



ON URBAN INFORMALITY: A PYRAMID ON SLUM UPGRADING AND PLACEMAKING

Acerca de la informalidad urbana: una pirámide sobre la mejora de asentamientos informales y la creación de lugares

Natalia Meléndez Fuentes

Universidad Pontificia de Comillas

E-mail: natalia.melendez.fuentes@gmail.com

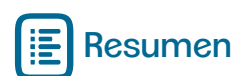


Autor



Abstract

The cities of today are confronted with ever-increasing numbers of informal settlements. Notwithstanding four decades of national and international efforts to reverse the distressing state of affairs, slums have become the main housing type worldwide —slum formation nothing but increasing. The undermined and untapped potential that urban informality represents critically hinders human progress. Narrow approaches to slum upgrading and to informal dwellers produce insufficient and unsustainable results. The few comprehensive, multidimensional, and integral slum upgrading programs attest that a change of perspective is very much needed. To this effect, we have conceived a pyramid on the indispensable elements of slum upgrading: to illustrate our proposed methodology for attaining more sustainable, comprehensive, and humanized solutions vis-à-vis urban informality.



Resumen

Las ciudades de hoy día se enfrentan a crecientes tasas de asentamientos informales. A pesar de las cuatro décadas de esfuerzos a escala nacional e internacional para revertir esta preocupante situación, los asentamientos informales se han convertido en el tipo de vivienda más extendido, y la formación de esta clase de barrios no ha hecho más que crecer. La informalidad representa un potencial socavado e inaprovechado, lo que supone un obstáculo tremendo para el progreso humano. El enfoque restrictivo que se tiene de las técnicas de mejora de asentamientos y de sus habitantes solo puede dar lugar a resultados insuficientes e insostenibles. Los pocos programas de mejora de asentamientos informales que son exhaustivos, multidimensionales e integrales dan testimonio de lo mucho que se necesita un cambio de perspectiva. Con este fin, hemos compuesto una pirámide sobre los elementos indispensables en la mejora de asentamientos informales, con el fin de ilustrar nuestra propuesta metodológica para alcanzar soluciones más sostenibles, completas y humanas frente a la informalidad urbana.

Urban development; human development; slum upgrading; social urbanism; placemaking.
Desarrollo urbano; desarrollo humano; mejora de asentamientos informales; creación de lugares.



Key words

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Fechas

1. Introduction

There are a billion squatters in the world today, that is one in eight people. This figure is projected to increase to one and a half billion by 2030, all things being equal (UN-Habitat, 2016, p. 2). Numbers continuously swelling, the slum problem remains a critical factor for the persistence of poverty in the world, hampering economic growth and stunting the human potential of many. Slums are a clear manifestation of many global deficiencies (e.g., unequal distribution or malfunctioning housing sectors). Their prevalence is not of poverty's exclusivity, but can also be found in developed urban landscapes. On the face of this alarming situation, tackling the slum problem has been an integral part of the global development agenda for almost forty years.

To begin with, a "slum household" is a group of individuals living in an urban area, deprived of one or more of the following: lack of access to improved water source, lack of access to improved sanitation facilities, lack of sufficient living area, lack of housing durability, and lack of security of tenure (UN-Habitat, 2006, p. 1). This definition was included in Goal 7¹ of the Millennium Development Goals (MDGs), which are eight international development objectives adopted by all UN members in the year 2000. The MDGs are a global compromise to reduce poverty and deprivation through collaborative action.

In 2015, the Sustainable Development Goals (SDGs) replaced the MDGs, setting a renewed global plan of seventeen development objectives to further advance in the fight against poverty. The challenge of slums was also reflected in the SDG Declaration, this time in Goals 11 and 16². The continuous presence of the slum question in the development agenda, indicates the globally-assigned importance to the eradication of urban poverty. Nonetheless, it is necessary to note the inadequacies in the statistical base for measuring and monitoring progress on MDG and SDG targets. The bar for progress is set low, which allows "improved" services to be recorded as "adequate" or "significant". The reasoning behind this is mainly economic: as settlements meet the low criteria to qualify as "adequate", they stop requiring further urgent investment (Satterthwaite, 2016, p. 112). This large understatement of deficiencies is deceiving in establishing how much progress has been actually made and which is the real and current situation.

The presence of slums mainly finds its causes in rapid urbanization, elitist city planning, massive rural-urban migration, lack of land affordability, weak governmental institutions, discriminatory legal frameworks, and highly protected financial systems (Ferguson & Navarrete, 2003, p. 202; Esteves, 2012, p. 159). Although the weak welfare state in most countries vastly exacerbates and contributes to the problem, the market logic equally resonates in the formation and persistence of urban informality (TECHO, 2015, p. 135). The industrialization stage of the last two centuries led cities to absorb a myriad of workers with no planning for their inclusion. Unable to afford properly serviced areas, the majority of the working class established spontaneous settlements on the peripheries, in a quest to address their "right to the city" and to housing. The lack of services in these areas is mainly due to the authorities' inability to keep pace with rapid urban growth (Irazábal, 2009, p. 34).

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1 MDG 7: "To have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers" (UN General Assembly, 2000).

2 SDG 11: "By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums"; SDG 16: "To promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels" (UN General Assembly, 2015).

Their informal living, adjacent to economic opportunities, allows slum dwellers to make four main contributions to national economies. These four aspects enable a kind of economic growth that makes formal cities richer and slum residents more vulnerable, their poverty perpetuated (Balbim, 2016, p. 185). First, they invest in housing and land improvement. Second, they are part of the job market, usually at very profitable rates for employers. Third, there are many small businesses in slum areas, which are extremely important in monetary terms: they allow people within the settlement to buy and sell to and from each other at a high rate. And fourth, the social capital deriving from and invested in community building. This fourth aspect is not exclusively economic but acts as an economic engine: it makes investment in home and neighborhood upgrading possible, as well as the financing of the many small businesses in the area (Environment & Urbanization, 1989, pp. 174-177). The profitability of these contributions for national economies, explain the widespread neglect of slums, despite international commitments on the issue. In this vein, one should also consider the many political and economic implications —and *inconveniences*— in considering ‘adequate housing’ as a right (Leckie, 1989, p. 93).

