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**Urbanisation & the Production of
Knowledge: The Case of
Informality**

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URBANISM & THE PRODUCTION OF KNOWLEDGE: THE CASE OF INFORMALITY

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INTRODUCTION: URBANISM, INFORMALITY AND KNOWLEDGE

The subject of informality in architecture and urbanism is well documented, and in fact has seen a revival in the attention and importance bestowed upon it recently. As Ann Varley notes, after a time when informality was primarily the domain of political economists and social scientists, there is now "a resurgence of interest from architects and urbanists" (Varley, 2008, p. 1). This recent resurgence provides a moment of opportunity to examine the state of the knowledge produced (through both research and design) regarding informality, and to examine possible adjustments to the ways that this knowledge is produced and disseminated. Following Foucault's intricate linkage of knowledge and power, the relevance of this inquiry is accentuated by the repercussions of knowledge production on power relationships (Foucault, 2002). What are the fruits of this renewed interest in informality, and what are the implications for the way it is studied and approached? What should be the future trajectory of the discourse on informality, and how can the production of knowledge influence this trajectory?

As an inquiry into knowledge production and an ensuing argument on the direction of the future discourse on informality, this research acts as a bridge (Pérez Arnal, 2003, p. 526). Acting in this moment of opportunity, it *links* together the context of the postcolonial production of knowledge with the institutions that have emerged from it – institutions that are now shaping the future discourse on informality. This paper takes the existing "knowledge production complex" and analyses the ways in which four case studies, through their creation of knowledge in architecture and urbanism, are using informality as a method of resolving 21st century urban conditions in different parts of the globe (Robinson, 2003b, p. 280). Through this process, the "need to overcome the 'trauma' of the formal-informal binary" is recognised, and the positive and negative effects of the "emergent glamour of informality" are traced (Varley, 2008, p. 10; Boano, 2009).

This inquiry and argument follows a tripartite arrangement. The theoretical framing of the debate is established in Part 1, "The Orientation of Knowledge

Production". This discusses the shifting geopolitical stances associated with postcolonial theory and highlights the influence of this theory on knowledge production in architecture and urbanism. The purpose of this is to ground the analysis of the four case studies detailed in Part 2, wherein alternate approaches to informality, and research and design concerning informality, are discussed. The salient points from this analysis emerge in the form of implications and opportunities for future knowledge production in Part 3. Finally, future trajectories past the postcolonial framework are imagined and proposed as a way to move forward in a world that is changing at an increasingly rapid pace.

A limitation of this research that should be identified from the outset is that of the biases and established models of my previous educational experiences. While strongly critiquing the colonial imposition of one set of universal established norms upon which other forms of knowledge are judged (as in Part 1), I by nature and nurture have no choice but to be framed by these very norms, for I am a product of them, and they form the lenses through which I see. The hope, ironically, lies in the potential benefits that this enclosure may provide. Occasionally the establishment of limitations may be a liberator of sorts, granting a new level of insight: "a description of a process is itself a product of that process . . . If you want to understand a development, it's no good standing outside the process; you have to wade into it. You have to allow yourself to be developed by the developments. From the outside, you see only the *movements*: what stands still, what shifts, what disappears. From the inside, you detect the *transformations*: what direction things are going in, what is changing and what new things are emerging" (Mulder, 2002, p. 7). I should also state that due to the amount and detail of the research conducted, I have not been able to develop specific policy recommendations for the implementation of my ideas. Instead, this paper proposes a knowledge production framework that could nurture the design of more effective policies and programmes in relation to informality. Finally, I have not had the resources available to conduct primary research of the four case studies. Information regarding these four architecture and

urbanism practices has been collected through published work, films, and videotaped lectures. The sum of these limitations, however, does not render my inquiry or argument invalid, since the literature that is referenced sufficiently supports the extent of my reach into the subject matter.

The main themes explored in this paper are “architecture & urbanism”, “informality” and “the production of knowledge”, which entwine to lead a composite narrative thread. Prior to connecting these ideas, it is beneficial to explore each in isolation for them to be clearly understood. For instance, architecture and urbanism are understood as processes through which a building, or a wider urban environment, comes into formation. Discussions in architecture and urbanism have spanned a massive and shifting conceptual ground. They have found built expression in the broader theoretical contexts of Phenomenology, Modernism, Postmodernism, Deconstructivism and Globalisation. While architecture and urbanism function on different scales, they are both intricately linked to modes of critical thought and theory. In the 21st century, these fields are increasingly seen not simply as isolated physical objects or formations, but as methods of inquiry into relationships between space, society, politics, culture, history and technology (Leach, 1997). The offices in which architecture and urbanism are researched and produced will be referred to in this paper as “practices”, “institutions” or “centres of production”. These terms are meant to refer to the case studies, which investigate offices that produce knowledge through both research and building.

The second theme, informality, has been viewed in myriad ways since its emergence as an established term in the early 1970's in the published works of Keith Hart. Informality may be understood as “a state of exception and ambiguity” or as “a dynamic that releases energies” (Roy, 2009a, p. 8; Balmond, 2003, p. 343). It may be defined as “a mode of production of space defined by the territorial logic of deregulation” or “a survival strategy and, as such . . . a way of evading or manipulating power” (Roy, 2009a, p. 8; Fabricius, 2008, p. 5). While these definitions span a wide territory, the latter two demonstrate a *linkage* between

an end state and their formative processes and power structures. Due to its multidimensionality and “otherness”, informality has previously faced exclusion from the production of knowledge as something fleeting, transitional, and dynamic. Within the context of this paper, due to a focus on architecture and urbanism, concentration is placed on the term’s relation to the built environment, without isolating it from the processes through which the built environment is formed. A methodical explanation of the term “informal” is offered here by José Castillo:

First, it incorporates the notion of the casual; second, it refers to the condition of lacking precise form; and finally, it relates to the realm outside what is prescribed. I use the term *urbanisms of the informal* to explain the practices (social, economic, architectural and urban) and the forms (physical and spatial) that a group of stakeholders (dwellers, developers, planners, landowners and the state) undertake not only to obtain access to land and housing, but also to satisfy their need to engage in urban life (Brillembourg, 2006; my emphasis).

Informality, through both the breadth and shifting nature of its definition, risks the trials beset by other buzzwords such as “participation” – an overuse and misuse to the extent that the intricacies of the idea and its transformative potential are compromised. This misunderstanding of the term tends to hold it at a distance and prevent its thorough integration into the genealogy of architecture and urbanism. The importance of connotations tied to words such as “informality”, as well as the importance of the potential feedback loop of knowledge creation, are asserted in this passage from *Beyond Buzzwords*, a paper for the United Nations Research Institute for Social Development (UNRISD): “... the terms we use are never neutral. They come to be given meaning as they are put to use in policies. And these policies, in turn, influence how those who work in development come to think about what they are doing” (Cornwall and Brock, 2005, p. iii). While informality registers in other areas of study such as economics and anthropology, as discussed in Keith Hart’s

Informal Income Opportunities and Urban Employment in Ghana, and Hernando de Soto's *The Other Path: The Invisible Revolution in the Third World*, the concentration of this research is on spatial informality – a shaping and reshaping of the built environment (Hart, 1973; de Soto, 1989). Within this arena, informality also spans various scales, from informal housing, to informal settlements and informal urbanism. This subsequently expresses and defines informality in other sectors, such as economics and politics, which are understood in urbanism through their linkage to the spatial environment.

Michel Foucault and Henri Lefebvre (indirectly through *The Production of Space*) have explored the third theme - the production of knowledge - on many levels (Foucault, 2002; Lefebvre, 1991). The word "production" here hints at the complexity of a *time-based process*. It is important to recognise that a knowledge base instinctively refers to previously established knowledge, while in turn becoming the new established knowledge to which future ideas will respond. In this sense, knowledge is always born from a formative context, and subsequent steps in the process of knowledge formation are intricately linked. An example of this that is transparently expressed through labelling is the relationship between movements like such as Modernism/Postmodernism and Structuralism/Poststructuralism. The nature of the relationship between subsequent temporal steps, however, is not necessarily one-dimensional. For instance, adjacent historical layers of knowledge have related to each other in ways that may be characterised as *evolutionary translation, reaction and resistance* (Leach, 1997). It is through this process of production that dominant perceptions become established as the datum by which others are judged. Coupled with this is the circulation of knowledge, the changing nature of which is discussed in Manuel Castells' *Communication Power* (Castells, 2009).

While the production of knowledge is essential to all areas of study, it has specific and distinctive dimensions within the realms of architecture and urbanism - there is a multiplicity of ways in which knowledge is produced. For instance, knowledge may be produced both as

research (case-based studies or research by design) and as a practical component (the design and construction of built form). Architects and urban experts often research through precedent studies, analysing existing buildings and cities to understand the rationale behind their design and the ways in which they function. The emergent principles from these analyses then form a guiding framework for new design proposals. Research is also developed as an exploratory technique of practice, as in the *Design Research Lab* at the Architectural Association in London (Verebes, 2008). The application of technologies and theories in designing objects and installations may not have immediate "real world" implications; however it generates a knowledge base that can permeate future projects. The successful integration of research and practical components has the potential to address informality in an appropriately holistic manner. This takes shape through the analysis of urban environments with strong informal components. Once architecture and urbanism incorporate and promote these analyses as highly relevant and consequential for the future of cities, this should naturally translate into a concentration of resources into developing practical solutions. It is essential that for this translation to occur, informality, architecture and urbanism must not be limited by traditional definitions, but rather should use each other to generate new ideas. Once defined, these themes should not be seen in isolation - in fact architecture and urbanism, informality and the production of knowledge become enmeshed and engaged in a cross-fertilisation of ideas.

The means by which knowledge in urbanism is produced and circulated has vast currents of influence into creating accepted perceptions of the urban environment. Through this knowledge production, power relations are continually retraced, darkening existing biases and sketching out future frameworks that limit the development of evolutionary ideologies. For instance, creating a knowledge base necessarily defines what is accepted *knowledge* and what is not - what is accepted *process* and what is not. Knowledge creation is essential in propelling a discourse forward and retaining relevance in a rapidly changing

world, however it must also take a position, and in doing so, neglect alternate potential avenues of thought. It is important to be aware that not all knowledge is equally influential – that a hierarchy of ideas may exist. The top end of this hierarchy becomes the established mode of thought while the rest remains fighting for a voice, for acceptance, for incorporation into established institutions. Specifically, informality has become an element around which the field of urbanism must position itself and establish a productive relationship. The ways in which informality, as a subject of research, has become institutionalised through the production of knowledge in urbanism forms a *topos* that must be negotiated in future discourse. This establishes subsequent discursive formations, defining the areas where informality is studied, the connotations of informality as an urban language, and its associations with certain socio-political sectors of society (Foucault, 2002). Its institutionalisation, while rendering it as an accepted and central issue of investigation, also limits the extent to which it may be understood through a subverted lens – from a less established, critical perspective. It is becoming evident that the institutionalisation of informality has the potential to be an epistemological threshold beyond which the cities of the global North may be viewed through the mindset of the cities of the global South. This concept, which reverses the traditional direction of “transnational interrogation” whereby one geopolitical context is used to question the structure of another, has enormous transformative potential in judging informality’s role in urbanism, and in adjusting the orientation of knowledge production (Roy, 2004b, p. 3).

This moment of renewed focus on informality must be treated as a way to reorder the established hierarchy of knowledge, an opportunity to analyse the existing biases and perceptions of informality, and restructure them if necessary. Perhaps informality is so diverse and varied, and manifests itself in so many contexts around the world, that the knowledge produced, by research and design, should communicate this complexity and reconsider architecture’s role in addressing the informal city.

PART 1 ORIENTATION OF KNOWLEDGE PRODUCTION

“A re-reading of the city through representations of its post-colonial relationship to topography ... produces the category of the Informal City”
(Sassen, 2005, p: 84)

Finding Coordinates

The above quote from Saskia Sassen not only draws together the ideas of postcolonialism, topography, and informality, but it places the previous two as the parents of the third. Studying the liberated nations of former empires, and the fragmented cities within them, through postcolonial eyes establishes this category of “informal”. What are the consequences of this on the production of knowledge of informality?

