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The forest and the city: interpretative mapping as an aid to urban practice in sub-Saharan Africa

Maurice Mitchell

5 The Architecture of Rapid Change and Scarce Resources, CASS School of Art, Architecture and Design, London Metropolitan University

[AQ1](#)

ABSTRACT

10 Many African cities remain predatory centres of consumption lacking the infrastructure that makes cities work elsewhere. Research in Freetown, Sierra Leone, indicates that latent, local topographical and institutional resources can strengthen civic infrastructure in the process of place-making and thereby build confidence in city scale institutions. The paper asks what part cultural memory, embedded in the forested topography, contributed to the foundation and resilience of three urban settlements and whether this contribution can be sustained in the face of urban infrastructure developments such as rapidly expanding road networks. It describes how place-based resources are used by local residents to mediate the impact of city-scale initiatives. However, they are fragile, hidden from a wider view and often ignored by city-scale practitioners. The paper concludes that in order to provoke a more fine-grained debate about civic infrastructure provision, urban practitioners should employ local survey and interpretive drawing techniques to explore place-based memory in support of a more inclusive and interconnected, non-predatory African city.

Introduction

The World Bank says that African cities:

30 ... cannot be characterised as economically dense, connected and liveable. Instead they are, crowded, disconnected and costly. ...What ... sets them apart from cities elsewhere in the world ... is that ... African cities are [primarily] centres of consumption, where the rent extracted from [the sale of] natural resources is spent by the rich. This means that they have grown while failing to install the infrastructure that makes cities elsewhere work. (*The Economist* 17 September 2016, 50)

35 Research carried out between 2007 and 2013 in Freetown, Sierra Leone, found that disconnection between discrete urban neighbourhoods was inhibiting the networked assembly of urban places where diverse populations could fruitfully interact in the process of city making (Mitchell et al., 2013). Since then an extensive network of new roads has increased connectivity between urban settlements.

[AQ2](#)

Major road building had commenced by 2007 when the Chinese Government, having been granted access to the mineral deposits which could be dredged from the bottom of the Sierra Leone River, had already constructed a newer, wider Peninsular Road involving the largely uncompensated destruction of buildings along the route (interviews, 2012). By 5 2017 the expanded road network appeared to interlink neighbourhoods previously hidden behind escarpments and bounded by steeply falling streams. Whilst these roads provide the positive benefit of increasing connectivity, they run the risk of riding rough shod over places rooted in the landscape. Such places are often hard won, having been carved out from the forest by the settlers themselves. The memories associated with the hardship and physical labour involved often provide the foundation myth which grounds such settlements in space and time. Nevertheless, often hidden from plain sight, they are difficult for outsiders to see and, consequently, usually ignored by modern city builders. Such hidden topography is vulnerable to premature destruction by city wide initiatives such as the construction of new road networks.

15 Architectural practice can curate place memory as an enduring resource for trust based, non-violent, civic institution building (Boyer 1996). In Asian and European cities enduring urban order has been provided by a skeletal framework of permanent architecture made up of buildings such as churches and temples, mosques and town halls, palaces and parliaments, connected by key festival routes and commercial thoroughfares. Here, permanent 20 architecture has played a key infrastructural role in embedding and interpreting memory as a service to the resilient city. However, before the second half of the twentieth century, built fabric south of the Sahara was largely impermanent. Where fabric permanence in built architecture was missing, the physical topography itself was imbued with significant memories forming a constantly changing chronotopical landscape (Ferme 2001).

25 The recent rapid growth of African cities has largely occurred without the benefit of significant civic architectural infrastructure having endured from the past. As a result, the trust, confidence and decorum required for non-predatory civic exchange to occur between diverse populations lacks adequate architectural underpinning.

Using eight maps compiled from field research which involved measured surveys of particular neighbourhoods, diaries of making projects and interviews with local residents 30 (Mitchell, Tang, and Patwari 2013), complimented by a review of historical, geographical, anthropological and narrative literature, this paper examines continuity and change within the Freetown peninsular over the last 225 years.

35 It asks what part did the fitting of memory to physical topography play in the physical and institutional formation of three case study settlements located in close proximity to each other but established nearly 100 years apart? These three case studies capture and frame, in space and time, emerging urban patterns and forms, with both physical and institutional attributes. Each settlement was founded on diverse and often contradictory memories, leading to ideas of the city which were projected on to the forested peninsular.

40 The paper then questions the comparative resilience of these place-based resources in the face of the rapidly spreading road network. It makes recommendations for urban practitioners wishing to harness place-based resources in the making of a more inclusive and connected, non-predatory, African city.

Case study 1: early Freetown

The slave diaspora and the forest topography

The lion mountain, rain forest, rivers and Atlantic Ocean

5 The Sierra Leonean River discharges into the Atlantic Ocean beneath the rocky 'Lion Mountain' peninsula. Labelled 'the watering hole' by the Portuguese, it provided a large natural harbour whilst the tall peninsula became a distinctive landmark for **sixteenth** and **seventeenth-century** seafaring slave traders along the otherwise long, low coastline of West Africa.

10 [At this distinctive location Europeans] could anchor and trade not only with the local Temne people but also with Muslim merchants who had navigated rivers and trudged through deep forests all the way from the edge of the Sahara to this singular location ... (Author 2013, 15)

The inland slave trade was conducted along the network of rivers and forest paths running from the headwaters of the River Niger to slave 'factories' located at navigable river heads in Sierra Leone. By the **eighteenth century**, these rivers and tracks had become highways for predation to be avoided by ordinary people. Villages were relocated in the most inaccessible places with only slaving settlements remaining on the coast, riverbanks and roadsides. This was in stark contrast to nearly all **sixteenth-century** settlements which had been located alongside roads and rivers (Shaw 2002).

20 Even as late as 1968 the impact of centuries of internecine warfare associated with slave trading still left a sinister legacy of defensive villages deep in the forest (Siddle 1968).

In this hidden world, the cover of forest darkness afforded protection from menace and violence. Houses were re-imagined as 'ritually closed containers' forming magical walls 'obstructing uncontrolled and harmful movement', real or imagined, in a topography of wandering spirits (Shaw 2002, 101).

25 It is not at all surprising that, in these circumstances, local families would hide in the forest behind earth and timber palisades and mystical practices to avoid enslavement. It is perhaps here in the depths of the forest that ideas of darkness, hiding and divination, still found in Kaningo today (see Case Study 3 below), originated.

Memories of slavery and the idea of Freetown

Escape from slavery: establishing the Province of Freedom

30 The slave diaspora intermingled European and African culture around the Americas, the Caribbean and back again to West Africa. Eventually, in 1792 a group of 1196 freed slaves, the Krios, were deposited on the Sierra Leonean peninsula in the midst of a still functioning slave trade. These artisans and farmers were lately from Carolina by way of Nova Scotia, and had lobbied the anti-slavery society in Clapham, London, to finance their passage back to Africa. They had committed themselves to hack out a new life from the rain forest and build a newer, freer life.

40 Once ashore the Krios gathered around a large cotton tree and gave thanks for their deliverance – one of the few memories still embedded in the city fabric (see below). The settlers chose a piece of forest land sandwiched between Tower Hill and the natural harbour to the **north**, bounded by Nicol's Brook to the **east** and Sanders Brook to the **west**. With considerable effort they cleared the dense virgin forest and matted undergrowth and settled within these boundaries, establishing a new civic entity: 'The Province of Freedom'. The layout

A03

of the new city was based on progressive and democratic ideas promulgated by Granville Sharp which were 'a forerunner of the co-operatives of the nineteenth century, and of Ebenezer Howard's communal ownership model for the garden cities' (Home 1997, 29).

The democratic city grid

5 Eventually a rectangular grid of 12 parallel streets equidistant from one another and four crossing streets were laid out on flat land 200 metres back from the coast. Gaining familiarity with this imposed gridded landscape was aided by naming streets after company directors or other prominent British figures. A large cotton tree growing at the end of Walpole Street just below Fort Thornton, the seat of government, was preserved from clearance to act as a
10 central point in the city commemorating that first service of thanksgiving.

