
**The Influence of Social Values and Aspirations on Architectural Design -
Expressing the Struggle for Freedom and Democracy in Kenyan Architecture.**

Margaret Wachera Thuku¹ & Paul Mwangi Maringa²

¹Department of Architecture & Interior Design (DAID), School of Engineering and Architecture (SEA), Kenyatta University (KU), P.O Box 43844 – 00100, Nairobi, Kenya,

²Department of Architecture & Interior Design (DAID), School of Engineering and Architecture (SEA), Kenyatta University (KU), P.O Box 43844 – 00100, Nairobi, Kenya,

doi.org/10.51505/ijaemr.2025.1206

URL: <http://dx.doi.org/10.51505/ijaemr.2025.1206>

Received: Mar 28, 2025

Accepted: Apr 10, 2025

Online Published: May 13, 2025

Abstract

This study examined the reciprocity of social values, aspirations, and architectural design within the historical context of Kenya's colonial and postcolonial struggles for freedom and democracy. The study focused on commemorative architecture. It investigated how the spaces memorialised significant historical events, figures, and movements, reflecting collective values and aspirations. The study articulated how Kenyan commemorative sites should encapsulate pertinent historical narratives alongside associated social values. It retained a global and regional emphasis on the importance of commemorating political and social struggles in nations transitioning from conflict. Several theories were brought to bear here. These included Kenneth Frampton's Critical Regionalism, and Maurice Halbwach's Collective Memory theory. Homi Bhabha's Postcolonial architecture theory, and Pierre Nora's Sites of Memory theory were also put to use. The research therefore addressed the gap between Kenyan social values and their architectural representation. It took particular interest in pivotal events like the Mau-Mau uprising. The values considered here were such as justice, equality, unity, and national identity. A qualitative, inductive research methodology was deployed here. It embraced case studies, sample surveys, observations, and diverse data collection tools. These included archival analysis and interviews. In this way, well selected commemorative sites were probed. Chosen situs for inquiry were situated in Nairobi. Comparative examples from South Africa, Rwanda, and Germany were also equally examined. Key findings revealed that the architectural elements with most impact for conveying these values and aspirations were form, structure, and spatial organization. Others included lighting, scale, and adaptability. The study advocated for future architectural designs to integrate these insights to develop sustainable and meaningful commemorative spaces. This would help create a richer relationship between architecture and social values within a postcolonial context.

Key words: Commemorative Architecture, Social Values and Aspirations.

1. Introduction

1.1 Study background

Throughout history, architecture has been critical in commemorating political and social struggles. It has served well to establish new identities in nations attempting to transition from conflict, colonial rule or authoritarian regimes (Vale, 1992, 2008). A brief overview of selected countries that have distinctively used architectural design to represent their social aspirations is ventured here. Their response to worldly popularised freedom struggles sets the stage for understanding the Kenyan context.

1.1.1 Global context-Berlin, Germany:

Following German reunification, Norman Foster led the redesign of the Reichstag building to house the Bundestag, symbolizing a shift towards transparency and democracy (figure 1). The glass dome, added to the building, embodies these principles by providing a public viewing platform and symbolizing reunification. Unlike other commemorative sites like the Holocaust Memorial, the Topography of Terror and the Berlin Wall Memorial, the Reichstag serves both as a memorial and an active government building. In this way, it bridges Germany's contentious past with its democratic future. This transformation showcases how architecture can redefine spaces with complex histories into symbols of new social and political aspirations.



Figure 1: The Reichstag building as seen from the west. Inscription translates to "For/To the German People. Source: Matthew Field, (Architects: Paul Wallot-design & construction 1884-94; Norman Foster-renovation 1961-64 & 1992-99; its glass dome designed by artist/architect: [Gottfried Böhm](https://en.wikipedia.org/wiki/Reichstag_building)), https://en.wikipedia.org/wiki/Reichstag_building.

1.1.2 Regional context-Johannesburg, South Africa:

The Apartheid Museum, designed by Mashabane Rose Architects and Urban Designers, opened in 2001, seven years after South Africa's first democratic elections. Its design simulates life under apartheid, allowing visitors to experience pivotal moments in South Africa's struggle for inclusivity and independence. Upon entry, visitors are randomly assigned to either "Blacks" or "Non-Blacks," creating a different experience based on the entrance taken (Rankin & Schmidt, 2009). This immersive approach sets it apart from other commemorative sites like the Hector Pieterse Memorial (It commemorates the Soweto Uprising of 1976 where 13-year-old Hector Pieterse was killed for protesting apartheid), the Constitution Hill (the site of a former apartheid-era prison that now holds South Africa's Constitution Court) and Freedom Park memorial complex (dedicated to South Africa's struggle for freedom and democracy). The museum's innovative design educates visitors while fostering an emotional connection with history, demonstrating how architecture can transcend mere education to evoke emotional engagement.



Figure 2: Pillars of the constitution at the entrance to Apartheid museum. Source: Rankin, 2013. *Creating/Curating Cultural Capital: Monuments and Museums for Post-Apartheid South Africa. Humanities*, 2(1), 72-98. <https://doi.org/10.3390/h2010072>.



Figure 3: Fountain at Uhuru Park. Source: © Author¹, 2025 site photograph.

1.1.3 Local context-Nairobi, Kenya:

Nairobi, as Kenya's capital, is home to numerous commemorative spaces, buildings, and roads that honour the nation's culture and history. Sites like Freedom Corner (known for the 1992 mothers' hunger strike to demand the release of political prisoners), Saba-Saba grounds, Uhuru Gardens, and war cemetery memorials hold significant cultural and historical value, often tied to freedom struggles (Sankale, 2022). Iconic buildings such as the Macmillan Library and Kimathi House also contribute to this landscape. Post-colonial statues and roads like Uhuru Highway and Kenyatta Avenue further reflect Kenya's journey towards independence and democracy. This architectural heritage provides a unique opportunity for Kenya to learn from global examples while forging its own identity, aligning commemorative spaces with values of unity and democracy.

1.2 Study justification

1.2.1 Preserving and celebrating national identity

Kenya's journey towards freedom and democracy is a crucial aspect of its national identity (Maloba, 1993), yet it is often underrepresented in public spaces and architecture. This oversight leaves the nation's collective memory incomplete in the built environment. To address the gap, this study has focused on how architecture can honour these historical events, aiming to create more inclusive public spaces that reflect Kenya's rich history of freedom struggles. By doing so, it provides a pathway to a more comprehensive, inclusive and reflective representation of Kenya's past in its architecture.

1.2.2 Responding to the need for inclusive national narrative

Architecture can serve as a unifying force for diverse narratives within a nation, as noted by Vale (1992, 2008). In Kenya's post-independence era, characterized by political, social, and ethnic diversity, this study seeks to identify key factors for designing commemorative spaces. These spaces can represent the collective aspirations of freedom, justice, and democracy, benefiting both the residents of Nairobi City County and Kenyans at large. The findings will also be relevant globally, as many nations have experienced similar struggles for freedom and democratization.

1.2.3 Enhancing public engagement and education

Commemorative architecture serves as a powerful educational tool, offering physical spaces for reflection and fostering an understanding of Kenya's social values and aspirations (Huyssen, 2003). This study focuses on creating environments that promote public education through reflection and emotional engagement with history, thereby enhancing public interaction with these spaces. By doing so, it contributes significant social value to both the City County of Nairobi and the nation at large.

1.2.4 Filling the gap in architectural research on freedom struggles

Research on Kenya's independence has largely focused on political and social aspects, with limited architectural studies on commemorative spaces for freedom struggles (Vale, 1992, 2008). This study fills this gap by examining how architecture can reflect social values and aspirations related to freedom and democracy. The findings enhance the understanding of architectural design and provide insights for future projects celebrating Kenya's fight for freedom and democracy.

1.2.5 Global relevance and contribution to architectural theory

This study highlights the impact of social values on architectural design, contributing to global discussions on how architecture reflects historical struggles and social justice movements. The findings have broader implications, particularly in post-colonial contexts where nations are navigating ways to honour their fights for freedom and democracy. The principles derived from this research could be applied more widely in such settings, offering insights into how architecture can serve as a tangible representation of these societal shifts.

1.2.6 Sustainability and local resources

This study has a social and environmental sustainability value as it explored how local resources and building traditions can be integrated into the design of commemorative spaces. This ensures the inclusion of environmentally friendly practices in subsequent designs, enhancing cultural relevance.

1.3 Problem statement

This study investigated how Kenyan commemorative architecture can effectively express the country's struggle for freedom and democracy throughout its history. The core issue is the gap between Kenyan social aspirations and the way they are reflected in architecture. Of particular interest was important events like the Mau-Mau uprising.

1.3.1 Underrepresentation of freedom struggles in Kenyan architecture

Kenya's commemorative spaces inadequately reflect its socio-political history, particularly the Mau-Mau rebellion and other freedom struggles. Few memorials, such as Dedan Kimathi's monument, honour these pivotal events and figures, leaving many unrecognised. This architectural issue dilutes collective memory by limiting public engagement with the past. Theoretically, this relates to transforming intangible values like freedom and justice into physical forms. Pierre Nora's theory articulated in "Between Memory and History: Les Lieux de Mémoire", (1989) is relevant here. It highlights how certain spaces crystallize shared memories of historical events, reflecting and shaping how history is remembered. Architecture plays a crucial role in transmitting memory across generations through symbolic design elements.

1.3.2 Lack of clear design guidelines for commemorative architecture

In Kenya today, there are no design guidelines for what events become commemorated through buildings, public spaces or memorials. There is also no hierarchy of memorialisation. Theoretically, this relates to the challenge of how architecture that is meant to embody and transform intangible values can be governed by a predefined framework. In all, there is a lack of clear design guidelines for creating commemorative spaces that reflect social values and aspirations. This absence results in missed opportunities to align design with societal goals, such as expressing freedom, democracy, and national identity. Current architecture often fails to connect with the public or represent historic events effectively, partly due to the absence of a cohesive framework for designing these spaces. Additionally, there is a lack of integration of local cultural symbols and traditions into these designs. Kenneth Frampton's theory of Critical Regionalism (Frampton, 1983) offers a relevant framework, advocating for architecture rooted in local culture, geography, and history. Its application could help ensure that commemorative spaces resonate with the local population and effectively express social values.

1.4 Theoretical basis of inquiry

1.4.1 Pertinent theories

1.4.1.2 The collective memory theory

Maurice Halbwachs' theory of collective memory posits that memory is socially constructed and maintained through shared experiences and narratives within a community (Halbwachs, 1992). Accordingly, memory is defined by the spatial dimension (memory is linked to specific places) and the temporal dimension (memory evolves). Collective memory is not merely the sum of individual memories but is formed and sustained within social groups like families, religious communities, and nations. These memories help maintain group identity over time by unifying members and providing a shared sense of the past. Frameworks of memory, such as language, cultural symbols, and traditions, organize collective memory by structuring and recalling shared events.

Social groups selectively emphasize certain memories over others, often aligning with their current goals or values (Halbwachs, 1992). Institutions like educational spaces, governments, and media play a crucial role in preserving and disseminating collective memories through formalization in books, public commemorations, and monuments. Commemorative spaces serve as physical embodiments of collective memory, allowing societies to commemorate important historical events and facilitate collective remembrance and identity formation (Halbwachs, 1992). Consistent with this understanding, it would hold then that by examining the design elements and symbolic representations in architectural structures, one uncover how these spaces facilitate collective remembrance and the formation of identity.

1.4.1.3 Critical regionalism theory

The theory of Critical Regionalism, as proposed by Kenneth Frampton in 1983, emphasizes the importance of architectural design that reflects local culture, history, and identity while engaging with global contexts. It advocates for designs rooted in local traditions, materials, and environmental conditions, resisting the homogenizing effects of globalization. This approach encourages architecture to empower local communities politically and reflect local identity ethically. Key concepts include resistance to global uniformity, integration with local climate and topography, and tectonic expression, which involves the honest articulation of structure and materials, avoiding nostalgia or pure revivalism, and emphasising the sensory experience. The theory promotes a critical interaction with local elements, blending them with modern ideas to create contextually relevant forms, rather than simply replicating historical styles. It also emphasizes the sensory experience of architecture, engaging users through tactile, visual, and spatial interactions. The resulting architecture then includes the tactile quality of materials, the impact of light and the experience of movement through spaces. In this way, architecture creates a deeper connection between the building, its users and its context. Critical Regionalism guides architectural design to symbolize local freedom and national identity, particularly in commemorative spaces. It supports a framework for comparing symbolic uses across different memorials, informing future projects. By embracing local culture and traditions while incorporating global influences, architects can create meaningful and sustainable spaces that resonate with their communities.

1.4.2 Supporting theories

1.4.2.1 Postcolonial theory in architecture

Homi Bhabha's theory offers a framework for understanding how architecture can resist colonial narratives by reflecting the identities and aspirations of formerly colonized peoples (Bhabha, 1994). Key concepts include hybridity, the third space, mimicry, and ambivalence. Hybridity highlights the evolution of new cultural identities through the interaction of colonizer and colonized, challenging rigid cultural definitions (Bhabha, 1994). It highlights the fluid dynamic nature of cultural exchanges under colonial rule. Further, it suggests that colonised people were not passive victims but active agents in reshaping cultural meanings. The third space represents an in-between area where cultures meet, creating new meanings and challenging dominant hierarchies (Bhabha, 1994). Mimicry involves the colonized imitating the colonizer, which both empowers the colonizer and undermines colonial authority by revealing its contradictions. Ambivalence captures the complex feelings of colonized subjects towards colonial power, disrupting simplistic narratives of oppression and highlighting the incompleteness of colonial control. This theory is particularly relevant for designing memorials and commemorative spaces in post-colonial contexts, such as Kenya, where it can guide the analysis of how these spaces reflect national identity and challenge colonial architecture.

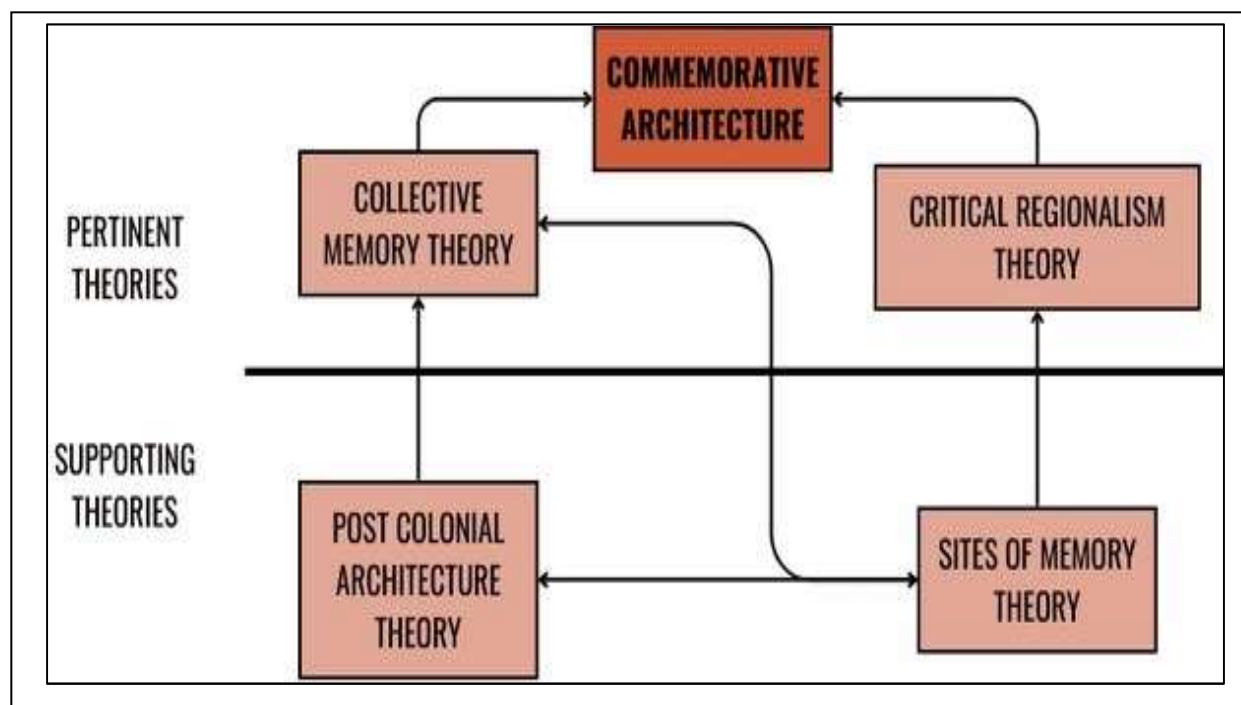


Figure 4: Theoretical framework - Pertinent and supporting theories guiding the inquiry of commemorative architecture. Source: Author¹, 2025.

1.4.2.2 Lieux de Mémoire/sites of memory

This theory explores how certain locations, objects, or symbols become integral to collective memory, particularly when societies experience a disconnection from their historical continuity (Nora, 1989). It highlights concepts like site memory, the distinction between memory and history, the impact of modernity, and the symbolic and material aspects of memory. Site memory involves physical or symbolic locations where collective memory is preserved, such as monuments or rituals, emerging due to the fracture between lived memory (direct experience) and recorded history. Memory is subjective and fluid, while history is objective and recorded. In modern times, memory is often relegated to specific sites or texts, rather than being a part of everyday life.