In searching for ways that knowledge production regarding informality should be shaped in the future, it is essential to understand the context from which it currently emerges. Locating the production of knowledge also provides an essential framework for analysis of case studies, and a means by which their unique qualities and strategic selection might be understood. Various factors not only outwardly influence knowledge production, but are actually embedded within the methods of knowledge production. While outward forces, such as institutional associations, are more readily recognised as influential due to their distinctive and separate character, internal (contextual) components may be more difficult to perceive while wielding even more influence. This chapter attempts to draw out these embedded influences to demonstrate their ability to shape knowledge production. Elements of *geography, time and politics* emerge as essential contextual factors, and these are communicated in part through mapping techniques and postcolonial theory. Critical architecture is explored to imagine informality as a possible extension to Modernity and Postmodernity, and finally, the dissemination of knowledge is introduced as an extension of the production of knowledge, leading into specific case studies of centres of production.

Mapping the Margins

“Mapping is often regarded as a paradigmatic example of a colonialist practice exercising power through knowledge” (Varley, 2008, p, 15)

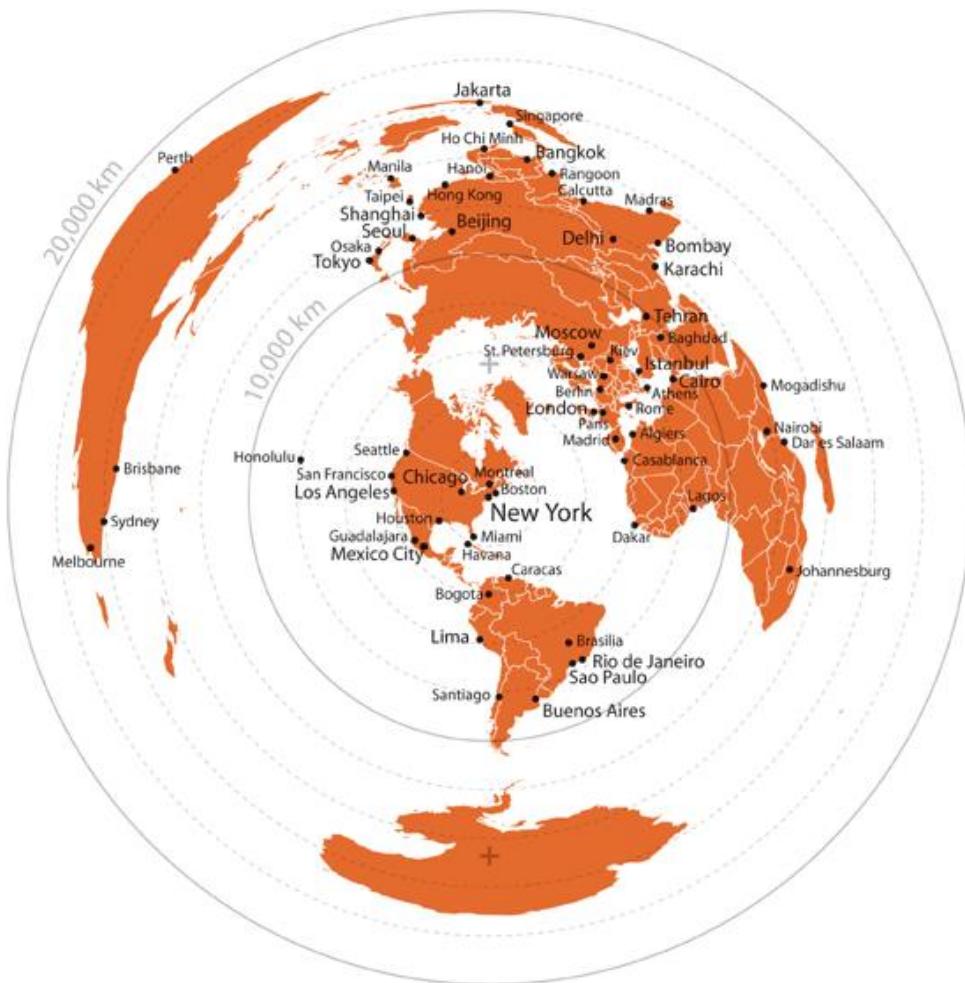
Postcolonialising the production of knowledge is essential in understanding the mechanisms through which concepts are born, and their irrevocable ties to the places and institutions that brought them into being. A fundamental part of this postcolonial debate may be expressed through the mapping and re-mapping of the globe. The ways in which the world is represented visually in two dimensions, while based on objective data, requires a multitude of subjective decisions that reveal the preconceptions on which the map was based. For instance, Map A, while being a distorted representation due

to its flatness, appears to be a rather unbiased account of land and sea, with a horizontal line exactly in the middle representing the equator.

By contrast, the alternative map below (Map B) not only introduces the element of nation-state boundaries, but it centres the two-dimensional image on the city of New York to emphasise its financial centrality and influence (Rankin, 2006). The periphery of this map displays the distance of various cities from New York City while foreshortening those farthest away to represent the curvature of the Earth, thereby giving an increasingly subjective and distorted viewpoint. The resulting hierarchy is a provocative suggestion that marginalises places based on their increasing distance from New York.



Map A: Geographical Equator, by Author

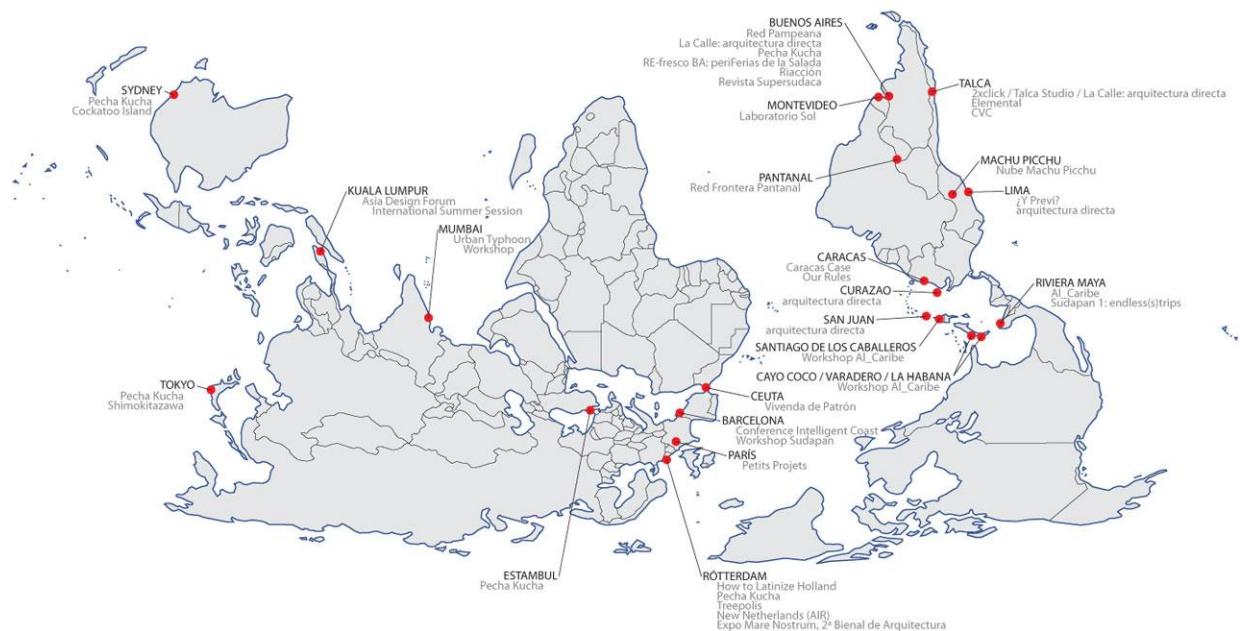


Map B: Center of the World (Rankin, 2009)

Demonstrating different priorities altogether is Map C, created by Latin American think tank *Supersudaca*. This map pinpoints areas of their architectural research in the 21st century, which are concentrated in the global South and represented on a map that is mirrored over the geographical equator of map A. Because of the convention of interpreting visual information from top to bottom, the emphasis is redirected to the Southern Hemisphere. This map could be seen as a reaction to the “colonialist practice [of] exercising power through knowledge”, with an equally forceful attempt to exercise resistant power (Varley, 2008, p. 15). While these are only three single viewpoints, drawn from infinite ways of seeing the world, they illustrate a potential range of entirely different communicative intentions and biases in their layout and design.

The main distinction that occurs when contrasting “developed” and “less developed” countries is the North/South boundary. This line of division, while an approximation of the geographical equator, has been more succinctly expressed by Teddy Cruz’s *political* equator, shown above in Map D. The following series of cartographies (Maps D - G) merge layers of thought by Teddy Cruz and Jenny Robinson while demonstrating my strategic choices of the centres of production of knowledge for analysis. By projecting the world onto a flat map with the geographical equator dividing North and South into equal areas, as shown in Map A, we see the spatial representation of the Northern and Southern hemispheres. As Teddy Cruz proposes, there is a new *political* equator that emerges when circumventing the globe with an extended San Diego – Tijuana

Supersudaca: Around the World 2001 - 2008



Map C: Supersudaca Map of Architectural Projects (Supersudaca, 2009)

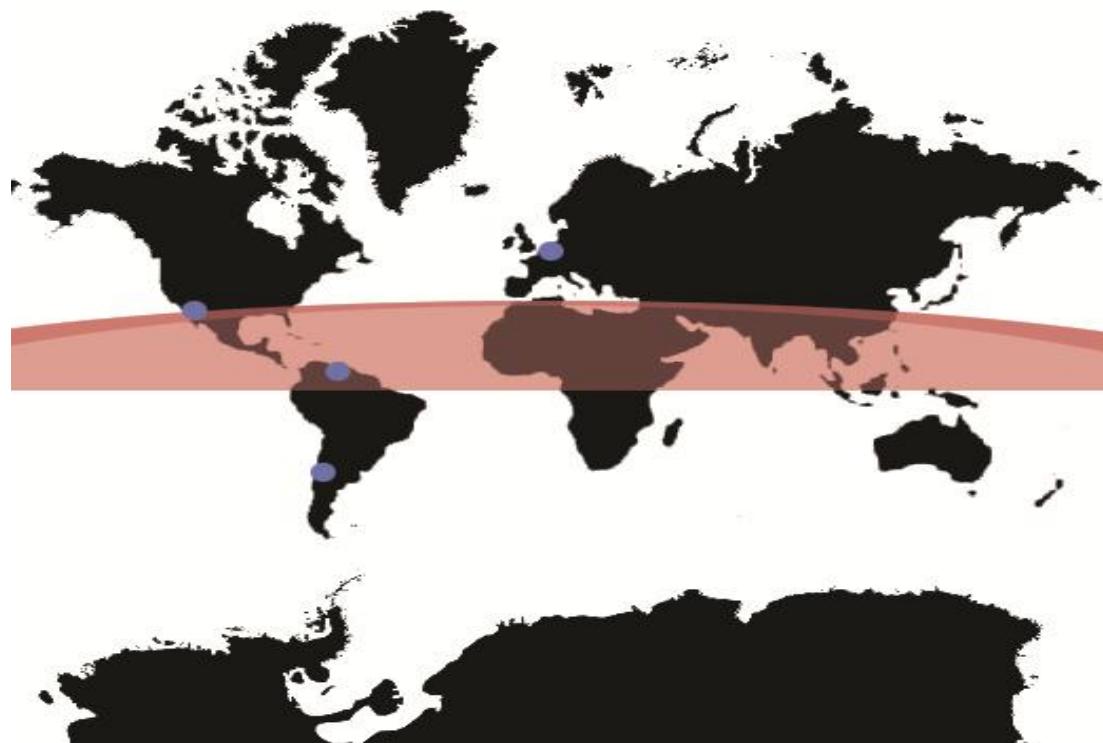


Map D: Geographical & Political Equators with Case Studies, drawn by Author, 'political equator' concept by Cruz (2008b)

borderline. This is demonstrated in Map D, along with the spatial positioning of the four chosen analytical studies that follow in Part 2: AMO (Rotterdam), Urban Think Tank (Caracas), Estudio Teddy Cruz (San Diego) and Elemental (Santiago). Map E highlights the interstice created by the discrepancies between the geographical and political equators, illustrating visually the geopolitical tension in the existing First world / Third world paradigm. North-North associations are demonstrated between AMO and Harvard University in M, while North-South associations are depicted in Map G between Urban Think Tank and Columbia University. This raises the issue posited by Jenny Robinson of possible South-South connections and their Map F potential influence on the production of knowledge. Such a South-South correspondence could contribute to disassembling the dominant truth that institutions of the global South must find both validation and voice for the knowledge they produce through association with institutions of the global North (Robinson, 2003).