Timber 'board' houses were built within walking distance of work and markets. Whilst the early settlement was compact for defensive purposes, first plot sizes were equally sized, generous and individually owned. This was because

15 ... the psychological need for external symbols of freedom felt by the settlers long denied in slavery all chances of acquiring material wealth, and ... [because the] cultural and material aims and standards [were] European-American rather than African oriented. (Davies 1968, 119)

It was perhaps because of this need for the freedom to acquire wealth that at this time property in Freetown was held freehold and could not be seized for debt, securing investment in property.

20 In contrast to the freely accessible houses and loosely fenced courtyards of the local Temne people, the timber boarded Krio houses were closed and the territory clearly defined. As freed slaves, Krios were happy to live apart; they did not know the local language and did not aspire to integrate with the local way of life. They and their forebears had once been slaves and they had no intention of being dragged off again. Hence the first Krio timber
25 board houses did not have verandas which invited visitors to enter through a shaded, cool but concealed space. Rather, a person entered directly, being required to state their business at the boundary of the property in the full glare of the sun.

During the nineteenth century, Krio timber boarded dwellings evolved into taller and more permanent town houses. Although now rapidly deteriorating, some of these houses
30 are still around today. A sample was surveyed in 2012 representing an archive of the 200 years of history embodied within their fabric (Mitchell, Tang, and Patwari 2013).

Freetown's Krio founders sought to broker a physical fit of their new institutional order, the city, with the wild and unpredictable forest topography they had just entered. Having established the boundaries, they sought to nest within them a rectilinear gridded layout of
35 streets and building plots. Cut through the virgin landscape, this rectangular grid ordered the cleared land it demarcated and also connected the adopted landmarks of cotton tree and fort, between mountain and sea. Calibrated by the grid, private land could be equally distributed to settler families and a streetscape established as shared public territory – a place culturally different from that outside the new settlement.

40 *The growth of Freetown*

Freetown's urban villages

Once slave trading was declared illegal throughout the British Empire in 1807, the British navy patrolled the coast of West Africa, impounding slave ships, depositing freed slaves and prosecuting their crews in Freetown, swelling the number of settlers.

A series of linked settlements grew up around the edge of the downtown street grid at river crossing points where there was access to water. Pademba's Town: a pre-existing Temne settlement was renamed Portuguese Town (1801), becoming home to Portuguese speaking freed slaves; Kroo Town (1816): a settlement of transient coastal people on Sander's Brook, Congo, and Madongo Towns (1816): on the 'Congo' River, of slaves freed by British naval patrols, and re-settled further inland, who then moved to the edge of Freetown to access the city more easily whilst congregating with others from the same language group. Christchurch, on drained swamp land (1835–1840) on either side of Samba Gutter, was made up of mission based congregations settling around their churches and chapels. All these diverse groups arrived by sea and formed the constituency from which Freetown Krio society was formed (Fyfe 1962).

During the nineteenth century Krio culture spread east along the coast to the Belgian Congo and saw Krios in trade, medical, educational and administrative posts and as missionaries all along the seaboard. Krio identity developed from its Western roots of church, education, trade and dress, and traditions passed down from the original settlers, its own language derived from English and its own way of building houses (Harris, 2012).

By the end of the century, Freetown was booming and the houses of the more wealthy in central Freetown had acquired verandas and external stairs. However, today most of these nineteenth-century timber houses along with their attendant churches, chapels and meeting halls have long been replaced by twentieth-century concrete versions. Little of this boom time for the Krio economy and culture remains embedded within the city fabric.

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Case study 2: the forested Hill Station and the City of Freetown

Escape from the polluted city to a healthy garden enclave

As a thriving West African metropolis, Freetown saw a significant population increase, putting pressure on the meagre water and sanitation infrastructure, leading to declining public health standards. Europeans found the city polluted and congested and the alien noises of night time drumming and daytime calls to prayer uncongenial. Downtown clean walkable pavements were scarce and sunbaked road surfaces could be overwhelmed with red liquid mud in the rains.

In 1911 there were only 558 Europeans out of a total Freetown population of 34,090. However, West Africa was regarded as the 'white man's grave' and high morbidity was a burning issue for this 1.6%. Dr Ross, the pioneer of research into the life cycle of the malaria parasite, tested his theories in Freetown in 1899. His conclusions exacerbated racial prejudice by giving credence to the misplaced perception that by isolating the European community from their African servants at night they might avoid the depredations of the anopheles mosquito (King 1995).

Memories of the English garden

By the turn of the century, a desire for the creation of a separate residential enclave for expatriate families away from the damp, dust, noise, city smells and the mosquitoes emerged. The cool, wooded peninsular heights above Freetown affording long tranquil views over the sea seemed to offer a suitable site on which to build the metaphor of a homely, healthy English landscape.

Classic English gardens derive special qualities from the variety of long, medium and close views afforded from, say, a galleried house, key contrived locations within the garden and from changes in these views as the seasons progressed. Freetown Hill Station certainly has an exciting prospect over the gathering storms as they charge up the mouth of the Sierra Leone River. However, up close the vegetation is a permanent luxuriant backdrop which could lead to a sense of monotony amongst those confined to the house and yearning for the seasonal variation of more temperate climates. Up above the city, the atmosphere, landscape, vegetation and people could seem both fascinating and boring, impelling and isolating to European eyes (Rhys 1997).

The road climbed upward. On one side the wall of green, on the other a steep drop to the ravine below. We pulled up and looked at the hills and the blue-green sea. There was a soft warm wind blowing but I understood why ... [it was] called ... a wild place. Not only wild but menacing. Those hills would close in on you...What an extreme green, ... Everything is too much. I felt as I rode wearily after her. Too much blue, too much purple, too much green. The flowers too red ... The hills too near ... (Rhys 1997, 42)

Memories of the Indian Hill Station

Hill Stations originated in British India for Europeans to lead relaxed and healthy lives away from the hot, dusty city of Delhi. Here, retreat from the city was a slowly enacted seasonal pilgrimage, but in Freetown a rapid daily commute was envisaged. However, without metalled roads and motor vehicles, the expatriate community had to wait until the coming of the railway in 1896 before a daily commute over the steep terrain became feasible. So it was that, between 1902 and 1904, a 5.75 mile rail track was laid from central Freetown upwards to the new Hill Station. This narrow gauge single carriage commuter train ran until 1929 to suit the office hours of government officials.

Freetown's Hill Station houses were a newly popular design of timber bungalow perched on tall steel pillars over the edge of the escarpment to catch the breeze and so mitigate the effects of damp and dust. The first 20 houses were assembled from pre-fabricated kits sent out from England. Residents had access to a church, hospital and tennis courts at the Hill Station Club.

The vast majority of Indian Hill Stations were founded between 1820 and 1860 in parallel with the increase in racial prejudice marked by legislation restricting the marriage of Europeans to Indians (Baker 2009). At altitudes between 1000 and 2500 metres, they were really the foothills of the Himalayas, not even the European Alps and certainly not akin to the gentle rolling scenery of the English Downs familiar to expatriate families. Freetown Hill Station is only 246 metres high – far too low to avoid the mosquito and there is even more rain here than down in the city. However, the sea breeze channelled up the hillside does make the micro climate cooler and helps to waft away flies and biting insects.

In Indian Hill Stations 10 servants were required to service one European with their dwellings tucked away, out of sight, at the bottom of the garden. Ross's findings meant that Africans were banished at night, leaving the British inhabitants alone with their dreams of home. Indeed, there was no evidence at all of servant quarters in the Freetown Hill Station houses surveyed in 2013.

Perhaps most corrosive of all, a strict social hierarchy was established. Whilst fitting well with India's caste system, it rejected the Low Church egalitarianism upon which Freetown

Krio culture was founded. Krios regarded themselves as an urban elite, having served as administrators, businessmen and clergy throughout British West Africa. They felt that the regulations banning them from Hill Stations after 6 pm were provocative and insulting.

Kite village

- 5 The Hill Station was flown like a kite tethered at the end of a railway line to the centre of the Freetown grid. This projection of an English homely aspiration on to the forested escarpment had mixed results. Assumptions about healthy living spawned instead a pathology of alienation rather than creative diversity. Krios became progressively excluded from the professions and government of the colony as a result of the segregationist policies which created Hill Stations (Spitzer, in King 1995).

