

Light Touch on the land – continued conversations about architectural change, informality and sustainability

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Abstract

Including ‘informally constructed’ buildings in the cornucopia of ‘vernacular’ has its opponents. They are not visually compelling, strongly represent the ‘other’, and their unpopularity derives from worldviews that prioritise ‘architecture’ as modernity rather than, perhaps, ‘buildings’ as humanity. However, it is argued that informal settlements are not only the kernel of new cities (using modern materials), but are inevitable and sanitized by health legislation, with slum ‘clearing’ having different potentials, to ‘slum building’. Considering informal settlements in Pietermaritzburg, South Africa in the early 1920s, and subsequent slum clearances due to post-War health legislation, tracking their continued negative, (and ambivalent connotations at the end of apartheid), and most extensive manifestations in current times, this paper considers informal settlements as recyclers of matter, distinct representations of cultural change (from the rural to the urban) and vectors of opportunity (driven by early health legislations). For the global north, which assumes culturally static societies, advocates for carbon-neutral construction, and renewable construction materials and recycling, there is possibly much we can learn from informal settlements, addressing complex and diverse world views, recycling, political organization and spatial planning. Also, viewed from the lofty perspective of the global north, such vernaculars are viewed derisively, are the focus of multiple, globally-crafted sustainable development goals, and are considered as ‘problems’ rather than, ‘solutions’. Thus, migratory trajectories, social and cultural change, and the continued use of existing and found materials is real for many millions of people globally. These constantly negotiated territories provide compelling ground for re-assessment, reflection and repositioning, interpretation of the vernacular.

Keywords: modern vernaculars, informality, slum, negative vernaculars

1. Introduction

Contemporary lenses of informality and, particularly, informal dwellings, suggest that such structures disrupt the *status quo* of what we consider ‘civilized’ (a loaded word), and rather evoke disquiet, reinforcing the process of ‘othering’. However, this paper argues, they are fundamentally important in the growth of new settlements in the developing world. Their aesthetic unpalatability is perhaps due to the use of unsophisticated materials, rather than their actual form and

representation. Indeed, Paul Oliver reflected that the line between vernacular and informal is slim (Oliver, 2016); these tenets are truer today, more than ever. This paper considers informality in its broadest, historical sense, comprehending the challenges of contemporary South Africa through the lens of the reasonably immediate past. It considers white settlers in Port Natal (now Durban) and their first, rudimentary buildings, before presenting examples in Pietermaritzburg to contextualise informality as inevitable. It

posits that our attitude needs to include informal dwellings as vernacular, and not as inconvenient step-children of the more resolved aesthetic, commonly discussed.

2. Placing informality in the vernacular

John FC Turner reflected in 1968 that, 'There is nothing new about urban slums and marginal squatter settlements; both have a history as long as urban poverty, but together with the unprecedented growth of cities in the modernizing world, they have grown enormously during the past twenty years. Indeed, slum-dwellers and squatters far outnumber the better housed in virtually all developing countries, and squatter settlements are currently growing at twice the rate of cities as a whole' (Turner, 1968: 120). Turner inverted the narrative, considering slum settlements as energetic and progressive, rather than couched in negative 'informality'. He considered the Peruvian examples of the *barrida* and *corralon*, both superficially considered as 'slum', suggesting that, '...both types of settlement are clandestine and superficially similar, they have different origins and functions as well as different destinies'. Tracking trajectories of development in the *corralon* he suggested that, 'the owner - or I don't think this title fitstenant - found it more profitable to sell - or to rent- tiny plots to immigrants or to families evicted from city-centre slums'. Citing cases in which stable populations emerge, families convert matting houses into earthen buildings but do little more due to insecurity of tenure (Turner, 1968, p. 120), Turner refers to slum removal as being inevitable due to expansions of cities and the need for additional land for development (Turner, 1965, p. 154). Such slum removal, whilst seemingly deliberate and ethnically-focused in colonial societies, and certainly racially-focused in South Africa, has its roots in greater discourse. Sue Parnell contextualises removals from urban slums in South Africa to trends in Europe at the same time: Citing Schiffers (1976), she notes that, 'The revival of conscience which motivated slum clearance at the time may be attributed in part to an imported

awareness from Europe where the movement to rid cities of slums had gained new vigour' (Parnell, 1989, p. 265). Certainly, slum removal in Pietermaritzburg in the 1920s responded to imported post-World War I, notions.