Mapping is consistently used as a tool to manipulate and express power relations,

which reveals its centrality to the postcolonial debate. City governments often fail to show, or indicate to the established level of detail, informal settlements, demonstrating their unwillingness to assume responsibility in providing these areas with the standard services and protection granted to citizens of formal areas. This shows “the power of the state derived from regulatory techniques such as ‘unmapping’” (AlSayyad, 2004, p. 20). The increasing land area of informal settlements due to rapid urbanization also provides the opportunity to reconsider the graphic representation of global geographies. “Informality requires a rethinking of mapping, both of informal areas and of the city as a whole” (Fabricius, 2008, p. 7). In re-presenting the geopolitical landscapes through which knowledge of urbanism is produced, it is possible to restructure the viewer’s perceptual and conceptual experience of this landscape. The search for this “subaltern voice” is promulgated in postcolonial research (Sharp, 2009, p. 111). Mapping techniques such as those employed by Supersudaca have the potential to promote a different voice, making us conscious of the values



Map E: Interstitial Space, drawn by Author



Map F: North-North Associations, drawn by Author



Map G: North-South Associations, drawn by Author

assigned to various modes of representation. These values may have previously remained at the subconscious level, shaping our processes and understandings of the world without being challenged. It is Ananya Roy's concept of "familiarization" that allows a re-mapping and re-presentation from a different voice. "*Familiarization* is the process by which the subaltern citizen comes to inhabit, reshape, and rewrite the places of the colonizer" (Roy, 2009a, p. 8; my emphasis). This new means of producing knowledge therefore also has the potential to transform established power relationships and change the trajectory of the discourse on informality.

The Postcolonial Production of Knowledge

The condition under which the main themes of architecture and urbanism, informality, and the production of knowledge meet is that of postcolonial theory, along with its various perspectives established by academics therein. This framework "provides the conditions for knowledge to emerge" - a knowledge with increased relevance to the realities of existing political and spatial landscapes (Guallart, 2003, p. 377). It is a provincial knowledge that has the ability to effectively critique urban settlement patterns in various regions while still building from universal knowledge. The restructuring of national power relations and the re-centring of the world's compass that came with European colonialism are both essential to understanding the modes of production of knowledge in urbanism as well as revealing possibilities to manipulate the current centre-periphery relationships embedded between the First and Third Worlds.

In adopting postcolonialism as the prime contextual element of knowledge production, it is imperative to work through the structure of the term as "post-" colonial. As Joanne Sharp notes in *Geographies of Postcolonialism*, not only does the term refer to the time period following initial colonisation (as a temporal period), but it also refers to the critique of colonialism facilitated by positioning itself outside the original term, to a place of greater command, analysis, and judgement (Sharp, 2009). This view again has spatial connotations with removing oneself from traditional centres of dominance and

power, and instead operating from the margins. This "critical" positioning has the potential to produce a separate, and possibly insurgent, knowledge base. Another conception of "post-" is that it is simply a filler prefix for an as-yet-undetermined future. "'Post-' means nothing more than that something is undergoing rapid change with an unknown destination. No terms, or no new ones, yet exist for the outcome, so we have to identify the process by reference to its predecessor" (Mulder, 2002, p. 5). Parallels here may be drawn with the term "Postmodern" as well. As Peter Eisenman has argued (using Edward Said's terminology), we are in a "late style" of architecture that is simply waiting for a paradigm shift to bring in a new ideology (Said, 2006). The ramifications of this regarding urbanism and informality are reinforced by the evolution of the 21st century city beyond the "Postmodern" classification. The ever-increasing scale at which informality exists in the largest cities in the world helps to drive this evolution. In many ways, the exaggerated scale re-centres a focus of power and attention to cities of the "Third World".

Even the terminology used – dichotomies such as First world/Third world, Developed/Developing North/Global South, – are loaded with history and biases that ironically are reinforced by many institutions championing development work. This verbal representation envisages a one-way relationship of imposition, leaving the Third world as passive "beneficiaries" of supposedly more advanced, universal planning strategies. In addition, this dichotomisation carves out black and white sides of the world, homogenising them both while making it easier to overlook local knowledge, intricacies of culture and geography, and the genius loci of place. As Partha Chatterjee also argues, the "importance of contextual distinctiveness" must emerge as an element of great import (Robinson, 2003, p. 282). Much has been written about the evolution of this one-way relationship of imposition into a mutually supportive dialogue. A stimulating exercise would be to reverse the lens by viewing the First world through the eyes of the Third world. "It is also important for the western nations to study with care and humility the new urban forms emerging in the non-western

world, to see if they offer any lessons as yet unthought-of in western ethnocentric assumptions" (Southall, 1973, p. 4). This sentiment is reinforced by Michel Laguerre, while going further in establishing a formal-informal binary, in his assertion that, "I am proposing that the study of *informality* be used as an alternative and complementary route for the understanding of the *formal* apparatus of the American city" (Laguerre, 1994, p. 26; my emphasis). While this is an interesting proposition, it may begin to fall into the trap identified in the chapter-opening quote by Saskia Sassen of dividing, and possibly further isolating, the status of "informal" with all of its misdirected connotations of poverty and squalor. The potential of the postcolonial critique in transforming the process of knowledge production, however, is expressed as well. "The project here is not merely to celebrate and give voice to minority discourses and knowledges in order to include them in their subordinate positions into existing privileged accounts of modernity, but to question the very master narrative" (Hosagrahar, 2005, p. 6).

The emergence of postcolonial theory in the late 1980's and 1990's has had vast ramifications in many fields, and its consequences for the production of knowledge are still being understood and clarified. Scholars working in the Third world must continue to gain greater recognition for their work, and the monopoly of the First world on determining the relevance and rigour of global academic output must be reconsidered if not redefined altogether. In order for researchers and practitioners to gain a certain weight to their work, and to give it influence within the accepted institutions, they are forced to form associations with a First world network as a sort of validating mechanism (Robinson, 2003). We must question the processes by which the production of knowledge from different geopolitical regions becomes institutionalised, and we must question the consequences of having a metaphorical gatekeeper to these processes. Past experience has demonstrated humiliating failures in reaching development goals - specifically in applying First world models of urbanism to the Third world (de Rivero, 2001).

It is time for the postcolonialist production of knowledge to function as a *nebulous spatial network*, where the generation of ideas and research in urbanism are no longer blinded by the artificial equatorial boundary between North and South. Transforming the conditions of the production and circulation of knowledge in a postcolonial context has the potential to restructure power relationships and once again emphasize the "importance of contextual distinctiveness" (Robinson, 2003; p. 282). "Western ways of knowing have been held up as the way of knowing, whether this is in terms of religion, science, philosophy, architecture or governance" (Sharp, 2009, p. 111). Will future discourse be shaped by *alternate* ways of knowing?

Modernity / Postmodernity / Informality

"So if the modern age has never delivered on its promises, and if the postmodernists have done no more than 'disperse the elements that the modernizers grouped together in a well-ordered cluster' (Latour, 1993, p. 73), where does this leave us?" (Till, 2009, p. 57)

The production of knowledge in urbanism has situated itself first within the cultural context of Modernism, and subsequently within that of Postmodernism. The current soil is fertile ground for the continued production of knowledge, and while it contains elements of *both* Modernism and Postmodernism, it is far more expansive than that. Informality has emerged "beyond modernity's peripheral vision", and remained largely "underground", occupying an interstitial space that remains yet undefined and without an appropriate degree of recognition (Fabricius, 2008, p. 7). This "underground" of informality is pushing itself to the surface by sheer force of numbers. "In 2001, 924 million people, or 31.6 per cent of the world's urban population, lived in slums" (UN-HABITAT, 2003, p. xxv). This figure for slum dwellers can be reasonably taken as a baseline for a calculation of the extent of informal urbanism globally, since higher income groups might also occupy deregulated, informal environments in addition to slum dwellers. This informal category is revealing of what Oren Yiftachel terms the "gray city", which he

	Chicago School	Los Angeles Model	Gray Cities
Qualities	Order Control Direction Need Product History Function	Anarchy Chance Indeterminacy Desire Process Destiny Signification	Nebulous Legalities Constant Metamorphosis Warring Factions Economic Micro-activity Fractured Incomplete Self-formed
Properties	Construction Society Community Monoculturism Class Culture Permanence Similarity	Deconstruction Ethnicity Locality Pluralism Commodity Culture Transience Diversity	Growth Horizontal Density Proximity Activity Transurbanist Culture Ambivalence Impurity

Table 1: The Modern (Chicago School), the Postmodern (Los Angeles Model) & the Informal (Gray Cities), concept by Author, adapted from Cuthbert, 2007 with concepts and words also from Fabricius, 2008, Yiftachel, 2009, and Mulder, 2003.

describes as “developments, enclaves, populations and transactions positioned between the ‘lightness’ of legality/approval/safety and the ‘darkness’ of eviction/destruction/death” (Yiftachel, 2009, p. 247). The complimentary spatial, economic, and political tensions of such a positioning are reflected in the proposed Table 1, which also compares the qualities of this urbanism with the Chicago School and the L.A. model.

Pushed on by Nezar AlSayyad’s argument that new tools of analysis must be developed due to the inadequacy of both the Chicago and L.A. models, this chart is meant to provide a launch point from which a more appropriate, contemporary model may be developed. This new model is essential to the postcolonial restructuring of space, since it describes qualities of *both* the First and Third worlds, and its nature of resisting finite definition subverts the temptation of developing blanket proposals to address informality globally. The contemporary city becomes a palimpsest in which Modern and Postmodern are layered with informality. Gaps in the urban fabric emerge as a dynamic network of spaces with their own governing structures and their own physical structures as a strategy for survival. In this way informality is not a progression on the way to development, i.e. a transitional step, but rather it is more akin to a layering blanket that exists as a coping mechanism for increasing rates of change and urbanisation in the 21st

century. “Favelas are frequently misunderstood as a transitional urbanism, a phase of urban form as it evolves from a premodern to a modern civilization” (Fabricius, 2008, p. 7).

A key consequence of the postcolonial mindset is in reconsidering the generally ingrained association of informality with the Third world. In facilitating informality’s inclusion into the production of urbanistic knowledge, emanating from both the First and Third worlds, its pervasiveness and transformative potential in both regions are more wholly understood. Third world development patterns may be analysed and used to view First world housing issues in a new light (Roy, 2004a; Ward, 2004). In fact, in many situations we find that cities of the North contain pockets of informality, while cities of the South contain areas of “Northern” development such as gated communities - *the seed for one lies within the other*. This relieves the notion of informality as an isolated and bounded issue, and therefore increases its relevance within established centres of knowledge production. The argument that slums can exist in many different urban forms has also been made (Fabricius, 2008). For instance, many slum rehabilitation projects have the result of producing vertical slums in a formal built environment (Davis, 2006). This detailing of informality as an issue that is extremely diverse depending upon the local situation and urban environment is critical to communicating its relevance in multiple

contexts and justifies an equally nuanced and dispersed production of knowledge.

Locating the Circulation of Knowledge

An additional way to integrate alternative or marginal knowledge of urbanism into the larger consciousness is through its distribution through networks of multiple scales. These may be understood as local, regional, and global networks of circulation. This approach not only shifts the scale of communications, but it allows for greater cross-communication between relevant fields. This is realised in a situation when “networks are reestablished that ‘allow us to pass with continuity from the local to the global, from the human to the nonhuman’, and it is these networks that once again form the basis for the interpretation of the overlapping spheres of science, culture – and architecture” (Till, 2009, p. 58). Along with this multi-scaled approach, it is crucial for the circulation of this knowledge to be able to *jump* scales. For instance, if favelas in Brazil have specific relationships to the surrounding urban patterns, the intricacies of this situation are explored through the local production of knowledge, but this information then also has the possibility to circulate within the region and around the globe as a means to explore key issues relevant to other locales. This “upscaleing” also resets the scales of convention when it comes to knowledge production. As Manuel Castells articulates, “the shaping of the production of meaning is a fundamental source of power, while the key source for the production of meaning is the process of communication” (Castells, 2008). This syllogism emphasises the importance of the process of communication due to its potential as a source of power. The multi-scaled circulation of knowledge has the ability to increase the power of marginal groups and marginal urbanism.