The creation of these memory sites is a response to modernity's rapid changes, such as industrialization and urbanization, which disrupt the continuous transmission of memory through lived experience. These sites can be material, like museums, or symbolic, like anniversaries, and are often shaped by national or political interests. They influence how the past is understood and remembered, impacting a community's collective identity. This theory can be applied to examine how Kenyan architecture transforms spaces into memory repositories, symbolizing freedom struggles and contributing to the formation of national identity.

1.4.3 Commemorative architecture

Memorials are structures designed to honour and commemorate a society's collective memory of its past, struggles, or achievements, which hold significant social, political, or cultural value. These sites link past events to present and future generations, reinforcing and reshaping historical narratives and collective memory through tangible representations of historical and social values (Attwa et al., 2022). Memorials often take the form of museums, mausoleums and monuments, serving as focal points for remembrance and commemoration. They are integral to public memory, providing spaces for reflection and contemplation, and are characterized by their symbolic and meaningful design. Mausoleums though explained here for completeness, lack sufficient presence in the country and was therefore not delved into in the study. There is one such formal one that is publicly known and acclaimed in the country. It was built in 1978 once the first President Mzee Jomo Kenyatta pass on. Its national value has waned since the remains of the late first presidents, Mzee Jomo Kenyatta were removed from it and buried in private burial grounds of his family in the years 2021/22. The annual public commemoration of this statesman earlier conducted at this mausoleum ceased forthwith.



Figure 5: The Holocaust Memorial, Berlin, Germany.

Source:

<https://www.cambridge.org/core/books/abs/designing-memory>.



Figure 6: The Vietnam war memorial, Washington D.C, USA, seen at eye level.

Source: Sean Pavone/iStock, and https://en.wikipedia.org/wiki/Vietnam_Veterans_Memorial, 2022.

Memorials are symbolic structures or spaces designed to evoke reflection, remembrance, and a sense of community identity. They typically feature large, open layouts that accommodate various gatherings, from intimate meetings to large community events, allowing the entire community to participate. Memorials often incorporate cultural symbols that reflect the values, aspirations, and struggles of the communities they represent, using specific motifs to contextualize the space. Their design is frequently simple and symbolic, emphasizing commemoration over physical aesthetics, with neutral and muted colour schemes that focus on emotional impact. The scale of memorials varies based on the significance of the event or person

being honoured and the available site size. Additionally, memorials are flexible and adaptable, supporting diverse activities from personal reflection to collective healing.

Modern museums serve as multifaceted institutions that not only preserve cultural heritage but also provide educational experiences and community engagement. They are involved in research, training, and knowledge dissemination through various activities like workshops and discussions (Günay, 2012). Museums play a crucial role in commemorating significant historical events by preserving, exhibiting, and interpreting related artefacts and narratives (Young, 1993, 2010). Museums focus on public education, using exhibitions and partnerships with educational institutions to encourage learning about historical events and figures. They preserve historical artefacts through conservation and restoration processes. Additionally, museums create interactive experiences that foster reflection and understanding of history, often using immersive exhibits and community spaces. The structure and layout of museums vary based on their main themes, with diverse spatial arrangements and monumental scales that include galleries, workshops, and auxiliary spaces. Overall, museums are dynamic institutions that contribute to both the preservation of heritage and the enrichment of society.



Figure 7: The National Museum of African American History and Culture, Washington D.C., USA. Source: Alan Karchmer/metropolismag, <https://metropolismag.com/viewpoints/david-adjaye-national-museum-african-american-history/>, 2016.



Figure 8: White and Non-white entrances at the Apartheid museum, Source: Rankin, 2013. *Creating/Curating Cultural Capital: Monuments and Museums for Post-Apartheid South Africa*. Humanities, 2(1), 72-98. <https://doi.org/10.3390/h2010072>.

Monuments are structures (building, pillar, stone) or statues, sculptures and paintings designed to commemorate events or individuals, often serving as symbols of cultural identity and heritage (Curl, 2001). They typically emphasize power, greatness, beauty, and public recognition of significant accomplishments or figures in history (Smith, 1991, 2006). Monuments are characterized by grandeur, large scale, and imposing form, intended to evoke awe and admiration in public spaces. They often symbolize national pride and highlight shared national identity by celebrating important people or achievements. Monuments are typically architectural, sculptural, or natural landmarks that are of outstanding historical, artistic, or scientific value, as defined by the Venice Charter. They are built to endure, serving as enduring symbols of important historical or cultural moments. The scale and proportion of monuments are designed to be impressive, reflecting their significance and the importance of the events or individuals they honour.



Figure 9: A monument: Christ the Redeemer statue, Rio de Janeiro, Brasil. Source: Schoemaker/National Catholic register, <https://www.ncregister.com/blog/celebrating-christ-the-king-12-interesting-facts-about-christ-the-redeemer-statue>, 2023.

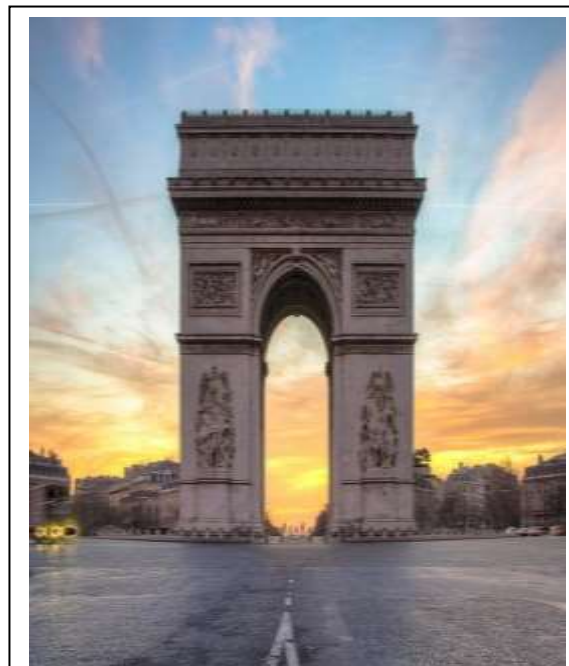


Figure 10: Arc de Triomphe de l'Étoile, Paris, France. Source: David Cruchon/Flickr, <https://www.flickr.com/photos/79822067@N02/8308883712/>, 2012.

A mausoleum is a roofed building or enclosed structure used as a tomb, often detached or attached to another structure like a church, housing coffins, sarcophagi, or urns. The term originates from the ancient tomb of King Mausolos of Caria, one of the Seven Wonders of the Ancient World (Curl, 2001). Mausoleums are monumental structures designed to honour deceased individuals, typically those of importance such as rulers or wealthy figures, by providing an elaborate and lasting memorial.

They are characterized by their purpose as burial places for notable individuals, their monumental scale with intricate architectural details, sculptures, inscriptions and their above-ground tombs. Mausoleums serve not only as burial sites but also as spaces for reflection on the lives and legacies of those interred within them.



Figure 11: The Jomo Kenyatta Mausoleum, Nairobi, Kenya. Source:

<https://www.matookerepublic.com/20190916/photos-here-are-the-luxurious-burial-sites-of-fallen-african-presidents/>, 2019.



Figure 12: A drawing of the Mausoleum of Halicarnassus. Source: DeAgostini/Getty images,

<https://www.gettyimages.com/detail/news-photo/the-mausoleum-of-mausolus-king-of-caria-at-halicarnassus-news-photo/541323855>.

1.4.4 Social values and aspirations in Kenya's historical struggles

Social values are the shared beliefs and standards that guide behaviour and judgments within a society, influencing individual actions and social interactions. These values shape what is considered important and desirable, helping us understand societal norms and expectations (Mckee and Bransford). In contrast, social aspirations are collective hopes and goals that a society aims to achieve, such as freedom, democracy, justice, and equality (Al-Hoshary & Hamza, 2023; Trochmann & Guy, 2022; Muigua, 2021; Thandiwe, 2020; Bianco, 2018). In Kenya, these aspirations have been shaped by historical struggles and are reflected in political movements and architectural expressions like commemorative buildings and public spaces, which keep these values in the national consciousness.

1.4.4.1 Freedom and justice

The struggle for independence, embodied largely by the Mau-Mau Uprising (1952-1960), was a direct response to the social and economic inequalities that British colonial rule had been imposing. The strong desire to govern independently and control one's land and resources was a core aspiration that fuelled the fight. These aspirations were key to the movement gaining traction and support locally and internationally. Eventually, these values led to Kenya's independence in 1963 and continue to shape the country's political framework.

1.4.4.2 Justice and equality

Throughout Kenya's history, the fight for justice and equality has been central to social movements, including those in the post-independence era. Issues such as land, redistribution, human rights and ethnic representation were and continue to be frequently vocalized in an attempt to find lasting solutions (Prunier, 2008; Ochieng', 1995). These values were at the heart of the call for multiparty democracy in the 1980s and 1990s, leading up to the constitutional changes in 2010, which sought to decentralize power and address long-standing grievances of marginalization and access to resources. Social aspirations in this context involve a fair and inclusive Kenyan society with equal access to opportunities.

1.4.4.3 Unity and national identity

Kenya's history of ethnic diversity has enriched yet challenged the nation. In the post-independence era, national unity was a key debate in political discourse, especially in the wake of ethnic violence, such as the 2007-2008 post-election violence (Prunier, 2008). Aspirations towards nation-building, mutual respect and shared identity as well as the value placed on national peace and stability have been key in the formation of Kenyan political and social policies (Njamweno, 2023).

1.4.4.4 Reconciliation and healing

Following periods of ethnic tension and political violence, the values of reconciliation, forgiveness and healing have gained momentum in affected nations (Waithira, 2010). Institutions like the Truth, Justice and Reconciliation Commission have been set up to address historical injustices and promote healing (Blacklaw & Kola, 2023).

1.4.5 Societal values and their influence on architectural design

Architecture can act as both a technical exercise and a reflection of societal values and aspirations. Over time, architectural design has evolved alongside shifts in social, political and economic values (Johnson, 1994). Various works have explored how societal values influence architectural design, drawing from case studies worldwide to highlight how culture, identity, memory and socio-political conditions shape the built environment. Political changes and social movements often spark changes in trends of architectural design, sometimes spurning new architectural trends as values evolve in response to new realities.

1.4.5.1 Architecture as a cultural and social expression

Norberg-Schulz (1980, 1985, 1988) and Champion (2018) examine how architecture contributes to the creation of cultural identity, particularly in communities undergoing significant social changes. He argues that architecture provides more than shelter, serving as a physical manifestation of society's values, ideals and collective memory. By shaping spaces that resonate with a community's history, rituals and aspirations, architecture can create a sense of belonging and identity.

1.4.5.2 Societal values and commemorative architecture

Commemorative architecture is often designed to reflect societal values related to memory, identity and collective mourning. It refers to buildings, monuments or spaces specifically designed to memorialise significant historical events, people or ideals (Al-Hoshary & Hamza, 2023; Trochmann & Guy, 2022; Muigua, 2021; Thandiwe, 2020; Bianco, 2018). Such structures and spaces are designed to honour, remember or celebrate significant historical events, individuals or movements. These spaces represent collective memory and a society's shared past, struggles or achievements (Jones & Graves-Brown, 2013). It is also described as a form of architecture created to remember important events, individuals, or locations (Tanovic, 2019). Young (1993, 2010) delves into how societies use commemorative architecture to embody traumatic histories. He highlights how memorials integrate social values, acting as public spaces for reflection, healing and reconciliation.

1.4.5.3 Architecture, politics and social change

Political changes and social movements often spark changes in architectural design trends, sometimes spurring new architectural trends as values evolve in response to new realities. Jaskot (1999, 2002) explores the intersection of architecture, politics and social control by examining how the Nazi regime used architecture to express political ideologies and reinforce social hierarchies. He illustrates how architecture can be used as a tool of power, shaping both the physical and social environment by enforcing values such as nationalism.

1.4.5.4 Societal values in African architecture

Myers (2011) examines how post-colonial African cities use architecture to reflect the aspirations of newly independent nations. In countries such as Tanzania, Ghana and Kenya, architecture became a tool that was used for nation-building and asserting identity in the aftermath of colonialism. Projects were designed to symbolise unity, freedom, democracy and independence, often drawing from traditional architectural forms to express African aesthetics. The works reviewed demonstrate that social values and aspirations have a great influence on architectural design. Architecture serves as a powerful tool for expressing the collective aspirations and values of a society. In Kenya, this intersection of architecture and social values and aspirations continues to shape the design of public spaces and buildings, which reflects the country's ongoing pursuit of freedom, democracy, justice and equality.

1.4.6 Historical context of Kenya's architectural landscape

1.4.6.1 Colonial and post-colonial architecture

Several existing studies focus on the architectural legacy of Kenya's colonial era. British colonial rule left a lasting mark on Kenyan architecture, particularly in urban centres like Nairobi and Mombasa, where European architectural designs continue to dominate parts of the cityscape. Colonial architecture often reflected the social stratification of the time, with buildings designed for the settler population while indigenous Kenyans were confined to segregated areas. Studies on post-colonial architecture have tended to focus on modernist trends that emerged following independence in 1963. During the early years of independence, modern architecture was seen as a way to express Kenya's newly gained freedom and national identity. Buildings such as the Kenyatta International Conference Centre (KICC) were designed to symbolise progress, development and a newfound freedom from colonial rule. To this extent, Myers (2003) explores the intersections of space, power and identity, showing how colonial architecture was designed to segregate and dominate. He also demonstrates how post-colonial architecture attempted to reclaim and reconfigure these spaces in ways that reflect new social and political aspirations.

1.4.6.2 Social aspirations in architectural practice

Despite modernism's influence, a few studies have attempted to incorporate local social values into architectural design. For instance, the concept of Harambee (pulling together, promoted by Mzee Jomo Kenyatta in the early years of independence, encouraged community building of public facilities. This movement resulted in largely utilitarian buildings that embodied a movement that had the aspiration of collective progress and nation-building. There has, however, been little exploration of how such projects could reflect deeper values.

Anderson (2005) provides a detailed account of the political and social movements that shaped Kenya's journey to independence, particularly the Harambee philosophy, which encouraged community-driven efforts in nation-building projects that resulted in utilitarian buildings. Other studies focused on vernacular architecture in rural Kenya, which more directly reflects local social structures and cultural practices. Traditional building methods offer insights into indigenous approaches to architecture that were sidelined by colonial and modernist influences. In this context, Nnamdi (2002) examined the role of vernacular architecture in African communities, particularly focusing on how indigenous knowledge systems contribute to sustainable development.

1.4.6.3 Architectural overlook of freedom struggles

One major gap in the existing literature is the lack of architectural studies focused on commemorating Kenya's freedom struggles, particularly the Mau-Mau Uprising and the broader independence movement (Fortes, 2013). While Kenya's political history is well documented, there are few physical spaces, monuments or memorials that reflect the nation's struggles for freedom and democracy. Studies have pointed out that many African nations, including Kenya,

have underutilized architecture as a medium for memorialising their political and social struggles. In comparison, South Africa has used architecture and public spaces to confront and reflect on their histories in a manner that Kenya can learn from as well as other African nations. Elkins (2005) highlights how the critical period of the Mau-Mau Uprising is underrepresented in both public memory and physical commemorative spaces. It discusses how this lack of representation points to broader issues concerning how nations choose to memorialise uncomfortable or controversial aspects of their past. Njenga (2015) examines how Kenya's struggle for independence is underrepresented in its monuments and public commemorative spaces. It argues that this absence reflects both political and social complexities, where national narratives of unity have often overshadowed the recognition of divisive historical events.

1.4.7 Comparative studies from other African nations

Several African nations have developed monuments, memorials and public spaces reflecting their histories, from independence movements to reconciliation. South Africa's Apartheid Museum vividly portrays the apartheid era, using design elements to evoke segregation's harshness with physical separation mimicking apartheid's divisive policies (Rankin & Schmidt, 2009). Constitution Hill, a former prison now housing the Constitutional Court, symbolizes South Africa's transition from oppression to democracy through its blend of preserved and modern structures (Inggs, 2015). In Rwanda, the Kigali Genocide Memorial uses minimalist architecture to emphasize the genocide's gravity while offering a reflective space (Smith, 2014). Ghana's Kwame Nkrumah Memorial Park and Mausoleum features a bold modernist design symbolizing Nkrumah's vision for progress and African liberation, with its tree-stump shape representing an unfinished journey (Adeyemi, 2024).

1.4.8 Potential lessons in theory and practice

African architecture plays a significant role in commemorating historical events and shaping collective memory and national identity. Comparable examples that reflect similar themes, from South Africa, Ghana, and Rwanda are didactic for Kenya as they illustrate this power. The Apartheid Museum, Kigali Memorial, and Kwame Nkrumah Memorial Park and Mausoleum integrate local narratives with cultural identity, reflecting their nations' histories. These structures also serve as educational spaces, providing opportunities for public learning about national history. Symbolism is a common theme, used to evoke emotional responses through design elements like physical separation (apartheid museum), serenity (Kigali Memorial), or monumentality (Kwame's Memorial Park and Mausoleum). Kenya could benefit from similar approaches by incorporating local culture, educational spaces, and symbolic design elements into its commemorative architecture.

