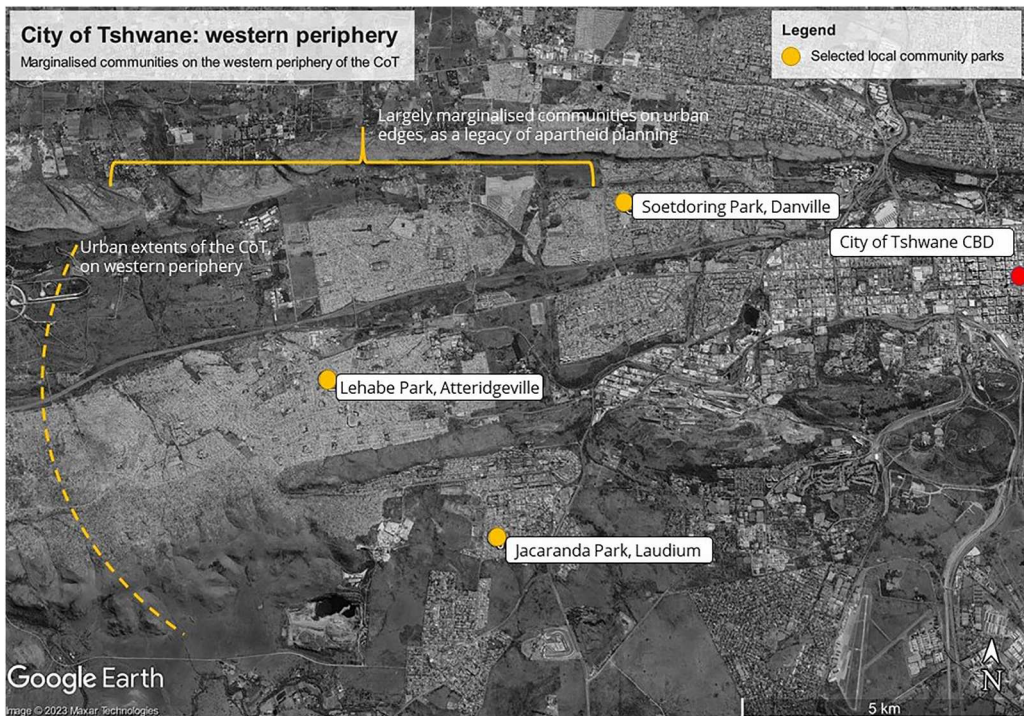


Figure 1. An overhead view of the three parks in context.

Source: Shand, 2023b.

Table 1. A summary of the stages, methods and instruments.

Phase	Method	Sample size	Instrument	Research timeline
Phase 1:	Semi-structured interviews Round 1: [15] Preliminary interviews Round 2: [14] Focused interviews	15 landscape architects 5 local municipality employees	Flexible interview schedules (Figure 2)	Round 1: February–October 2018 Round 2: April & May 2019
Phase 2:	Ethnography: 50 + observational site visits, 20 semi-structured interviews, and additional informal discussions	3 parks, 33 park users	Site notes, photographs and sketches. Semi-structured interview schedules; photo-elicitation (see Figure 2)	January–March 2019; May 2019
Phase 3:	Reflective triangulation of the data	Culminating in a consolidated sample of data, interrogated for the themes described below.		

The combination of all site visits during phase 2, brought the total visits to well over 50 observation opportunities. Observations focused on spatial uses and activities in parks and were recorded in a research journal, with supporting photographs and diagrams. The interviews with park users included 33 convenience-selected participants, aiming at a fairly equal spread in age, gender and representation of the South African ‘population groups’. The phase 2 park-based interviews inferred (see Figure 2 for detail) the ‘goods and services’ users obtained from local parks and the importance of nature to daily life, but also utilized photo-elicitation images of open space activities to expand the conversations. Interviews were voluntary and recorded with consent, as per the Ethics Policies of the EBIT faculty at the University of Pretoria (EBIT/132/2017), and transcribed for analysis.

