Title: **Informal Architecture/s**

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"In a time when architecture has been so distant from the political ground and the social fabric that shapes it, the critical observation of these [informal] settlements… is a risk worth taking." (Cruz, 2005:34)

One billion informal occupants

By the middle of this century, the majority of the world's urban population will be housed in what are variously referred to as: slums, favelas, barrios, shanty-towns, informal cities, arrival cities, invisible cities, self-made cites and shadow cities (Davis, 2006; Dovey & King, 2011; Hernández et al, 2010; Neuwirth, 2005; Saunders, 2012; United Nations, 2009). (For simplicity this chapter conflates all of these typologies under the term '*informal architecture'*). At the start of the previous century there were barely any in existence on the planet but at the turn of the millennium one billion people occupied these urban spaces (UN-Habitat, 2006). Within the next decade this will rise to two billion people, a number that continues to rise and rise. The scale of this new development is breathtaking in its scale, every week another million people arrive (United Nations, 2007). Each year, it is the equivalent of building a city the combined size of London, Paris, Rome, New York, Tokyo, Beijing and Sydney.

Through its sheer size alone, this urbanism can barely be ignored any longer. The teeming metropolises of informal development form "*a mountain range of evidence*" (Koolhaas 1994:9) which can be considered as a laboratory of experimental informal architecture. There are millions of different buildings, types of construction, mix of uses, social groupings, religious codes, modes of governance and myriad urban forms. Much might be learned from such informal development, although at the beginning of this millennium this research is simply focused on trying to understand and describe the informal city, let alone attempt to '*fix'* or '*solve'* them. As many commentators have already noted, the informal city defies easy classification and categorization (Dovey, 2012; Lepik, 2013); accordingly, this chapter begins by examining the constitution of informal architecture without attempting to impose any *a priori*

categories. Architecture here is not solely concerned with the building as an object; but as we shall see, architecture that transgresses social, material, economic, ecological, ethical and political boundaries.

The chapter begins with four empirical accounts of informal architecture/s that capture some of their everyday qualities, materials, processes and constituents. The chapter then situates these accounts within broader literature concerning informal architecture.

Empirical study: 01

Location: Bangkok, Thailand

Image 01: Informal architecture on the waterfront. *Copyright: Rice, L.*

A large advertising hoarding in Bangkok looms over an informal settlement. Under the gaze of three photoshopped™ hair models, adjacent to a large highway intersection, sits a small neighbourhood of illegally-built housing. The houses are nestled around a widening of the city's old water-canal system. The waterway is used as a place to fish, bathe, swim, do laundry, wash dishes and it also acts as an open sewer and waste disposal unit.

The housing is fairly basic; timber frame structures (occasionally augmented by additional steel supports and struts) sit in, or adjacent to, the water. Attached to which are profiled metal sheets and/or timber panel boards along with other found and recycled materials. Overhanging metal roof panels allow space for laundry to be dried, places to sit during the rain, and additional storage area for sundry items. Amidst the buildings and walkways are a variety of large trees and some low-lying shrubs and bushes (some of which are used for their edible fruits, nuts or other bio-produce). Electrical power is accessed by informally tapping into the city's formal power grid. Street lighting is afforded by the glow of the twenty storey high advertising hoarding that is illuminated throughout the night. Satellite dishes are affixed to some of the houses so the residents can (illegally) view channels such as Skysports on demand. The scene is fairly typical of many instances of informal architecture: the condition of sanitation is appalling; the condition of the housing is basic; the condition of the telecommunications is excellent. High-tech and lo-tech, organic and natural, synthetic and artificial, new and old, recycled and reclaimed are hybridized.

Empirical study: 02

Location: Mumbai, India

Image 02: Compound Elements *Copyright: de Maat, S.*

A woman stands outside a wall comprised from a range of heterogeneous materials; plastic water containers, old rags, cookers, wooden logs ready for burning, pram wheels ripe for upcycling, acres of blue tarpaulin, timber panelling, rope ties cord restraints, ladders to access the roof, parked motorbikes, fabric curtains to demark and protect the entrances, lines of washing, folded blankets, chipati drying in the sun, old chairs covered in rugs, some food bubbling away atop a coal burning stove and a range of things one cannot discern from this picture (but are invariably present): bacteria, oxidization and dirt. This wall forms the very essence of an active frontage – literally and metaphorically.