From Literature to Analysis

The following section studies the ways in which, through both practice and research, knowledge is produced regarding informality by four specific institutions. I call them “institutions” or “centres of production” because using alternative terms such as “businesses” or “offices” shifts their focus, misleadingly, toward financial gain rather than the study of architecture and urbanism. While the term “architectural practice” is also used by

some, I have turned away from it here because “practice” in architecture denotes the production of physical built form and a traditional deliverable product to a client including drawings, models, etc. This omits the other crucial component of these centres of production, which is research. Therefore by consistently using the terminology “institutions” or “centres of production”, the categories of both practice (resulting in built form and specific interventions) and research (resulting in theory, published work, lecture and exhibition material) are included as essential components.

As a way of demonstrating the relevance of grounding this discussion in postcolonial theory, the analysis is presented not simply as the names of four different institutions, but rather as *four alternate perceptions of informality* due to the unique positioning of each centre of production. By choosing institutions with disparate geopolitical locations and associative networks, the alternate conceptions of informality that are produced more clearly emerge. Each view of informality is shaped by the means of production of that knowledge. For some it is evidence of the inherent *tension* and conflict brought about by neoliberal policies and globalisation, while for others it is a non-architectural *challenge* that might be partially met with architectural solutions. It can be viewed as a *resource*, or opportunity on which to build, or as a *deficiency* that must be addressed. The emphasis lies not with the specifics of each institution, as there are many others throughout the world dealing with informality as well, but rather with the specific approach each takes toward informality. This broadens the relevance of the analysis to include modes of thought, or ways in which to produce knowledge on informality, rather than the internal functioning of individual institutions. Each conception shapes the way an institution produces knowledge while in turn shaping the solutions proposed. In order to understand how knowledge of informality is produced, we must know the various ways in which it is approached.

While each of the centres of production to be discussed operates from a clear geography, be it former colony, former empire, or straddling a line between the

two, the study of real cases demonstrates that *alternative* approaches exist. This rethinking of informality becomes heterogeneous and place-specific, blurring the divisive boundaries between formal and informal and the binary thinking attached to it. It demonstrates how the Third world might conceive of the First world, how the First world perceives the Third world, and how the two may, in their mutual interrogation, move beyond stale dichotomies to become *post*-Postmodern hybrid cities.

PART 2 ALTERNATE CONCEPTIONS OF INFORMALITY

"Objects of analysis do not occur as natural phenomena, but are partly formed by the discourse that describes them"
(Mitchell, 2002, p. 210)

Informality as . . .

Four alternate conceptions of informality are investigated here as a means of both looking back into locating the production of knowledge, analysing the implications of these alternate conceptions, and looking forward toward the opportunities to which they give rise. Each conception of informality emanates from a case study – an architectural institution that serves as a

"centre of production" of knowledge in architecture and urbanism. For ease of comparison, and to clarify areas of departure among the different institutions, a standard sequence of inquiry is employed for each section. After briefly defining each case study, each unique conception of informality is explained through both the research output and physical interventions of the case studies. Finally, the emergent elements are identified to tie in the relevance and implications that each institution has in the future production of knowledge regarding informality.

Informality as . . . Manifestation of Tensions

Estudio Teddy Cruz, founded by Guatemalan architect Teddy Cruz, produces knowledge of architecture and urbanism from San Diego, California, along the United States – Mexico border. This strategic positioning, at a political boundary that also emphasises the wide disparity in economic development between the two countries, reveals the desire of the institution to immerse itself in this conflictive environment, providing a unique opportunity to explore transnational interrogation in Tijuana - San Diego – an



Photograph 'Mexicans Being Arrested While Trying to Cross the Border to the U.S.'
(Webb, 2003)

urban region that may be "... Latin America's iconic postcolonial city" (Varley, 2008, p. 4). Specifically, the urbanisms of San Diego and Tijuana, cities only 20 miles apart, are researched and compared, to fascinating effect not only for the specific locale but also for a broader relation between the global North and South, and the formal and informal. The unique nature of this geopolitical positioning, and the mix of two worlds, is reflected by others, including Gloria Anzaldúa in excerpts from this passionate poem:

*"To live in the Borderlands means you
are neither hispana india negra española
ni gabacha, eres mestiza, mulata, half-
breed
caught in the crossfire between camps
while carrying all five races on your back
not knowing which side to turn to, run from;
..."*

To survive the Borderlands

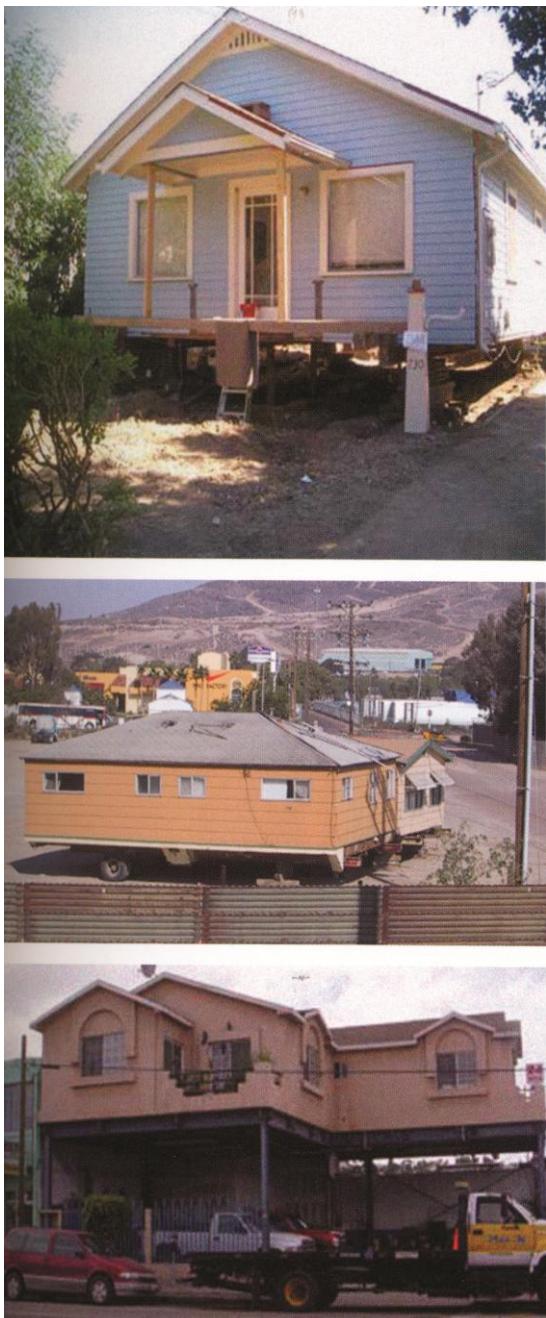
*You must live sin fronteras
Be a crossroads."*

*"The U.S. – Mexican border es una herida
abierta where the Third World grates
against the first and bleeds"*
(Anzaldúa, 2007, pp. 216-7, 25)

The tensions inherent in such a conflictive environment are also revealed through the photography of Alex Webb, who in the following photo frames a story permeated with layers of tension. Not only is there the conflict of authority figure versus civilian and empowered versus powerless, but in addition, the image of this imposition of force takes place in a peaceful background of gently coloured skies and fields of flowers. The photography of Alex Webb and poetry of Gloria Anzaldúa merely reiterate the draw of this geopolitical environment in exploring the tensions inherent within it.



Photograph: U.S. – Mexico Border Fence (Webb, 2003)



Photographs of Disposable Housing (Cruz, 2008, p. 51)

In researching the urban patterns of these two cities, mirrored across the U.S. – Mexican border, Teddy Cruz has used this “border zone” as a laboratory through which informality may be explored. Seeing the physical patterns of development of both cities as logical results of a larger political and economic environment situates Cruz’s viewpoint of informality as a *manifestation of tensions* – tensions that emerge from a neoliberal, postcolonial world of inequality and unequal distribution of resources. By demonstrating an interest in the “political

and socioeconomic procedures behind the informal” rather than simply the “image of the informal”, informality is seen as the result of a conflicted series of events – a resultant urban form (Cruz, 2009).

A specific project by Estudio Teddy Cruz, *Disposable Housing*, illustrates this view of informality as a manifestation of tensions. This work documents the reuse of San Diego’s defunct housing stock and building materials in Tijuana. Incredibly powerful images of entire homes being transported on trucks from North to South, across the border, for reuse in an unregulated, unplanned informality reveals this tension while hinting at the processes that created it.

The homes are usually placed on top of a one storey steel frame, to introduce the flexibility through modification of having a workspace or parking space beneath the house. As Cruz demonstrates, “Tijuana imports the urban debris of San Diego”, reusing garage doors of suburban San Diego homes as walls and roofs of self-built housing in Tijuana (Cruz, 2009). In addition to this building and material reuse - informality illustrative of inequality and conflict - are mirrored types of development in each city. “Unavoidably, in every first-world city a third world exists, and every third-world city replicates the first” (Cruz, 2004). The informal densities that begin to colour the landscape of San Diego, as well as the gated communities that line Tijuana, demonstrate this phenomenon. Despite the isolationism and protectionist policies of the United States, as made physically evident by the intimidating fence along the border depicted in the photograph below, exchanges of people, materials, and urbanism continue between the cities. This *hybridity* is identified as a model that in some ways releases the tensions that have built up over time.

Returning to the strategic location of this centre of production, Estudio Teddy Cruz grounds the relevance of its studies in proposing that the future may resemble this mix of formal and informal. “By bridging the planned and the unplanned, the legal and the illegal, the object and the ground, Tijuana’s informal urbanism might anticipate the patterns of density and programmatic intensity that are already re-defining the American

metropolis and contemporary notions of housing and urbanism worldwide" (Cruz, 2004). The relevance of this view of informality is twofold: the first being that, as a *manifestation of tensions*, it draws attention toward the processes that created the tensions, claiming that the "fragmentation of the city mirrors the fragmentation of institutions and budgets" (Cruz, 2009). The second being that it suggests a relief of these tensions in part through the incorporation of informality in the First world, and calls on architects to reorient their focus in knowledge production. "The architecture avant-garde has become fully complicit with and international neoliberal project of privatization and homogenization, by camouflaging gentrification with a massive hyper aesthetic and formalist project" (Cruz, 2007). He recommends change with his advice that "we should be turning our attention away from the wall and towards the landscape, the ecology and the communities" (Dilworth, 2006). This means of production, along with the geopolitical context in which the knowledge is produced, is crucial in defining informality as a *manifestation of tensions*, and in directing the resultant conclusions found by Estudio Teddy Cruz.

Informality as . . . Challenge

Elemental produces knowledge in architecture and urbanism from Santiago de Chile, and emphasizes the proactive mentality of its work by defining itself as a "do tank" (Aravena, 2008b, p. 163). Its position in the global South is shaped by Chile's status as a former Spanish colony (defining its position within the postcolonial debate) as well as its relation with the native Mapuche population. These factors, along with its status as one of the most-developed South American countries, provide a unique context for the production of knowledge. Elemental's ability to voice their work and ideas on a wide, and increasingly large, scale also figures prominently in their prime position for analysis. The prominence and relevance of Elemental's work in the past decade is underscored by Alejandro Aravena's being awarded the Silver Lion at the XI Biennale di Venezia in 2008 and his being named to the jury for the Pritzker Prize in 2009.