2.3 Data analysis

The sample sizes (Table 1), appropriate for qualitative analysis (Mason 2010) included unique exceptions and contrasting narratives and themes (Flick 2011; Deming & Swaffield 2011), thereby shifting the focus away from quantitative analysis of themes.

The transcripts were content analysed through a three-staged qualitative coding process via Atlas.ti Software, version 9. The coding process was first inductive, starting with open, descriptive coding – which resulted in an intimacy with the data (Saldaña 2011). The iterative, deductive consolidation of the codes into categories and themes is summarized in the coding framework in Figure 3. The park observation and user interviews focused on people’s perceptions of nature and parks and their use of these entities (summarized on the left), these were consolidated through the coding process into eight categories (middle) and in a final iteration into themes (right). We will unpack and discuss these themes in the results section.

3. Results

The three themes we identified (Figure 3), illustrate predominantly positive relationships or what might be termed ‘services’ in ESS literature (with cognizance of the Western biases). Importantly, these themes came both from what was mentioned in reference to, and observed within the three parks, but also through narratives about what participants felt was lacking in the urban context. We unpack each theme below.

3.1 Urban nature as a socio-economic resource

Analysis of the data evidenced urban nature as a resource for socio-economic upliftment. This included economic value for community members linked to the informal vending of goods in

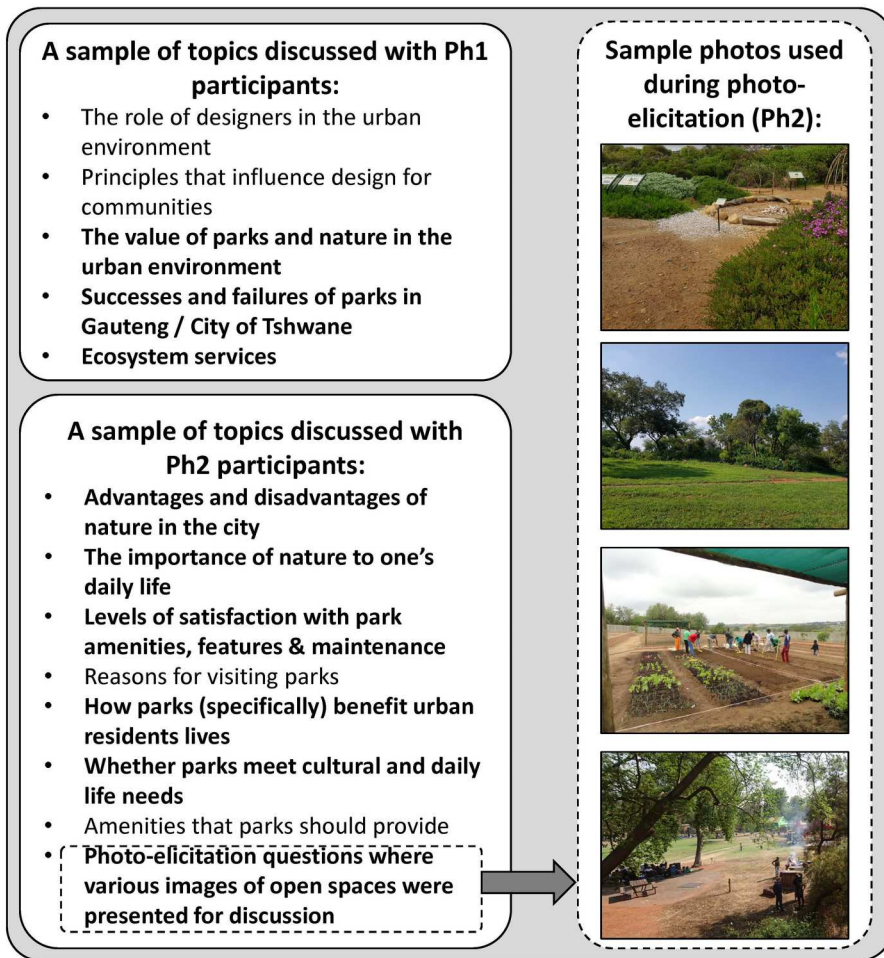


Figure 2. Topics posed to interview participants (Source: Authors).

parks and working to maintain urban nature places; as well as the social value linked to community amenities.