Where the elevation starts, the building ends and the street begins, is difficult to discern. It is also difficult to describe the multiplicity of functions, roles and purposes that comprise this architectural element (i.e. '*wall'*). What is it by

function: a storage facility, security zone, territorial marker, larder, kitchen, living room, garage, car park, front door, window, laundry, dining room, builders yard, illegal squat or, to talk architecturally, the front elevation (*south-facing*)? Part of the reason why the architectural term '*wall'* is no longer sufficiently accurate to apply in this instance, and why the list of functions is so long, is due partly to the kineticism of its constitution. The construction of this *'wall'* is in a state of flux, it is constantly being added to or taken from; parts of it are burned, eaten, become clothing, sat on, dried, hung up, strung out, twisted round, squashed into and myriad other *activities*. A wall of activities - is this a contradiction in terms? A wall, that most immutable and unchangeable of architectural elements, that is simultaneously fabricated from activities.

One set of washing forms the '*elevation'* (until the laundry is dry, whereupon it is removed from the elevation) and a different set of washing subsequently constitutes a new elevation. A panel of wood that formed the '*elevation'* is dismantled for a while and used as a makeshift worktable. Some of the tarpaulins that cover the '*roof'* of the space are moved to form a canopy to protect the entrance from the rain showers in monsoon season (but replaced in the dry seasons). Potentially useful items are found each day and brought back and form another addition to the architectural entity; waiting for a more appropriate application for these sundry items. The '*building'* is a swarm of activities *and* profusion of materialities; trying to define exactly what the habitable environment '*is'* is difficult as it is neither and both simultaneously. It is some '*other'* hybrid entity.

At the micro-level, the use of the architectural term '*wall'* does a disservice to the richness, constitution and complexity of such informal physical, social and natural environments. Perhaps it is fairer to merely describe this milieu as some form of '*compound'*. The first reason is, as the dictionary defines, a compound is "*a thing that is composed of two or more separate elements;*" which captures more accurately this state of construction. Secondly this wall-element stretches around the home and forms a compound (in the second meaning of the term). The second meaning of *'compound'* is an area enclosed by a border, as for example, in '*military compound', 'secure compound'* or '*luxury compound'*. The defining aspect of a compound is its edge condition, rather than what it contains. Informal architecture in this instance elides both of these definitions into one spatio-temporal condition. Informal architecture is not constituted by mono-functional walls (and roof) rather it is a compound element, consisting of a range of material, social and natural actors.

Empirical study: 03

Location: International Airspace.

Image 03: Informal architecture(s) amidst the formal city, as seen from a Boeing 747 window (economy-class). *Copyright: Rice, L.*

Informal architecture utilizes the entire gamut of materiality in its lexicon of construction; no material is ruled out as unsuitable. Satellites and open sewers are found in the same space. *'Informal architecture'* might encompass nothing more than a thin plastic sheet for a dry place to sleep. At other times, a cardboard box becomes a miniscule dwelling (sometimes for an entire family) - a kind of '*Laugier hut'* for the 21st Century. Both of these forms of informal architecture share a pragmatism and ease of construction. The plastic sheet is '*constructed'* by a person literally rolling themselves up in the sheet; the cardboard box can be climbed into, or lain on. More complex architectures are also produced; shelters are erected from profiled metal panels, the metal often reclaimed from oil drums and other waste products. Profiled metal sheets are quick to erect, readily available and easy to handle, however they are very noisy in the rain and are rather prone to rust. Profiled metal sheets used to be the *ne plus ultra* of informal architecture, however this has been usurped by