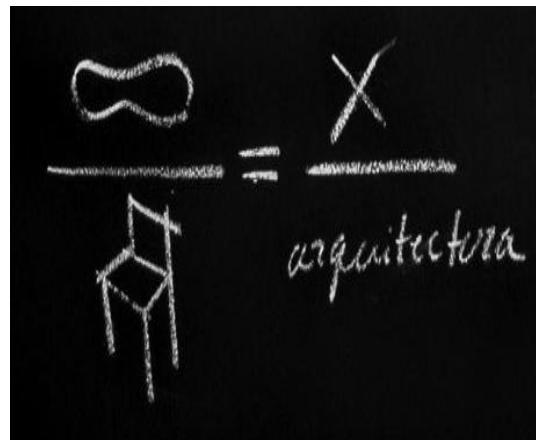
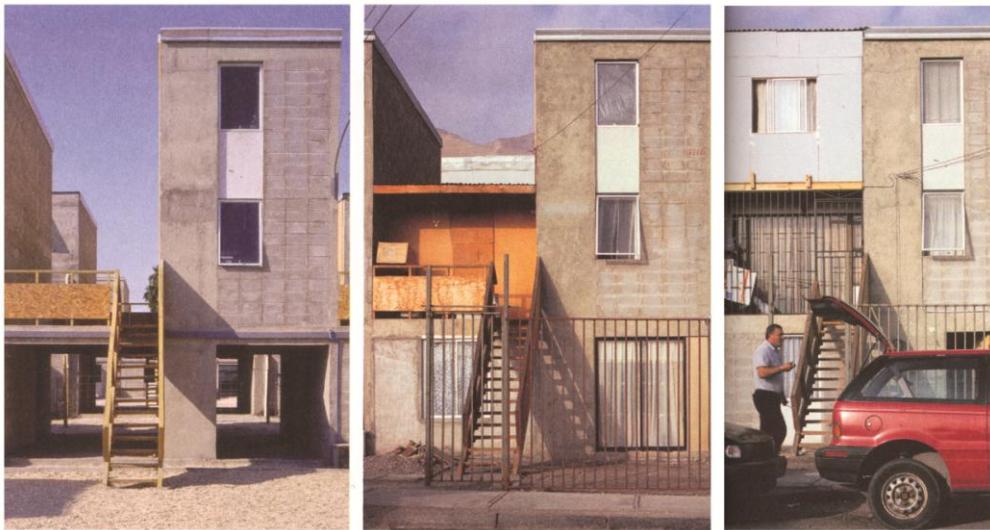


Image of Elemental Equation (Aravena, 2008a)

Elemental's view of informality as a *challenge* is evident from the distillation of their philosophy in the development of social housing to an equation, where one must Solve for X.

The numerator on the left of the equation indicates a loop of fabric that can be used to wrap around the back and legs of a person, forming a minimal chair design. 'X' is therefore indicating a paired-down architectural proposal that serves its intended function while using minimal resources and materials - an *elemental* form of architecture. Another relation that may be interpreted from this diagram is that 'Architecture' addresses the formal, while Elemental seeks ways to address the informal. The challenge in solving this equation is in not merely providing social housing, which has failed for various reasons, (failing to reach the target group, poor design quality, disconnected from the city due to peripheral site choice, etc.) but in creating an *investment* for families (Burgess, 1992). This investment should of course gain in value and adapt over time to suit the particular needs of its inhabitants, giving them a foothold in the formal economy. In order to gain value over time, the quality of the concept and the design must be sufficiently enabling to the inhabitants. "It could be said that the *challenge* is how to guarantee that quantity and quality are not mutually exclusive" (Aravena, 2008c, p. 166; my emphasis).

The defining project of Elemental to date, housing in Iquique, Chile, illustrates the



Photographs: Quinta Monroy, Iquique. Aravena, 2008a, p. 288-9

conception of informality as challenge, and proposes a solution to the housing equation. In this work, the site location and the resident's existing livelihood networks were prioritised and maintained as a fundamental design principle. The relatively high cost of this land, however, meant that other concessions would need to be made. For instance, the remaining room for manoeuvre in the budget, after site purchase, allowed for the construction of a sheltered space constituting one half of a house. This was acceptable because the future expansion, and doubling in size, of the provided housing unit could be designed into the equation. With this in mind, the question of what to provide in the built half of the house became paramount. Elemental solved this by providing the half of the house that the residents would not have the capacity to construct themselves, such as the structure, vertical circulation and services, while leaving some structural bays open for future self-build completion. The three-metre width of this open structural bay was dimensioned to compliment standardised fabricated material dimensions, so that wood, metal, and other materials could be simply purchased by the inhabitant and installed without any extra cutting or shaping of the materials. The following photographs reveal how the intended incremental expansion of the housing unit worked in practice.

The additions could expand each 36 square-metre house to a 70 square-metre house, and each 25 square-metre duplex to a 72 square-metre duplex. This

alternate conception of the problem led Elemental to an alternate solution to the challenge of informality. Their breakthrough was in shifting traditional priorities within an established set of constraints, resulting in a formal housing project of 93 fully serviced, fully legal houses on the site of a previous informal settlement.

The ultra-logical conception of establishing a housing equation that must be solved carries with it multiple desired effects. The first, by establishing a challenge, not only serves as a motivating force for Elemental, but it also attracts a greater number of architects toward addressing low-income housing. In this sense it makes the case for a renewed relevance of the profession of architecture. "The key lies in how we implement projects that are relevant and of interest to society, and in understanding the potential for development offered by the city" (Aravena, 2008c, p. 164). The second desired effect is that it establishes optimism that, with the current knowledge and resources available, the housing equation can be solved. "There are two different approaches to the city that can be identified. Firstly, there are those who see the city as a problem that needs to be resolved, as a conflict and threat without precedent in the history of humankind. Then there are those who see the city as the most efficient vehicle for development that man has ever devised" (Aravena, 2008c, p. 161). Clearly, Elemental approaches the city as the latter, and this stance is reassuring given the extent of urban migration over the past century.

Perhaps the “right to the city” of all inhabitants can be assured by providing housing solutions that enable families to have an investment that grows over time, incorporating them into both the formal urban fabric and the formal economy (Purcell, 2003). For Elemental, if informality in the ever-expanding cities of the 21st century is approached by working within given constraints, then it is a challenge that may be overcome.

Informality as . . . Resource

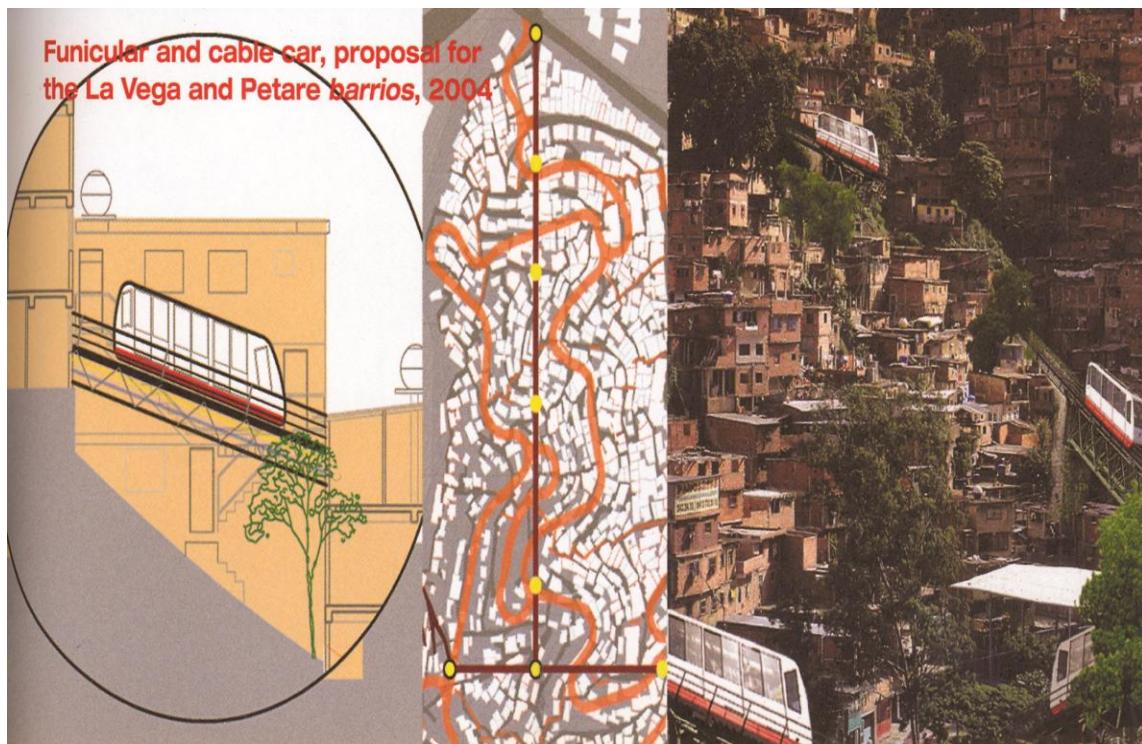
Located in Caracas, Venezuela, Urban Think Tank (UTT) produces knowledge in architecture and urbanism from the global South, using their city as a basis for analysis of informality in the urban environment. The principals of UTT, Alfredo Brillembourg and Hubert Klumpner see this as an ideal location for their research because of its wider relevance to Latin America. “Brillembourg and Klumpner propose Caracas as ‘the archetype of the Latin American megacity’, *the informal city*” (Varley, 2008, p. 12). Brillembourg also believes that “the city of Caracas serves as a perfect example to define the Latin American city of tomorrow”, elevating Caracas to the status of a model of future urban morphologies on the continent (23 de Enero, 2004). The knowledge they produce, using Caracas as a form of laboratory, has also found channels internationally, with the directors of UTT leading the Sustainable Living Urban Model (SLUM) Lab at Columbia University. This studio views informal settlements as a laboratory where ideas may be generated and design interventions may be implemented.

Far from seeing informal settlements as primarily dangerous, illegal, or deficient, UTT sees them as a rich collection of ideas that may be used as a resource to generate positive urban interventions not only for Caracas, but also throughout South America. “I think there is a lot of things we can draw from Caracas that has relevance on another scale” (*Unseen Caracas*, 2005). This perception is reinforced by their dedication to the study of informality, and its relationship with the formal city, in establishing UTT. “We’re trying to create this awareness that Caracas is a city that needs to be inserted into the dialogue, the global discourse on

architecture and urbanism” (*Unseen Caracas*, 2005). The concept of informality as a resource justifies this incorporation into global discourse, because it can be used as a place for experimentation and knowledge production.

This view of informality changes the way UTT approaches projects. This is demonstrated in their proposal for the San Agustin metro cable, which connects areas of the slum to the city’s public transportation network, as shown in the images below. Their means of conducting the project gave emphasis to the existing knowledge base as a resource within the informal settlement, by working together with residents to develop the concept and design of the project. This was achieved through project transparency created by public symposiums and presentations, and participation through design charrettes and the formation of an investigative task force including local residents (Brillembourg and Klumpner, 2005b). The *hybrid* knowledge that resulted from both local residents and the professionals of UTT resulted in a relevant project that facilitated the incorporation of the slum into formal transportation networks.

Urban Think Tank’s approach to informality does much to integrate Caracas, and informal urbanism, into a wider global discourse. The practical implications of their work are evident in their argument that Caracas is a model and predictor of future urban form for many cities, and in their view of informality as a resource. “Informality is an essential element of cohesion in cities, and the analysis of its urban properties and processes is an important endeavour for those of us who are, in the end, responsible for the city” (Brillembourg and Klumpner, 2005c, p. 43). The perception that informal settlements and their inhabitants have something to offer, rather than merely being passive beneficiaries of aid or a drain on the city’s economic ambitions, naturally orients further research toward informality. If this approach becomes widely accepted in the global North, this would alter the way that knowledge is produced in architecture and urbanism.