3.1.1. Economic opportunities

Entrepreneurial activities were noted, in, and adjacent to, all three parks. Trees, provided shelter (otherwise not formally provided) to people (often women) selling goods such as sweets (Figure 4). These vendors are recurring figures in the urban landscape, attracting gatherings and supporting passive surveillance and community building.

Additionally, working to maintain nature for economic and personal gain, was articulated as a valuable consideration for job creation in urban settings.

... if they, [the city] can't maintain it, they should hire people from the community. (Park User 15, Atteridgeville 2019)

In the *Soetdoring* Park in Danville, the best kept of the three study parks, a group of local social housing residents keep the park neat and clean for a small stipend. Though interviewees indicated that the remuneration is minimal.

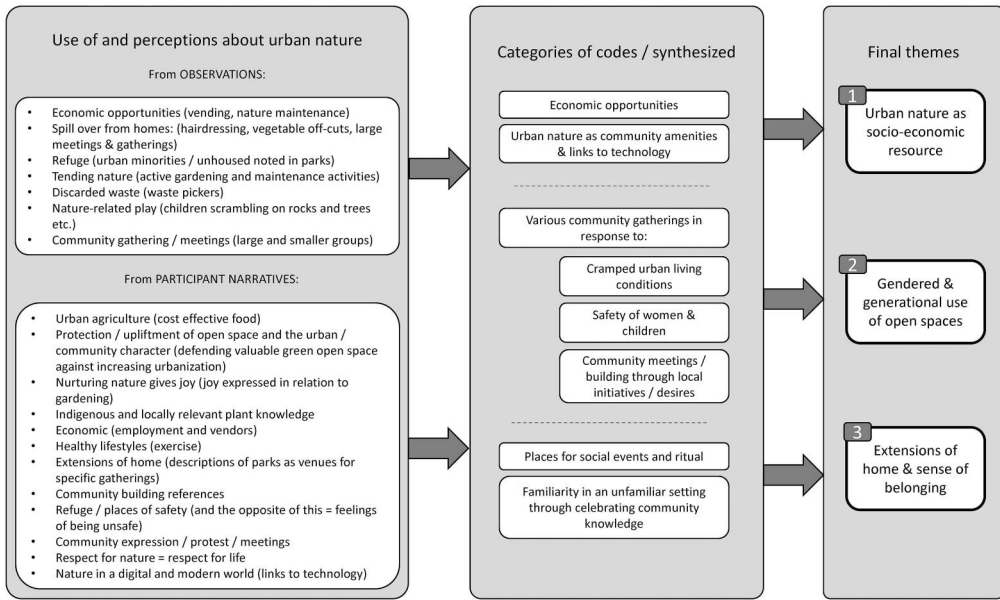


Figure 3. The coding framework with the codes and themes derived from the study (source: Authors).

3.1.2. *Urban nature as community amenities and links to technology*

Parks were also considered to be popular social destinations for urban youth, who described ‘chilling’, ‘chatting’ and ‘playing soccer’ in parks, as well as a desire for more organized music concerts, or soccer tournaments. Other participants mentioned the importance of parks for ‘escape’ and ‘refreshment’, referencing also the value of plants and birds.

Additionally, the value of parks extends to social media and technology, where parks function *in lieu* of community centres and libraries. The wi-fi internet connection (before it became defunct), provided in parks by the municipality, was an attraction to young people wanting to complete homework assignments or to develop and email résumés to prospective employers. Additionally,



Figure 4. Vendors selling their goods (Source: Authors).



Figure 5. Park gatherings, different demographics, different reasons, same place (Source: Authors).

the observed tendency to take photos and specifically ‘selfies’ in parks, was seen as a link between the natural world and the digital, social media environment (Figure 5).