Anthropologist William Mangin firmly couched the liminal experience of informal settlement dwellers within the genre of peasantry studies, popular at the end of the 1960s (Mangin, 1970). This was revived by McGee, who recognised the fluid nature of slum settlers and the inability to categorise them in their 'settlements', but the necessity to view rural urban migrants with a much greater lens. He upsets the static notions of settlement and the fixed understanding of rural/sacred urban secular labelling, although to a large degree, there is much to merit these categories in considering contemporary black middle-class homes in South Africa today, and their relationship with the rural (McGee, 1973). Indeed, these discussions in the early 1970s informed the the 1976 UNCHS Habitat conference in Vancouver.

Placing informality firmly within the vernacular has thus been long in the making (Rapoport, 1988). It was proactively revived by Paul Oliver in *Built to meet needs* (Oliver, 2006, pp. 384-393) in which he considers Turner's *corralones* in addition to other examples in Lima, the *pueblos juvenes* or 'young town'. For western scholars the need to categorise and assess, mitigated to some extent, the fluidity of these structures. It is now vital to move discussion to KwaZulu-Natal.

3. Informality in Pietermaritzburg

Accounts of early white settlers in Natal Colony reveal a total reliance on vernacular materials and to some degree, forms, until a more settled status allowed for the independent and piecemeal manufacture of materials to build homes which fulfilled the aspirations of their homelands of England and other European countries. Whilst the construction of these 'home-made' buildings relied to some degree on community support, many of the original homesteaders made their own bricks, tiles and other construction materials,

with eventually, materials such as corrugated sheeting and cast and wrought iron, sourced from foundries in the north of England. Accounts, such as that by Eliza Fielden (Fielden, 1973), describe original homes as being constructed with help from local Zulu people, often strongly resembling the traditional Zulu beehive (*iqhugwane*). Importantly, the growth of these small settlements, particularly that at Port Natal (now Durban), meant the gradual promulgation of building by-laws which controlled the materials used. What we now term ‘rough’ or rude buildings were necessarily strongly couched in the vernacular, and as such form the baseline for discussion.

The next section introduces Pietermaritzburg. It describes ‘informality’ as being redolent not only amongst Africans, but as primary shelter for many white and Asian people, the latter arriving in the late 19th century, either as indentured labour on sugar plantations, or as ‘Passenger Indians’; people of higher caste who became traders. This paper considers the vernacular through the lens of informality, as spontaneous, shelter-driven homes which reflect temporal changes in period and material. It suggests that pre-industrial vernacular utilised materials of natural origin, and holds that including industrial, ‘found’ materials such as corrugated iron and steel windows, comprises the vernacular as much as those sourced directly from the environment.

3.1. Colonial and settler Pietermaritzburg

Pietermaritzburg, the capital of the contemporary province of KwaZulu-Natal is a small city situated some 80 kilometres from Durban. It is situated on a number of small *spruits*, or creeks, but is dominated by the Msunduzi River which flows through the city. As a temperate zone, and central to good grazing, the Boers, people of Dutch origin, moved into the area in the late 1830s. They joined African people, now considered as Zulu, who were also cattle keepers and resident in this savanna or *thornveld*. Their first buildings were settler vernacular, often a two-roomed building housing both family and livestock. Roofs were often high *wolwe-end* (Dutch