1.4.9 Identified gaps in existing literature

Research on commemorative architecture in Kenya is limited, particularly in exploring how it reflects the nation's social aspirations and struggles for freedom and building of a democratic society. Most studies focus on historical or political significance without delving into social

values and aspirations expressed through architecture. They lack a detailed exploration of social values and aspirations and their expression in architecture (Njoh & Bigon, 2018). There is also a lack of comparative analysis across African nations, despite many countries sharing similar histories of freedom struggles and post-colonial identity formation (Mbembe, 2001; Ndegwa, 2004). This study aimed to fill this gap by developing design guidelines for future commemorative architecture in Kenya. It drew lessons from two selected successful commemorative spaces in Africa, these being Constitution Hill in South Africa (Inggs, 2015; Chipkin, 2008; Rasool, 2007) and the Kigali Genocide Memorial in Rwanda (Smith, 2014; Gourevitch, 1998; Dallaire, 2003).

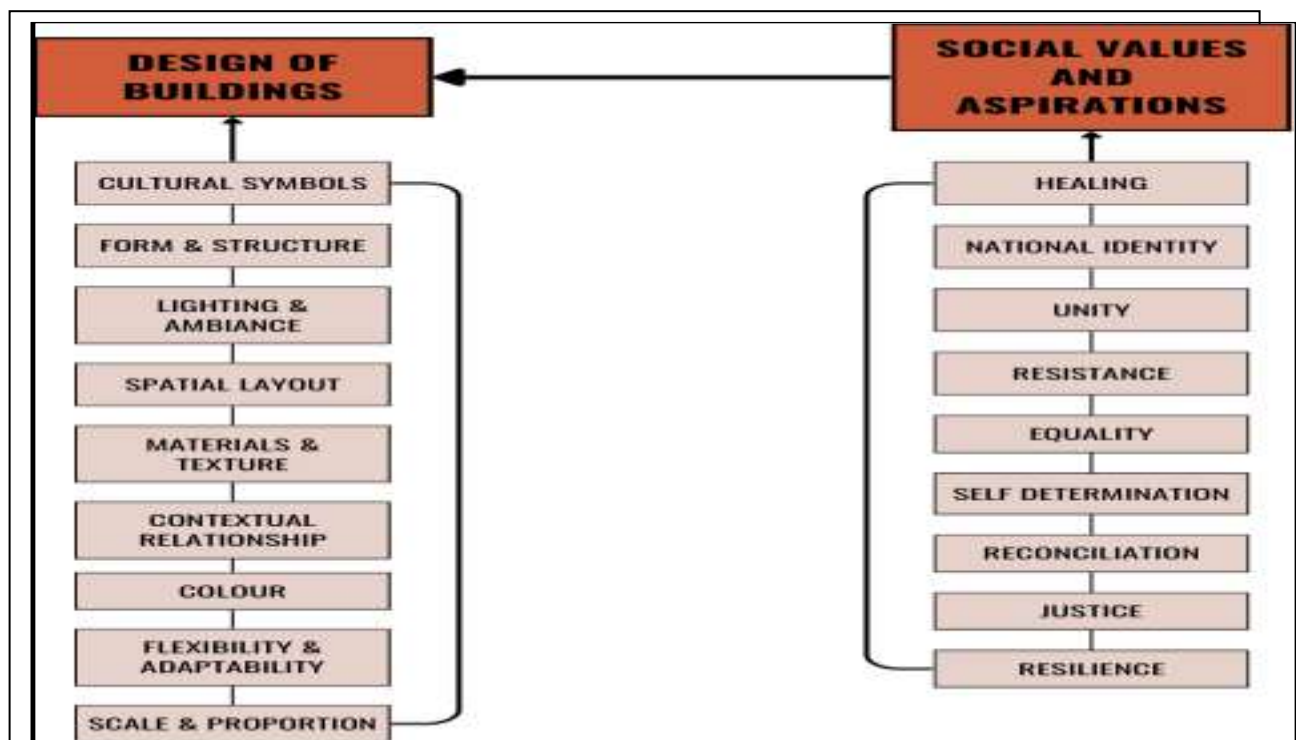


Figure 13: Conceptual framework on pertinent concepts that relate the design of commemorative architecture to social aspirations and values. Source: Author1, 2025.

These memorials were analysed with respect to the ethics, politics, temporal value, space, sense of place, historical continuity, and finally crisis and transformation. Both displayed didactic lessons for Kenya on the integration of historical narratives with cultural identity (Thuku, 2025; Frampton, 1983; Smith 2014), education and collective memory (Halbwachs, 1992), symbolism and emotional engagement. From these African examples, key design elements identified for future Kenyan commemorative architecture include contextual relationships, cultural symbols, form and structure, materials, spatial configurations, and

adaptability, lighting, ambience, colour and construction techniques. These elements can help create spaces that foster education, reflection, and emotional engagement with Kenya's history, aligning with the country's social values and aspirations.

1.4.10 Conceptual framework

A blended conceptual framework (figure 14) was used to sharpen the focus of this inquiry on specific surrogate or secondary concepts or variables and attributes. Secondary variables and their resulting attributes afforded the study rigour, especially when constructing measurement questions. These were then used in pre-recorded checklists, questionnaires and structured interview schedules. They therefore guided analysis in the study and provided a structure within which to understand the interactions between social values and aspirations and the design of buildings and public spaces.

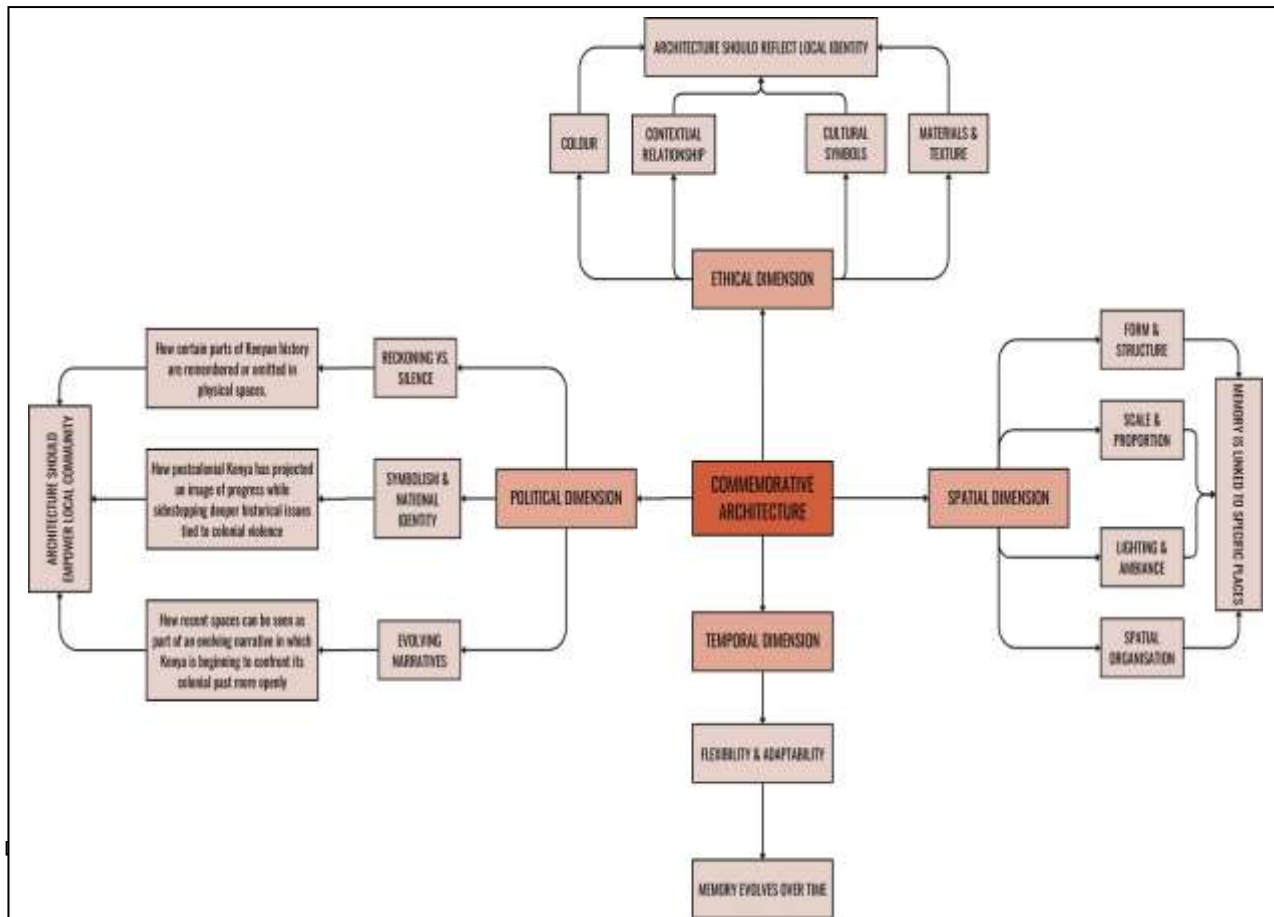


Figure 14: Conceptual framework identifying key parameters for analysing commemorative architecture related to freedom struggles, social values and aspirations. Source: Author¹, 2025.

1.4.11 Study objectives, research questions and their correspondence to the research design

This study aimed to establish design guidelines for future commemorative architecture in Kenya. It drew inspiration from successful existing spaces. Key factors included cultural symbols, materials, spatial and structural configurations, and construction techniques. The goal was to create spaces that fostered education, reflection, and emotional engagement with Kenya's history. Such would ensure their alignment with the nation's social aspirations and values.

1.4.11.1 Specific objectives

- a. To analyse and understand the nature, character, meaning and expression of social values and aspirations within Kenyan society. This was carried out in the context of freedom struggles and self-determination.
- b. To examine and understand the elements of architectural design and their configuration.
- c. To explore and analyse the interaction between social aspirations and values with architectural design. This entailed determining how these concepts mutually influenced each other in the development of spaces reflecting Kenya's struggle for freedom and democracy.

1.4.12 Research Questions

1.4.12.1 General research question

What are the accepted fundamental social aspirations and values of Kenyans associated with the nation's freedom struggles and democratisation and how should they be given meaningful expression in the design of buildings, public spaces, roads and streets as well as in sculptures?

1.4.11.2.2 Primary research questions

A hierarchy of deepening research questions was adopted here, articulating the set specific objectives sequentially, following convention and good research practice (Cooper & Emory, 1995).

On Specific objective 1

1. What are the key social values and aspirations that define kenyan society in the context of its historical and contemporary struggles for freedom and democracy?
2. How are these social values and aspirations expressed in everyday life, cultural practices and public engagement in Kenya?
3. What role do these social values and aspirations play in shaping the design and function of Kenya's public spaces and commemorative architecture?

On Specific objective 2

1. What are the key elements of architectural design that are commonly used to reflect social aspirations and values in Kenya?
2. How do kenyan architects and designers incorporate social values and aspirations into the configuration and layout of public and commemorative spaces?

3. How does the architectural *design* of public spaces and commemorative structures in Kenya balance aesthetic considerations with the representation of social and cultural values?

On Specific objective 3

1. How do social aspirations and values in Kenyan society shape the design and development of public and commemorative spaces?
2. In what ways does architectural design, in turn, influence or reinforce social values and aspirations within Kenyan society?
3. What architectural features or design strategies best reflect Kenya's historical and contemporary struggles for freedom, justice and democracy?

1.4.11.2.3 Secondary research questions

On Specific objective 1

1. How have Kenya's social values evolved throughout its history, particularly in response to colonialism, independence and post-colonial developments?
2. What are the cultural symbols and narratives that represent Kenya's social aspirations, and how are these integrated into architectural design?
3. What are key cultural symbols that represent Kenya's social aspirations in traditional and modern contexts?
4. How do social movements and political discourse in Kenya address or challenge dominant social aspirations?
5. How are traditional Kenyan architectural forms influenced by historical social values and aspirations?
6. How do Kenyan architects and planners interpret and incorporate local social values in the design of urban public spaces?

On Specific objective 2

1. Which traditional Kenyan architectural forms are most reflective of societal values and how have they evolved in modern design?
2. What materials and construction techniques are used in Kenyan architecture to symbolise or represent national identity and values?
3. What design principles guide architects in translating social aspirations into functional spaces in Kenyan public architecture?
4. What are the most effective design strategies used in Kenyan commemorative architecture to evoke national history and societal values?
5. How do aesthetic decisions in Kenyan commemorative architecture contribute to or detract from the public's understanding of the historical importance of a space?
6. What are the roles of colour, texture and scale in the aesthetic representation of social values and aspirations in Kenyan architecture?

On Specific objective 3

1. Which specific cultural values in Kenyan society have had the most influence on the design of public spaces?
2. What role do historical events, such as Kenya's independence, play in shaping current architectural designs?
3. What is the role of architecture in fostering national unity and social cohesion in post-independence Kenya?
4. How do architectural designs in commemorative spaces reinforce democratic ideals, such as freedom, equality and justice?
5. What are the key design elements that architects use to convey concepts like justice, democracy and freedom in Kenyan public spaces?
6. How do contemporary architectural projects reflect ongoing struggles for social justice and equality in modern Kenya?

1.4.13 Study hypothesis

Kenya's social values, particularly freedom, justice, and democracy, play a significant role in shaping its commemorative architecture by reflecting historical struggles and collective memory. The hypothesis posits a meaningful relationship between these values and architectural forms. Conversely, the null hypothesis asserts no significant influence, suggesting that commemorative architecture does not necessarily reflect Kenya's social values or historical struggles.

2. Research methodology

The study used an inductive qualitative research approach that focuses on identifying patterns and observations in data to develop explanatory theories, concepts or hypotheses (Cresswell et.al., 2023; Cresswell 2013; Groat & Wang, 1946). Inductive research emphasises learning from experience, observing specific regularities and resemblances, and forming general theories. This approach was ideal for exploring the nuanced relationship between social values, aspirations and architecture without being confined to predetermined hypotheses.

The study was embedded in the environmental behaviour research methodology (Maringa, 2005; 2025; Naicca & Maringa 2023; Sanford and Connel, 1998; Bechtel, 1997; 2025; Ziesel, 1984). It particularly utilised both library-based and physical live case studies of key commemorative spaces in Nairobi.

These cases provided an in-depth analysis of how architectural design interacts with social values. They were selected based on their accessibility, historical significance and symbolic representation of national identity, collective memory and struggles for freedom. Other considerations that informed choice here included the representativeness and completeness of information that is accessible.

2.1 Research methods

The qualitative nature of the study utilised a combination of case studies, observations and sample survey methods to draw clear profiles of space and building design, user patterns and public perceptions (Kothari, 1996, Mugenda & Mugenda 1999) and figure 15. The case study method used here involved in-depth studies of specific architectural works. The physical case studies selected and probed were Uhuru Park (memorial public space or park), Mau-Mau Monument (a monument) and Nairobi National Museum (a museum). They were examined in order to understand how their spaces have or have not reflected social values and aspirations, particularly in the context of the struggle for self-determination in the face of oppressive regimes. The study primarily focused on Kenya, with an emphasis on Nairobi, which conspicuously has been a visible situs for political engagements in Kenya's past struggles for self-determination. It examined important locations within Nairobi City County, tied to Kenya's independence movement and the subsequent democratisation process. These were studied in terms of their existing public commemorative spaces and how these spaces reflect Kenya's history and social values. A broader study would venture into other locations in Kenya in order to gain a more comprehensive view of the entire society. The exigencies of time though restricted this inquiry to the Nairobi City County, the microcosm of the nation and melting pot of all Kenyan cultures.

The theoretical basis for this inquiry, and more specifically on commemorative architecture advanced, museums, mausoleums and monuments as the three common forms of memorials. It further observes that mausoleums lack sufficient presence in Kenya and declares this as a sufficient reason why inquiry on mausoleums was eschewed. It avers that there is in fact only one such formal one that is publicly known and acclaimed in the country. This mausoleum was built in 1978 to carry the embalmed remains of the first President Mzee Jomo Kenyatta. These remains were removed from it and buried in private burial grounds of his family in the years 2021/22. The public commemoration of this statesman that had earlier conducted annually at this mausoleum ceased and so did its national significance fade away. It now remains there as an architectural icon but with no active value or engagement with the citizens.

Uhuru park, the Mau-Mau monument and the Nairobi National Museum were selected on account of their national popularity, dominance, visibility and prime location in Nairobi, the capital city of the country. Uhuru park is the premier public park in the city, with a long history spanning the entire life of independent Kenya. It hosted independence celebrations and virtually every other national public political and civic event for the most part of this country's life. It is associated with dramatic political experiences of democratisation by both government and opposing political parties. It is a favoured sport for family weekend outings.

On its part, the Mau-Mau monument carries memories of the gallant men and women freedom fighters who sacrificed much to free this country from the oppression of colonialism. It is a one of a kind and speaks of a theme dear to the nation. Then there is the Nairobi Museum. It serves as the central repository of the country's culture, history and resource for documented and professionally curated knowledge and learning of pre-history, nature and biodiversity in the country. All three

memorials are articulately designed with due consideration to the public participatory principles of place making. Consistent with the expectations of well selected case studies, they are the ones most likely embrace features that offer comprehensive case studies. In Nairobi and the country at large, they encapsulate the desired social values and aspirations most holistically.

The observation method used here relied on unstructured real-time observations were carried out at physical case study sites, documenting interactions between visitors and spaces. This flexible approach captured descriptive data on subtle, nuanced reflections of social values. Complementary structured observations quantified aspects like visitor activities, emotional engagement, and space resonance. Data collection resorted to a mix of qualitative and quantitative research approaches in order to comprehensively understand the intersection of social values, aspirations and architectural design.