3.2 Gendered and generational use of open spaces

Some parks were used more by women than men, or youth than by children, and vice versa. Use also changed according to the time of day, or week. For instance, during late afternoon weekdays the *Soetdoring* Park was frequented most by young men in social groups, sometimes involving alcohol or recreational drug use, while on weekends, it was observed to be used also by families and groups of mixed genders. Participants regularly referenced the significance of parks for use by children, and lamented the lack of safety and amenities to support such use.

The gendered use of space is further illustrated by stories of women preparing the evening meal in Jacaranda Park, a park most frequented by ‘South African Indian’ and immigrant Islamic communities. In this particular instance, women were reported to gather in groups, in the early evenings to prepare their vegetables for cooking at home. It was reported that they would do this while their children played, and then disperse after a time to cook at home. These activities are considered different from the typical *braai* (barbeque) and other group social activities in that they were primarily female-dominated, the actual cooking and eating did not occur in the parks, and therefore suggest a community response to the cramped living conditions, lack of social and recreational time for women, and concerns about safety, (regularly mentioned by participants, especially women).

Linked to the example above, the below excerpt is from an interview where two foreign national women (whose partners are migrant workers) discussed the potential for parks to become safe, welcoming spaces for community building, supporting the roles that women play in and outside the home. They specifically discussed women’s issues, and safety, as well as male-female recreational time imbalances – referencing the ease with which men can use the existing parks for soccer, and the time that they have for such activities, but the lack of other amenities. Notably also are the connections between women from different generations and women and their children.

... we want to try and get, young women and girls, the community. Where we can come together, we talk to each other, we come up with different programme, that we can do as young women, and also, like our older women in the community. And then we were also considering the park. Saying it’s an area that is conducive

[...] You say 'let's go to the park ladies, let's sit, let's have our snacks, let's talk to one another', something like that. [...] You see men, they have got a lot of time to socialise, and, unlike us women, we don't have that time, so if we can create such a [place] ... (Park users 29 and 30, Danville 2019)

3.3 Extensions of home and sense of belonging

We also found that parks became an extension of the home environment for residents living in cramped urban conditions. Additionally, interviewees felt that urban nature should allow people to express themselves and participate in previously unacknowledged activities – extending even to places for community protests or meetings, referenced in some interviews, and observed on site, and other cultural activities, mentioned below.

3.3.1. Places for social events and ritual

Notably, conventional private open space uses, and those activities which rural communities might use the natural landscape for, were observed, and discussed by participants in relation to local parks, as an extension of the home environment. One example of this is funeral receptions. In the example mentioned below, urban, marginalized communities, with very small properties used the neighbouring park for activities such as funerals or commemorations.

... no the yards are too small. We don't even have gardens in the yards ... [...]

Two weeks back, there was a funeral [...] they were using the park. People were sitting around, after the funeral [...] sometimes when they [come, they bring] camp chairs, sometimes, others bring, blankets, they sit on the blankets [...] Wedding[s] also. [...] Say I'm going to open [reveal] my mother's or my parent's tombstone at the graveyard ... and I'm doing lunch [afterwards], so the people sit here [in the park]. (Park users 15, 16 & 17, Atteridgeville 2019)

Further examples of parks used for ritual or social events were mentioned. However, there is also a consideration, especially in the political space, for what others might be offended by, which causes local authorities to stick to the status quo when it comes to rules for the use of public open spaces.

... for example, a guy in Mamelodi with his [Government subsidised housing] stand, wants to have a party [...] it's a wedding, or whatever, it will spill over into that space and they may have to do some [...] what the ... Government, or policies, or by-laws see as a 'ritual' – to them it might not be a ritual, they [are] just killing a goat because they are eating it, that's it. Or yes it may be a ritual, but to them, where that happens, or the fact that it happens in public space it is not a problem at all [...] Ja, I mean, what people are allowed to do in parks, we need to open that up a bit [...] [but] there's always somebody that can object, to something that they feel, is not right. So, you try to stay away from those things. (Municipal employee interview, 2019)

3.3.2. Familiarity in an unfamiliar setting – landscape features and plants

In keeping with the sections above, participants also felt that urban POS can be valuable for making the unfamiliar, familiar – including the mention of childhood memories and links to visiting their elders in rural settings. Explanations indicate that when communities are in their family home settings (often in rural areas) they relate to their local landscape features and cultural places, which provides a sense of familiarity and identity, something currently lacking in urban environments.