blue tarpaulin. "W*eather dissenters"* (Sloterdijk, 2009) looking down from their Boeing 747's now gaze across acres of these soft, blue roofscapes. This burgeoning blue-ness is a global phenomenon and is recasting many cities under a wash of '*International Slum Blue'* (a reference to Yves Klein's '*International Klein Blue'*). Tarpaulin has many advantages over other building materials: waterproof, pliable, flexible and lightweight but the principal advantage is financial – tarpaulin is incredibly cheap. The reason '*blue'* is the colour of choice is mostly down to economics: blue tarpaulin is usually a thinner grade of material and hence cheaper to produce; blue dye is also cheaper than bleaching the raw materials. Cost is not the only logic behind this choice of colour; blue is also used by the UN for disaster and emergency shelters due to the colour being relatively resistant to deterioration to the sun and to its contrast with the colours of natural materials, which makes it easier to spot dirt and decay. This explains blue tarpaulin's ubiquity across the planet; it is evident in every continent regardless of climate and stretches across all cultural, economic and political boundaries.

Empirical study: 04

Location: Bandra, India

***Image 04:* Informal architecture (with railtracks).** *Copyright: Rice, L.*

The paradox evidenced at the micro-scale of informal architecture, that is, the socio-material heterogeneity of '*wall/compound'* construction can also be found at the macro-scale. A multiplicity of programmes, functions, materials, corporeality, activities and performance emerge throughout the daily life of much informal urban space. Urban sites are backfilled with a variety of uses: "*the Lagos superhighway has bus stops on it, mosques under it, markets in it*" (Koolhaas: 2001). Solà-Morales (1995) refers to this as '*mixity'* – a dense mix of uses, activities, functions and practices hybridized into a single space. This mixity is enacted through a compound of activities and the materials required to facilitate these activities to occur. A single '*space'* can change function several times a day and/or share multiple functions simultaneously. Instant architectures are effected that may last for a few moments or hours or perhaps may endure longer.

In the depths of a large informal settlement, a narrow alleyway is used as: a (small) factory, a café, hairdressers, living room, open market, place to sleep, dining area, storage and footpath – all at the same time. To enable these activities to occur: carpets are dragged out to sit on, hammers, spanners, bolts and nails are brought into the alley, fires are made, scissors/combs and mirrors fashion al fresco hairdressing salons, blankets are laid out and impromptu beds are effected out of junk materials. Sociality and spatiality blend into each other. In this empirical study, one afternoon a tired worker takes a break and lies down on a plump sack (full of plastic scraps that are awaiting processing and recycling) to use as a makeshift mattress; shortly afterwards another tired worker uses the body of the now recumbent sleeper as an ad hoc pillow. The plastic scraps that now form makeshift bedrooms also obstruct the alley; pedestrians can squeeze past or hop over but it prevents motorcyclists and car drivers from using this as a road – or at least slows them down considerably. The plastic scraps/bedding have inadvertently become a '*sleeping policeman'* (the English term for a '*speed-bump'*) a material intervention that acts to affect human behaviour (Latour, 1992). Rather than trying to maintain all of these entities according to a priori classifications, it is far easier to relax/remove the boundaries and permit more fluid transgressions. The sleeping worker (i.e. human) has been transformed into a pillow (i.e. material) as a kind of compound element in this architectural milieu (where humans become materials). In a reverse process, scraps of plastic become sleeping policemen (i.e. materials become human). Industrial materials become soft furnishings, alleys become bedrooms, lunchtime becomes bedtime and temporary factories are infused with dreams. The limits of societal, architectural, spatial and temporal boundaries blend, merge and fuse; in this single situation there is metamorphoses of action, experience, sound, mixity, smells, meaning and performance.

Activity spills out from the informal city and permeates into the formal city. This sometimes overruns the urban spaces of the formal city, which are appropriated temporarily for informal uses. For example, railways are used for a number of different informal purposes. Temporary markets and cafes with goods and wares sprawl across the train-tracks. When a train passes by, all the goods are quickly removed from the rails and the space momentarily transforms back into its official usage (Dovey, 2012). As soon as the train passes, the market reclaims the available space. Laundry is also dried along these railway tracks which works particularly well for this function as the train tracks are often exposed to the sun, the passing trains generate wind and air movement (thus increasing the drying process) and the stones used under sleepers are perfect devices for holding the washing in place. The other important function railway lines serve: *a place for junk*. Crossing through the city, the railway lines serve as huge garbage facilities with all types of waste deposited here (including human waste). A corollary of this is the proliferation of recycling of that waste. Through the day (and sometimes at night) individual scavengers or teams of people work to sift through the junk and convert it back into quasi-precious materials. These linear refuse sites evidence the prodigious recycling activities that occur as part of the broader informal economy. Almost everything thrown away by the nearby inhabitants (and the materials thrown from the passing trains) are recycled. Entire communities and several generations of families have conquered the sites of dumps with their entrepreneurial dexterity.