Images of the San Agustin Metro Cable Proposal (Brillembourg and Klumpner, 2005a, p. 253)

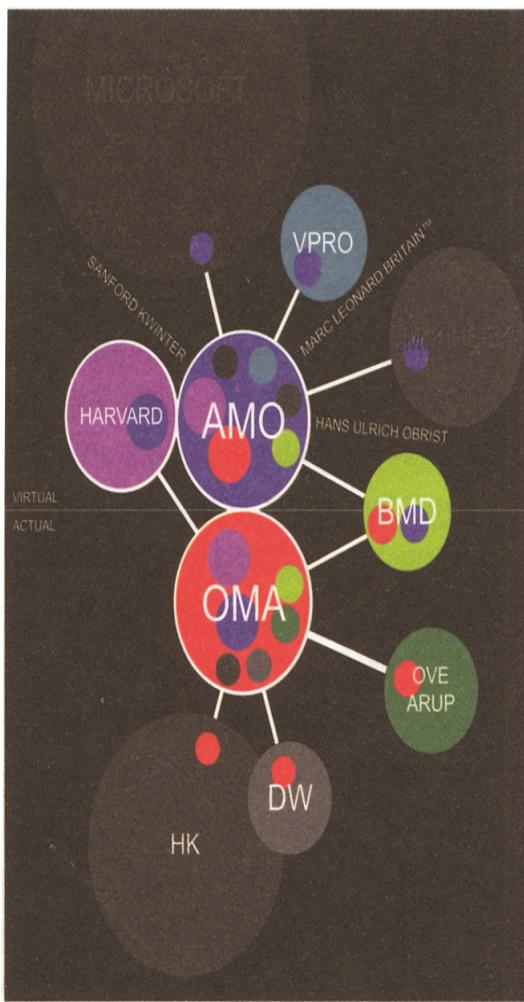
Informality as . . . Deficiency

AMO is always seen in relation to its precedent and practical component, the Office for Metropolitan Architecture (OMA), established by Rem Koolhaas in Rotterdam, The Netherlands. AMO is thus the think tank offspring of the more traditional architecture firm OMA, and their mirrored relationship is expressed through the palindrome AMOMA as well as the following structural diagram, designed by AMO.

Rather than integrating this “think tank” component into their traditional practice, by investigating further the social, cultural, and political aspects of design, Rem Koolhaas drew a dividing line and created the mirrored image, AMO, as the separate research unit of his architecture and urbanism outfit. A key point of this diagram is to expand upon an idea brought forward previously – that “the seed for one lies within the other”. In this context, this idea describes the influences between professional companies and institutions in the “virtual” and “actual” worlds. It can show how the knowledge created by one institution is communicated through networks to others. It can also

show degrees of relation, with some institutions being related to others only through an intermediary. This kind of structural mapping is critical in demonstrating how concepts such as “informality as deficiency” can influence the work of other institutions.

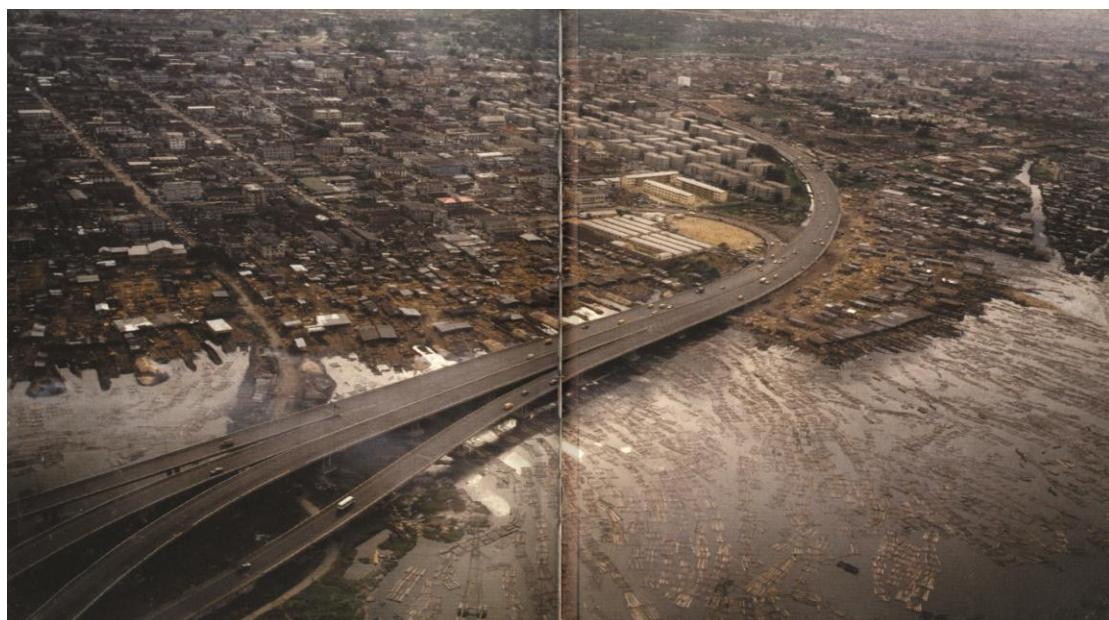
The strategic location of this centre of knowledge production in the global north, in a highly developed nation, situates its perception of informality in urbanism. Through their connections with Harvard University and the *Harvard Project on the City*, AMO has established North-North associations (see Map F on p. 9) with established centres of knowledge production. As may be expected from an institution of the global North researching cities in the global South such as Lagos, AMO’s response to informality in the city may best be described as a treatment of *deficiency*. This is illustrated with the view that Lagos is an “echatological evocation of urban apocalypse” or “a realm of irrationality beyond the reach of human agency or any realistic prospects of improvement” (Gandy, 2005, p. 38). In this respect, informality is defined as a missing element among the formal



Structural Diagram of AMO-OMA
by AMO (Daniell, 2009)

structures of the city, a gap in the urban fabric that must be topped up, filled in, and injected with support to mitigate and relieve this deficiency. The strain of this deficiency, and the sight of informality leaking through the formal city planning, is evident from the following photograph, taken by Koolhaas' team from a helicopter. The perception that Lagos is "almost disconnected from the global system", recalls the pentagon's map of the "non-integrating gap" versus the "functioning core" and Oswaldo de Rivero's identification of "ungovernable chaotic entities" versus developed countries in *The Myth of Development (Lagos Wide & Close, 2006; de Rivero, 2001)*.

In the film and book produced by Rem Koolhaas in conjunction with the *Harvard Project on the City*, entitled *Lagos Wide & Close*, Koolhaas investigates Lagos for several reasons. With a projected population of 24 million by 2030, making it the third largest city in the world, Lagos will, by its size alone, be an extremely important player on the world scene. Koolhaas also was interested in how Lagos worked and the city's relationship with modernisation. There was an investigation into why Lagos seemed to be "becoming more normal, like a typical city" (*Lagos Wide & Close, 2006*).



Photograph of Lagos, Nigeria
from 'Mutations: Harvard Project on the City' by Rem Koolhaas et alii, p. 656

AMO's conception of informality can be seen as evolving from one of *deficiency* to one of *resource* through their continued study of Third world cities. This is evident in the discrepancy between the initial approach to the Lagos study and Koolhaas' concluding comments, such as "the definition of what works should be stretched to include more or less informal conditions / the whole overlap between formal and informal so that instead of one perfect model, an incredible gradation of different conditions that all coexist in the city and that mutually feed each other" (Lagos Wide & Close, 2006). The impression changed from one of "chaos" and "improvisation" to one that may serve as a model. For instance, "there are a number of projects in the office (OMA) that are directly influenced by it (Koolhaas' research in Lagos) in the sense that they are more direct and less dependent on

reasoning . . . more immediate, maybe more poetic, wilder, more visceral" (Lagos Wide & Close, 2006).

Emergent Elements: The Implications of Alternate Conceptions of Informality

In exploring these alternative approaches to informality, we may revisit the question, "What are the fruits of the renewed interest in informality, and what are the implications for the way it is studied and approached?" A starting point for understanding these implications is found be revisiting Map D, copied here without changes. By mirroring the conventional map of the world over the horizontal axis (as Supersudaca have done in Map C) and superimposing the previously discussed conceptions of informality, a general theme becomes evident.



Copy of Map D: Geographical & Political Equators with Case Studies drawn by Author, 'political equator' concept by Cruz 2008b



Map H: Positive v. Negative conceptions of informality and their relations to Teddy Cruz's Political Equator, drawn by Author

The approaches “above” the political equator of Map H (in the global South) are markedly more positive and revealing of the transformative potential in working with informality, while the approaches “below” (in the global North) are more negative and stagnant. While it is recognised that there are many other institutions around the world left unexamined, and that the approaches of those profiled are based on interpretation, this still presents a valid opportunity to draw attention toward existing biases in the production of knowledge in architecture and urbanism. As further global study of informality continues, as evidenced by the exhibits in New York and Los Angeles in 2009 of *Urban China: Informal Cities* and Alessandro Petti’s research of informal urbanism in Cairo, these biases are lessened through shared knowledge and understanding (Godsill, 2009; Petti, 2005).

While these four cases may have begun from unique and disparate positions, as revealed in their investigations of informality, they are in fact converging to a common endpoint. Many of the emergent issues discovered, therefore, overlap between the work of several institutions as common and critical themes. Together

they highlight the results of the increased focus on informality. The first significant shift of thought brought about by the knowledge produced by these architects is a *reversal of the perceived direction of progression in urbanism*. Informal settlements were previously approached as a remnant of the past that must be eradicated, a view that later evolved to promote upgradation rather than demolition. The Western, formal city was the model, while the burgeoning informality of the global South was a measure of progression on their march toward attaining the First world model. This conception has now been mirrored to view the sprawling mega-cities as the model toward which urbanism is heading. “We think it possible to argue that Lagos represents a developed, extreme, paradigmatic case-study of a city at the forefront of globalising modernity. That is to say that Lagos is not catching up with us. Rather, we may be catching up with Lagos” (Koolhaas, 2000, p. 653). Disagreement between the institutions in their initial conceptions of informality, and the exact nature of their interventions, however, is very positive for further incorporating informality in the production of knowledge. This is simply because a

diversity of approaches and interventions stimulates a wider debate and lends momentum to the production of knowledge. It also prevents the oversimplification of a “best practice” scenario being established, which would homogenise the extremely diverse and intricate area of informality.

The second critical point is that this renewed focus of architecture and urbanism on informality necessarily leads to connections with the formative processes of the urbanism under investigation. This is crucial in seeing the self-feeding cause/effect mechanism between policy, built form, and social processes in a holistic manner. Much information produced starts with policies and economics and never trickles down into the urban consequences – there is a disconnect. The work of the profiled institutions inverts this knowledge production process by using the built environment as an entry point into a wider policy and economic debate. This is an attempt to make the connection between the built environment and its formative processes more evident. Being seduced, rather naïvely, into the formal aesthetic of informality, as architects are susceptible to do, eventually leads to a questioning of the relationship of the informal to the formal, and the reasons for the existence of widespread informality in the first place. Matthew Gandy emphasises these reasons in his critique of the traditional non-engagement of architects with formative processes. “To treat the city as a living art installation, or compare it to the neutral space of a research laboratory, is both to de-historicize and to depoliticize its experience. The informal economy of poverty celebrated by the Harvard team is the result of a specific set of policies pursued by Nigeria’s military dictatorships over the last decades under IMF and World Bank guidance, which decimated the metropolitan economy” (Gandy, 2005, p. 42). However, continued study of built form can often lead to a greater interest in the forces that shaped it. Even seemingly negative motivations, such as the professional ego, can be leveraged in a positive way to approach the question of informality from a new direction. When beginning his study of Lagos, Rem Koolhaas listed as a reason for this choice that he “felt embarrassed that there was this world that I didn’t understand” (Lagos Wide & Close, 2006). This later evolved

into a realisation of the organisation and complexity that lie beneath the surface - “what seemed at the beginning improvisation, was really systematic layering” (Lagos Wide & Close, 2006).

The third point that follows from this connection of urbanism and its formative processes is the natural *questioning of the appropriate role of the architect* in this extremely complex and dense layering of forces that compose a city. Teddy Cruz ties these ideas together by stating that “the conditions that produce the crisis could become the material for architects . . . as we reorganize those systems” (Cruz, 2009). Urban Think Tank ask themselves and the wider audience, “how has the role of the architect changed in this century?” in their films (*Dialécticas Urbanas, Alegorías sobre Caracas*, 2003). While this question certainly existed previously in the minds of some architects, and is by no mean solely the result of knowledge production in informality, the reorientation of the profession is encouraged by this concentration on informality. The more that this knowledge production is supported, the wider the debate on the role of the architect in the 21st century becomes. A key logistical point to this production is that every one of the institutions profiled here are led by architects educated in prestigious knowledge centres, giving their work a credibility to the avant-garde establishment that otherwise might not exist. Returning to the postcolonial debate framed by Jenny Robinson, this can be seen as a validating mechanism and possible transitional step toward encouraging additional architects from the global South to formulate their conception of informality and enter the debate. In addition to their educational pedigree, they all are, or recently were, involved in teaching and running design studios at either the Graduate School of Architecture, Planning and Preservation (GSAPP at Columbia University) or the Graduate School of Design (GSD at Harvard University). Their unique understandings of informality, therefore, are continuously transmitted to a new generation of architects. This feedback loop of knowledge not only gives an outlet for the research conducted by these architects to influence new generations of professionals, but that research now initiates in the “ground zero” of power and influence. It is

as if the knowledge production, including their associations with the local population, begins in the field with the inhabitants of informal settlements, works its way up through the power ladder, and lands straight in the centre of the upper echelons of architectural education.