Case study 3: Kaningo, a twenty-first century Freetown suburb

Escape from the conflicted city to memories of the defensive village

- 15 Refugees from the civil war (1991–2002) fled into the forest reserve, expanding a small settlement called Kaningo located on the less productive, steeper and rockier southern side of the Lumley Valley. They used the forest cover as protection, just as their ancestors had done to avoid enslavement two centuries earlier (see above). Expanding the settlement and building access routes involved felling trees, increasing the risk of flooding and erosion, and threatening to remove the psychological cover of darkness associated with forest living.

Memories of the dark protective forest as a chronotopical landscape

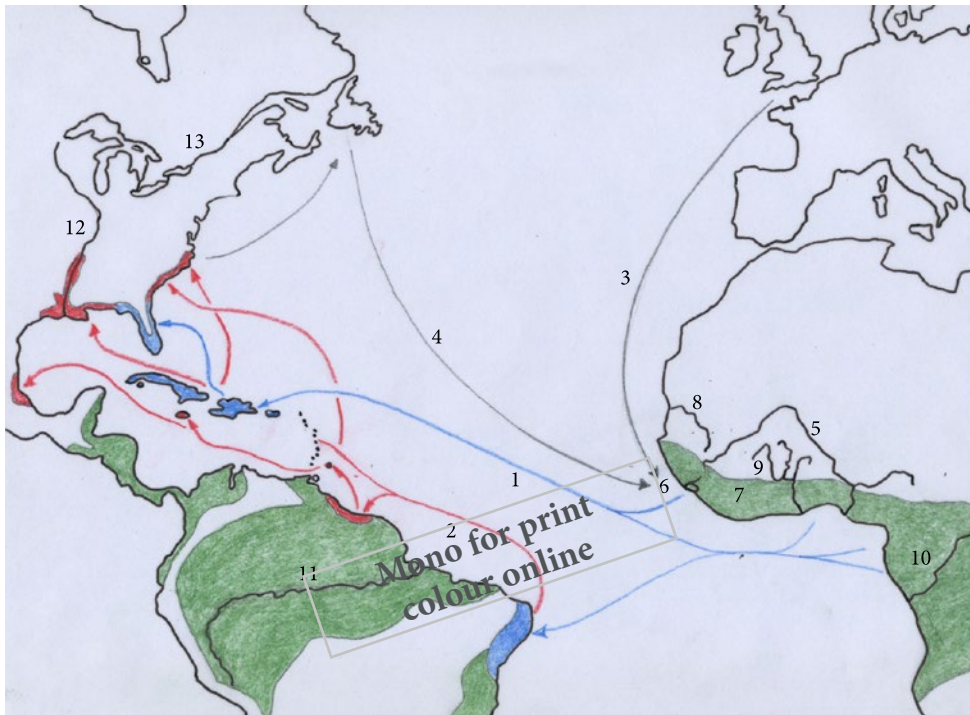
- 20 Shaw (2002) describes the forest landscape in Sierra Leone as one of 'hidden habitations'. Operating as a microcosm of embedded being, it became a memory map representing the forest dweller's place in the world where the tools of ritual closure and darkness could be used to make places and help navigate life's journey.

- 25 Practical memory: the association of historical events with objects in a landscape provided a model containing all the things happening in the world. Such landscapes are moral constructions linking the 'here' and 'there' at different times (Shaw 2002). They do not attempt to be historically authentic. Inhabitants assemble chronotopical landscapes to protect themselves from dangerous invisible presences by concealment in the memory landscape of the impenetrable forest. They do this by manipulating the spirit optics of darkness, providing instruments of power: disguise, illusion, penetration and revelation.

- 30 Excessive removal of the forest around Kaningo risks removing opportunities for the 'moral' construction of individual and collective chronotopical landscapes which have previously given residents a confident identity linked to their place in that landscape.

Driving roads up the Lumley Valley

- 35 Figure 6 shows the Lumley Valley as it was in 2010, some 10 years after the civil war. The Peninsula Road along the coast had recently been renewed and the virgin forest pushed back to the east and south of the valley.



Slaving and Resettlement Routes and Times

- 1 Transatlantic slave trade routes established before 1610
- 2 Transatlantic slave trade routes established 1610-1800
- 3 Black poor shipped from Britain to found Granville Town 1787
- 4 Freed slaves sail from USA via Newfoundland to found Freetown 1792

Topographical Infrastructure

Atlantic Ocean
Rainforests

- 7 West African rain forest
- 11 Amazon rain forest

Rivers

- 5 River Niger
- 6 Sierra Leone (Rokel) River and Peninsular
- 8 River Senegal
- 9 River Volta
- 10 River Congo
- 11 River Amazon
- 12 River Mississippi
- 13 St Lawrence River

Figure 1. The slave diaspora (seventeenth and eighteenth centuries). Source: Drawing by the author. Scale: Atlantic Ocean.

[AQ32](#)

The centipede

The better land to the north of the valley is accessed by Regent Road/Sheriff Drive, driven east from Lumley Junction. Running perpendicular to this road, secondary branch tracks feel their way gently down to the south or upwards towards to the north. This is represented in Figure 6 as a linear array of junctions feeling its way, like a centipede, up the valley, between river and escarpment. Whilst offering greater connection to the city for the residents of Kaningo, this centipede road also reduces the protection offered by the forest.

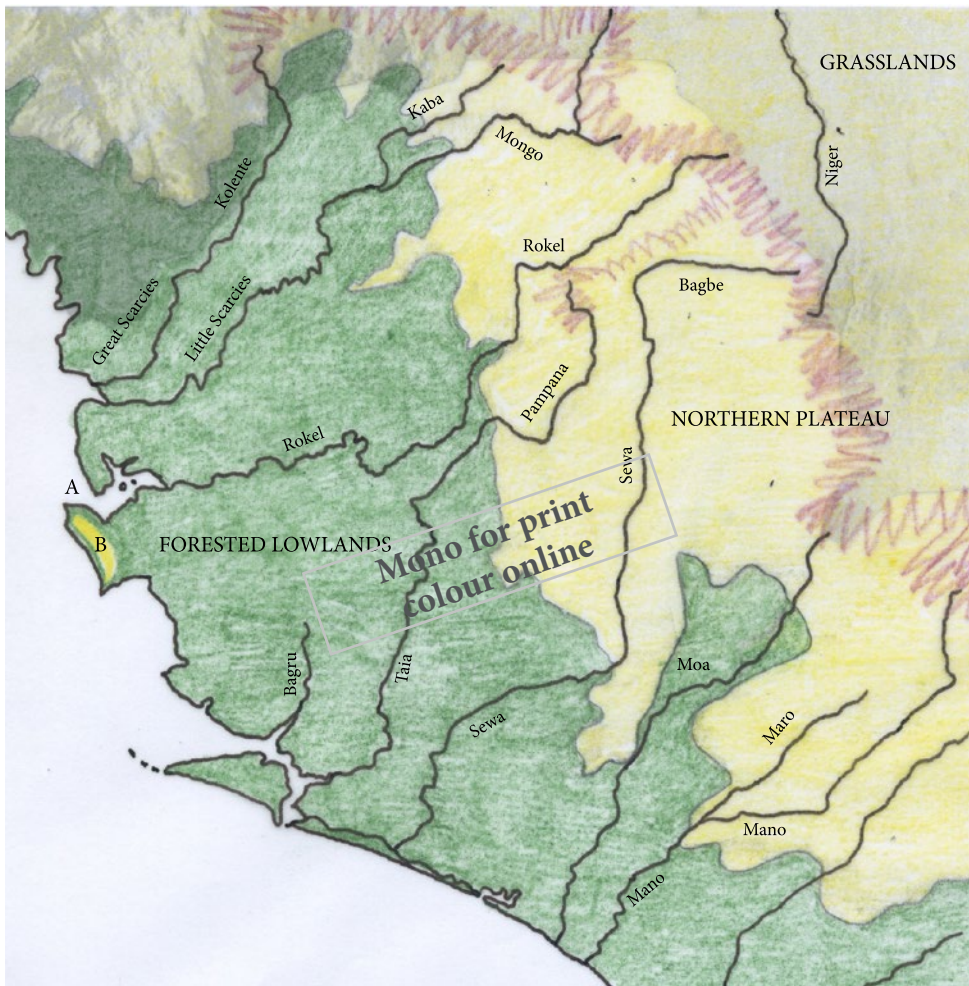
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The idea of powerful roads, junctions and crossroads