First were the semi-structured interviews. These were conducted with key informants, including architect, museum curators, and political historians. Purposive sampling was used to identify these respondents as being professionals with experience in designing and maintaining commemorative spaces in Kenya. These professionals served the inquiry as key informants. They were selected on the basis of depth of this very specific relevant professional expertise. The two architects interviewed (Dr Diana Lee Smith and Davinder Lamba) were the designers of the Mau-Mau monument and therefore with practical expertise in commemorative designs. They each had over forty five years of professional and scholarly practice. Only a handful of two or three professional firms in the country have a practical experience in commemorative architecture. With the exception of the one firm that supplied two designers for interview, the rest were none responsive to requests to interview their staff.

In the category of museum curators as key informants, one head curator at the Nairobi National Museum was interviewed. In this same category, three political historians were also interviewed. One of these was the head of the cultural heritage department at the Nairobi National Museum, with expertise in general history and with a good reputation as a published scholar. Another two were reputable and published scholars at public universities of Nairobi.

These interviews combined flexibility with structured guidance, enabling detailed exploration of topics such as perceptions and experiences related to commemorative spaces. Then visual and spatial review was brought into play. With this tool, the architectural features of case studies were examined, focusing on form, materials, and spatial configuration. This review assessed how these elements contribute to the symbolic and commemorative functions of architecture. The requisite observational tools used included detailed narrative field notes, audio recordings, and visual recordings were collected to document visitor interactions with physical spaces. A structured observation grid was used to map open spaces and visually represent activity distribution.

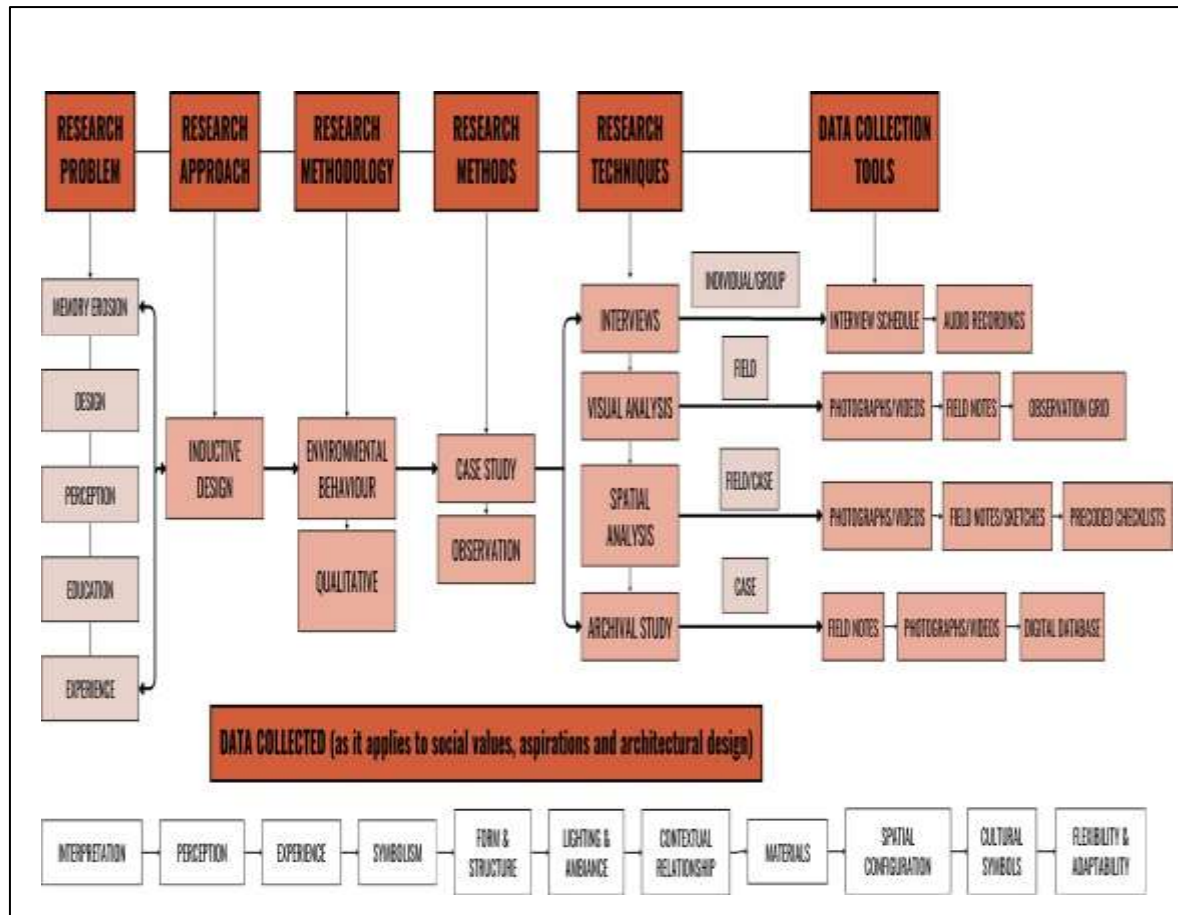


Figure 15: Summary flowchart of the study research design author¹, 2025.

In order to obtain coherent, representative primary data through the methods, techniques and tools described above, the study focused on a target population of community members as users of the commemorative spaces. Respondent groups here were selected on a convenience sampling basis to cover most clusters of visitors at the venues. Their numbers were however kept within the central limit theorem threshold of $N > 30$ to ensure that clear patterns and themes emerged. Slovin's formula ($n = N / (1 + Ne^2)$) for determining the sample size for convenience sampling was adopted. In this formula, n = sample size, N = population universe and e = the tolerance level or α -alpha error level (Ryan, 2013; Guilford and Frucher, 1973; Yamane, 1967). The confidence level of 95% yielding the α -alpha error of 0.05 was adopted for use here.

Following this guidance, 355 of the 3000 visitors at the Uhuru Park, comprising of general citizenry and tourists were interviewed. The interviews took the form of focus groups of natural clusters in their recreative activities at the park. A further 133 of the 200 visitors at the Nairobi National Museum, comprising of high school students on organised trips and tourists were also

interviewed. The interviews assumed similar focus groups forms of natural clusters in their recreative activities at the museum grounds. A final 88 of the 100 visitors at the Mau-Mau monument, comprising of general citizenry and tourists were interviewed. Once more these were focus groups of natural clusters in their recreative activities at the monument. These three groups of respondents provided user insights into design of commemorative spaces that reflect Kenya's national identity and social values. Their perspectives conformed well to the perspectives shared by the Key informants.

Complementary secondary data was also sought. To this extent, available, historical records, design intentions, government documents, architectural drawings, and reports on Kenya's struggles for freedom were reviewed. This added context to the creation of selected commemorative spaces. Finally, the study utilised thematic analysis to identify, process (sort and code), analyse, and report recurring themes from observations and interviews. This helped to reveal how social values and aspirations are embedded in design or usage patterns. A visual analysis reinforced this to interpret architectural symbolism and provide insights into how spaces reflect social aspirations.

Descriptive statistical analysis was carried out to draw out relative distribution of respondent opinions. These were rendered into absolute numbers and percentages and represented graphically using pie and bar charts. Qualitative thematic analyses of visual observations and the responses from respondent regarding design, spatial disposition and use of the public spaces, monuments and museums was also carried out. Recurring patterns, themes and topics were identified and interpreted appropriately.

The common sequencing of analysis running through familiarization, coding, theme development, theme review definition, naming and reporting was used. Analysis combined the coding reliability, code book and reflexive approaches to good use. This approach and rigour of analysis afforded the study a well-structured and systematic procedure with inbuilt flexibility and adaptability. It provide necessary an in-depth understanding of the matrix that was studied.

3 Results & Discussions

3.1 Field data analysis

3.1.1 Social interaction as an emerging theme

Memorial sites in Kenya, such as Uhuru Park, the Mau-Mau monument, and the Nairobi National Museum, serve as dual-purpose spaces, blending reflection and social interaction (figure 16). Visitors frequently use seating areas, shaded spots, and open green spaces for casual gatherings, particularly when access is free. Uhuru Park and the Mau-Mau monument experience steady foot traffic, with informal gatherings being predominant, while the museum sees fewer casual visitors. The design of the sites features open layouts and flexible spaces (figures 16 & 17).

This fosters community interaction while enhancing their role as adaptable hubs. It aligns with Young's (1993, 2010) findings that such spaces support personal and collective remembrance by promoting public engagement. These spaces reinforce collective memory and social values, emphasizing accessibility and adaptability in their design.

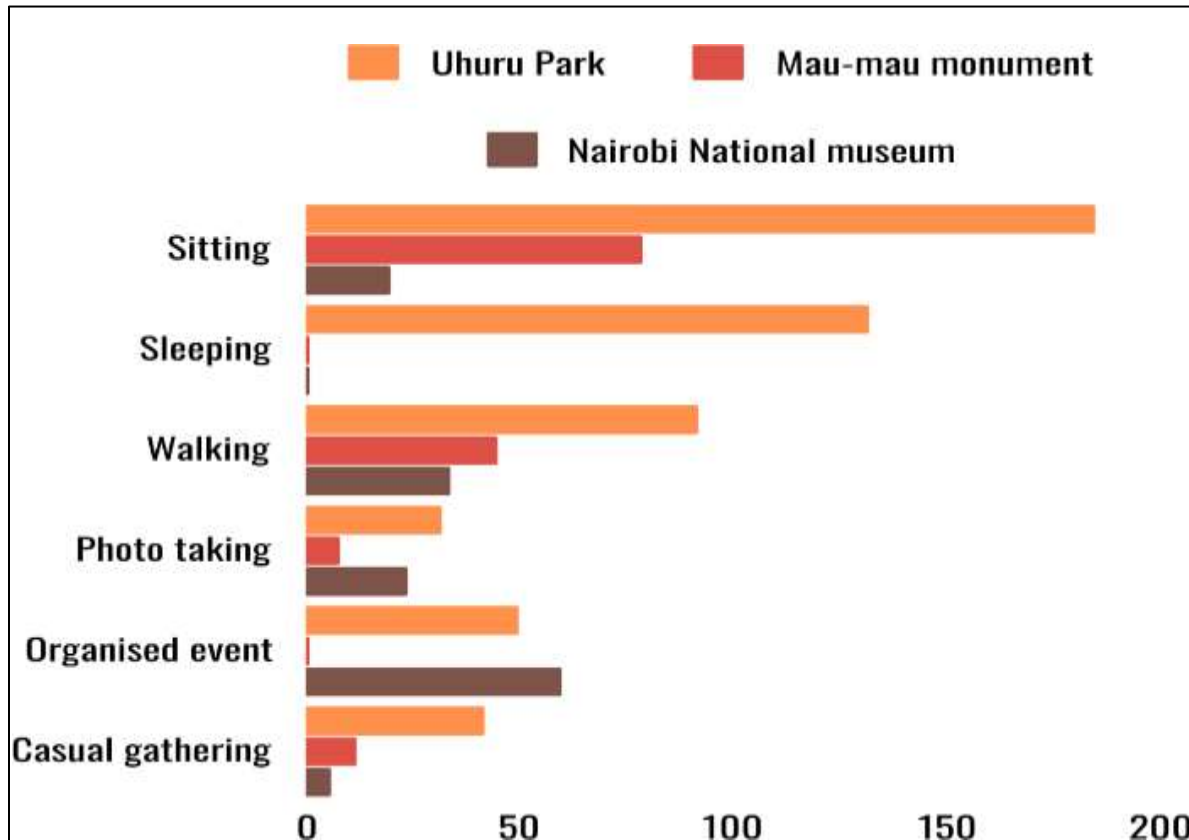


Figure 16: Chart showing frequency of prevailing forms of social interaction in commemorative spaces. Source: author¹, 2025, from field data.

3.1.2 Memory erosion as an emerging theme

The absence of contextual information in some sites leads to reduced visitor interaction and a gradual erosion of collective memory. For example, Uhuru Park lacks interpretive displays, limiting its ability to educate visitors about its historical significance (figure 17). In contrast, the Mau-Mau monument and the Nairobi National Museum, with narrative plaques and exhibits, maintain higher engagement levels (figures 16 & 17). Generational shifts and insufficient communication strategies risk transforming memorials into ornamental objects, disconnected from their original purpose. To counter this, Kenya requires deliberately curated spaces that preserve and communicate its colonial and postcolonial history. Such would expand the narratives to include marginalized stories and lesser-known acts of resistance. In this way,

commemorative architecture is enabled to continue to anchor collective memory while expressing the nation's evolving identity.



Figure 17: The Nairobi National Museum, Uhuru Park and the Mau-Mau monument: informational displays. Source: Author¹, 2025, Site photographs.

3.1.3 Educational role of institutions as an emerging theme

Educational programmes in collaboration with institutions like the National Museums of Kenya significantly enhance visitor engagement. Multi- sensory learning experiences, such as school trips to the Mau-Mau monument and the Nairobi National Museum, attract younger audiences and promote national heritage. These initiatives strengthen the role of commemorative spaces as active agents in preserving history and fostering social cohesion. Aligning with Nora's (1989) insights, such programmes ensure the continuity of remembrance by creating shared identity and appreciation for history. Leveraging modern technologies could

further enhance their educational impact, particularly for younger generations, guaranteeing the enduring relevance of Kenya's commemorative spaces.

3.1.4 Nairobi National Museum

The National Museum of Kenya, established in 1910, showcases Kenya's journey to independence. It emphasizes resilience and key movements like the Mau-Mau uprising (National Museums of Kenya, 2024). Renamed in 1963, it fosters progress-focused narratives but often omits detailed accounts of colonial-era forced displacement and racial discrimination. Such is an instance that reflects selective historical interpretation.

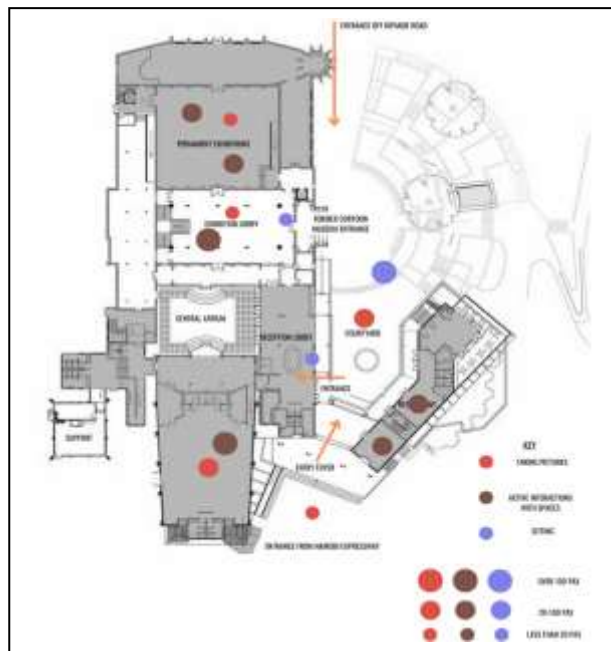


Figure 18: Common activities, their intensity and distribution on site – denoted using coloured dots with sizes representing volumes of users. Source: Author¹, 2025, site data.

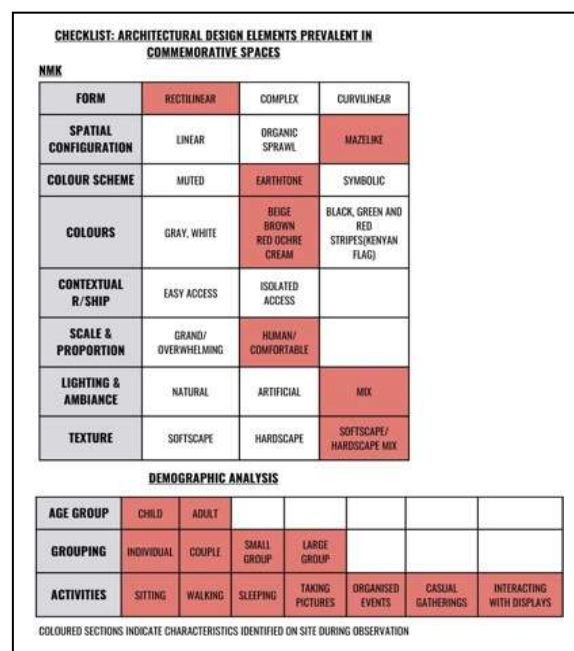


Figure 19: Demographic profile of space use and the prevalent architectural design elements on site – captured in the darker shade. Source: Author¹, 2025, site data.

3.1.4.1 Political dimension

The museum (figure 18) serves as a partial space for reckoning with Kenya's colonial history, showcasing exhibits on independence, the Mau-Mau uprising, and anti-colonial struggles. While highlighting sacrifices and resilience, it addresses these events broadly, omitting darker aspects like exploitation and displacement, limiting deeper emotional reflection. It fosters a forward-looking narrative of post-colonial progress but downplays colonial injustices, such as forced labour and racial discrimination. Recent efforts include workshops and expansion of

exhibition spaces, enhancing historical awareness and connecting visitors with tangible colonial legacies. Such would include land dispossession documents, freedom fighter letters, and colonial-era tools. It engages younger audiences and broadening its educational impact.