Informal urban spaces share the similar constitution of '*compound-ness'* found at the micro-level, but also at the macro scale. Instant urban conditions are effected by their users, space is appropriated for a bewildering number of different uses simultaneously that function in complex and kinetic ways. Even those '*formal'* spaces that bisect informal cities are retrofitted with these compound conditions. The '*architect'* is more analogous to a relational set of actors: humans, materials, ecology, politics, territories, economics, society and technology hybridized together in a kinetic system of negotiations, conflicts and dissent.

Processual Architecture

The four empirical case-study accounts approached the examination of informal architecture through its configuration as an *'end-product'*. That is, in each of the studies, the inhabitations were mostly already built to a substantial degree (albeit there was still a large degree of flux and change in evidence). In order to understand this '*end-product'* further, it is helpful to explore the processes through which informal architecture is borne, produced and enacted.

This subsection attempts to understand and capture the production of informal architecture '*in action'*.

Mass migration from rural areas into urban centres of population creates a shortage of housing; this leads in part to overcrowding and to the construction of new '*housing'* (Dovey, 2012). Given much of the migration is driven by economic desperation, these new habitats are constructed incredibly cheaply, quickly and shoddily. Informal architecture is often on appropriated land that is taken by force by, what are pejoratively referred to as, '*invaders'* (Brillembourg & Klumpner, 2013); or '*pirates'* (Hernández et al, 2010; Davis, 2006). Spatial territory is quickly barricaded with makeshift hoardings or fencing and converted into some form of inhabited encampment. Initially these structures might be partial and tentative – little more than the delimitation of space as more readily defendable territory. These structures are physically held together with cords, ropes, restraints, straps, nails and myriad other ad hoc connectors that bind, wedge, stick, lash, bung, tether and shackle. At all times these physical structures are bound socially; partly out of necessity as a location of habitation, but also as a tactic for '*occupation'*. The building would be demolished without the tenants/squatters and it is their presence in conjunction with the material structure that generates a unified territory of resistance. Over time these encampments are modified, expanded, altered, partially demolished and/or upgraded by their occupants to suit individual needs. However the ambiguous legal ownership of land often prohibits tenants from investing too much time and money into property upgrading for fear of eviction at some later point.

Migrants construct their own residences on whatever space they can, using whatever materials are available or at hand. Davis (2006: 19) describes how informal architecture is "*largely constructed out of crude brick, straw, recycled plastic, cement blocks and scrap wood*" almost all of which is appropriated from the remains (and left-over space) of the formal city. Many of the migrants modify their own (former) expertise into a means of production for their housing. For example basket-weavers deploy their craft to effect makeshift structures in the city such as small tents woven from reeds and organic produce brought when they migrated from the rural areas; metal-workers modify oil drums and tin sheets into encampments; carpenters develop structures from discarded pieces of wood. Sometimes these constructions become relatively durable, in the sense that they are fabricated from reinforced concrete and bricks.

(*Illegal*) squatting of existing buildings is also employed as a tactic of occupation; such as the appropriation of derelict spaces, disused factories,