Long after slavery was outlawed, protective forests contained not only defensive villages (see above) but also 'hazardous but powerful roads and crossroads'. Shaw (2002, 23) describes

10

[AQ5](#)



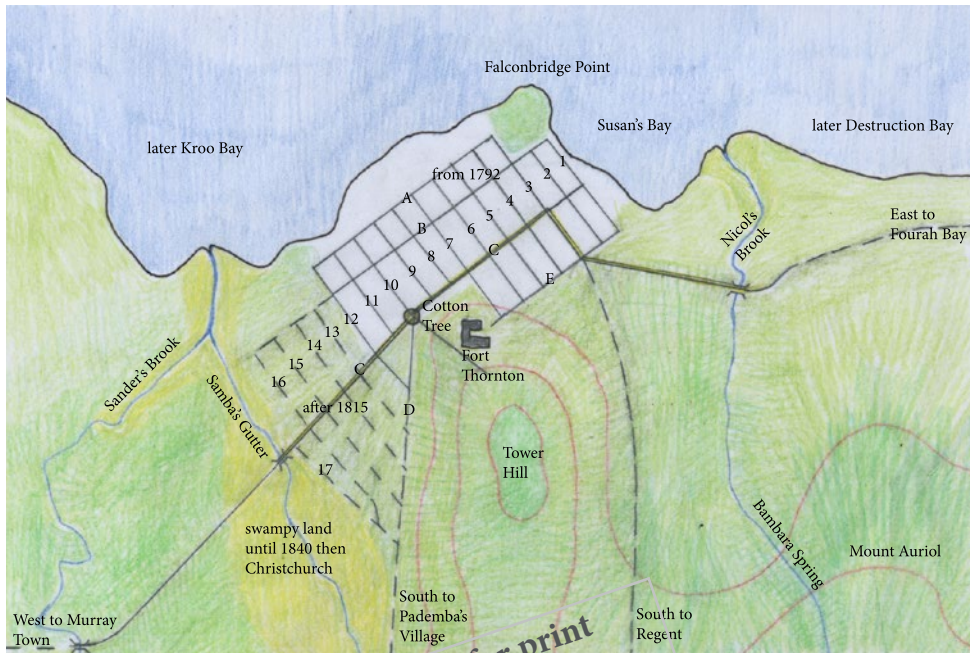
Upland Escarpment, River and Forest topography through which slave caravans found their way from the Western Sudanese Empires, situated in the grasslands of the Niger Basin, to slave 'factories' located at the wide mouth of the River Rokel (A: 'The Watering Hole') to join the Atlantic Trade under the Lion Mountain (B). Defensive villages were built deep within the forests to protect the inhabitants from marauding slavers.

Figure 2. The forest topography (seventeenth century). Source: Drawing by the author.

Scale: West African Coast to Savannah; Sierra Leonian Rivers and Forest.

the charged mystical power invested in roads by the Temne associations which she locates more broadly in West Africa by quoting from Ben Okri's book *The Famished Road* (1991). This book has a contemporary relevance in its description of an all-consuming road linking the forest resident to modern global city life.

- 5 According to Okri, when rivers were the principle forest thoroughfares, they became harbingers of both opportunity and threat to forest dwellers. Rivers have now been replaced by roads which draw 'life from all directions' and are where you can find 'all the messages you are looking for'. They lead to a mythical city and an enchanted world of riches. Appropriate the potency of the crossroads by capturing a vehicle and it will transport you to wherever
- 10 you want to go, giving you control over both good and bad (Shaw 2002).



Urban sub-types

Democratic city grid

1. East Row
2. East Street
3. Wilberforce Street
4. Rawdon Street
5. Howe Street
6. Queen Charlotte Street
7. Gloucester Street
8. George Street
9. Trelawney
10. Walpole Street Street
11. Pultney Street
12. Percival Street
13. Liverpool Street
14. Bathurst Street
15. Wellington Street
16. Waterloo Street
17. Upper Waterloo Street

- A. Water Street
- B. Davies Street (later Cross Street)
- C. Westmoreland Street
- D. Pademba Road
- E. Garrison Street

Existing physical infrastructure

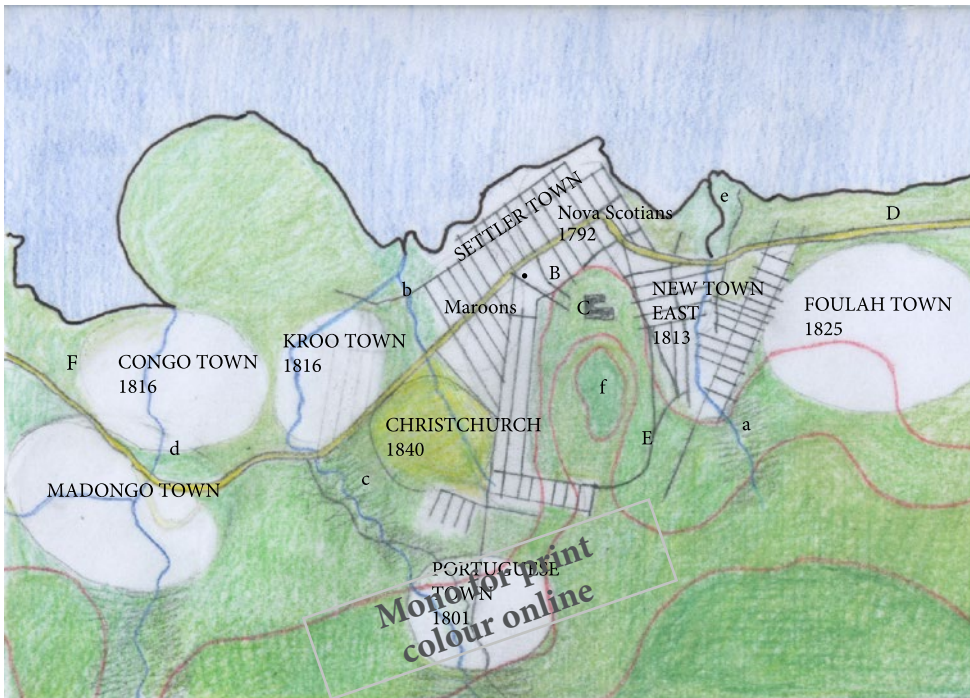
- Bounding rivers
- Sanders Brook
- Sambas Gutter
- Nicols Brook
- Bambara Spring
- Tower Hill

Civic Institutions

- Cotton Tree Memorial
- Fort Thornton

Figure 3. Early Freetown: equalizing grid (1800). Source: Drawing by the author. Scale: Inner City.

A perception of dwelling on the edge of a predatory city without the benefit of forest cover may explain Kaningo residents' wish to limit both their proximity to major roads and junctions and to vehicular passage into and through their settlement by controlling the river crossing and passage through the escarpment boundary.



Urban sub-types

Urban villages

- Settler Town
- Maroon Town
- Madongo Town
- Congo Town
- Portuguese Town
- Christchurch
- New Town East
- Foulah Town

Cultural Institutions

Constituents of Krio Culture

- Original Nova Scotians
- From Jamaica
- Language group of freed slaves
- Language group of freed slaves
- Portuguese speaking freed slaves
- Christian mission based settlement
- Most recently freed slaves
- Inland trading people

Pre-existing physical infrastructure

- a Bambara Spring
- b Samba Gutter
- c Sanders Brook
- d Congo River
- e Nicol's Brook
- f Tower Hill