hip) or double-pitched and thatched with straw, endemic to the area. They used local shale for walls, and often polished their floors with cow dung, in the same manner as the local Zulu. British settlers also used local materials: George Mason describes making his own bricks on the *erf* that he owned in Pietermaritzburg in the 1850s, trampling the mud at night, when nobody would see him. He noted in his journal, ‘...we thought it as well not to afford them the opportunity of seeing two Cambridge men knee-deep in mud treading brick clay’ (Mason, 1855 [1968], p. 167), reinforcing the vernacular as primary, facilitating settlement and shelter, but also made of locally-sourced and hand-made materials. Many living in Pietermaritzburg in the mid-1850s would have built similar homes, and most likely not in such a formally, constructed manner. Corrugated sheeting, a stalwart of ‘informality’ in South Africa, was readily available in Natal Colony around the late 1850s (Radford, 1997, p. 36). It was invaluable for building quick, robust shelter for settlers, who ordered buildings in kit form from traders such as HV Marsh, in Pietermaritzburg. With relatives across all former British colonies, wood-and-iron buildings promoted rapid settlement, and normalized the use of corrugated iron sheeting. For the inner city, this became gradually ‘problematic’: Radford describes building regulations from 1895 which prohibited wood-and-iron housing in the city, thus gradually formalizing material through law (Radford, 1997, p. 35). Settler towns were formal, laid in grids in the Dutch format, with buildings of locally-sourced material – mud brick, stone, timber (often Yellowwood – *Podocarpus falcatus*), lime mortars and plasters, and catalogue flourishes imported from England such as cast-iron columns, balustrades and lightposts. Accounts often describe first homes as rudimentary, of locally-sourced, organic material, with ‘formal’ (socially acceptable) homes constructed as a result of financial and social stability, reiterating Turner’s (1968) comment of improvement through stability.

The end of the 19th century was a politically and economically complex time for Natal Colony. By 1910, it was compelled to enter the Union of South Africa, an agglomeration of four colonies which spatially comprise the contemporary nation. The Union supported the British in World War I, and lost about 500 000 people to the Spanish Flu. The indelible connection to Britain together with the Spanish Flu, drove housing policy: Sue Parnell connects post-War formal housing policy in the Union, specifically that for Africans, to the latter, blaming excessive deaths on, ‘Abject living conditions, particularly among African communities’ (Parnell, 1989, p. 263). Diversionary politics, war and the pandemic meant that little building occurred between 1900 and 1920. Further, the South African War (1899-1902) had swelled the population, as many British soldiers remained (Parnell, 1989, p. 262). The dearth of housing, and the tradition of ‘self-building’ still prevalent in South Africa today, continued, coinciding with large numbers of Indian settlers completing their indenture, and needing also, a place to live. Cities thus became surrounded by informal dwellings, which at the time were referred to as ‘shantys’ and ‘slums’. Considering the rollout of public housing Parnell notes that, ‘Historically, the racial character of the slums of South Africa has been blurred. People of all hues sought inexpensive shelter near to work or near to possibilities of work’ (Parnell, 1989, p. 262). The slums around Pietermaritzburg were no different.

3.2. Post-World War I

In the early 1920s, further post-war immigration to the city presented problems: It was not only people moving in, but also moving out. Trevor Wills describes the gradual move of Indian people out of the prescribed zones of the inner city, to take advantage of open land just beyond the city limits on riverbanks on which they could practice market gardening. Wills mentions the Dorpspruit (forming a northern boundary to the original city layout), as well as an opportunistic settlement along the banks of the Msunduzi

River, in the alluvial areas of Pentrich and Camps Drift (Wills in Laband & Thompson, 1988:39). Issues with these settlements arise frequently in the Borough Medical Officer’s *Reports* together with descriptions of density and texture. Drawing strongly on Turner’s experience of the *corralones* and expansion of settlement through leasing land to new settlers, the 1926 *Report* records that, ‘Thirty dwellings in New Scotland were examined, and they were...occupied by 430 tenants, of whom 240 were Indians and 190 Natives. In six dwellings on Hathorn’s Hill there were 86 tenants, of whom 35 were Indians and 51 Natives. In six dwellings on Forsyth’s property there were 78 tenants, 16 of whom were Indians and 62 Natives....The provision of housing for Natives must therefore be antecedent to any attempt to improve the housing of the Indians living on the outskirts of town’ (Pietermaritzburg Corporation, 1926, p. 68). Pentrich consisted of around 166 acres, and its ideal situation between the river and the city made it perfect for market gardening. However, it was also below flood level. The land was owned by the city itself, as well as the brothers Forsyth, and the estate of Bodasingh, who all leased the property on a monthly basis to Indian and African people who built their own dwellings, described reluctantly by the Corporation as “shacks”. The description is clear: ‘They are constructed of old iron, wood, petrol tins or mud. They have earthen floors and no windows. They are cold in winter and hot in summer and freely admit the rain and the wind. In some of these dwellings a single family only, Indian or native, is accommodated, but to many additional rooms have been added for the accommodation of lodgers. These additional rooms are of the same type of construction as the original shack. The number of persons living in one of these shacks, enlarged to take lodgers, is in some cases twenty or thirty. The lodgers are in most cases native families’ (Pietermaritzburg Corporation, 1931, pp. 71-78). Apart from pit latrines, sanitation, was non-existent, as was refuse removal. Potable water was inadequate, although the river provided water for washing and the roads leading