offices and commercial properties. Invaders '*hack'* into existing buildings to gain unauthorized access and make ad hoc modifications. Over time the new inhabitants have made modifications and hacks to the original building. *''The term hacking is often simply understood as the process of improving and rebuilding… via unconventional means*" (Baraniuk, 2013:36). Throughout these squatted buildings there are ongoing alterations, updates, demolitions, interventions and insertions enacted by the residents. Spatial-hacking such as this enables informal architecture to modify, recode and rebuild with (to prolong the technological metaphors) the latest apps, upgrades and plug-ins. A startling illustration of which is the '*The Tower of David*' a 45 storey building in Caracas. This skyscraper was initially designed to be the Headquarters for a large petro-chemical company and (partly) built during the previous economic boom but abandoned during an economic crash. The building was left partially unfinished by the original developer: some elevations were fully clad in curtain walls of mirrored glass (ready for air conditioned interiors); other elevations were left only as the raw concrete structure, the building abandoned before all the curtain walling could be installed. The invading inhabitants took the building by force and have subsequently created the world's tallest squatter settlement (Schmid 2013). Initially the inhabitants used the existing structure as a space in which to make temporary encampments. The '*unfinished'* elevations have since been completed by the three thousand inhabitants who have taken up residence there; each of the many families and social groupings have produced different elevations to meet their requirements. The building now boasts a church, cafes, hairdressers, shops, a gym, grocery stores, a tailors, stationery shop, basketball court and these are partially expressed in the inchoate elevations. The '*finished'* elevations, which were comprised of mirrored curtain walling, have also been modified by residents. Some of the glass panels have been removed to allow greater airflow through the building. This is an example of a more '*sustainable'* informal architecture through the provision of natural ventilation brought about by the occupiers' actions. The elevation now has an ambiguous state: the finished elevations are becoming unfinished; the unfinished elevations are becoming finished; it is perhaps no longer relevant to attempt to apply these terms. The elevations are neither: finished or unfinished, finishing nor finishable. The elevations are in a liminal state - part of the ongoing, processual development of this inhabitation.

The production of informal architecture involves iterations of construction to compose and form new architecture/s; simultaneously the situation becomes more complicated and complex. The process of occupying space, consolidating territory and generating a more robust habitat is a temporal event. In these modes of occupation and production of space; there is a processual quality to the architecture. These processes are not exclusively social events, for example, they are not protests or crowds of people at rallies (who eventually disperse); nor are these actions wholly physical/material. Instead there is a mutually constitutive inter-relationship. Occupation is both a spatial *and* social process

(as well as political). Informal architecture does not have a finish-point or apotheosis to which repairs and renovations are directed. Informal architecture is always '*under construction'* - it is in a constant state of upgrading, alteration, repairs and modification. Space is coded, decoded, recoded and encoded through these actions. Informal architecture is open-ended in its evolution. Modifications are part of a (potentially) endless series of iterations that compound the initial situation contingent to emergent contextual processes.

Resistance

Whilst informal architecture is sometimes portrayed as a domain of the weak, unfortunate and powerless, there is an alternative rendering of the situation. *"We must cease once and for all to describe the effects of power in negative terms: it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals'"* (Foucault, 1991:194). As Cruz (2005:34) points out*"we cannot forget that they are the product of resistance and transgression".* Informal architecture is the embodiment of resistance against the dominant/ruling elite. Even the UN (2001:121-122) define informality through this transgressive resistance: *"land to which the occupant have no legal claim, or which they occupy illegally".* Informal architecture often arises from deliberate acts of defiance against official institutions and governmental organisations. The invasions are tactical manoeuvres enacted spatially that subvert hegemonic power structures. Rancière (2010) refers to such tactics as dissensus; where transgressive acts, dissent against the norm/elite and conflictual relationships offer the potential for emancipatory action. The formal city and its attendant systems *"of discourses, institutions, architectural forms, regulatory decisions, laws, (and) administrative measures"* (Foucault, 1980: 194) are not only challenged through the production of informal architecture; but are transformed, distorted, renegotiated and modified. Informal architecture forces a decoding and recoding of the formal city.

Perhaps it is obvious to state, but this resistance is not restricted to social or political acts; they are not rallying in the streets outside the government's headquarters or surrounding the presidential palace with protestors. This resistance movement is embodied in the material and physical realm of informal architecture and enacted through its production and re-production. This spatial, social and political resistance through occupation is often portrayed as a quasi-military act. The language used by commentators derives from those used by the army: *"tactics of invasion"* (Cruz, 2005:33); *"invasion"* (Brillembourg & Klumpner, 2013: 145b);*"endless war on the streets"* (Davis, 2006:202). Informal architecture and each of its constituent structures, houses and spaces form a guerrilla army of resistance. This is an army of materiality; battalions of junk materials, recycled scrap, brigades of metal sheets, tarpaulin, faeces, dirt, hoarding, laundry, fabrics, rope ties and woven canopies. The