New physical infrastructure

- D Fourah Bay Road (1818)
- E Circular Road (1818)
- F Road to Murray Town

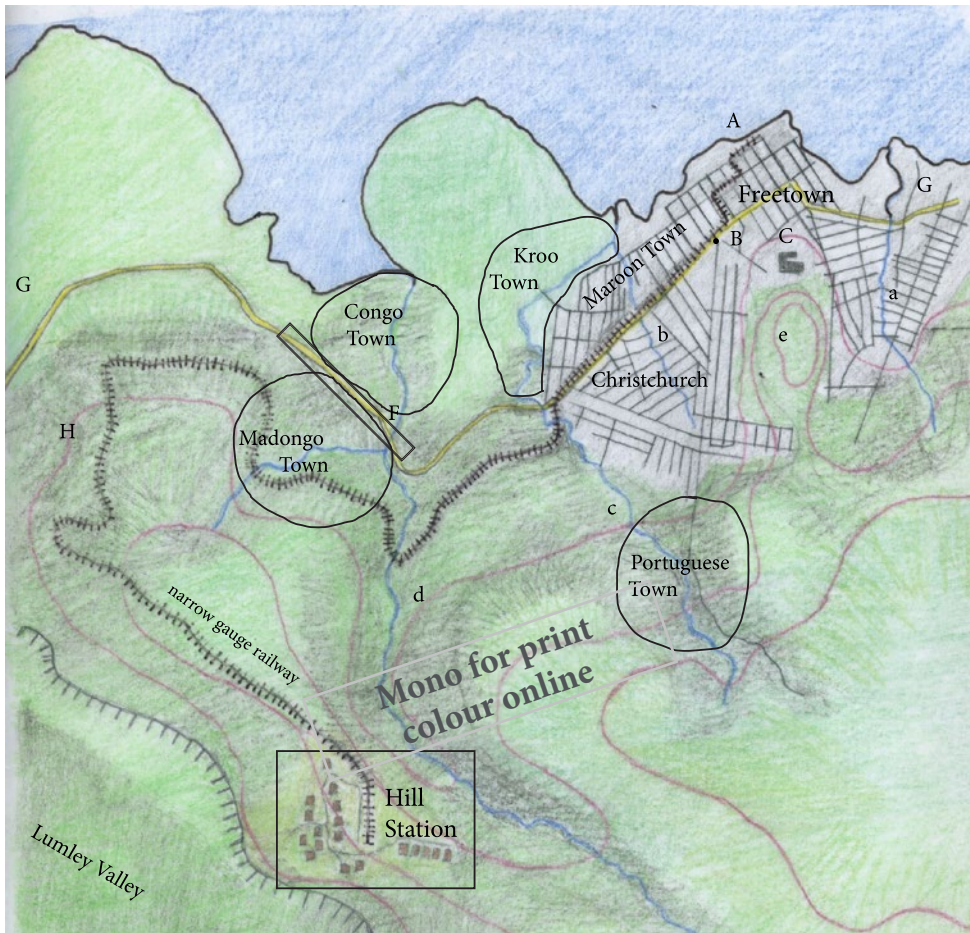
Civic Institutions

- B Cotton Tree and Law Courts
- C Government Offices

Figure 4. Freetown's towns and the rise of Krio urban culture (nineteenth century). Source: Drawing by the author.
Scale: City.

Kaningo's high street heart

Whilst the forest canopy endured, two paths pushed their way through gateways in the escarpments meeting at the pedestrian only Friendship Bridge at the Eastern end of Lumley Valley. The South Western escarpment gateway gave access to a small patch of forest land to the south of the river, a straight linear section of which became Kaningo's high street heart.



Urban sub-types

Urban Villages

Kroo Town
Congo Town
Madongo Town
Portuguese Town
Christchurch
Maroon Town

Kite Village

Hill Station

New High Streets, Roads and Railway

F Future site of modern External High Street
G New Peninsular Road
H Narrow gauge Railway

Cultural Institutions

Voluntary Associations

e.g. Kroo Fisherman's Assoc.
various
various
various
Churches and missions
e.g. Maroon Descendants Assoc.

Hill Station Club, English Gardens

Civic Institutions

A Water Street Railway Station
B Cotton Tree and Law Courts
C Government Offices

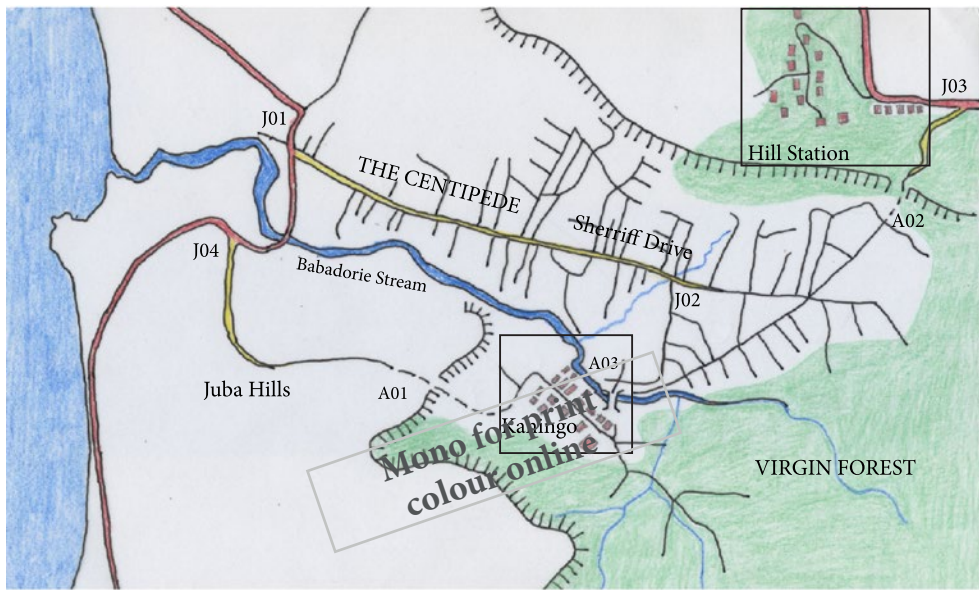
Pre-existing physical infrastructure

a Bambara Spring
b Samba Gutter
c Sanders Brook
d Congo River
e Tower Hill

Figure 5. The Forested Hill Station (kite village) and the City of Freetown (1902). Source: Drawing by the author.
Scale: City.

Bridge as a valve

Friendship Bridge is an escape valve allowing pedestrian access to Sherriff Drive Junction, just a taxi ride from the market at Lumley Junction. The limitation of motor vehicle access is jealously guarded. When the footbridge was swept away by flooding in July 2011, residents



Urban sub-types	Cultural Institutions (examples)	Pre-existing infrastructure	New infrastructure
Valve Village Kaningo	Mammy Queen Parade Poro Society Bundu Society Internal High Street	Babadorie Stream Escarpments Forest	Centipede Exploratory A01 Juba Hills Gate A02 Hill Station Gate A03 'Friendship Footbridge' J01 Lumley Jnctn market/bus J02 Sheriff Drive Jnctn market/taxi J03 Hill Station Junction J04 Juba Hills Junction
Kite Village Hill Station	Club and English Garden		

Figure 6. The Lumley Valley (2010). Source: Drawing by the author.
Scale: Valley.

who sought to reconstruct the bridge were stopped in their tracks and threatened by 'witch gun hunters'. Eventually the footbridge was reconstructed by United Nations engineers who would have built a more substantial structure if the local community had been more enthusiastic (interviews July 2013). Kaningo remains standing apart from its neighbours across the river, defined by its high street metabolism, contained by escarpment, forest and river with singular protection from vehicular access.

Valve village as protected civic assembly for the internally displaced

Kaningo has become a peri-urban neighbourhood on land cleared of trees and black granite boulders by back-breaking labour. Its residents consist of an uneasy, heterogeneous mix of different tribal backgrounds eking out an existence from subsistence farming on the edge of the city. They are struggling to establish a community of shared enterprise despite the deeply traumatizing effects of war.

At first, after the civil war, government officials responsible for developing social welfare and children's programmes were largely unaware of settlements like Kaningo which had sprung up spontaneously in previously reserved forest areas. Without the consent of the

authorities, displaced people had provided for themselves. In response, some politicians were accused of stifling local initiatives because community based organizations were undermining their political positions. The population of the Lumley Valley then began to expand rapidly. There was much speculation as land values rose. In 2006 a dispute over permission for building, which had been given by one part of a ministry and then taken away later by another part, led to an attempt by the authorities to demolish 'illegal' structures in Kaningo. Rather than improving infrastructural services, the government was seeking to profit from the demand for land. Local youths reacted violently. Tractors and bulldozers were set alight (interview, 2013) and the government official conducting the demolitions was abducted and killed.

Since then residents of Kaningo have successfully set up schools and clinics by themselves, before trying to access government support. Figure 7 shows the layout of the central section of 'Kaningo high street' which in 2013 was home to stalls and pavement traders, a mosque, cinema, clinic, bakery, market and government school, the necessary and hard won accoutrements of modern urban life.