Figure 18: Site plan view of Nairobi national Museum. Source: Author¹, 2025; adapted from Google maps <https://earth.google.com/web/@-1.27388091,36.81515379,1683.38788985a,592.85174822d,35y,359.99999914h,0t,0r/data=CgRCaggBMikJw0lCiExODE1bmd0X3p2bElqdVpOYVg4N24xMENld1hNemZMcjEgAToDCgEwOgIIAEoICIHJuJAGEAE>.

3.1.4.2 Ethical dimension

The museum highlights cultural resilience through tools, clothing, and photographs from the colonial period (figure 19). These showcase Kenyan culture and resistance efforts, including Mau-Mau fighters and protests. Statues and plaques honour key figures, embodying resistance and freedom. Locally sourced materials like stone and clay symbolise a connection to the land and national identity, while wood and natural fibers reflect traditional architecture (figure 20). Positioned near landmarks like Uhuru Park, it connects visitors to Kenya's post-colonial journey. The landscape design, with communal spaces, fosters accessibility and belonging (figures 21 & 22). Earthy colours evoke Kenya's natural landscapes and colonial struggles, creating a welcoming and reflective environment (figure 20).



Figure 20: A view of the entry foyer for the Nairobi national Museum. Source: Author¹, 2025, site photograph.

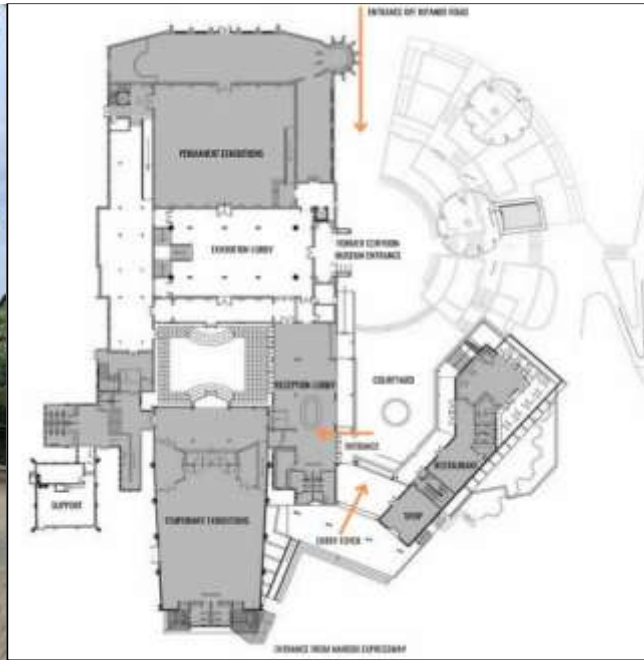


Figure 21: Main floor plan analysis. Source; Author 2025, adapted from Archidatum | Architecture in Africa © <https://www.archidatum.com/gallery?id=2569&node=2549>

3.1.4.3 Spatial dimension

The museum's architecture integrates Kenyan aesthetics with colonial influences, symbolizing the reclamation of space. It blends traditional African design, with organic shapes and modern forms, reflecting Kenya's journey through colonial and post-colonial eras. Open layouts and courtyards evoke communal spaces for storytelling and heritage. Access points lead to a reception area, exhibit wings, and adaptable spaces for rotating displays (figures 21 & 22).

3.1.4.4 Success as a commemorative space

Spotlights are used to highlight significant artefacts, while natural light creates an inviting ambiance. Subdued lighting in reflective areas fosters contemplation. Monumental exteriors signify importance (figure 22). Interior proportions guide visitors through Kenya's historical narrative, balancing grandeur and accessibility for public engagement.

3.1.4.5 Temporal dimension

The open layout of exhibition spaces in the museum allows the exhibitions to change and adapt to changing cultural and social landscapes. This open design enables the museum to potentially incorporate new exhibits, rotating displays and even digital tours, should the museum require such changes (figure 21).



Figure 22: Nairobi National Museum colour analysis. Source: Author¹, 2025, Site photographs.

3.1.4.6 Inference of social values and aspirations

The museum has subtly expressed some social values and aspirations related to Kenya's struggle for independence and self-determination.

- Resistance, in its collection of items, tools and traditional clothing on display highlights the enduring culture of Kenyan communities in the face of adversity.
- National identity, in the design choice to reclaim a former colonial space by incorporating elements of local design with modern forms.
- Freedom, in the museum's accessibility and proximity to the city centre.

The museum expresses the social values related to Kenya's colonial past in broad strokes that do not fully express the brutality or the long-lasting effects of colonialism. Its current design is suited as a general, educational commemorative space. It however lacks the emotional engagement and depth a more detailed account of Kenya's journey to independence would have on visitors. Its design does, however, reflect the values of resilience, resistance and national identity.

3.1.4.7 Potential for future modifications

Enhancing historical interpretation through marginalized narratives, incorporating interactive digital displays could provide a more inclusive, engaging, and emotionally resonant experience. Such displays would include virtual or augmented reality. It would also create outdoor memorial spaces with shaded areas, walking paths, and reflective monuments. In this way it would ensure that Kenya's colonial history is comprehensively represented and remembered across generations.



Figure 23: Common activities, their intensity and distribution on site – denoted using coloured dots with sizes representing volumes of users. Source: Author¹, 2025, site data.

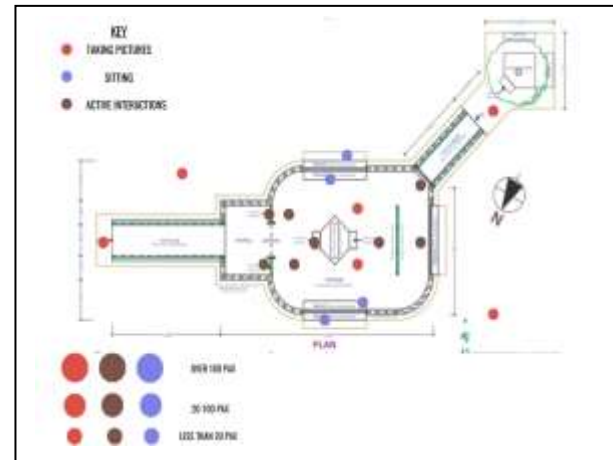


Figure 24: Demographic profile of space use and the prevalent architectural design elements on site – captured in the darker shade. Source: Author¹, 2025, site data.

3.1.5 Mau-Mau Monument

The monument (figures 25 & 26) is formally referred to as the memorial to the victims of torture and ill treatment in the colonial Era (1952-1960). It was designed by Dr Diana Lee Smith and her husband Davinder Lamba, as part of a design competition organised by Board of Registration of Architects and Quantity Surveyors (BORAQS).



Figure 25: Site plan view of Mau-Mau monument. Source: Author¹, 2025, adapted from Google maps, <https://earth.google.com/web/@-1.28888283,36.81604721,1671.17774722a,1039.29004502d,35y,-0h,0t,0r/data=CgRCAggBMikKJwolCiExODEIbmd0X3p2bElqdVpQYVg4N24xMENId1hNemZMcjEgAToDCgEwQgIIAEoI CIHJuJAGEAE>.



Figure 26: Freedom fighters statue on the Mau-Mau monument. Source: Author¹, site photographs.

It was built between August 2014 and August 2015 and was officially opened to the public on 12th September 2015 (Lamba & Smith, 2014). It is located at Freedom Corner in Uhuru Park, Nairobi.

3.1.5.1 Political dimension

The Mau-Mau Memorial was unveiled in June 2013 as part of a settlement with the British government. It honours victims of the colonial-era torture and those who supported the Mau-Mau movement. Its creation marks a significant shift from suppressing the memory of the rebellion to commemorating it as part of Kenya's path to independence. Its sculptures were designed by artist Kevin Oduor, the monument symbolises recognition of a previously marginalized legacy of resistance. The apology by the British government and compensation paved the way for this act of collective remembrance. It reflects Kenya's evolving narrative of openly confronting its past and fostering healing through acknowledgment and commemoration.

3.1.5.2 Ethical dimension

The Mau-Mau Memorial avoids specific imagery, fostering relatability and individual reflection. It was constructed with weather-resistant materials like granite, granite tiles, and bronze (figure 27). In consequence, the monument is durable and low maintenance. Its grain-patterned finishes add visual texture while ensuring smoothness to the touch (figure 27). It is located near Freedom Corner, a site symbolizing Kenya's ongoing struggles for democracy. This placement of the monument reinforces values of resilience and national identity. Its earthy, muted tones (figure 27) blend seamlessly with the surrounding landscape, evoking the natural environments tied to the Mau-Mau resistance. This colour scheme reflects the solemnity of the events commemorated, honouring the sacrifices of Kenya's independence struggle.



Figure 27: Mau-Mau monument colour analysis. Source, author¹, 2025, site photographs.

3.1.5.3 Spatial dimension

The Mau-Mau Memorial features a central pillar representing the resilience of Mau-Mau fighters, surrounded by curvilinear and layered forms (figure 27). These features together symbolise the collective memory and Kenya's complex past. Its spatial design includes ramps leading to a podium, with plaques describing its purpose and the fighters' secrecy under torture (figure 28). A statue of a female fighter delivering food to a male fighter emphasizes their sacrifices (figure 30). Natural lighting and reflective surfaces create a serene ambiance, while the modest scale ensures intimacy and accessibility (figures 29 & 30). An archway with "Justice be our shield and defender" leads visitors to a commemorative tree, further enhancing reflection and engagement.





Figure 29: Mau-Mau monument as seen from Kenyatta Avenue. Source Author¹, 2025; site photograph.



Figure 30: Mau-Mau monument image analysis. Source: Author¹ 2025; adapted from site photograph. Author: ©

3.1.5.5 Inferences on social values and aspirations

The monument has successfully expressed several social values and aspirations related to Kenya's struggles for self-determination and independence in the following regards:

- Resistance, in the design of the statue and the specific events it depicts.
- Reconciliation, in the inclusion of a narrative plaque highlighting the British government's apology and the Mau-Mau Veterans' Association's response to it. This is also expressed in its creation as a monument.
- Unity, in the design's conscious choice to not include any overly specific symbols or imagery.
- National identity, in its creation which symbolises Kenya's evolving identity as a country that openly confronts its past.
- Resilience, in its choice of finishes that are both weather resistant and hard-wearing.

3.1.5.6 Success as a commemorative space

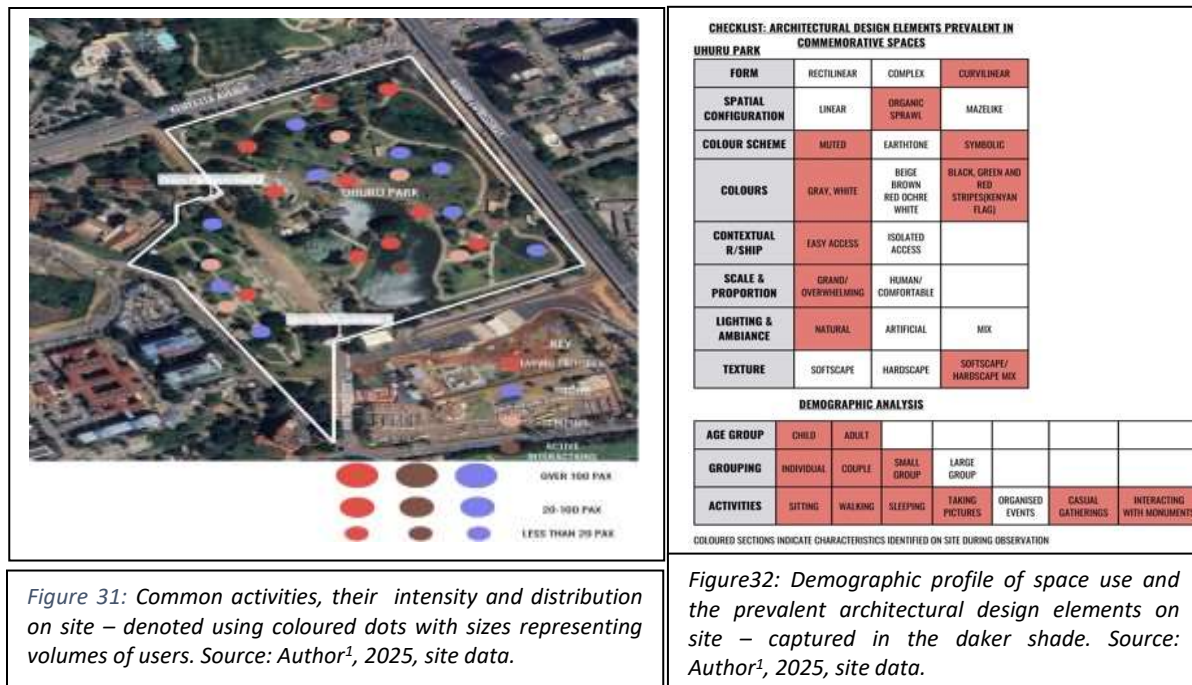
Through design as discussed, and the observed user patterns, the monument effectively conveys social values and aspirations, fostering visitor engagement (figures 26-30). It serves well as an anchor of collective memories (figures 26-30). However, its modest scale limits visibility and may not reflect the magnitude of the Mau-Mau struggle (figures 26-30). The creation of this monument was driven by external forces, and this highlights Kenya's hesitance to confront its colonial past openly.

3.1.5.7 Potential for future modifications

The open design of the monument allows for future adaptations, such as additional plaques, interpretive signage, or interactive installations, enhancing its educational value (figures 26-30)).

Digital engagement, like augmented reality simulations, could further increase accessibility and appeal to younger audiences. Such initiatives would make the monument it adaptable further, to evolving educational and cultural approaches.

3.1.6 Uhuru Park



Established in 1969, Uhuru Park is a 32-acre recreational park in Nairobi (figure 33), symbolizing freedom, pride, and unity. Created six years post-independence, it embodies Kenya's efforts to shape a national identity, providing an accessible green space for all citizens (Uhuru Park, 2024). Its name, meaning “freedom,” reflects the era's aspirations.

3.1.6.1 Political dimension

Uhuru Park serves as a symbolic space for national identity, offering relaxation and inclusivity, contrasting colonial-era segregation (figures 33 & 35). Its creation downplayed Kenya's painful colonial history, focusing on nation-building and unity. Named to mark independence, the park has evolved into a critical site for activism, addressing post-independence challenges and lingering colonial effects. Monuments and memorials within reflect Kenya's shifting approach to collective memory. The park itself does not directly confront colonial brutality. However, it provides a platform for societal reflection and acknowledgment of both colonial and post-colonial struggles. In this respect, it does illustrate Kenya's journey toward embracing a fuller historical narrative.



Figure 33: Site plan view of Uhuru Park.. Source: Author¹ 2025, adapted from google maps
<https://earth.google.com/web/@-1.28888283,36.81604721,1671.17774722a,1039.29004502d,35y,0h,0t,0r/data=CqRCAqgBMikKJwolCiExODE1bmd0X3p2bElqdVpQYVg4N24xMENld1hNemZMcjEgAToDCgEwQgIIAEoICIHJuJ>



Figure 34: One of Uhuru Park's entrances, at freedoms corner. Source Author¹, 2025, site photograph.

3.1.6.2 Ethical dimension

Freedom Corner, a landmark in Uhuru Park, symbolises Kenya's environmental and human rights movements (figure 33 & 34). Specifically, it commemorates Professor Wangari Maathai's 1980s activism to protect public spaces. The park's name, Uhuru park, reflects independence and sovereignty in name and disposition, while its statues and memorials celebrate resilience. Located near Nairobi's CBD, it is accessible, and it emphasizes freedom. Dominant greens symbolise peace and growth, with neutral-toned structures blending into the natural environment, fostering contemplation. Earthy tones, accented by national colours of the flag, align with Kenya's journey toward independence and self-determination. These all reinforce the role of the park as a cultural symbol of unity and progress.

3.1.6.3 Spatial dimension

Open spaces in Uhuru Park define its character, enabling community gatherings, political rallies, and celebrations. Areas like Freedom Corner hold historical significance (figure 34), while water features and simple monuments foster a serene atmosphere (figures 35, 36 & 37). Accessible from Kenyatta and Haile Selassie Avenues, the expansive layout of the park supports diverse activities (figures 34 & 37). Wide, meandering pathways enhance fluid navigation, while natural lighting and reflective surfaces, like the artificial lake, create an inviting ambiance (figures 34 &

35). The design of the park emphasizes reflection, blending nature with history to offer a tranquil, versatile public space that balances relaxation with collective memory and cultural significance.



Figure 35: Spatial analysis of Uhuru Park. Source: Author¹ 2025, adapted from google maps, <https://earth.google.com/web/@-1.28888283,36.81604721,1671.17774722a,1039.29004502d,35y,-0h,0t,0r/data=CgRCAggBMikKJwolCiExODE1bmd0X3p2bElqdVpQYVg4N24xMENId1hNemZMcjEgAToDCgEwQgIIAEoICIHJwJ>

3.1.6.4 Temporal dimension

The open layout of the park encourages a wide range of activities, from reflection to community gatherings (figures 36 & 37). This flexibility allows it to support the varied needs of the community on a day-to-day basis. This same layout also allows the park to be easily adaptable to fit changing social, cultural and political environments. Despite this adaptability, the park still maintains its relevance and core role as a free, public recreational space.



Figure 36: A view of Uhuru Park's landscape. Source: Author¹ 2025, site photograph.