fabric of the informal city is a political and military act in itself. Social organisations within informal architecture(*s*) run their own economies, civil movements, transport systems, health facilities, sports sites and other civic and cultural facilities. There is resistance against police and other enforcement agencies; squatters often create their own security forces. Some informal architectures operate outside of all forms of governmental control; they exist entirely outside the law (Agamben, 1998). Informal architecture has resisted multiple attempts for its destruction and attests to its durability and resilience as a form of resistance. The presence of informal architecture attests to the possibility for resisting, challenging, transgressing and subverting dominant politico-spatial power relations.

The Limits of (Informal) Architecture

Before commenting further on informal architecture it is important to re-iterate their problems and issues. There are many positive and innovative aspects to informal architecture, however it is clear there are serious flaws and drawbacks. The conditions in slums are appalling in many ways: poor sanitation, hygiene and health infrastructure causes relatively high mortality rates, particularly amongst children (United Nations, 2009). Pollution and contamination levels are often at dangerous levels. Human excrement is a particularly difficult waste-product to dispose of, often the only solution is to use plastic bags and throw these out of the window. Fire can be devastating as the dense footprint facilitates rapid spread of fire with few opportunities for escape combined with difficult access for firefighters. Safety can also be an issue, some locations are controlled by criminal gangs, often fuelled by drug traffic and other organised crime (Mowforth & Munt, 2008). In certain neighbourhoods, even the police may not enter safely and the military intervene, portrayed vividly by Davis (2006:206): *"helicopter gunships stalk enigmatic enemies in the narrow streets of slums districts, pouring hellfire into shanties"*.

Koolhaas insists that "*people can inhabit anything*" (1996) which is a tantalising polemic, yet evidently untrue. We cannot inhabit *anything* although informal architecture steers close to the limit (and sometimes beyond). The appallingly high death rate evinces the fallacy of this polemic statement. There are some locations where inhabitation is attempted that exceed the biological limits of human existence – i.e. many desperate people die, or become seriously ill, testing the limits of architecture. It goes almost without saying that these extreme locations exceed the ethical limits of what is considered habitable. Yet regardless of deliberations concerning what humans '*should'* do, or how humans '*ought'* to live; almost no location is deigned unsuitable '*in*

practice'. Informal settlements occupy the spaces on the brink of what is habitable (by humans) – conditions on the *'the limits of architecture'* (Schmid, 2013:387). Contaminated sites, dumps and places of pollution, considered uninhabitable by the residents of the formal city, are aggregated into the informal city (*Koolhaas & van der Haak, 2003)* Precipitous mountains of mud, unstable hills, subsiding land and other "*hazardous locations*" considered too steep to build on by city planners and civil engineers, become the site for informal architecture (UN, 2003:19). Similarly, river floodplains and tidal zones are prevalent locations sometimes producing settlements that literally ebb and flow with the tides (Dovey & King, 2011). Thousands of homes are washed away annually and with them intolerably high death rates; in Pakistan alone 18 million people were affected by floods in 2010 and *"most have returned home to destroyed homes*" (BBC, 2011). Fatalities expose the raw truth behind life in informal architecture, it can be a dangerous and precarious existence. Koolhaas was close in his statement, but perhaps more accurately it should have read: *'people can inhabit anything – or die trying'*.

Informal architecture has chronic issues, but even the act of *researching* informal architecture is problematic. '*Learning'* from the informal city is beset with innumerable difficulties that are often not present when researching the formal city. Slums as research destinations are sometimes criticized as colonialist, unethical and/or a form of 'research tourism' (Mowforth & Munt, 2009). '*Accessing'* the slums is relatively difficult as researchers are invariably visitors rather than constituent actors and most slums are located in the '*global south'* yet most research institutions are not (Peritore, 1999). Informal architecture has no (or few) institutions to represent itself, it's histories and narratives are written from the outside by outsiders. Many of the researchers are more akin to ghostwriters of informal architecture. Cruz (2005:34) warns: *"it is clear that, very easily, one risks romanticising and, patronising their fragile conditions";* a point echoed by Dovey (2012:363)*"urban informality is too often either demonised as the virus that must be removed or romanticised as the plight of the poor"*. Rather than casting a verdict on which theorists are correct or whether a certain point is right or wrong. The pertinent concern is that these judgements are being made at all. These judgements form yet another series of '*materials'* from which informal architecture is constituted. The '*compound'* that already comprises myriad materials, activities and processes is also suffused with ideology, semiotics, risk, romance, demons and ethics.