Plants also connect With the kraal* as an example, [...] when there's a ceremony [...] when you go home, some of those areas are made specifically for the men to gather, because that's where they have their meetings. Or the elders. And streets, like where the bride parades ... when you have traditional weddings, people still want to come out on the streets, want to witness the wedding. [...] when the boy becomes a man, he's meant to walk from the initiation site, he walks back home. (Landscape Architect 14, round 1, 2018). (*an enclosure for livestock management, and other cultural activities)

people to the memories and experiences of their youth, or their experiences of 'home' landscapes beyond the city, and to the cultural knowledge that they grew up with

I love learning about the indigenous plants. I grew up with a grandmother who used to have indigenous plants. So, I just love the feeling [knowledge], that the plants can grow on their own, no water, no nothing. [...] (Park user 17, Atteridgeville 2019)

One municipal employee felt strongly that urban communities currently suffer a disconnect from nature, based on instances of neglect and vandalism at a community level, but, positively, he also felt that urban nature can provide better, more locally representative, environmental connections. Participant narratives indicated that nature is considered valuable for the continuation of knowledge held by individuals and communities, especially community elders, even in urban environments.

I have friends whose grandmothers still know how to pick everything from a tree and make things from it. I think the ecosystemic benefits [should] be allowing for those type of things to be done, [...] in our parks. (Landscape Architect 7, round 1, 2018).

The traditional use of plants and the important cultural knowledge associated with this was articulated as important by a few of the participants.

You see this plant? it's an aloe! The aloe helps with high blood pressure! Did you know that? Yes many things. [...] they were planted by our grandmothers, they are, we don't take them out. [...] Even if there's funerals for us, neh? As Blacks. We use aloe to wash the hands when you come back from the funeral [...] It's significant ... Yes, we take it from our garden, we don't buy it. You can use it yourself, without those chemicals! It works, on your skin, it makes wonders [...] Because nature, you know, everything that we consume ... that's in the chemist, that comes from nature ... Everything. Starts there. Nature (Participant 15, 16 & 17: Atteridgeville 2019)

Here the significance of plants for their medicinal value, and community activities, (specifically funerals) is also mentioned. However, currently these services are not met in parks and were rather discussed in terms of important plants and traditional uses that communities value. In fact, one participant, a traditional healer, indicated the challenges of collecting plant material, and the conflicts with local authorities, who actively prevent plant collection practices in urban parks. Suggesting a tendency towards the aesthetic value of plants in parks, rather than their cultural or utilitarian value.

Another example of the cultural associations attached to plants includes the 'Fever Trees' that were planted in *Lehabe* Park. Despite the community's involvement in initiating and constructing the project, decisions by the local authorities and designers resulted in *Vachellia xanthophloea* (Fever Trees) being planted in a portion of the park. Some residents associated the tree with a particular caterpillar and a skin condition – both of which cause them to avoid gathering underneath the trees in a section of the park designed for this purpose. From observations, it was indeed rare to see community members gathering in these spaces, reinforcing the culturally impacted relationships which people have with plants.

4. Discussion

Premised on the knowledge and experiences of local communities, we argue for a place-based landscape design approach (as opposed to a fixed set of solutions), to respond to the current generic, outdated and under-representative condition of South African urban parks (Landman 2016; Shackleton and Gwedla 2021). Landscape architects connect people to the natural and cultural landscape through their design praxis, including material, style, and species selection (Deming 2015; Breed 2022). However, South African political legacies have limited the spatial representation of cultural groups in urban environments, requiring more collaborative, co-evolutionary design processes to bring representativity into balance (Shand and Breed 2025; Landman 2019). While 'Afrocentricity' is an important theme, it must be defined what exactly this means in each context (who is African and who not?). Thus, our adoption instead of 'place-specificity' in South African urban contexts.