through Pentrich were unsuitable in wet weather. The report records 183 dwellings, housing 1717 residents in total, with an average of 9.4 inhabitants per dwelling. Medical Officer Dr. Woods evaluated five of these buildings as being ‘good’, 45 as being ‘fair’ and 133 ‘unfit for habitation’. Hathorn’s Hill to the north-east of the city was leased by one Tajoodeen; it reflected the situation in Pentrich, but with different topography. Unlike the alluvial plain of Pentrich, Hathorn’s Hill is steep, hosting 83 dwelling owned by both Africans and Indians, with a total of 1022 inhabitants averaging at 12.3 people per dwelling. The Borough Medical Officer assessed, ‘...practically 100%’ of the dwellings were unfit for habitation (Pietermaritzburg Corporation, 1927, pp. 71-78). The materiality of these urban slums of the 1920s is significant; ‘...old iron, wood, petrol tins or mud. They have earthen floors and no windows’ (Pietermaritzburg Corporation, 1927, pp. 71-78). As naturally-derived materials which erode and rot, old iron, petrol tins and wood are local, scavenged or ‘found’. Earthen floors are typical of indigenous structures, perpetuating traditional technology, and windows are considered inappropriate in the traditional Zulu *iqhugwane*; the liminal position of these buildings between tradition and modernity is reinforced; even today windows are considered unwise as they let potential thieves see in.

3.3 Slums and disease

The adverse situations described above led to an impetus to provide social housing. Slum clearance responded to a swathe of legislations in the Union, starting with a direct response to the British *Ministry of Health Act* (1919), in the Public Health Department promulgation of *Act no 36 of 1919 (To make provision for the public health)*.

By the 1930s, slum clearance was a firm agenda of the Union Government. Whilst Parnell connects this to race-based policies (with which slum clearance in South Africa is strongly nuanced) and being able to support what is generally known as the ‘poor white problem’, she notes firmly that, ‘...in the early 1930s the problem

was made worse by world depression and national drought’ (Parnell, 1989). In Natal province particularly, a number of malaria outbreaks between the early 1920s and the 1930s exacerbated the issue. Standing water, lack of sanitation and marginal living conditions resulted in a notable malaria season in 1930 which had repeated outbreaks: The Public Health Officer for Pietermaritzburg recorded efforts mitigating standing water, building emergency drainage and anti-larval campaigns (Pietermaritzburg Corporation, 1933). Malarial events impacted more on wetter coastal areas, and timber and sugar barons whose labour lived in self-built homes known colloquially as *schoomplaats*, were compelled to reconsider housing labour, leading to formally-constructed labour compounds from the late 1930s (Whelan, 2016).

Significantly, this paper is largely situated in a period of Southern African politics which deals with racially-motivated settlement. Discussions in Natal Colony as to the need for a Native Village, given the informal situation in which many Africans were living on the peripheries of the city of Pietermaritzburg, had been underway for many decades. Wills describes Africans squatting on the Townlands of Pietermaritzburg, and then the following year, official motions passed by Council to build a Native Village to formalize the situation, and effectively remove people who were squatting on townlands, to the periphery of the city (Wills, 1988:40). Subsequent years produced plans: a village of 200 half-acre plots for lease or sale to Africans, with sites proposed for a Church and a School did not find favour with white public (Wills, 1988:40). The eventual construction of the Native Village, now known as Sobantu was promoted by the Medical Officer for Health who, ‘...firmly believed that the slum conditions that had developed in peripheral shanty settlements could not otherwise be eradicated’ (Wills, 1988, p. 40).