The idea of the 'invisible witch' city

The experience of modernity for Kaningo residents is neither benign, totally new nor predictable (interviews, 2013). For many, the city is experienced at a distance, not as a democratic assembly where people can engage with others in good faith, but as the 'invisible witch' city, part of a fantastical global network – a place rather like an animated computer game containing prowling animal predators and displays of cannibalistic consumption. Here there is:

... a politics of the belly... [where] ... mineral wealth is stripped out and placed in foreign bank accounts ... [where there is the] ... highest infant mortality and the highest percentage ownership of Mercedes Benz cars. (Shaw 2002, 224)

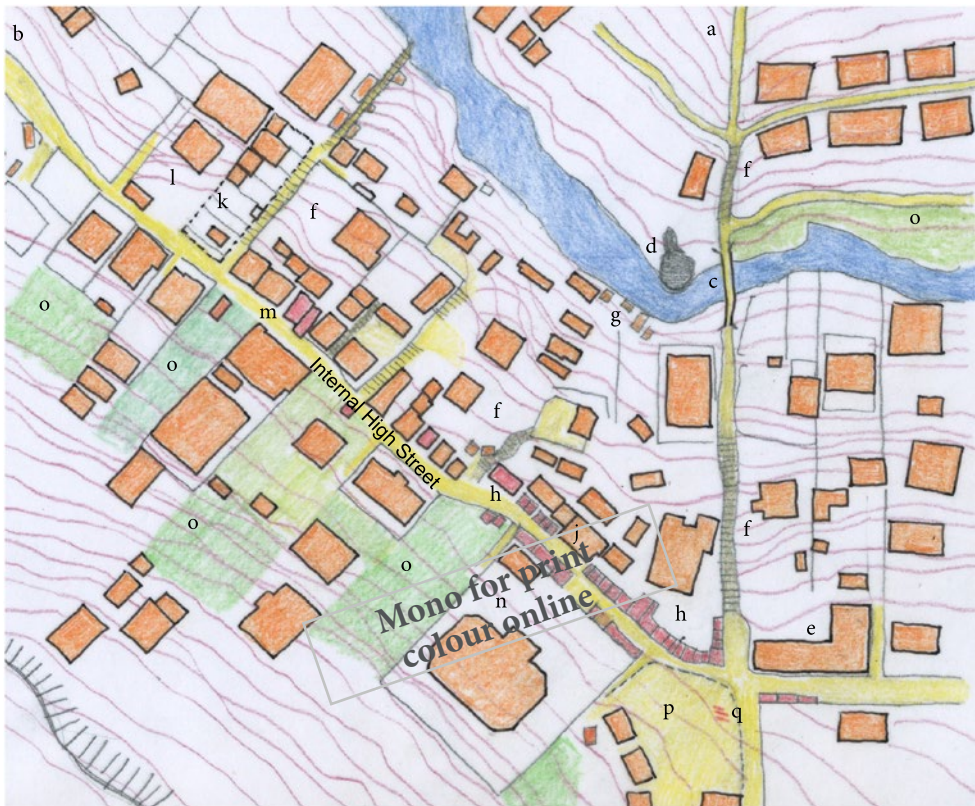
Far from erasing history and memory in favour of a fresh start, modernity in Sierra Leone has been generating memories for some time (Shaw 2002). Slavery and colonialism, trade and capitalism have a long history there, where modernity is not so modern.

It is perhaps for this reason that protection of the precious, hardly established and fragile civic assembly of Kaningo, with its foundation memories embedded in its living chronotopical landscape, is as important as any tangible new fabric infrastructure to its residents. Sheltered within its embrace children can look out with some confidence on the world around them.

The forest has been likened to 'the white man's cinema', offering the potential for spying on the world whilst hidden in its shadows (Shaw 2002). Such key-hole views of a globalized world are obtained by children after school on Kaningo 'high street'. Lined up outside shop doorways they view television sets on the back walls. Perhaps even more magically, they find a few pennies to enter the darkened cave of the high street's makeshift three-screen TV cinema. This emporium of delight presents youngsters with protected views of the outside world with a choice of the English Premier League or Chinese cinema (survey, 2013).

Kaningo's institutions: built on old memories in changing circumstances

The challenge for Kaningo's residents is not only how to protect the newly exposed settlement, and its youngsters, from the predations of modernity but also how to generate new capabilities which facilitate a healthy connection with its benefits. In addition to the contemporary offer of schooling and healthcare, Kaningo residents maintain institutions which

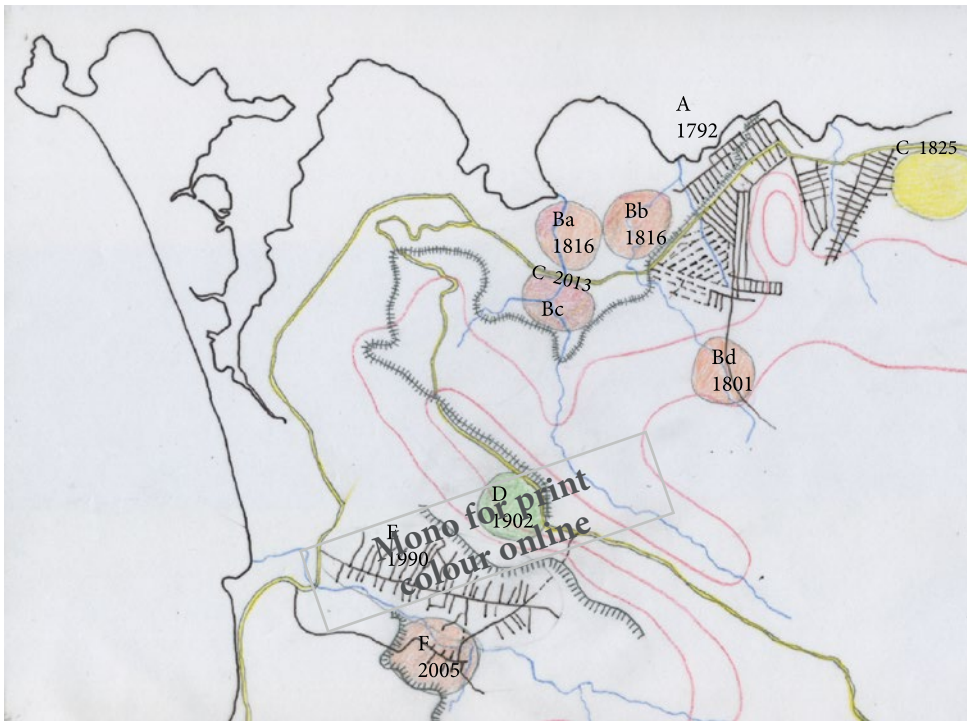


Urban sub-types	Cultural + Economic Institutions	Pre-existing infrastructure	New infrastructure
Internal High Street			
d	black rock washing point	Babadorie Stream	g toilet cubicles
f	largely female territories	f stepped terraces	c Friendship footbridge
h	market stalls and kiosks		n abandoned compound
j	Masjid N'Nabeweya (mosque)		
k	Pacy's Clinic		
l	Kaningo Bakery Compound		
m	Shack Cinema and TV Centre		
o	cultivated plots		
p	common ground and football field		
q	community noticeboards		
Civic Institutions			
e	Government School		
			a to Sheriff Drive Jcnctn market/taxi
			b to Juba Hills Junction

Figure 7. Kaningo High Street (valve village): protected civic assembly (2013). Source: Drawing by the author.
Scale: High Street.

are more deep rooted and immediately accessible to them. These include the brand new shiny corrugated iron mosque which nestles up against the wall retaining the high street.

Gender based institutions have been slower to emerge from the forest shadows. Down between the high street and the river are the settlement back lands. A large black rock embedded in the river bed just below Friendship Bridge marks the place where women gather to source water for drinking, cooking and washing. Out of sight below grade, such largely female territories can be a back door into the male world fronting on to the high



Urban sub-types	Location
A City Grid	Downtown Freetown
B Riverine Urban Village	Ba Congo Town
	Bb Kroo Town
	Bc Madongo Town
	Bd Portuguese Town
C External High Street	Foulah Town
	Congo Town/Madongo Town
D Kite Village	Hill Station
E Centipede Exploratory	Lumley Valley
F Valved Urban Village	Kaningo
Internal High Street	Kaningo

Figure 8. An assembly of emergent city forms (1792–2005). Source: Drawing by the author. Scale: Western Freetown Peninsular.

street above. The river bank is adjacent to and just below an array of domestic backyards, another example of prototypically female territory. Both the riverbank and the backyard are linked with orderly birth and growth in Temne folklore (Ferme 2001).