Cocks et al. (2016), Cocks et al. (2020), Shackleton and Gwedla (2021) and Njwambe, Cocks, and Vetter (2019) bring conceptual focus to the relationships which African people have with land and nature. Cocks et al. (2016, 828) identified six unique HNRs in municipal commons in

Grahamstown, namely sensory experience; nature as a place for reflection and healing; nature as a place of remembrance; the importance of nature for rituals and well-being; the importance of indigenous nature for cultural identity; and gendered nature experiences. The similarities in the findings between our study and the findings of the above studies, support that local considerations are potentially widely applicable to South Africa. Some of these shared HNR considerations are for safety, recreation, the value of nature for escape, the need for ritual spaces and community building. This paper moves further into the nuances of particular neighbourhoods, that designers are encouraged to seek out in each particular design. The specific HNR examples we identified include: the value of urban parks as amenities for urban residents, *in lieu* of libraries and community centres that are free of charge; the extensions of the home into the park environment due to cramped living conditions; and the value for entrepreneurial activities for urban communities in challenging socio-economic contexts. Not extensively covered elsewhere, these findings make a unique contribution to identifying and acknowledging HNRs in urban centres in South Africa.

To articulate and further illustrate the value of the uniquely identified HNRs or CES for landscape design (and management), we discuss below how they can support inclusive, place-based landscape design in three ways.

4.1 Locally appropriate design versus local by-laws

In our findings, local parks serve as an extension of the home, have socio-economic value, and have the potential for cultural knowledge sharing and rituals. Findings by Cocks et al. (2016) confirm that large numbers of African people take part in cultural rituals, while Cocks et al. (2020) report the value of open nature places for identity building. However, as mentioned and challenged by our participants, these needs are often not catered to in park designs because of the potential conflict with other urban residents and restrictions in local municipal legislation. The Public Amenity by-laws (City of Tshwane 2005) is one such bylaw that restricts the practice of rituals by specifically prohibiting (or requiring a permit for), bringing animals (dead or alive) to public spaces, hunting, picking plants, displaying or selling goods, trading, swimming, bathing or washing in the river, delivering aloud a prayer or speech, or singing any song (City of Tshwane 2005). In our findings, a number of these uses were identified by participants as desirable or (observed as) already happening, including references to animal slaughter, music concerts, picking plants, large group gatherings, and informal vending. This indicates that communities require spaces that meet their cultural needs on a more representative level – which current by-laws and spatial responses do not support. To achieve this would require that local by-laws are reconsidered collaboratively, as they are currently prohibitive of many cultural activities in public spaces in Tshwane.

Considering this and supported by our findings, parks will increasingly need to be re-imagined to cater to urban populations, who come with mounting needs for spaces that recognize their diverse cultural requirements. Especially when considering participant references to small yards, and evidence of rapid urbanization in Gauteng province (Pfab et al. 2017). Shackleton and Gwedla (2021) discuss the limitations of small residential plots for indigenous vegetation planting. Our findings reiterate that small homes and private yards also prevent cultural and domestic activities. As a result, participants use parks in currently unsupported ways, including *ad hoc* use of parks for funeral and tombstone unveiling receptions. For landscape architects, these local needs require a place-specific and detailed rethinking of park typologies and amenities. This could mean going beyond typical park offerings to include outdoor kitchens, intentionally designed gathering spaces, access to water, multi-use hardscaping and other place-specific requirements.

Further to the above, Gauteng region urban participants referenced culturally significant spaces, such as the ‘forest’ and ‘kraal’ spaces recorded by Cocks et al. (2016) and Njwambe, Cocks, and Vetter (2019) in a more rural Eastern Cape setting. Although certain activities and rites of passage may continue to reside in rural settings (Njwambe, Cocks, and Vetter 2019), there is potential to create references to meaningful landscapes, and/or to support appropriate activities not currently allowed

for in cities. Cocks et al. (2016) refer to the ‘sensory experience’ of natural landscapes, to which meaning is attributed – our findings show similar narratives. We concur with Breed (2022) that landscape character can be intentionally employed to resonate with identity and foster a greater sense of belonging in the city – our findings specifically add improved planting for biodiversity, and other species enrichment through birds and other animals to existing considerations.