PART 3: A REORIENTATION OF KNOWLEDGE PRODUCTION

“The splintering of urbanism does not take place at the fissure between formality and informality but rather, in fractal fashion, within the informalized production of space” (Roy, 2009, p. 82)

Through examining alternate conceptions of informality and their implications for the way it is studied and approached, critical points were identified. A reversal of the perceived progression in urbanism, a renewed connection with the formative structures and processes in urbanism, and a questioning of the role of architect are all consequences of a regenerated interest in informality. Shifting from these *results of resurgent interest* to a *critical stance on future discourse*, and the knowledge production that will shape it, accentuates the relevance of the topic. Here we revisit the question, “What should be the future trajectory of the discourse on informality, and how can the production of knowledge shape it?” The above quote by Ananya Roy touches upon the false premise of a formal / informal binary, and opens up to the diversity and consequences of informality within the production of space.

Could the future production of knowledge on informality mirror this diversity?

The Opportunities of Alternate Conceptions of Informality

In revisiting the three emergent elements previously espoused in Part II while thinking forward of the opportunities they invite, it is possible to devise recommendations for the reorientation of knowledge production. If the *perceived direction of progression in urbanism has now been in essence reversed*, as argued previously, with informality becoming a new model, knowledge production must also accommodate this shift. Orienting new knowledge production toward a hybrid model can do this effectively. As Jeremy Till reiterates, the previous movements describing our cities are outdated. As stated previously: “if the modern age has never delivered on its promises, and if the postmodernists have done no more than ‘disperse the elements that the modernizers grouped together in a well-ordered cluster’, where does this leave us?” (Till, 2009, p. 57). Revisiting Table 1, copied here without changes, there is an opportunity to embrace this multiple production of knowledge as “polychromatic” rather than the “grey space” that Oren Yiftachel espouses. Table 1 seeks to extend beyond the outdated models of Modernism and Postmodernism to accurately describe the conditions inherent in 21st century cities.

	Chicago School	Los Angeles Model	Gray Cities
Qualities	Order Control Direction Need Product History Function	Anarchy Chance Indeterminacy Desire Process Destiny Signification	Nebulous Legalities Constant Metamorphosis Warring Factions Economic Micro-activity Fractured Incomplete Self-formed
Properties	Construction Society Community Monoculturism Class Culture Permanence Similarity	Deconstruction Ethnicity Locality Pluralism Commodity Culture Transience Diversity	Growth Horizontal Density Proximity Activity Transurbanist Culture Ambivalence Impurity

Copy of Table 1: Assessing The Condition (Gray Cities) Concept by Author, adapted from Alexander Cuthbert, 2007 with concepts and words also from Fabricius, 2008, Yiftachel, 2009, and Mulder, 2003.

	Chicago School	Los Angeles Model	Polychromatic Cities (Hybridity)
Qualities	Order Control Direction Need Product History Function	Anarchy Chance Indeterminacy Desire Process Destiny Signification	Nebulous Legalities <i>Constant Metamorphosis</i> Warring Factions Economic Micro-activity Fractured Incomplete Self-formed
Properties	Construction Society Community Monoculturism Class Culture Permanence Similarity	Deconstruction Ethnicity Locality Pluralism Commodity Culture Transience Diversity	Growth Horizontal Density Proximity Activity Transurbanist Culture <i>Ambivalence</i> <i>Impurity</i>

Table 2: Addressing the Condition (Polychromatic Cities)

Concept by Author, adapted from Alexander Cuthbert, 2007 with concepts and words also from Fabricius, Yiftachel, Bhabha, and Mulder

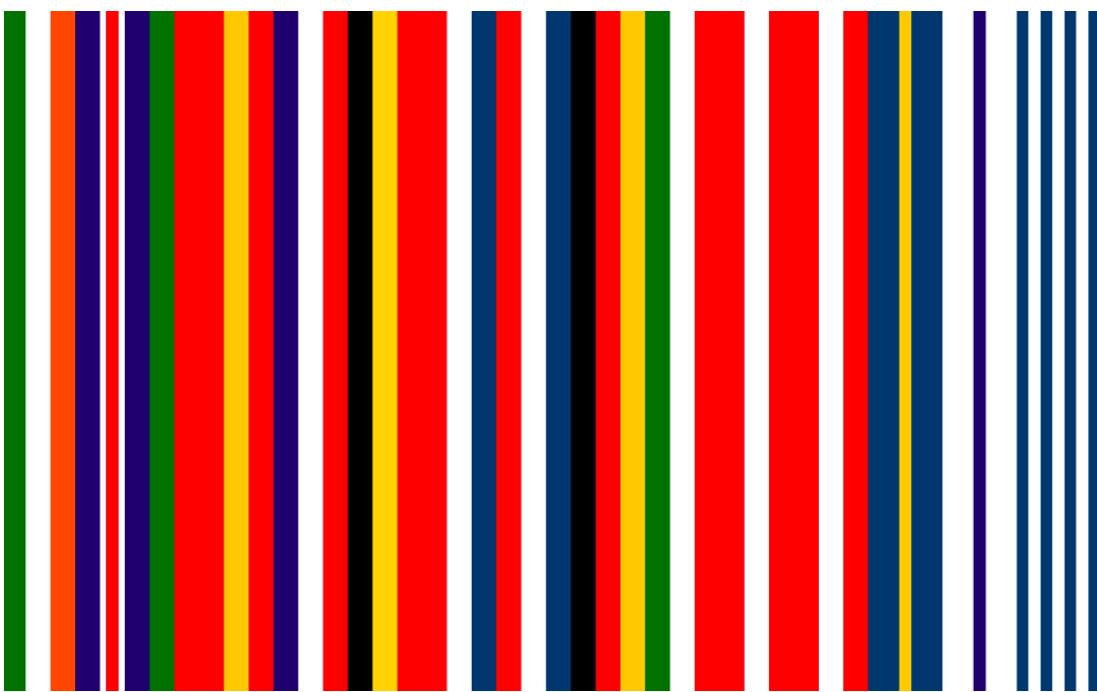
Table 2, by simply changing the title of this new model from “gray” to “polychromatic”, seeks to convey a new model to successfully address these very conditions.

If the condition that Yiftachel describes as being in “gray space” – suspension between the formally accepted apparatus of the city and the marginal, illegal, insecure and informal settlements that fight for existence – is the condition of most urban migrants, then architecture and urbanism may address this condition with a “polychromatic” production of knowledge. This introduces the possibility of knowledge production acquiring certain properties of being in “gray space”, enabling them to address informality in a positive way. For instance, the idea of knowledge production as a prism that identifies the diverse and complex nature of the “gray space” of cities and addresses informality in equally diverse and complex ways may be represented visually with AMO’s proposal for the flag of the European Union, found on the following page. If what appears at first to be a homogenous group of 924 million slum dwellers living in “gray space” is instead detailed to reveal its extremely dynamic and resourceful nature, as represented by the spectrum of colours below, architects may offer more meaningful solutions (UN-HABITAT, 2003, p. xxv). If knowledge production can continue to expand upon the intricacies of informality in the built environment and its formative processes in disparate and unique locations

worldwide, a more understanding should increasingly effective translate into policies and programmes.

By acknowledging the conditions as stated in the tables such as “impurity”, “ambivalence”, and a state of “constant metamorphosis” in the research and design solutions proposed, architectural practices will place themselves in an optimal way to address informality. This emphasises not the final deliverable architectural product (the building), but rather the transformative process of re-scripting power relations through the built environment. It accentuates the art, not the science, of architectural practice (Hamdi, 2004). Further evidence of the “polychromatic” means of addressing “gray space” lies in the use of architecture as a catalyst of sorts: “the least interesting thing for the chronicler is to *control* the city through narrative but instead to *reveal* it, *discover* it, *activate* it” (Cruz, 1999, p. 47; my emphasis).

If the renewed focus of architecture and urbanism on informality necessarily leads to *connections with the formative processes* of the urbanism under investigation, as argued previously, knowledge production must also accommodate this shift. Introducing more architecture and urbanism think tanks that consider the full palimpsest of issues related to the built environment in devising their proposals can do this. Urban Think



Knowledge Production as Prism, concept by Author
Image of Proposal for the Flag of the European Union by AMO

Tank holds an exemplary role in this multi-layered investigation of urbanism, claiming, “if architecture is frozen music, urbanism is frozen politics” (Brillembourg, 2005b, p. 73). This illustrates their clear identification of formative processes as issues to be addressed in any urban intervention they propose. The idea of producing knowledge in related fields is also echoed by Jeremy Till: “... objects, as products of both nature and society, were understood as part of complex networks. Anthropologists could observe this time through tracing those networks, ‘weaving together the real, the social and the narrated’. In this time a building, as one such *hybrid* object, could be understood as the intersection of a range of forces, from the political to the natural, from the real to the metaphorical” (Till, 2009, p. 56; my emphasis). Centres of knowledge production must cease to view informal urbanism as an isolated physical phenomenon that must be redesigned and “corrected”. Instead, the continuous thread of formative process must be traced into related areas of study that impact the formation and evolution of informal settlements.

If this understanding of formative process leads to *questioning the appropriate role of the architect* in this extremely complex and dense layering of forces that compose a city, as argued previously, knowledge production must also accommodate this shift. Eliminating the isolationist and elitist barriers erected around the architectural profession can help do this. This inherently involves a relinquishing of control for architects, which may seem professionally threatening. Ironically, maintaining the status quo actually serves to be more professionally threatening in the long term, by leaving architects providing services that are increasingly irrelevant to the majority of the world’s population. It is crucial, in encouraging the reorientation of the profession, to be convincing of this point.

The traditional view of the designer as creative genius or (worse) stylist is evolving to a perception of the designer as team member, interpreter of complex systems, communicator, and problem-solver. To some degree, this is due to an increased expectation that it is necessary to

understand characteristics of the “user” and the broader situated context of use (Roth, 1999, p. 20).

Elemental is exemplary in addressing their projects in this manner, thereby maintaining relevance and circumventing manipulation of form as an end-goal or name-branding to truly solve pressing urban housing problems. Doing so does not underutilize the skills learned by architects in their education, but rather it demands more of them, reaching into an additional skill set of negotiation, mediation, and interpretation. Contemporary architectural practice requires a diversified toolkit where each instrument stands not in isolation, but may be used in conjunction with others to build more lasting and just solutions. “The return of the political to architecture does not involve designing a building but designing a process of political engagement – one by which architectural ideas, strategies, practices, and values are developed and disseminated in collaboration and consultation with greater society” (Gámez and Rogers, 2008, p. 23). An opportunity exists for knowledge production to set as its end goal not singular client satisfaction, but rather a tempered investigation of the polychromatic city, which benefits society as a whole.

From Postcolonial Production to Hybrid Production

Moving beyond the postcolonial production of knowledge is a key element in dissolving the restrictive binaries of north/south and formal/informal. While postcolonialism is necessary in giving the under-represented a voice, it is still essentially a reactive critique of colonial powers, just as Postmodernism is a reactive critique of Modernism. The benefits of these movements are many, including the awareness of established biases and centres of power, however building the capability to address urban crises of the 21st century requires more than the action-reaction paradigms they espouse. We could attempt “... forgoing the obsolete framework of ‘postcolonialism’ in favour of a more affirming subjectivity, open to difference, transcending borders, toward a world that is neither global flatness nor tribal territorial; towards living among others, beyond national-cultural constructs and

the nation-state; toward reclaiming the world as ‘unknown possibilities and potentials’” (Leung, 2009, p. 44). What then would replace this “obsolete framework”? I call this “more affirming subjectivity” that Simon Leung mentions - hybridity. It has the key abilities to draw from local knowledge while circulating that knowledge on regional and global scales, colliding with other locally formed knowledge, and contributing to the global discourse on informality. What if a hybrid production of knowledge was possible - a situation in which the institutional effects of colonialism were understood as a context, but were transcended to mute the “political equator” dividing north and south? For instance, a hybridity in which many institutions could produce knowledge of informality from their unique contexts, but with a global relevance. This would have the potential to see past the oversimplification of urban areas being either “First World” or “Third Word” – developed or developing. “Postcolonial hybridity looks to the grey areas, arguing that there is no neat inside/outside division” (Sharp, 2009, p. 121). In these “gray areas”, it could be discovered that all cities are developing, with pockets of both formal and informal growth. As Teddy Cruz has noted, urban morphologies of San Diego have begun to infiltrate Tijuana, and visa versa. This is illustrated in the following image, which uses photographs of Los Angeles, San Diego and Tijuana as the raw materials for a hybrid vision of the city (Cruz and Chavez, 2000). Cities of the 21st century are becoming a hybrid conglomeration of urban morphologies, and knowledge production must also accommodate this shift.