Also associated with river spirits and the back yard, but more problematic, are the ceremonies officiated by the Mammy Queen and undergone by girls to initiate them into womanhood and marriage within the secretive Bundu society. The practice of female genital mutilation, a fundamental part of these rites, is the subject of a major campaign by UN bodies to eradicate the practice. Nevertheless, the progression of a Mammy Queen through Kaningo serves as social glue. There is a Queen who lives in the forest behind Kaningo. She emerges from the shadows carried on a chair on men's backs across the river from below the settlement. News spreads of her arrival and the strong men from Kaningo join a line to help carry the Queen up the hill to parade her, and her entourage, along the high street (interview July 2013).

Community based institutions, established as a response to scarcity, are a direct expression of residents' aspirations and political will. Engagement of these institutions with the city is in the front line of meaningful cultural advancement. Where this has moved forwards politicians have registered local school initiatives, embraced a flurry of mosque building and co-opted Mammy Queens as bottom-up community representatives within a mainstream political process through supporting and legitimizing local institutions.

Kaningo high street acts as a stage set for this drama to be played out. From here bridge and escarpment gateways mediate interaction with the witch city. From this protective vantage point global perspectives are provided by both darkened television keyhole viewing and conventional schooling.

Interpretation and reflection

This paper examined the dynamic confrontation between the superficial spread of globalization and the secrecy and hidden power of the natural forested peninsular used by residents of Sierra Leone to protect themselves from predatory outsiders and to mediate a negotiated connection with their neighbours. In the face of the expanding city the protective embrace of the forest has provided residents with the opportunity to nurture their own traditional and emergent local institutions, initiating the provision of schools and clinics, markets and workshops. Physical topography continues to play a role in the timely assembly of the diverse places which constitute the city, whether or not resources for major infrastructure projects are available.

Forests have provided shade, building timber, fuel, secrecy, refuge and a sense of rooted belonging. Escarpments act as natural barriers punctuated by gateways. Rivers have offered a local supply of drinking water and reassuring boundaries penetrated by occasional bridged crossings. Into this landscape, roads and pathways have been introduced represented in this paper as grids, combs, centipedes and high streets. From this juxtaposition a civic topography has emerged characterized here as consisting of a downtown civic grid with urban villages, and outlier valve and kite villages.

Cities are places where diverse peoples can prosper by increasing engagement with each other. Wealth and the capability to generate wealth are supposed to follow from this increased connectivity. However, without the necessary trust and willingness to engage, different people can be in the same place without triggering the city, making potential of diversity (Sennett 1998).

In Sierra Leone increased connectivity was not followed by an increase in wealth for the majority. Rather, the city can appear as a predatory place where the rich parade their wealth and the city institutions required to increase the trust needed for positive interaction are missing or ill conceived. One of the side effects of new road infrastructure development has been to break down the protective carapace of the forest without providing, in its place, the robust and effective city institutions required for trusted civic exchange. Permanent architecture has not been employed to embed institutional memory in place. Previous architectural forms, such as the nineteenth-century timber board houses and Hill Station dwellings, are being allowed to rot away without protection or renewal. New civic architecture with more fabric permanence is slow to emerge. The downtown city grid and cotton tree marker are two of the very few fragments within which collective city memory abides.

The problem identified by the World Bank that African cities are essentially cities of consumption is mirrored in the contemporary notion of the powerful witch city, a city of chance and danger. This invisible city sits uneasily alongside the idea of the open city of capacity building and connectivity. Facing predatory global markets, from time to time residents have adopted attributes of both city and forest to aid their act of dwelling. As a result, slavery and civil war are not the only heritage of Freetown. The city also provided an early example of women's suffrage (*The Economist*, 11 December 2008), the base for 70 years of anti-slavery patrols, and is now the seat of an independent democracy, providing education and healthcare to its citizens. The forest not only signifies darkness and mystery, but also the potential for continuity in the enduring provision of renewable resources – a place of both escape and belonging.

Interpretative mapping

Eight drawings have been used in combination with the text to analyze infrastructures of movement and containment, protection and connection – based on roads and paths, escarpments and rivers, gaps and gateways. They show how, in 1792, the idea of a free city with its back turned to the memories of slavery was projected onto the landscape in the form of an equally spaced democratic city grid. Within equally sized plots a taxonomy of unique timber boarded town houses grew up. These houses are fast disappearing along with the memories of the first two centuries of Freetown's existence embedding within their rotting carcasses.

At the start of the twentieth century a colonial refuge was conceived as a Himalayan Hill Station and tethered like a kite to the city grid by a single track commuter railway. Now, by-passed by the broad sweep of a new arterial road, ignored and forgotten by the general population, its singular houses are neglected, their timber fabric steadily deteriorating.

Adjacent to the gridded city, riverine urban villages were founded with easy access to water, each settlement bound together by a different language grouping or tribal identity. More recently these contained and inwardly focused older urban villages have opened up or been superseded by linear ribbon developments sited along newly serviced main roads. Off these new roads a regular series of dead ended secondary roads and tracks sprout outwards, creating an array of comb-like forms establishing high streets of junctions and mini markets.

The idea upon which Kaningo was founded had a grim pedigree built on memories of hidden forest habitation in the age of slavery. Characterized in this paper as a valve village, it consists of a short stretch of high street, surrounded by dwellings and protected by escarpment and river boundaries from through and casual vehicular traffic. Local institutions have been assembled from a patchwork of remembered traditional forms through the practice of consensus politics. This new peri-urban village has developed resilience to predation through local civic solidarity:

[rather than a suffocating institutional discipline citizens have searched] ... out self-fashioning modes of signification which might provide a space of resistance by identifying a new mode of governmentality – the so called pastoral mode – which attaches more importance to the formation of a confessional self that is allowed more agency in return for making more of the self available. (Amin and Thrift 2002, 104)

Embodied urban practitioners need to find a reliable way to make these 'self-fashioning modes of signification' explicit through techniques such as local survey and interpretative mapping to reveal and articulate everyday civic practices.

Both the **v**alve and **k**ite villages have attempted to limit exchange with the wider city, **f**irst by resisting the conversion of a footbridge to a road bridge, **s**econd by excluding Africans during the night. In these respects they are similar to **t**wenty-**f**irst **c**entury **g**ated communities denying entry to all but residents and their guests. However, if power relationships are taken into account, the picture becomes more nuanced. The **v**alve village sees its healthy growth threatened by the predatory invisible city represented by the Mercedes Benz. The **k**ite village curfew was closed, containing and exclusive, whereas Kaningo's footbridge as valve articulates exchange rather than forbids it.

Projecting outwards from the downtown grid, high streets represent trajectories of movement and usually run along the borders between established urban villages which may themselves have begun as valve villages. In the case of Kaningo, a contemporary valve village, however, the high street is the central focus. Here, the river, escarpment and forest act as boundary back lands.

Whether central or peripheral to the urban village, high streets mark potential common ground, places of exchange and open interaction between individuals with different aims and motivations at both the settlement and city scales. The wider the scale the more diverse the range of individual motivation and the greater the need for an accepted, trusted civic decorum. The smaller the scale, the more decorum is implicit and parochial, suspicious of wider connection. This is reflected in the type of commercial activity lining the high street: informal and pedestrian at the centre; modern and vehicular when running across junctions and along the edges of urban villages.

Mapping place-based institutions

Trusted institutions can be as informal as an arrangement to share the task of transporting water from well to house, or meeting to share gossip whilst washing together in a gendered part of the forest. Such institutional arrangements can give explicit identity to places when mapped.

More formally, the Lantan parade, initiated in 1895, celebrates the timely changing identity of the gridded common ground of downtown Freetown. Every year floats called Lantans are made by participating urban institutions and pulled around the city by bizarrely uniformed club members followed by noisy supporters and musicians.