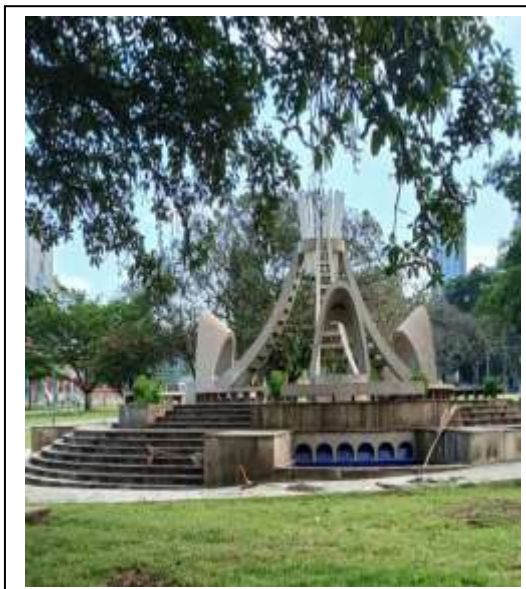


Figure 37: Peace, love and unity fountain at Uhuru Park. Source Author¹, 2025, site photograph.

3.1.6.5 Inference of social values

The park has attempted to express the following social values and aspirations that relate to Kenya's struggle for self-determination and independence:

- Resilience, in its choice of a predominantly green colour scheme - a colour that symbolises resilience and growth.
- Freedom, in its easy accessibility by the general public and its continued use as a site for political activism.
- Resistance, in its use as a site for political and environmental activism, where Kenyans fought against human rights abuse and other injustices.
- National identity, in its creation, aimed to contradict colonial-era practices of prejudice and segregation of Africans in access to public facilities.

3.1.6.6 Success as a commemorative space

Uhuru Park excels as a recreational space but lacks full expression of its historical significance. Its design and narrative emphasize growth and nationalism, overlooking the sacrifices and struggles for independence. This limits its role as a true anchor for collective memory.

3.1.6.7 Potential for future modifications

Adding interpretive signage, hosting history-themed events, and introducing digital tools like augmented reality can deepen understanding of Uhuru Park's historical significance. Regular maintenance and security enhancements ensure safety. It fosters active remembrance and community engagement. This is particularly so for younger generations. Further, it reinforces the cultural and educational value of this park.

4 Conclusions

4.1 Summary of key findings

Consistent with the objectives and research questions set at the outset, this study identified the key social values and aspirations shaping Kenyan society, especially in relation to its historical and ongoing struggles for freedom and democracy. It showed how these values are reflected in daily life, cultural practices, and public engagement, and how they influence the design of public and commemorative spaces. The research outlined the main elements of architectural design used to express these values, grouping them into four dimensions of commemorative architecture. By examining local buildings and public opinion, the study assessed how well these spaces represent social and cultural values. Ultimately, it demonstrated how social aspirations guide the development of public spaces and commemorative structures and identified design strategies that best capture Kenya's historical and contemporary quest for freedom and democracy.

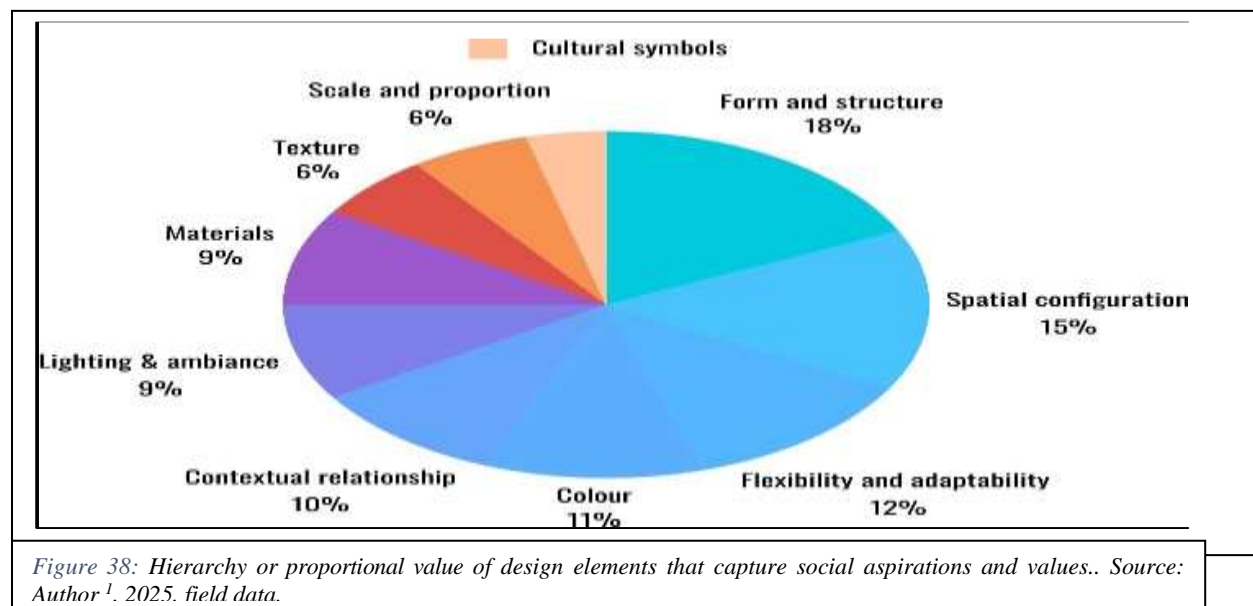
The selected case studies highlight unique commemorative architectural approaches tied to each country's social and historical context. These nations share a struggle for self-determination and recovery from poor governance, focusing on healing, identity, unity, and justice. Kenya differs by prioritizing development and downplaying the socio-psychological costs of its struggles, risking the erosion of collective memory, and focusing on social interaction and future-oriented education. In contrast, Rwanda and South Africa engage deeply with their painful past to move forward. All three prioritize education.

The research explored Kenya's freedom struggle, highlighting values like justice, unity, and resilience, with form, spatial organization, and adaptability being crucial in commemorative design (figure 38). Elements such as lighting, materials, and cultural symbols were also found to contribute to the synergy (figure 38). Themes of social interaction, memory erosion, and education emerged. They underscored challenges in preserving cultural significance. Commemorative spaces face difficulties maintaining relevance amid generational shifts and

urban development. Such trends emphasize the need for adaptability and educational enhancements to sustain their impact.

4.2 Interpretation of key findings

The findings align with Halbwachs' (1992) views on collective memory. They highlight commemorative spaces as vital manifestations of shared history. This is amply evident in the design and educational impact of the Mau-Mau monument. Similar to Nora's (1989) insights on modernity, Uhuru Park prioritizes progress while sidestepping colonial atrocities. In doing so, it risks a real threat of historical erosion. Bhabha's (1994) propositions on postcolonial architecture resonate with Kenya's commemorative spaces. These spaces balance narratives of colonial oppression and post-independence progress. This is reflected in the celebratory focus of the Nairobi National Museum over critical reckoning. Such a disposition suggests a collective or conspired reluctance to confront Kenya's colonial past while navigating its broader postcolonial identity.



Key informants and user respondents perceive the elements of design that are used to craft and evoke cultural symbols to reflect social aspirations and values in a hierarchy of variable impact. In this arrangement, form and function takes the place of dominance. It is followed by spatial configuration and then flexibility and adaptability, colour, contextual relationships, lighting and ambience, materials, and finally texture as well as scale and proportion. This hierarchy is not so much a ranking of perception that assess the success level of the designs. The patterns of data in tables 1 and 2 to an extent suggest a spontaneous measure of perception that is not dependent on the effectiveness of the design.

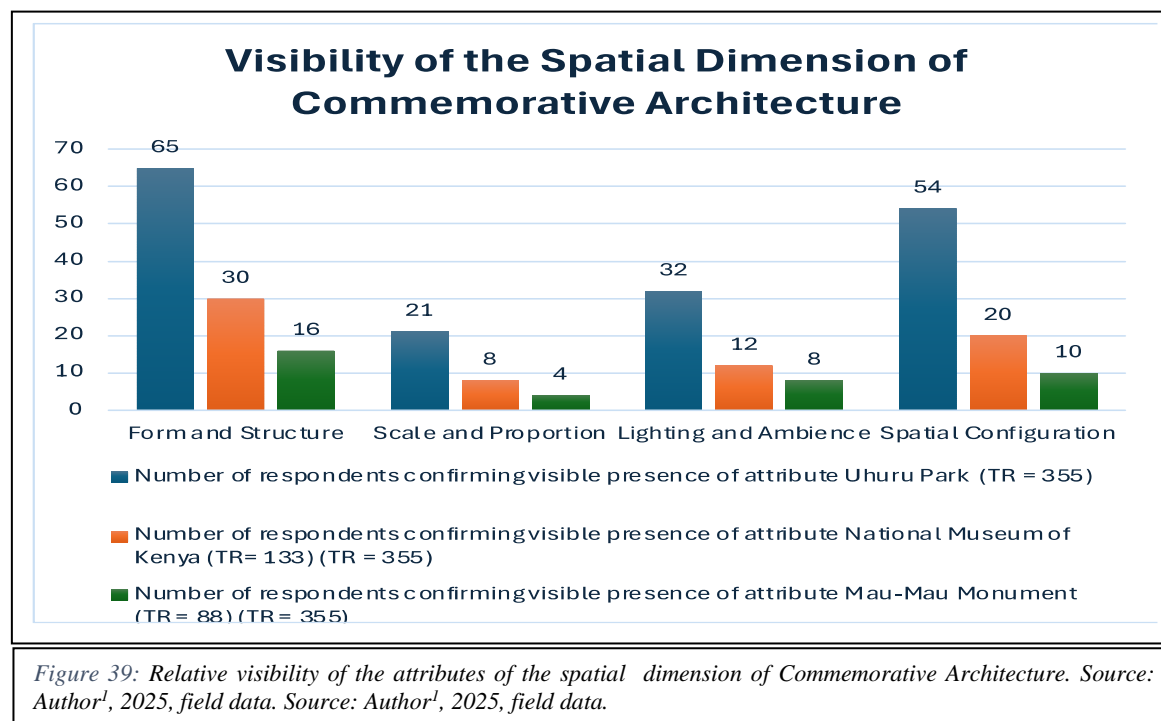
		Number of respondents confirming visible presence of attribute			Overall count	
		Uhuru Park (TR = 355)	National Museum of Kenya (TR= 133)	Mau-Mau Monument (TR = 88)		
Gender distribution	Male	165	57	40	262	576
	Female	190	76	48	314	
Age distribution in years	0 -18	85	67	21	173	576
	19-65	267	66	64	397	
	66+	3	0	3	6	
Source market by income status	Low-income RA	196	53	50	299	576
	Middle-income RA	159	50	38	247	
	High-income RA	0	30	0	30	

Table Figure 1: Socio-economic profile of respondents at the Nairobi National Museum, Uhuru Park and the Mau-Mau monument: Source: Author¹, 2025, field data. RA = Residential Area.

	Dimensions	Attributes	Number of respondents confirming visible presence of attribute		
			Uhuru Park (TR = 355)	National Museum of Kenya (TR= 133)	Mau-Mau Monument (TR = 88)
Dimensions of Commemorative Architecture	Spatial Dimension (Memory is limited to specific places)	Form and Structure	65	30	16
		Scale and Proportion	21	8	4
		Lighting& Ambience	32	12	8
		Spatial Configuration	54	20	10
	Ethical Dimension (Architecture that reflects local identity)	Colour	39	10	12
		Contextual Relationship	35	16	9
		Cultural Symbolism	14	5	5
		Materials and Texture	31	8	10
	Temporal Dimension (Memory that evolves over time)	Flexibility & Adaptability	43	16	9
	Political Dimension (Architecture that empowers local communities)	Reckoning vs. Silence	65	103	88
		Symbolism and National Identity	290	113	78
		Evolving Narratives	310	86	8

Table 2: Attributes of ethical & spatial dimensions of Commemorative Architecture at the Nairobi National Museum, Uhuru Park & the Mau-Mau monument: Source: Author¹, 2025, field data. TR =Total Number of Respondents.

In support of this notion, the tables 1 & 2 display weak user perception of specific spaces that evoke memories, reflect local identity and embrace transitioning memories that evolve over time. As such, the related nine attributes of spatial, ethical and temporal dimensions of the commemorative architecture are perceived by users to have not been well articulated in space. This is so despite the strong showing noted in all case studies. Key informants who are professionals in their respective fields, report in interviews that these attributes are present, well-disposed and visible in the case studies. Such professionals would be architects, museum curators, political historians and experts in cultural heritage. Their cognition is in all likelihood tinged by technical knowhow and not necessarily driven by natural perception. This contradiction suggests that the attributes associated with these dimensions though designed for, are not very detectable or recognised in the spaces by the users (Bianco, 2018). In all likelihood professionals know the attributes, while common users are ignorant of them. Users cannot therefore recognise these attributes and the value they bring to commemorative architecture, unless they are better crafted and disposed (Ibid).



More effort is necessary to deploy design elements with a better understanding of the people's social aspirations and values of healing, national identity, unity, resistance, equality, self-determination, reconciliation, justice and resilience (figure 13 & 14). Designers must be able to express these in the four corresponding dimensions of commemorative architecture, in a language that is more spontaneously understood by the common users (figures 13 & 14). It also emerged from the tables that the profiles of preference represent a socio-economic perspectives

dominated by females, young adults and residents of low- and middle-income sets (tables 1 & 2). These groups tend to be more populous in society and are therefore an acceptable critical mass in this inquiry to shape perspectives for the overall society at large. The large proportion of low income, young adult and female respondents can be associated with generally low levels of civic literacy. This could also explain the observed generally low provocation of reflection by the attributes of spatial, ethical and temporal dimensions of commemorative architecture. Consistent with this low-income social set, whose literacy may depend largely on publicly popularised incidences and themes, memories of a historical past of self-determination and democratisation in the political dimension is very conspicuously acknowledged.

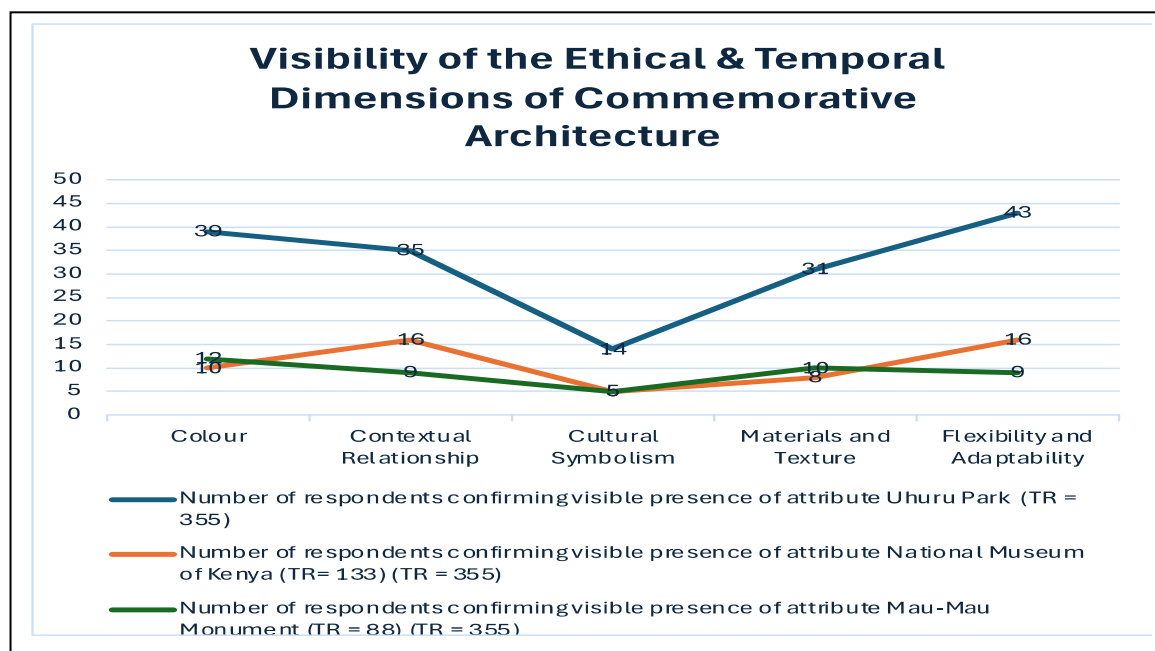


Figure 40: Relative visibility of the attributes of the ethical and temporal dimension of Commemorative Architecture. Source: Author¹, 2025, field data. Source: Author¹, 2025, field data.

In the spatial dimension, the attribute of form and scale is most successfully displayed in the case studies, followed by spatial configuration, then lighting and ambience and finally scale and proportion (figure 39). This is the hierarchy of users recognition of these attributes to the extent that they declared them to be visible and of value in evoking reflections on commemorative architecture. Where the ethical dimension is concerned, the most successfully disposed attribute is colour. It is followed by contextual relationships, then culture and symbolism and finally materials and texture (figure 40). The temporal dimension has one attribute and its delivery in the case studies ranks third on impact behind form and structure and spatial configurations (figures 39 & 40). The political dimension reflects a drastic spike of user perception (figure 42). Its attributes are extremely recognisable with a good majority of the users (figure 41). Leading

this riot is the attribute of evolving narratives. It is followed closely by symbolism and national identity (figure 41). Reckoning versus silence comes a distant third (figure 41). Despite this lower showing it still is much more recognised by users than any of the other attributes from the spatial, ethical and temporal dimensions (figure 42).