3.4 Slums and the apartheid city

The development of the ‘apartheid city’ was reinforced by the *Group Areas Act* of 1950, which sought to separate people dependent on race. It

intended to remove ‘unnecessary points of contact’ between people of different races, and create zones within and beyond the city for white, Indian, Coloured (mixed race) and African residents. Indeed, in 1988, as Wills notes, whites had an ‘adequate to oversupply’ of housing, Indians and Coloured an ‘extreme undersupply, and for Africans, an ‘extreme undersupply of “formal” housing’ (Wills, 1988, pp. 41-42) suggesting that, at the time of late apartheid, informality continued despite the efforts of the government to control it. Wills records that (for 1988), ‘...demand for housing...in Pietermaritzburg is reflected in the proliferation of backyard shacks and informal extensions to houses in Sobantu [the Native Village] and Imbali. These *amalawu* or *imjondolo*, as they are known, house family members, or lodgers taken in to supplement incomes. In some cases they represent the first stage of an upgrading of the basic house by the occupants, and may be superseded by more elaborate structures later, when the family income permits’ (Wills, 1988:43). Reflecting the descriptions of the Chief Medical Officer in the 1931 Corporation *Report*, Wills describes similar incremental development in Indian and Coloured (mixed race) residential areas in 1981, noting 163 examples of which 115 were in the Coloured area (Wills, 1988, p. 43).

Indeed, The Pietermaritzburg Corporation Minute Books record the formal slum removals. In 1933, the minute books note that ‘...the commencement of the cleaning up of the Camp Drift area, and the moving of the Natives from the shacks which they occupied there...the bulk of the Natives have been moved, and a large number of buildings have been demolished (Pietermaritzburg Corporation, 1934, p. 18). Significantly, the records of the Sewage Engineer, note that the city at that time was under pressure to include other slum areas beyond the immediate boundaries of the city, ‘which in a very short time will develop into additional slum areas’ (Pietermaritzburg Corporation, 1933, p. 49). The 1933 report refers to a number of areas in closer proximity to the city. Stevens, the

Manager of the Corporation Native Affairs Department, records that, ‘Most of the Natives residing in the shacks in Camp Drift area have been removed as, also have Natives occupying premises in Chatterton Road and Boom Street which have been condemned by the Medical Officer of Health’ (Pietermaritzburg Corporation, 1933, p. 86). Significantly, given that Boom Street is in the centre of the formally laid out city, and Chatterton Road is an arterial route directly out of the city, the nature of the buildings destroyed, whether formal buildings which were merely ramshackle and dilapidated, or structures which were self-constructed by the dwellers, is not known. One such informal settlement reported in the 1930s is that known as the Fitzsimmons settlement which was located on the fringe of the city, also along the Dorpspruit river. This settlement, it is argued, is indelible: it was located in what is today Fitzsimmons Road, which runs parallel to the N3 national highway between Durban and Johannesburg. Manifest today, and in close proximity, it is known as Jika Joe, after a notorious minibus-taxi boss from the early 2000s.

4. Informal settlers as recyclers

Jika Joe flexes and wanes through crisis and event; whether flooding due to its location on the stream, but also fires which are common events in settlements with illegal electricity connections and continued reliance on candles and paraffin stoves: ‘ “We are all scared of fire,”... “but we are terrified of electrocution. My God, the *izinyoka-nyoka*.” ...Residents say 11 people, including three children, were electrocuted...by the improvised electrical connections known as *izinyoka-nyoka*, low-hanging wires that snake through the shacks....(Arde, 2022). John Robinson describes Jika Joe’s materiality and quality of life; ‘...its bulk is made of mud, scraps of wood and cardboard, the roofs...are sheet metal, bits of hardboard and tarpaulin sales (sic) blown off passing trucks on a nearby highway’ (Robinson, 2020). Greg Arde reinforces this, noting, ‘About 4 000 people now live in homes of wood, plastic and

corrugated iron, crammed between the economic artery that is the N3 and the Dorpspruit River, which often floods’ (Arde, 2022).

Important to include in the discussion of materiality is the addition of plastic to the building components: given that much plastic technology was developed around and during World War II, earlier settlements in the city, such as that at Pentrich, also used this general material toolkit, most of which readily decayed, given its organic nature. The more recent use of plastic removes informal dwellings from a robust, ‘authentically’ constructed building using locally available materials fulfilling the tenets of definitions of vernacular, and introduces new, pliable materials which are unsightly, not necessarily decomposable, and relegated to the realms of ‘rubbish’. This is a significant element of the conversation as it brings non-organic materials into the mix. Whilst it is accepted that traditional slum settlements consist of found materials, Robinson’s relating of reuse of tarpaulins blown off trucks, handy for waterproofing in a wet summer, speaks to a general sustainable principle of recycle, reuse and redistribution. It breaks some of the momentum of consumption, and whilst not ideal, elements of accommodation, differ little from the informal and formal dwellings of early white settlers, and Indian and African landlords in the past.