Until the civil war ... the annual Lantan parade in Sierra Leone was the biggest public celebration of the year and attracted tens of thousands of spectators on the streets of the city. Originally a purely Muslim tradition, over the years the Lantan parade has been absorbed into the wider popular culture of the city and provides an important means of expression of both past and present for the people of Sierra Leone. (McLean, 2015, 15)

Similarly, the procession of the Mammy Queen through the main street of Kaningo reinforces its identity, derived from both forest and city. Such parades are place based and the procession serves to re-define civic identity every year. Parades re-interpret history and memory and represent, to all, the institutions which are relevant to the city at that time and can also project forwards ideas for the future city. They can react and reorder, more nimbly perhaps than permanent architecture, changing place memory. They are an asset to the evolving city.

Such locally nurtured capacity building continues to need cocooning to balance the risks associated with boundary crossing in search of wider opportunities. The challenge is to

transform the parochialism of protection into the confidence of diverse identities vested in local place-making, giving capability for trusted civic engagement at the city scale.

5 Major road building programmes, executed through bi-lateral aid, 'privilege ... an instrumental version of reason at the expense of other, competing forms of rationality'" (Smiley, Dainty, and Fernie 2014, 01). Rather than take advantage of the post-colonial democratic deficit (Home 1997) and seek to impose a reductive 'efficient' centralized timetable to completion, city authorities instead need to value and nurture local capacity to take an equal part in both the preliminary project discourse and the deliberation surrounding its implementation.

10 But how can practitioners contribute to this process of city building from the bottom up? Instead of initiating the expensive and socially disruptive process of driving away incumbents and bulldozing the land before initiating construction, they would benefit from understanding more clearly what jewel like resources already flourish within the topography. These local resources will include the collective memory, decorum and local governance offered by pre-existing cultural, social and political institutions.

15 Practitioners might learn by observing residential incumbents dwelling within the landscape alongside well-worn pathways, negotiating mutually beneficial relationships with their neighbours. Such residents construct a life through a process of trial and error, by discovering and enhancing the ever changing fit between themselves and the world around them. This is the dance of agency, with its shared memories and emergent institutional assemblies. The dance can be mapped as a figural interpretation (Boyer 1996) of the occupation of space, facilitating an examination of its civic potential. The speculative induction of such interpretative mapping can be harnessed at a variety of scales to the project in hand with the minimum of external financial investment. It is perhaps in this way that

25 ... the arts of city building [can] attend to the city of ... tradition and memory without limiting its horizons...and foreclosing zones of uncertainty and complexity, without imposing unjustifiable control over the city and exercising unwarranted authority over others ... (Boyer 1996, 29)

30 Apart from a lack of capital resources, the reason for such an approach is to produce a more nuanced, particular and timely interconnected urbanism where the architecture of each place is more finely tuned to fit the immediate context. Involvement in making explicit what is there can equip residents with more confidence to engage with shared city opportunities more broadly, enhancing their civic capabilities and collective freedoms.

Conclusions

35 In Africa the global modern city does not necessarily lead to riches for all. It is seen by many as a place of chance where you can either win the lottery or be enslaved. Understandably, in such circumstances, the poor are fearful of connection and local settlements want control over the extent of that connection. Using local physical and cultural resources alongside those offered by the city, appropriate infrastructures might, however, be developed which empower the weak to engage with the power of the centre.

40 It is in the past nature of African cities that they have been small and modest in their production of both permanent infrastructure and permanent architecture. By and large, recent rapid urban growth has occurred without the benefit of resilient architectural fragments, embedded with collective memories and through which social meanings might be re-enacted and re-mediated. In settings where the material fabric is subject to rapid decay,

or is, at least, less than permanent, physical topography has a particular role to play in holding the memory of both past events and reliable institutional precedent. In Freetown this would include the documentation (begun by xxx 2013) and heritage listing of significant urban buildings and landscapes, including both the downtown timber board houses and the remaining prefabricated timber houses of the Hill Station settlement discussed above. Such documented and referenced memories, embedded within local educational programmes, and conservation practice can provide a shared framework for trusted civic exchange.

AQ7

Temporary fabric is often renewed, alongside cultural meaning, through the making of props, costumes and floats for civic processions such as the downtown Lantan parades and the march of the Mammy Queen through Kaningo. The place-based voluntary associations which take part in these parades link traditional institutional structures with the new and the modern and 'can act as a training in civic practice for higher political office' (Little 1970, 112). NGOs in several West African countries are already working with such voluntary associations to establish forums for negotiating partnerships with local authorities for the administration of urban places (Simone 2004).

Bonnemaison (2008) examines the role of urban festivals in a European context, where rapid environmental change is accompanied by dense juxtapositions, rich in human relations but poor in material products, where alienation and over-consumption threaten class conflict. She shows how festivals can develop, represent and hold civic institutions, reflecting civic change whilst playing an important role in deepening citizenship. However, festivals are not mere safety valves: 'festival life can on the one hand perpetuate certain values of the community (even guarantee its survival) and on the other hand criticize the political order' whilst diverting violent reprisals.

AQ8

Lantan parades in Freetown have had a role in resisting unwelcome change and deepening overall civic identity within the populace by providing a civic platform for voluntary associations. Institutions such as the Kroo Fisherman's Association (Little 1970), based in Kroo Town, and the Maroon Descendant's Association (Little 1970), based in Maroon Town, have provided floats for Lantan parades. Further research is required to document and interrogate the role of city festivals in Africa south of the Sahara, in assembling place-based civic culture.

Residents employ fragmented local memories embedded in the chronotopical landscape to increase their confidence and capability to engage with the wider city. It is imperative therefore that new roads built of long lasting materials are constructed with respect for what is already there and within which valuable memories reside.

Place-based resources, often hidden in the landscape, are vulnerable to coarse grained, top down, capital intensive developments such as new road networks which, whilst intended to improve urban connectivity, can be perceived as predatory and dangerous by residents. As a contribution to future civic deliberations, practitioners can interpret data from site based field surveys and literature review to map locally emergent patterns. In this way practitioners can harness previously hidden place-based resources to the task of open and trustworthy city making in depth.

Mossop (2003) reviews methods used by practitioners for intervention within the favelas of Rio de Janeiro, Brazil, which have resonance here. Whilst the favelas represent 'generations of investment', Kaningo was initiated much more recently. However, both urban situations involve transitional settlements being assembled with scarce capital resources at a time of rapid change built on difficult terrain struggling to make themselves a part of the city, not

only physically but in terms of a trusted polity within which they can operate successfully. Both projects are driven by and for the residents themselves and the process of building neighbourhoods is seen as an educational endeavour in civic engagement. The Favela-Bairro Project is facilitated by external architectural interventions whilst the Kanningo process is a more fragile heuristic response, which represents a negotiation in progress between top down and bottom up interventions seeking to establish a place-based institutional forum. Both these processes privilege community involvement, understanding and creativity underpinned by extensive site studies to build local working relationships. Investment is primarily in time to establish new social structures rather than a large-scale capital outlay on physical infrastructure.

McFarlane (2011) has reviewed the role of just such trans-local place-based residents associations facilitated by NGO's such as The Cities Alliance and the SPARC Groundswell Exchange in developing urban learning laboratories for top down/bottom up exchange in Africa and elsewhere in the global South.

Interpretative mapping as described here is a way for practitioners to contribute to these place-based forums by collating, interpreting and presenting data obtained as part of such a process. Whilst the precise nature of the mapping process will depend on the local situation and detailed guidance is outside the scope of this paper, experience of mapping similar transitional settlements in Delhi, Agra and Mumbai, and the methods employed, are recorded elsewhere in more detail than there is space for here (xxx 2010, Chapter 2). Whilst this paper's findings are particular to Freetown, they will have wider relevance to West Africa as a whole. Further research is required into the application of interpretative mapping methodology to place-based development elsewhere in Africa and beyond where emergent indigenous and transitional cultures meet top down initiatives.

Assembling a diverse contemporary African city dynamic requires that increasingly fragmented and often hidden place memories are revealed, protected and architecturally re-mediated. Interpretative architectural drawing practice can contribute to collaborative deliberations around future non-predatory African city making by helping to articulate and empower place-based communities in policy making at all levels. Such a fine grained process is the very opposite of the imposition or 'rolling out' of a road network upon a culturally rich landscape which is nevertheless blindly regarded as 'terra nullius' by its perpetrators.

Disclosure statement

No potential conflict of interest was reported by the author.

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