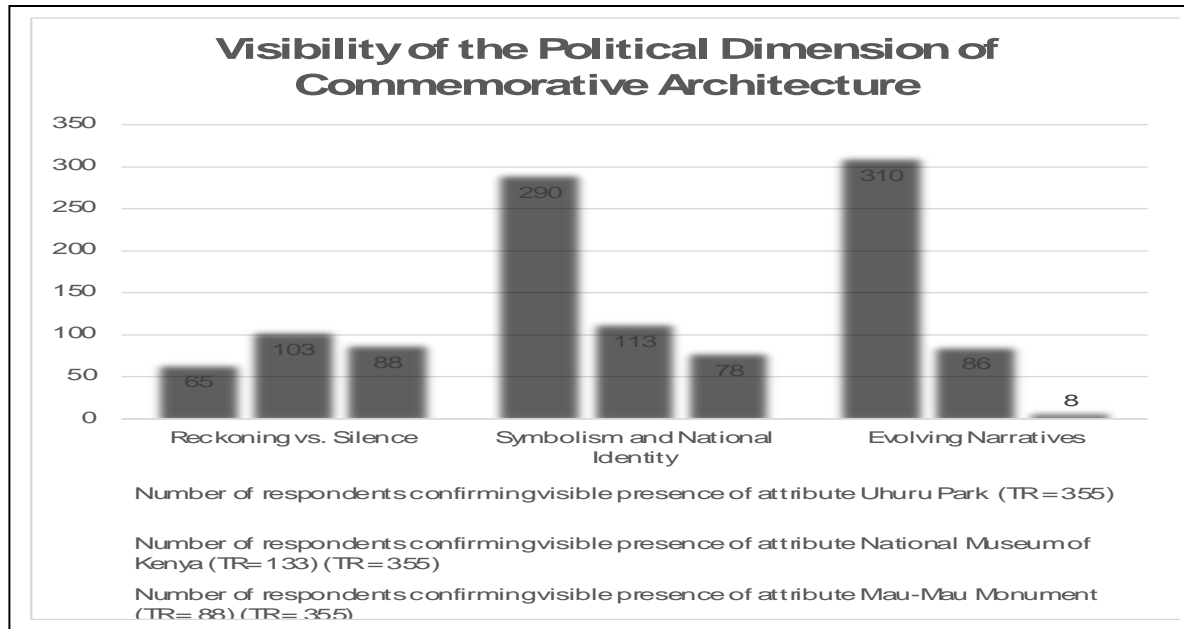
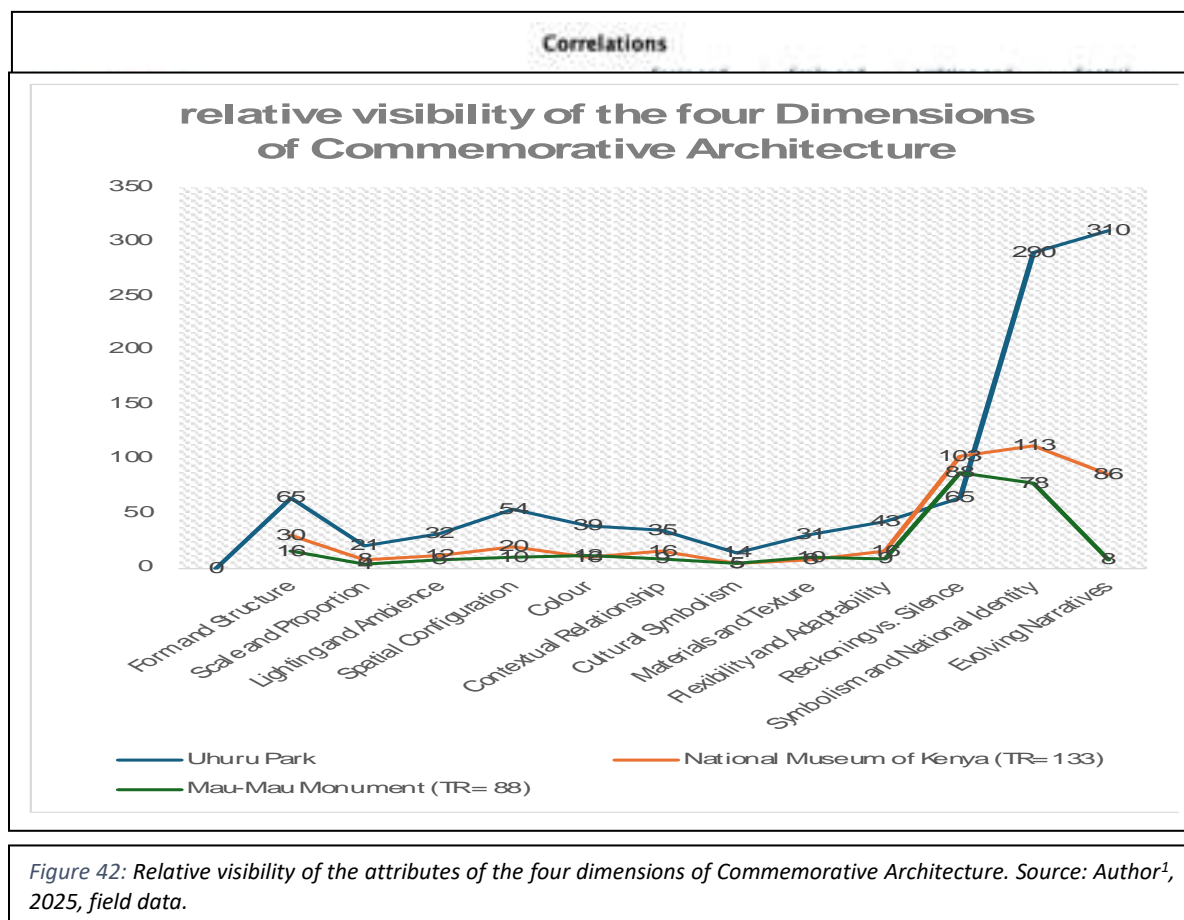


Figure 41: Relative visibility of the attributes of the political dimension of Commemorative Architecture. Source: Author¹, 2025, field data.

The perception of a superior deployment of the attributes of the political dimensions (figure 42) could be a consequence user literacy in civic matters particularly in the sets of youth, women and low-income earners. These form the bulk of visitors to the commemorative spaces. The general Kenyan citizenry is very involved in the democratisation process. Narratives of the freedom struggle are still very present and compulsive. This is so given the difficulties encountered then and the choice made during independence to tone down on reflection and discussions about those sad realities. This was done in favour of a focus on development and aspirations of a better future. Such restraint clearly left the pain unassuaged, possibly therefore causing active silent debate in society. It is likely nevertheless that this positive recognition of the attributes of the political dimension arises from space design. Commemorative architecture then will be successful in empowering communities as posited in pertinent theory and in the understanding of this dimension. This status though is not purely a result of design. It is reinforced to a considerable extent by such socio-political realities.



In the spatial dimension of commemorative architecture, table 3 reveals very strong positive significant correlations. Form and structure for instance associates with the scale and proportion as well spatial configuration attributes very strongly, with r-values of 0.999, and 0.998, and the p-values 0.034 and 0.040 respectively. The correlation of form and structure with the lighting and ambience attribute is strong at a r-value of 0.992 and a p-value of 0.079. The two-tailed α -alpha error significance level here was set at 0.05 for a 95% confidence level. Associations in the ethical dimensions reveals similar patterns in table 4. Here, the attribute of colour records a very strong positive and significant association with the contextual relationships, and a perfect correlation with the materials and texture attributes. The corresponding correlation coefficient r-values recorded here are 0.948 and 1.000, and p-values of 0.039 and 0.011. Its correlation with cultural symbolism is also very strong and positive with an r-value of 0.999. The correlation is however not significant given its p-value of 0.207, that is way bigger than the two-tailed set α -alpha error significance level of 0.05. Given the very high r-value noted, this is a relationship is unlikely to be random. It is worth remeasuring, possibly with new approaches and more data.

Correlations			Colour	Contextual Relationships	Cultural Symbolism	Materials and Texture
Control Variables						
-none- ^a	Colour	Correlation	1.000	.948	.998	1.000
		Significance (2-tailed)	.	.207	.039	.011
		df	0	1	1	1
	Contextual Relationships	Correlation	.948	1.000	.966	.942
		Significance (2-tailed)	.207	.	.168	.218
		df	1	0	1	1
	Cultural Symbolism	Correlation	.998	.966	1.000	.997
		Significance (2-tailed)	.039	.168	.	.050
		df	1	1	0	1
	Materials and Texture	Correlation	1.000	.942	.997	1.000
		Significance (2-tailed)	.011	.218	.050	.
		df	1	1	1	0

Table 3: Correlations of the attributes of the spatial dimension of Commemorative Architecture. Source: Author¹, 2025, field data.

These generally very strong associations imply that a positive impact from one attribute within a dimension is likely to suggest similar perceptions of other attributes in this same dimension.

Correlations			Colour	Contextual Relationships	Cultural Symbolism	Materials and Texture
Control Variables						
-none- ^a	Colour	Correlation	1.000	.948	.998	1.000
		Significance (2-tailed)	.	.207	.039	.011
		df	0	1	1	1
	Contextual Relationships	Correlation	.948	1.000	.966	.942
		Significance (2-tailed)	.207	.	.168	.218
		df	1	0	1	1
	Cultural Symbolism	Correlation	.998	.966	1.000	.997
		Significance (2-tailed)	.039	.168	.	.050
		df	1	1	0	1
	Materials and Texture	Correlation	1.000	.942	.997	1.000
		Significance (2-tailed)	.011	.218	.050	.
		df	1	1	1	0

Table 4: Correlations of the attributes of the ethical dimension of Commemorative Architecture. Source: Author¹, 2025, field data.

An effective design that communicates commemorative architecture well in an attribute in a given dimension will in all likelihood be accompanied by equal success in the other attributes of the same dimension. Intervention in one attribute will most likely drive the same desired change in the others.

Correlations					
Control Variables			Reckoning versus Silence	Symbolism and National Identity	Evolving Narratives
-none- ^A	Reckoning versus Silence	Correlation	1.000	-.849	-.794
		Significance (2-tailed)	.	.355	.416
		df	0	1	1
	Symbolism and National Identity	Correlation	-.849	1.000	.995
		Significance (2-tailed)	.355	.	.062
		df	1	0	1
	Evolving Narratives	Correlation	-.794	.995	1.000
		Significance (2-tailed)	.416	.062	.
		df	1	1	0

Table 5: Correlations of the attributes of the Political Dimension of Commemorative Architecture. Source: Author¹, 2025, field data.

Table 5 displays a different scenario for the political dimension of commemorative architecture. The attribute of reckoning versus silence registers very strong negative non-significant correlations with the symbolism and national identity attribute with a r-value of 0.849. This same trend is repeated between reckoning versus silence and the evolving narratives attribute with an r-value of 0.794. A rise in one attribute's impact would result in a drop in the other two. The p-value in these two instances though is 0.355 and 0.416 which exceeds the set 0.05 α -alpha error level by a clear margin. Considerably. The two attributes of evolving narratives, and symbolism and national identity display a strong positive non-significant correlations with a r-value of 0.995 and p-value of 0.062, just above the 0.05 α -alpha error level threshold of significance.

		Correlations												
Control Variables			Form and Structure	Scale and Proportion	Layout and Function	Symbol Configuration	Color	Textual Readability	Cultural Symbolism	Material and Texture	Flexibility and Adaptability	Meaning and Symbolic	Integration and Harmonic Effects	Overall Experience
Form and Structure	Correlation	1.000	.888	.862	.888	.842	1.000	.881	.828	.888	-.773	.862	1.000	
	Significance (2-tailed)		.004	.019	.000	.118	.011	.179	.229	.004	.001	.000	.013	
	P													
Scale and Proportion	Correlation	.888	1.000	.897	1.000	.919	.889	.874	.894	1.000	-.858	.897	1.000	
	Significance (2-tailed)		.004	.000	.000	.004	.011	.146	.109	.000	.001	.000	.014	
	P													
Layout and Function	Correlation	.862	.897	1.000	.888	.878	.880	.888	.873	.889	-.848	1.000	.890	
	Significance (2-tailed)		.019	.000	.000	.119	.088	.089	.146	.071	.109	.001	.001	
	P													
Symbol Configuration	Correlation	.842	.919	.897	1.000	.861	.889	.876	.898	1.000	-.811	.888	.888	
	Significance (2-tailed)		.000	.000	.000	.178	.018	.119	.108	.004	.001	.000	.011	
	P													
Color	Correlation	.842	.874	.878	.861	1.000	.848	.888	1.000	.867	-.841	.873	.881	
	Significance (2-tailed)		.119	.108	.118	.178	.247	.019	.011	.109	.107	.118	.108	
	P													
Textual Readability	Correlation	1.000	.881	.888	.888	.848	1.000	.888	.841	.888	-.786	.888	1.000	
	Significance (2-tailed)		.011	.000	.000	.207		.108	.218	.001	.001	.000	.007	
	P													
Cultural Symbolism	Correlation	.862	.897	.888	.878	.884	.888	1.000	.887	.881	-.810	.888	.888	
	Significance (2-tailed)		.179	.108	.089	.118	.088		.088	.121	.109	.000	.000	
	P													
Material and Texture	Correlation	.828	.894	.873	.880	1.000	.867	.887	1.000	.862	-.808	.873	.888	
	Significance (2-tailed)		.229	.109	.109	.011	.119	.089		.171	.109	.146	.118	
	P													
Flexibility and Adaptability	Correlation	.888	1.000	.888	1.000	.867	.888	.861	.862	1.000	-.818	.888	.888	
	Significance (2-tailed)		.004	.000	.000	.119	.088	.119	.171	.000	.101	.000	.001	
	P													
Meaning and Symbolic	Correlation	-.773	-.858	-.848	-.811	-.841	-.786	-.810	.888	-.808	1.000	-.848	-.786	
	Significance (2-tailed)		.001	.000	.108	.117	.019	.109	.000	.101	.000	.101	.018	
	P													
Integration and Harmonic Effects	Correlation	.862	.897	1.000	.888	.877	.880	.888	.873	.889	-.848	1.000	.890	
	Significance (2-tailed)		.000	.000	.001	.118	.088	.089	.146	.071	.109	.001	.002	
	P													
Overall Experience	Correlation	1.000	1.000	.881	.888	.841	1.000	.888	.848	.888	-.786	.888	1.000	
	Significance (2-tailed)		.000	.011	.000	.207		.108	.218	.001	.001	.000		
	P													

Table 6: Correlations of the attributes of all four dimensions of Commemorative Architecture. Source: Author¹, 2025, field

In these hierarchies of associations of the twelve attributes displayed (tables 3-6), the emergent order points singles out ideal areas of intervention from which to maximise value in commemorative architecture. Attributes with stronger positive significant correlations essentially influence commemorative architecture in their respective dimensions more. Attributes that display strong significant correlations with one another, serve to influence each other, creating

positive synergy in promoting commemorative architecture. Those with a weak associations need more reflection and effort in design in order to determine how they can be re-crafted for improved impact.

4.3 Implications of findings

4.3.1 Theoretical implications

The study affirms the combined influence of spatial, ethical, temporal and political dimensions and their twelve attributes as interactive expressions of a societies values and aspirations in in shaping public perception and engagement within commemorative spaces. It advocates for integrating the preservation of collective memory with critical regionalism to enhance public interaction. It orders these attributes into hierarchies of association, revealing ideal points of interventions and weak areas such as in the attributes of political dimensions that need further reflection in the design process. Commemorative architectural designs could apply these insights to strengthen the role of commemorative architecture in sustaining collective memory and fostering national identity.

Practical implications

The findings highlight key design considerations for Kenyan commemorative spaces to include:

- Interactive and flexible design elements that enhance public engagement.
- Contextual information to sustain collective memory and convey the social values of healing, national identity, unity resistance, equality, self-determination, reconciliation, justice and resilience. Accessibility which would directly influence public use of commemorative spaces.

These considerations are founded upon the four dimensions of commemorative architecture and their respective attributes, vis:

- First is the spatial dimension (form and structure, size and proportion, Lighting and ambience as well spatial organisation).
- Then follows the ethical dimension (colour, contextual relationships, cultural symbols as well as materials and texture) also provides a sound reference here too.
- Finally, comes the temporal dimension (flexibility and adaptability) that brings on board pertinent useful value too.

Further well-thought-out manipulation and articulation of these nine attributes in design is necessary. They must be better contrived in order for them to resonate with the people's values and social aspirations. This would ensure Kenya's commemorative spaces remain relevant and be able to effectively reflect the nation's collective memory and values. The attributes of the political dimension were seen to have distinctive impact even though entirely lacking internal associations or having inverse ones. These included reckoning versus silence, symbolism and national identity as well as evolving narratives. They can be relied on to bring success in the portrayal of commemorative spaces as empowering communities and should therefore be used more.

5 Recommendations

A resulting eleven clusters of design and space use considerations that derive from the twelve attributes of the four dimensions of commemorative architecture are volunteered here to guide policy and action. These range from the formation of open layouts and spaces, lighting, and ambience, flexibility and adaptability, colour, scale, proportion, texture and cultural symbols, balancing narratives, interactive design features, security and upkeep, and enhanced historical interpretation. Sensitive design that moves out of the literate realm of professionals to capture simple down to earth, honest perceptions of the users is however very necessary. The attributes identified here can contribute to the building code, informing national, Country or sector frameworks for acceptable standards for the design of commemorative public spaces, monuments and museums. They can be captured in pertinent legislation and or regulations at these three levels of governance. Building regulatory bodies such as the National Construction Authority, the Board of Registration of Architects and Quantity Surveyors and even professional associations like the Architectural Association of Kenya (AAK) can be empowered through such a guide to enforce good practice standards by design and construction professionals.