Conclusions

"*The architecture of informality is to undertake the task of informalising architectural practice and a rethinking of professional ideology, architectural theory and education"* Dovey (2013:86)

A note on methodology. The chapter is primarily focused on learning from informal architecture. However, the chapter is partly methodological in focus through its attempt to construct/register the process of '*translation'* from a built environment (in this instance from myriad slums, shanty towns, informal settlements and favelas) into an architectural theory. A new lexicon is required to translate between formal architecture and informal architecture. A language that can imbricate the social, political and natural networks into material and spatial domains. Some theorists have attempted to capture these ambiguous worlds, for example: quasi-objects (Serres, 2007); hybrids (Latour, 1993); assemblages (Deleuze and Guattari, 1988); cyborgs (Haraway, 1991); actor-networks (Law & Hassard, 1999); dispositif (Foucault, 1980) and foams (Sloterdijk, 2004). This chapter does not attempt to delve too deeply into this emerging terrain of linguistics and neologisms, other than note the embryonic state of its existence. The methodological aim is not to attempt to apply an existing theoretical framework or readymade conceptual model as a means for analyzing informal architecture; nor is it to use a theory to design architecture; nor to invent a theory to use for investigation; the aim is to unearth/register the process through which the existing informal '*real'* world can be translated into a conceptual model (and in this instance towards a predominantly *architectural* theory).

Towards an Informal Architecture

The existing terminology for formal architecture is relatively good at describing a static, immutable material world of bricks, glass and steel. However it is of limited use when attempting to interpret informal architecture as it lacks a vocabulary that can ascribe its myriad qualities. Standard architectural elements such as a wall or roof do not suffice in the description and/or analysis of the constitution of informal construction. For example, there is a lacuna of devices that can be employed to interrogate the action-*icity* of informal architecture; i.e. a description of compound elements that come and go, dissolve, emerge, encrust, effervesce and are constantly '*under construction'*. '*Other'* entities need to be enroled into the constitution of informal architecture.

The notion of '*compound'* has emerged (*a posteriori*) through this research to help describe the constitution of an architecture of informality. Elements of

spatial and territorial inhabitation are compounds of materiality, sociality, semiotics and politics. It is this '*space'* of events and actions that defines and constitutes informal architecture. Coterminous to the notion of a compound element (something composed from a hybrid of different entities) is that of the boundary condition which amalgamates heterogeneous internal contents. Perhaps paradoxically, such compounds are unified by their boundaries and limits, not by their contents. Both of these conceptions of compound focus on informal architecture as the '*object'* of study, rather than the means of production and performance of that object. However, informal architecture is inherently processual. Its materiality is imbricated with actions, activities and flux. Informal architectures are formed and *per*-formed through social practices, biological agents, natural entities and political action suffused with proliferating meanings, semiotics and resistance. These interpretations of the notion of compound are found at a variety of scales; from the micro-scale of informal architecture, at the scale of the body, the hand, the architectures of sitting, lying and standing - all the way through to the macro-scale: neighbourhood, urban and now at a global scale. This global phenomenon attests to the power of informal architecture to resist the hegemonic forces at play. Whilst still strongly embedded within global capitalism, there is hope that in its dissidence and transgression lies the potential for recoding a more hopeful future.

Informal architecture will be the de facto mode of inhabitation for the majority of humanity this century, but it is an architecture that is barely understood. Informal architecture is a perplexing, abstruse phenomenon and challenges our knowledge/s of the built (and natural) environment. As a laboratory of experiments it is unparalleled in magnitude and breadth; one billion people already testify to this most Promethean of experiments in living. The limits of architecture are being re-set everyday through the lives (and deaths) of these inhabitants.

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