As this hybridity increasingly forms cities around the world, it becomes evident that a networking of urban form must be complimented with a networking of knowledge production. This allows information on informality to be produced from many different locales, with relevance to both the local and global settings.

Networks are reestablished that “allow us to pass with continuity from the local to the global, from the human to the nonhuman”, and it is these networks that once again form the basis for the interpretation of the overlapping

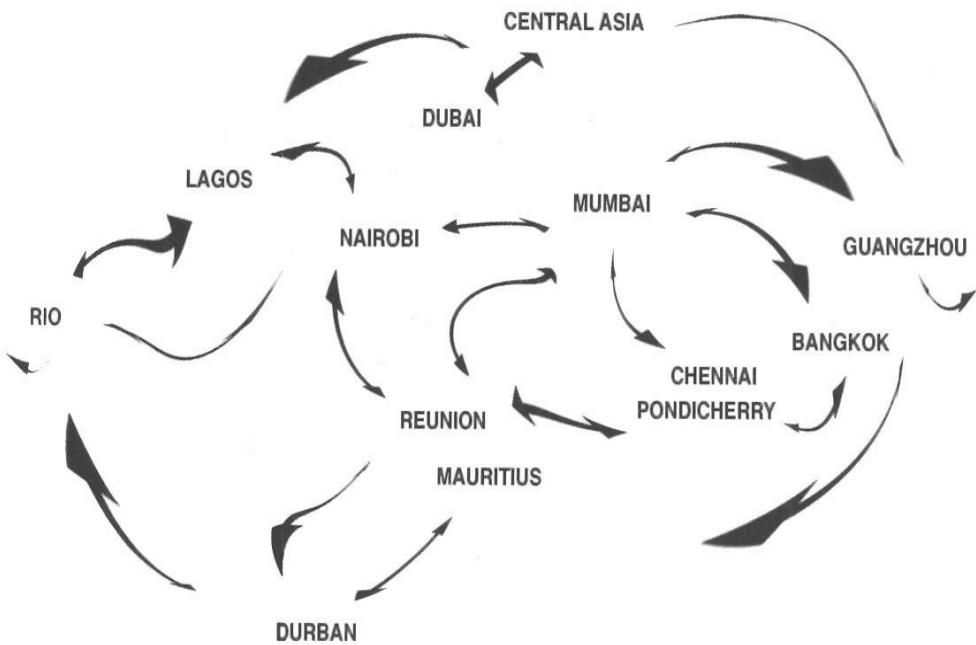


Hybrid Border Postcard (Cruz and Chavez, 2009)

spheres of science, culture – and architecture (Till, 2009, p. 58).

As evidenced from Jeremy Till's quote, these hybrid networks not only allow for a multiple and considered production of

knowledge in urbanism, but they also connect this knowledge in an essential way to “overlapping spheres” of the formative processes discussed earlier. The diagram below illustrates the potential connectivity and diversity of such networks.



Map 1: Postcolonial South-South Network Map by Dorothee Albrecht, in 'Counter Creed', in Maharaj, 2008, p. 9

In moving from a postcolonial production of knowledge to a hybrid production of knowledge, the orientation of knowledge production must be critically approached. A contemporary example of how this is achieved is the magazine, *Urban China*, and specifically their issue on 'Informal China', as shown in the following image.

The magazine is described as "the first magazine on urbanism in China, and also a multi-dimensional medium which integrates deep-level problems with the popular expression, orthodox official discourse with vivid folk narration. Through the professional analysis and interpretation, UC delivers the civilian voices from bottom up and translates the governmental policies from top down as a constructive platform between the government and the people" (*Urban China*, 2007). These multiple perspectives on urban issues from a still underrepresented area of the world, that are locally based but circulated to a global audience, make great strides in expanding this hybrid production of knowledge.

From Knowledge to Policy

In order to fully utilize a reorientation of knowledge production on informality, there must be a clear translation from knowledge to policy, and from policy to physical planning and urban interventions. While the purpose here is not to develop specific policy proposals, it is to suggest a knowledge production framework that could nurture more effective and beneficial policies for *all* of society. In order for this to occur, the *policy language* used to convey knowledge must transcend the colonial perspective.

The engrained vocabulary and values of architectural discourse are painfully inadequate to describe the current production of urban substance. They perpetuate an image of the city which is essentially Western, and subconsciously insist that all cities, wherever they are, be interpreted in that image; they systematically find wanting any urban form that does not conform. Our words



Cover of *Urban China 09 – Informal China*, 2006

cannot describe our cities with any precision or pleasure (Koolhaas, 2002, p. 175; Koolhaas, 2000, p. 6).

This recalls Table 2 and the descriptors of “polychromatic cities”. Imagining policies that were flexible enough to support such terms and thoroughly consider their consequences on the built environment might work *with* informality, rather than constantly fighting it through exclusion – banishing it to “gray space”.

The profession of architecture finds itself in a unique position where it must relinquish control as a *precondition* to effective proposals. “No “strong”

profession is so closely associated with *things* as opposed to knowledge; law is the exercise of codified knowledge, medicine is defined through procedures guided by expert knowledge. In this, the two professions can protect themselves from the outside by always asserting control over their particular knowledge base. The profession of architecture in its close association with things, in all their dependencies and flux, cannot claim this authority” (Till, 2009, p. 155; my emphasis). A necessary element of this translation from policy to physical planning is the replacement of generative planning with regulative planning, the principles of which are demonstrated here by Douglas Uzzell in Table 3.

Regulative Planning	Generative Planning
Primary reliance on power	Primary reliance on information
Creates new systems	Accommodates to existing systems, although small, harmonious innovations may generate major system changes
Implements plans on large scale	Implements plans by increments
Employs standardization and mass production	Allows for idiosyncratic, context-sensitive design
Treats actions as final	Treats actions as experimental
Filters out feedback	Incorporates feedback

Table 3: Regulative vs. Generative Planning Styles (Uzzell, 1990)

The methods of generative planning, as outlined in *table 3*, are far more likely to affect appropriate solutions when dealing with urban environments characterised by the conditions of “gray cities” as listed in Table 1.. Perhaps most revealing in this planning comparison is the substitution of a “reliance on power” to a “reliance on information”. Nothing could be more appropriate in seeking a socially just urban environment in the contemporary information age. It is essential that alternate conceptions of informality be encouraged, revealing the diversity that lies under the umbrella title of “informal urbanism”. A hybrid production of knowledge is a strategy to achieve this, leading to increasingly effective policy and planning.

CONCLUSION: URBANISM, INFORMALITY & KNOWLEDGE

“The city of Jahilia is built entirely of sand, its structures formed of the desert whence it rises. It is a sight to wonder at: walled, four-gated, the whole of it a miracle worked by its citizens, who have learned the trick of *transforming* the fine white dune-sand of those forsaken parts, - *the very stuff of inconstancy*, - the quintessence of unsettlement, shifting, treachery, lack-of-form, - and have turned it, by alchemy, *into the fabric of their newly invented permanence*. These people are a mere three or four generations removed from their nomadic past, when they were as rootless as the dunes, or rather rooted in the knowledge that the journeying itself was home” (Rushdie, 2006, pp. 93-4, my emphasis)

The importance of informality in architecture and urbanism is the initial factor generating the relevance of this

discussion. Informality and informal settlements are shaping the urban landscape like at no other point in modern times. As José Castillo states: “what is remarkable is that informality became the dominant mode of city making in the twentieth century” (Brillembourg, 2006). The broader issue, however, is in focusing future ways of addressing informality. In what ways does research matter? In what ways does professional architectural practice matter? “Design research is tied to practice and is *driven by its needs*. Given this fact, which issues are worthy of investigation—which would appear on a research agenda for the future?” (Roth, 1999, p. 20; my emphasis). It has been the argument of this paper that the ways in which informality has become fashionable or institutionalized through the production of knowledge may be analysed and leveraged to direct future production of knowledge to address the informal sector more effectively, thereby narrowing the gap between the extreme impacts of informality and the knowledge available to address it. This involves an awareness of the existing context that filters and directs knowledge production. “The key is in the infrastructure which produces knowledge around the world: the media, knowledge-producing institutions such as research institutes and universities, and importantly English, French and Spanish as world languages dominate the ways in which we understand the world” (Sharp, 2009, p. 115). This matters because these institutions frame our perception, and eventually our policies and interventions, toward informality.

It is apparent that certain priorities currently orient attention toward informality,

such as economic potential. Informal settlements such as Rocinha (Rio de Janeiro) or Dharavi (Mumbai) receive increasing attention due to their economic potential and land value due to locatedness within the greater city. These “redevelopment opportunities” provide a platform for a productive discourse on informality to emerge – particularly its assets and value to be mapped and appreciated within the canonical theories of architecture and urbanism. This could re-politicize informality to reveal the importance of the futures of settlements such as Rocinha and Dharavi (Roy, 2009b). While the byproduct of this attention may be increased knowledge of informality, is it in the long-term interest of society to continue to let economic potential and land value be the drivers of knowledge production – the ‘need’ to which design research responds? As Manuel Castells points out, the current global economic crisis may be an opportunity to create new drivers of knowledge production – new priorities that fuel research and professional practice. “The onset of the global financial crisis in 2008 may also provide an opportunity to reconsider planning and policies for the 21st century city” (Castells, 2008).

In its expanded relevance and centrality to urban issues, informality must be approached in new ways. “Informality, once associated with poor squatter settlements, is now seen as a generalized mode of metropolitan urbanization” (Roy, 2005, p. 147). A movement from postcolonial production to hybrid production of knowledge is a viable solution to address informality. Current collaborations that transcend the political equator are a starting point, but this must evolve to truly bridge the north/south dichotomy. “In advocating engagements across different contexts, the imbalances of power and accreditation in the production of academic knowledge need to be attended to” (Sharp, 2009, p. 284). What could a hybrid production mean –

perhaps a relinquishing of professional control? “As geographers, architects, or planners, accepting our inability to articulate urban boundaries is infinitely useful for describing the contemporary city. Accepting partial knowledge and relinquishing epistemic control is a step toward a geography of the informal” (Fabricius, 2008, p. 8). Could hybrid production mean accepting limited information and a concentration on formative processes? “Analyses of the behaviour of agents in games of incomplete information, where the problems of asymmetric information, agency and reputation formation are seen as central, and as being compounded by other problems peculiar to the production and distribution of knowledge – a ‘commodity’ that has some of the attributes of a pure public good” (Geuna, 1999, p. xiv). These considerations are paramount to the future production of knowledge in architecture and urbanism.

In the end we must make “that crucial passage from protest to project” (Rykwerf, 2002, p. 246). This translation begins with the development of a multiplicity of conceptual understandings of what informality is and what it could mean in the functioning of a particular urban environment. Whether approached as a *manifestation of tensions* created by representative political power structures (Estudio Teddy Cruz), a *challenge* to be simplified to its essence and resolved as an equation of conceptual mathematics (Elemental), a *resource* or platform upon which upgradation may evolve (Urban Think Tank), or a *deficiency* calling for intervention (AMO) – a diversified production of knowledge results in diversified practical approaches and strategy formations. This is how to enable contemporary citizens, architects and urbanists to work the same miracle as the people of the fictional Jahilia – by “transforming ... the very stuff of inconstancy... into the fabric of their newly invented permanence” (Rushdie, 2006, p. 93-4).

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