5.3 Form, structure, and spatial organisation

The form, structure, and spatial configuration of commemorative spaces are critical as they shape physical and emotional experiences. Expansive forms symbolise freedom, while smaller, constricted forms represent oppression, creating a simulated experience of the events commemorated. Spatial layouts guiding movement toward a focal point evoke journeys of struggle or triumph. Conversely, maze-like designs elicit disorientation and chaos. These considerations can be put to good use to inform designs of commemorative spaces and achieve the intended purposes. They must however be tested for effectiveness to avoid merely satisfying the informed perception of designers and marginalising the users whose perceptual levels bear little understanding of refined design theories.

5.4 Contextual relationship

Planners and architects are encouraged to anchor commemorative spaces to their surroundings. This enhances authenticity and resonance. They should locate memorials in historic sites or landscapes. Such decisions would amplify the significance of memorials by rooting them in tangible pieces of collective memory. Once more a grounds people perceptual approach is necessary for acceptability by users to be achieved.

5.5 Open layouts and courtyard spaces

Designers are guided to use open layouts and courtyard spaces in forming commemorative spaces. These foster community engagement and flexibility, allowing spaces to adapt to changing cultural, political, and social needs. These kind of designs encourage interaction, fostering a connection between the community and its historical narratives. In this way, they are able to

reinforce collective memory. A clear understanding of the client users is an absolute consideration that would help adapt the designs to suit the day-to-day visitors of these spaces.

5.6 Lighting and ambiance

Strategic lighting enhances mood and symbolism. Diffused lighting creates calm, reflective environments, while dramatic lighting highlights key elements like statues and murals. Effective lighting design elevates the emotional resonance of the space. Careful practical use of lighting should be grafted into designs appropriately.

5.7 Flexibility and adaptability

Adaptable spaces ensure relevance across generations by accommodating events, educational programmes, and shifting public perceptions. It sustains the commemorative purpose over time. Designs should inculcate such adaptability for maximized value.

5.8 Colour

Colour schemes convey emotions and themes. Muted colours foster a reflective ambiance, while brighter schemes emphasize specific narratives. Earth tones reflect heritage and sustainability, and culturally significant colours tie spaces to specific groups, enhancing relatability. Good design needs to recognise these aspects and put them to good use in a manner that is sensitive to local culture.

5.9 Scale, proportion, texture, and cultural symbols

These elements subtly reinforce themes. Larger-than-life sculptures inspire awe, while human-scale spaces foster intimacy. Texture adds depth, and cultural symbols link spaces to specific identities, enriching their commemorative value. Designers should deploy these elements as needed in their design schemes to evoke empathy with users.

5.10 Balancing narratives

Commemorative spaces must balance narratives of colonial oppression with post-independence progress. Exploring broader impacts and including overlooked stories ensures a comprehensive and inclusive representation of history. This is a necessary strategy to bring to bear for good design.

5.11 Interactive design features

Interactive elements like digital kiosks and audio guides engage younger audiences, making history accessible and relevant. These features enhance the educational and commemorative value of spaces, addressing generational shifts in engagement. Spaces should be enriched with these functions in order to improve the intended purposes well.

5.12 Security and upkeep

Ensuring visitor security boosts public perception and usage of commemorative spaces. Design choices minimizing maintenance requirements ensure longevity. They achieve sustained community value without excessive resource strain. This is an important consideration for designers to bear in mind in the solutions they proffer.

5.13 Enhanced historical interpretation

Designers should strive for comprehensive narratives, incorporating lesser-known stories, marginalized groups, and darker aspects of history. This enriched perspective fosters deeper understanding and engagement with the past. By integrating these elements, commemorative spaces can effectively express Kenya's social values and aspirations. This in effect then fosters collective memory while addressing the complexities of the nations' history and progress.

6. Future research directions

6.1 Longitudinal studies on social interaction

Conducting longitudinal studies could examine how public engagement in commemorative spaces evolve. Such ventures would offer more in-depth insights into the impact of architectural design on the use of commemorative spaces that match aspirations and values of a society.

6.2 In-depth regional analysis

Expanding the research to other regions of Kenya would provide a more comprehensive and diverse perspective of how commemorative architecture expresses social values and aspirations. Kenya's struggle for freedom and democracy would ideally remain the focus. It would be of value in such diverse settings to determine how these spaces are utilised and perceived. This broader approach would yield insights into regional variations in collective memory.

6.3 Longitudinal studies on memory erosion

Conducting longitudinal studies could examine how the significance of commemorative spaces shifts over time. Valuable insights into the long-term impacts of architectural design on collective memory would thereby emerge.

7 Concluding remarks

This study underscores the importance of design in Kenya's commemorative spaces for fostering public engagement and collective memory. Thoughtful design, active community involvement, preservation, and education ensure these spaces remain relevant. The resulting designs enable the spaces to, effectively express Kenya's struggle for freedom and democracy. They also produce spaces that promote a historical understanding and reflection for future generations.

8 Ethical committee consideration

The study adhered to fundamental ethical principles concerning participant rights. It incorporated five key principles: informed consent, voluntary participation, confidentiality and anonymity, transparency, and accountability. All participants were initially engaged to ensure they comprehended and were comfortable with the objectives and procedures used in the interviews and observations involving them. It was clearly communicated that the research was self-funded and academic in nature, providing no additional benefit to the researcher beyond scholarly contributions. Participants were granted the freedom to choose whether to take part in the study and could exit the process discreetly at any time they wished, thereby preserving their dignity and avoiding any stigma.

The research avoided collecting personally identifiable information by anonymizing participant identities through coding instead of recording respondents' names. A deliberate data management strategy was implemented to ensure all data was stored securely, with access restricted solely to the researcher, supervisors, and other authorized personnel.

The findings, outcomes, and implications of the study were shared with respondents in an accessible and transparent manner, utilizing their internal community management structures. Similar information was also disseminated to relevant institutions from which key informants were sourced. The study employed a neutral, non-coercive language while honouring the autonomy of all participants. This approach fostered equality between the researcher and respondents, thereby minimizing bias or prejudice during the observation or interview processes.

References

- Al-Hoshary, Mouthana Mahmood and Hamza, Abbas Ali, 2023. Architectural Expression and Identity- Case Studies in Iconic Building Designs. Tuijin Jishu/Journal of Propulsion Technology ISSN: 1001-4055 Vol. 44 No. 4 (2023). Pp. 1700-1719.
- Adeyemi, A., 2024. Kwame Nkrumah Memorial Park. (n.d.). About the mausoleum. Ed. MoMAA. Retrieved from <https://www.nkrumahmemorialpark.org> and <https://momaa.org/the-kwame-nkrumah-memorial-park/>
- Anderson, D. M., 2005. Histories of the Hanged: The dirty war in Kenya and the end of the empire. W.W. Norton & Company.
- Apartheid Museum. (n.d.). History and mission. <https://www.apartheidmuseum.org>
- Attwa, Y., Refaat, M., & Kandil, Y., 2022. A study of the relationship between contemporary memorial landscape and user perception. Ain Shams Engineering Journal, 13(1), 101527. <https://doi.org/10.1016/j.asej.2021.06.013>.
- Bechtel B., Robert, 1997. Environment and Behaviour: An Introduction. Sage Publication, Thousand Oaks London, New Delhi.
- Bhabha, H. K., 1994. The Location of Culture. Routledge.

- Bianco, Lino, 2018. Architecture, values and perception: Between rhetoric and reality. *Frontiers of Architectural Research*. Volume 7, Issue 1, March 2018, pages 92-99. <https://doi.org/10.1016/j.foar.2017.11.003>.
- Blacklaw, J., & Kola, N., 2023, November 1. Kenya Truth, Justice and Reconciliation Commission (2008-2013) African Transitional Justice Hub. <https://atjhub.csvr.org.za/kenya-truth-justice-and-reconciliation-commission-2008-2013/>
- Champion, E., 2018. Norberg-Schulz: Culture, presence, and a sense of virtual place. In *The phenomenology of real and virtual places* (pp. [page numbers]). Routledge. <https://doi.org/10.4324/9781315106267-10>.
- Cooper, Donald R. & Emory William C., 1995. *Business Research Methods*. Irwin Advantage series for Computer Education, Irwin series in Statistics, Chicago, McGraw-Hill Companies Inc.
- Cresswell, J. W., 2013. *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks.
- Cresswell, J., & et al. (n.d.). *Best Practices for Mixed Methods Research in the Health Sciences*. Retrieved 2023, from https://www.csun.edu/sites/default/files/best_prac_mixed_methods.pdf.
- Curl, J. S., 2001. *A Dictionary of Architecture and Landscape Architecture*. Oxford University Press.
- Elkins, C., 2005. *Imperial Reckoning: The Untold Story of Britain's Gulag in Kenya*. Henry Holt and Company.
- Frampton, K., 1983. Towards a critical regionalism: Six points for an architecture of resistance. In H. Foster (Ed.), *The anti-aesthetic: Essays on postmodern culture* (pp. 16-30). Bay Press.
- Fortes, T., & Nairobi, U. O., 2013. *Kenya Cultural Center: A Proposed Architectural Design Symbolizing National Identity*.
- Groat, L. N., & Wang, D., 1946. *Architectural Research Methods*. John Wiley & Sons, Inc., Hoboken, New Jersey, Second Edition, 480.
- Graves-Brown, P., Jones, S., & Gamble, C. (Eds.), 1996. *Cultural identity and archaeology: The construction of European communities*. Routledge.
- Guilford, J.P., and Frucher, B., 1973. *Fundamental Statistics in Psychology and Education*, New York, MC Graw-Hill.
- Günay, B., 2012. Museum Concept from Past to Present and Importance of Museums as Centres of Art Education. *Procedia - Social and Behavioural Sciences*, 55, 1250-1258. <https://doi.org/10.1016/j.sbspro.2012.09.622>.
- Halbwachs, Maurice, 1992. *On collective memory*. Edited, translated and with an introduction by Lewis A. Coser. Published in the *Heritage of Sociology*, a series edited by Donald N. Levine and Morris Janowitz (founding editor). University of Chicago Press.
- Thandiwe Matthews, 2020. *To be Equal and Free: The Nexus between Human Rights and Democracy. A Companion to Democracy #1*. Heinrich Boll Stiftung Foundation.
- Huyssen, A., 2003. *Present pasts: Urban palimpsests and the politics of memory*. Stanford University Press

- Inggs, J., 2015. Negotiating the past: The making of memory in South Africa. University of Cape Town Press.
- Lamba, D., Smith, D.L., 2014. Mau Mau Memorial Design Competition: Design narrative.
- Jaskot, Paul B., 1999. The Architecture of Oppression: The SS, Forced Labor and the Nazi Monumental Building Economy. Routledge. DOI: <https://doi.org/10.4324/9780203007679>. E-book, 2002.
- Kothari, C., R., 1996. Research Methodology: Methods and Techniques. University of Rajasthan, Jaipur, India.
- Maloba, W. O., 1993. Mau-Mau and Kenya: An Analysis of a Peasant Revolt. Indiana University Press.
- Maringa P., M., 2005. The influence of Social cohesion on the quality of the urban environment: A case of city of Nairobi. Unpublished Bachelor of Architecture Thesis, JKUAT.
- Maringa P., M., 2025. An Empirical Urban Study Research Methodology for Determining the Influence of Social Cohesion on the Quality of the Urban Environment: A Case of the City of Nairobi, Kenya. Innovare Academic Sciences Pvt Ltd Education Through the Ages: Past Foundations to Future Horizons, chapter 1. DOI: <https://dx.doi.org/10.22159/ETA.c1>.
- Mckee, Adams and Bransford, Scott, 2023. Fundamentals of Sociology. <https://docmckee.com/oer/soc/>
- Mugenda and Mugenda, 1999. Research Methods: Quantitative and Qualitative Approaches. Acts, Press.
- Muigua, Kariuki, 2021. Sustainable Development Goals and Social Justice in Kenya. Journal of Conflict Management and Sustainable Development, Volume 7(1). Pp. 23-53.
- Myers, G., 2003. Verandas of Power: Colonialism and space in urban Africa. Syracuse University Press.
- Naica, Christopher Matseshe and Maringa, Paul Mwangi, 2023. Behavioural Cues for Apposite Space Design. independently published. <https://www.amazon.com/Behavioural-Cues-Apposite-Space-Design/dp/B0BW2SDJMK>.
- National Museums of Kenya. 2024, October 31. In Wikipedia. https://en.wikipedia.org/wiki/National_Museums_of_Kenya#Nairobi_National_Museum_of_Kenya.
- Njamweno, B. M., 2023. Efforts of Different Regimes in Kenya toward National Cohesion and Integration, 1963-2022. African Journal of Political Science (AJPS), 11(2).
- Njenga, C., 2015. Contemporary African architecture: Lessons from vernacular traditions. Architectural Review, 230(1), 56-62.
- Njoh, A. J., 2009. Urban Planning as a Tool of Power and Social Control in Colonial Africa. Planning Perspectives, 24(3), 301–317.
- Njoh, A. J., & Bigon, L., 2018. History, power, and political architecture in Africa: Essays in ethnic and national identity. Routledge.
- Nora, Pierre, 1989. Between Memory and History: Les Lieux de Mémoire. No. 26, Special Issue: Memory and Counter-Memory (Spring, 1989), pp. 7-24 (18 pages). University of California Press. <https://doi.org/10.2307/2928520>

- Norberg-Schulz, Christian, 1980. *Genius loci: towards a phenomenology of architecture*. London: Academy Editions.
- Norberg-Schulz, Christian, 1985. *The concept of dwelling: on the way to figurative architecture*. Milan: Electa.
- Norberg-Schulz, Christian, 1988. *Architecture: Meaning and Place*. New York: Electa/ Rizzoli.
- Ochieng', W. R., 1995. *A History of Kenya*. East African Educational Publishers.
- Prunier G., 2008. Kenya: roots of crisis. openDemocracy. Archived from the original on 18 July 2019. Retrieved 18 October 2024.
- Rankin E., 2013. Creating/Curating Cultural Capital: Monuments and Museums for Post-Apartheid South Africa. *Humanities*, 2(1), 72-98. <https://doi.org/10.3390/h2010072>.
- Rankin, E., & Schmidt, L., (2009). The Apartheid Museum: Performing a Spatial Dialectics. *Journal of Visual Culture*, 8(1), 76- 102. <https://doi.org/10.1177/1470412908100901>
- Reichstag building, (2024, September 4). In Wikipedia. Retrieved from https://en.wikipedia.org/wiki/Reichstag_building/
- Ryan, T. (2013). *Sample Size Determination and Power*. John Wiley and Sons.
- Sanford, Jon, and Connel, R., Bettye, (Eds.) ,1998. Environmental Design Research Association Annual Conference, (EDRA).
- Sankale, J., 2022, August 3. A peek into history as Kenya remembers brave mothers and freedom fighters. Journalists for Justice (JFJ). <https://jfjustice.net/a-peek-into-history-as-kenya-remembers-brave-mothers-and-freedom-fighters/>
- Smith, A. D., 1991. *National identity*. University of Nevada Press.
- Smith, L., 2006. *Uses of Heritage*. Routledge.
- Smith, L. C., 2014. *Memory and reconciliation in Rwanda: The role of the Kigali Genocide Memorial*.
- Tanovic, Sabina, 2019. *Designing Memory: The Architecture of Commemoration in Europe, 1914 to the Present. History - form and Aesthetics*. Cambridge University Press. Studies in the Social and Cultural History of Modern Warfare series. <https://doi.org/10.1017/9781108760577>.
- Thuku, Margaret Wachera, 2025. *The Influence of Social Aspirations and Values on Architectural Design – Expressing the Struggle for Freedom and Democracy in Kenyan Architecture*. Unpublished thesis.
- Trochmann, Maren B., and Guy, Mary E., 2022. Meanings Matter: The Relationship Between Constitutional Values and Social Justice. *Journal of Public and Nonprofit Affairs*. 8(2), 281–293. <https://doi.org/10.20899/jpna.8.2.281–293>.
- Uhuru Park., 2024, November 16. In Wikipedia. https://en.wikipedia.org/wiki/Uhuru_Park
- Vale, L. J., 1992. *Architecture, power, and national identity*. Yale University Press; 2008 2nd edition, Routledge.
- Waithira, G. A., 2010. *Post conflict healing and reconciliation processes in Africa: The case of Kenya* [Unpublished master's thesis]. University of Nairobi.
- Yamane, Taro, 1967. *Statistics: An Introductory Analysis*. 2nd Edition, New York, Harper and Row.

- Young, J. E., 1993. The texture of memory: Holocaust memorials and meaning. New Haven, CT: Yale University Press.
- Young, M., 2010, October 24. Berlin's Holocaust Memorial—Europe Up Close. <https://europeupclose.com/article/berlinsholocaust-memorial/>
- Ziesel J., 1984. Inquiry by Design, Tools for Environmental Behaviour Research. Cambridge: Cambridge University Press.