Njwambe, Cocks, and Vetter (2019) discuss the group identity of migrating rural-urban residents. They indicate that ‘social, religious and cultural ties evoke notions of belonging and tie people to a particular place’ (Njwambe, Cocks, and Vetter 2019, 416), and note concerns that people have about their ‘culture’ breaking down in the city. Our findings confirm these concerns for Gauteng region. One example illustrates how women living in urban domestic settings (whose husbands were migrant workers), desired to foster a local community of other women in similar situations. But, they felt that more physical amenities could be added to parks, to support community meetings and activities – as a response to the cramped nature of their urban homes. Notably, these women were neighbouring foreign nationals and did not reference specifically Xhosa traditions, as discussed by Njwambe, Cocks, and Vetter (2019), but the desire for community ties and gathering spaces remains important across cultural groups. Thus, we posit, that improved and more supportive amenities in urban parks can further foster strong local, and far-reaching, community ties, to allow for a ‘home away from home’, and to foster healthier urban lifestyles and social relationships in the interim. In Tshwane, such physical amenities can be found in municipal resorts and designed memorial parks such as Freedom Park (see Young and Vosloo 2020). However, these amenities are enclosed, with an entrance fee attached – making them almost as inaccessible as the rural landscapes of home from a cost and time point of view.

Landscape architects and municipal officials will need to work collaboratively to overcome the inherited *modus operandi*, based on outdated and exclusionary legislations. This also has implications for landscape architects’ adopted principles, education, and training (Shand and Breed 2024). Most significantly, landscape architects need to look locally for answers instead of the popular examples from Europe and the West (Shand 2023a), which entrench urban residents in a consumerist shopping mall culture that retains little to no connection to community, culture or nature.

4.2 Design for gendered and generational use of parks

Of particular interest in our study, is the value that parks can have for underserved groups. Our findings imply that women in modern African society are still relegated to socially constructed (primarily domestic) gender roles, but seek to improve, and potentially even challenge these realities in their everyday worlds, through local support systems, and socio-economic activities. Cocks et al. (2016) also discuss gender in relation to the use of and relationship which women have with nature. Of concern for women in both studies, is the issue of safety. And yet, in the study by Cocks et al. (2016) women tend to avoid some natural areas, and send male relatives in their stead to gather wood, for instance. In our more urban study, there were similar trends indicating women’s avoidance of public spaces, according to the time of the day or week, and women’s warnings about sexual violence and a general feeling of danger during interviews. But there were also instances where the presence of female vendors in parks promoted improved use and an observed heightened sense of community and safety. We further see how women require spaces to discuss and address specifically female matters or to carry out daily tasks in parks. Cocks et al. (2016) discuss traditional female activities (including the collection of firewood, or water), and the social and cultural significance of these activities for South African rural communities, as support groups for women. Our findings indicate that the social value of communal female activities remains significant in an urban setting.

We put forth, based on the above evidence, that these activities could be re-imagined in an urban setting. We suggest that safety and community building, and other aspirations can be addressed through the activation of parks through entrepreneurial, and social activities, such as community meetings and social activities – undertaken by women in the context of the study parks, but

which currently parks are not designed to support. Such users should be more intentionally engaged in collaborative park design and management processes to meet social needs and strengthen HNRs. Park design can thus support the socio-economic activities of local urban residents, enhance the recognition of women's roles in contemporary African urban society, and improve the safety of these spaces for local residents, including other women, the elderly, and children.