5. Informality representing cultural change

Rural urban movement is recorded as an impetus for the growth of informal settlements, both historically and in contemporary times. Significantly, and particularly for groups such as the Zulu, these represent liminal moments which may extend for years. William Mangin’s lens is useful to contextualise the situation of informal dwellers in South Africa. I have argued previously that informants indicate that informal settlements are inappropriate for ancestors as they are too noisy (Whelan, 2016, p. 127). This statement perpetuates a distinct separation of the rural and sacred, and the urban and secular; these homes demonstrate interstitial moments between. Informal settlements allow for an entry into capitalist societies and as Nnamdhi Elleh argues, modernity (Elleh, 2011); as such lifeways and

traditional priorities are suspended with threads of the past, such as stabilised earth floors and minimal fenestration, bleeding through.

6. Informality as a vector of opportunity

Informality as access to opportunity is extensively described by Oliver and Hayward (1990), but each settlement, as the authors point out, has their own regional ‘flavour’. Robinson describes the social texture of Jika Joe: ‘Squeezed in between these dwellings are walkways and taverns where the people of Jika Joe walk and drink together and roundabout the children play...there is no centralised system ordering life as in the surrounding city. Rather, Jika Joe just has many slum lords who rent out their small rooms to whoever needs a place to live that is close to their place of work in the nearby central business district of the city’ (Robinson, 2020). Kweyama is one such example, as Arde records that, ‘Kweyama has lived in Jika Joe since she was 23. She says the settlement provides cheap shelter for people flocking to town for work and school’ (Arde, 2022). Kweyama’s reason for settlement illustrates the primary opportunity. However, opportunity for access to extra income and housing runs deeper. Many informal dwellers have been allocated government issued housing in the former township areas, which they rent out, choosing to remain in their informal dwelling. As residents of informal dwellings, they are prioritised for allocation for formal housing, and many wait for this opportunity to arise. Recently, what was once the Tatham Community Ground (constructed for non-white residents during the 1950s) has been subsumed by state-provided housing which Arde notes: ‘The squalor of Jika Joe is juxtaposed by the big new state-housing project next door... 14 four-storey blocks painted in pastel colours sit behind a fence – the site has been boarded up for months, despite 404 of the planned 760 apartments being ready for occupation. The state has committed to having the flats filled by May, but officials are wrestling with who will occupy the buildings that have cost the government R164 million so far’ (Arde, 2022).

7. Reassessment, reflection and repositioning

Judith Ojo-Aromokudu focuses on these practicalities, of seeing the informal as a critical element of the contemporary built environment but particularly focusing on attitude. She describes in detail the lack of light, suggesting that, 'The interior lighting was of poor quality, with natural light streaming in through joints and openings between the walls and the roof in absence of the windows' (Ojo-Aromokudu, 2019:14). Ojo-Aromokudu suggests that this gloom is common in indigenous dwellings, particularly that, 'The sudden change in perceptive ability due to poor lighting disorientated any stranger on entering the dwelling thus giving the occupants the opportunity to welcome or refuse such a visit' (Ojo-Aromokudu, 2019:14). This descriptive image supports not only a visceral need to verify the intent of visitors, but supports that, in traditional societies, dark interiors provide an appropriate gloom in which to venerate ancestors. Firmly repositioning 'informal' in the vernacular, of the past, of material change and into contemporary times, begins to remove 'othering': considering vernacular as an inevitable continuum, process of active change and city building, is now more than ever, vital, if we are to address any of the UN Sustainability Development Goals. Oliver and Hayward noted that buildings in 'unauthorised expansions of the urban areas' around the world have, '...a number of elements in common, but many are special to each one' (Oliver and Hayward, 1990:147-147). This vernacular element is critical in assessing regionality, identity and built environment not as a global mass, but as inevitable vernacular responses to social, political and economic challenge.

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