4.3 Local and Indigenous relationships to plants

The literature concurs that local urban nature design must incorporate the views, experiences and perceptions of those directly involved in their use (Braito et al. 2017; Du Toit et al. 2018; Wartmann and Purves 2018), which could be complicated in urban settings with a complex cultural make-up. However, this opens up possibilities for authentic connection and respectful use of nature (Russell et al. 2013). Our study revealed undocumented cultural connections people retain with certain species in urban parks. An example of this is the *Lehabe* Park 'Fever trees', which resulted in community avoidance of a particular part of the site. Another specific reference was to *Aloe* species, for cleansing after funerals, and for their medicinal properties. These examples illustrate the importance of cultural associations related to plants and suggest further untapped local knowledge relevant to landscape design and species selection. While there is growth in indigenous species use in urban landscape design in South Africa (Breed 2022) – which positively impacts urban biodiversity, and responds to inherited spatial legacies mentioned by Shackleton and Gwedla (2021), such as trees and vegetation – community collaboration to enhance these initiatives further is required. Such engagement can simultaneously enhance urban biodiversity, and an improved sense of ownership and identity building.

In our study, we further recorded previously unidentified personal memories and values of residents linked to tending specific plant species in urban settings. The study by Cocks et al. (2020) in a small municipality has identified the identity-building value that people find in being able to grow and use medicinal and other culturally related plant species. In a rural setting, Njwambe, Cocks, and Vetter (2019) contest narratives of nature degradation linked to rural African communities, which they found incongruent with the true sense of care people have for nature. In line with this, our findings suggest that urban parks should be explored for plant cultivation purposes due to urban space restrictions. In addition, the above findings suggest this activity could assist in bringing value for residents while providing opportunities for shared upkeep of parks, which is a current municipal struggle (Shand and Breed 2024), and could provide much-needed income for residents as part of green space maintenance (King and Shackleton 2020).

Our findings uniquely reference a desire to maintain urban nature places for economic gain and support alternative urban land management practices. This aligns with findings from Shand and Breed (2025), who identified stewardship activities and grass-roots tree planting initiatives in Tshwane. Such adoption and care of nature spaces are encouraged through the Adopt-a-Spot bylaw (City of Tshwane 2018), which allows individuals and communities to maintain green open spaces but does not permit residents to benefit economically. This proviso does not reflect the socio-economic conditions of many residents in the city and should be reconsidered. However, social hierarchies, political favouritism, and capitalist control could become driving forces behind such initiatives, and further perpetuate injustices (Cock 2013). This currently prevents the reform of by-laws towards greater co-management of parks and natural public spaces, as advocated by Breed et al. (2023).

5. Conclusion

We explored an alternative, place-specific interpretation of nature benefits and relationships for Tshwane, South Africa, through three uniquely identified HNRs as 'cultural ecosystem services'. These local relationships that must be considered, in the design of urban nature places are socio-

economic relations, gendered and generational use of parks, and the extension of home and identity building. The study reiterates that park use cannot be understood, or designed from a generic, top-down, and technocratic process, but requires instead a considered understanding of the local experiences and HNRs linked to urban nature places. Ultimately, our findings indicate that planners, designers, municipal structures and urban residents must collaboratively revisit sustainable and culturally relevant design, planning and management of parks as extensions of nature. Allowing city users to co-generate and co-evolve with their public spaces could assist in promoting and retaining valuable cultural relationships with nature, which also engender value, appreciation, sustainability, and reciprocity.

The implications for designers across sectors are that both the product and the process must be considered in developing more inclusive urban landscapes. To make this possible, current policies in the form of municipal by-laws need to be reviewed and renegotiated to support transformative change toward more sustainable urban communities, suggesting also the need for improved working relationships between design practitioners, local communities and local government. Additionally, the design principles, education and resources available to local landscape architects need to be bolstered with the above considerations in mind – requiring further research.

This study focused specifically on parks in Tshwane, but further research is being undertaken to expand on these findings, and to include an even broader set of landscape typologies and geographical regions, that also include other cultural perspectives. Future research that can unpack the nuanced relationships between people and their environment, casting light on many functional relationships that also capture intangible spiritual and identity relationships, is needed to provide deeper insight and enrich the discourse on biocultural diversity, specifically for landscape design praxis. Additionally, the co-generation processes required to shape alternative planning, design, and maintenance must be explored, as much of the research occurs in disciplines not embedded in these spaces' design and management.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

The data can be made available upon request and currently sits with the University of Pretoria Library

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