As if these political and economic implications were not enough of a hindrance, the future of dwellers is further compromised by the behavior of the capitalist market system, where the production of city space has become a business in itself. This feature rules out the possibility of overcoming the urban and environmental deficits inherited from previous eras, thus increasing the pressure on unsustainable urban dynamics (Withaker Ferreira, 2016, pp. 69-72). Because access to cheap, serviced land is a major problem all across the globe, and due to informal settlements’ proximity to economic opportunities, slums are the best compromise between dwellers’ needs and their inability to afford a house in better serviced areas (Gilbert, 2014, p. 258).

What makes informal settlements an appalling urban phenomenon to be addressed forthwith, are the strong levels of poverty, deprivation and socio-spatial exclusion to which their residents are subjected (UN-Habitat, 2016, p. 4). Lack of basic infrastructure and services poses risks of injury, illness and premature death among settlers (Ferguson & Navarrete, 2003, p. 201). Slums can be an important focal point for serious waterborne diseases and high crime rates. These communities are also extremely vulnerable to natural disasters given their frequent location in risk areas (World Bank, 2012, p. 15). Adding to the urgency, slums present dire consequences for the environment. For instance, the contamination and depletion of natural resources; the deforestation of nearby areas; or the severe erosion resulting from the steep slopes where they are often settled upon (Okeyinka, 2014, p. 7).

Consequently, sustainable development would be unattainable until the slum question is solved. This link between sustainable development and adequate housing has been endorsed with the international recognition of housing as a human right (Fernández-Maldonado, 2010, p. 1). After years of experience, the international community has also recognized slum upgrading as the best strategy to address the slum question, and thus fulfill the human right to housing. Slum upgrading is the practice of alleviating poverty in human settlements by providing basic services and infrastructure, as well as securing land tenure to its residents. On the basis of equity, this process includes incorporating slums into the larger city by providing dwellers with the social, economic, legal, institutional and community services available to the rest of the citizenry (Materu & Sietchiping, 2001, p. 3). Significant progress and methodological improvements are still needed, but the creation of regional and international discussion networks opens up new prospects for the implementation of suitable national and local urban policies.

This feature rules out the possibility of overcoming the urban and environmental deficits inherited from previous eras, thus increasing the pressure on unsustainable urban dynamics

Nonetheless, the notion of regional and international planning for slum upgrading creates a dilemma: how to build an effective global/regional agenda on planning that recognizes the specificities of each local context; but, at the same time, enables countries to learn from each other, from academics, technical experts, NGOs, and local communities? Solutions to slum upgrading must be locally devised with the full engagement of the beneficiary communities. That explains why the most successful slum upgrading strategies are found at the local level (Magalhães, 2016, p. 112).

International and regional schemes are necessary, for they set guidelines and provide most of the funding, but they are far from enough. Broad initiatives cannot be expected to have as efficient results as tailored approaches do: the broader the scope in planning, the less a program takes note of the particularities of the site. Losing touch with local idiosyncrasies nullifies community voices and social capital. This is why many slum upgrading programs struggle to reap the benefits to be expected from so much expertise and investment brought together. Best practices cannot be replicated fully: they were categorized as 'best' because they were localized and built along with what was already there.

Notwithstanding all initiatives, efforts, and advances to recognize the rights of dwellers; slums continue to be the main form of home provision worldwide, and slum formation has not been reduced to any appreciable extent (Magalhães, 2016, p. 104). Many states in the world, like India or China, still perform slum clearance as a regular policy (UN-Habitat, 2006, p. 162). This course of action ignores all the potential these areas have in generating income, employment and social capital.

Slum upgrading has been proven as the best option for addressing slums (Calderón Arcilla, 2008, p. 27). This is supported by the direct correlation between the way cities treat their inhabitants and the prosperity of nations. Slum upgrading and conscious urbanization reduce overall poverty levels, and provide new opportunities, higher incomes and increased quality of life (UN-Habitat, 2010, pp. 82-89). Yet, even knowing this, numerous states have not included slum upgrading in their national housing agendas, instead enforcing eradication or laissez-faire policies. Of the meager slum upgrading in place, the majority still fails to address social exclusion, vulnerability and the root causes of poverty (Magalhães, 2016, p. 112). As yet, higher priority is given to physical and apparently more urgent aspects of slums, than to the structural elements perpetuating the problem. In addition, many slum upgrading projects flounder due to funding drought, donor fatigue, lack of long-term sustainability, cost overruns, inadequate maintenance, and hurdles in land tenure regularization. In many other instances programs fail to reach the lowest-income quintiles (Magalhães, 2016, p. 104).

It is our belief that the future of cities and the environment lies to a great extent, in successful slum upgrading. The democratization of (all the areas of) cities and of every-day spaces, is essential for the existence of democracy and progress in other dimensions and levels (Balbim, 2016, p. 28). The world is timidly beginning to see integrated, comprehensive, human-oriented strategies that do not only address slum areas but the greater city (e.g., Medellín, Colombia) (Irazábal, 2009, p. 117). Yet, a big challenge remains: how to conciliate economic activities and production manners with fair and democratic cities and settlements? From what the best slum upgrading experiences show, the answer seems to be found in the implementation of actions that relate urban equity to poverty eradication; articulate sustainability and inclusivity; and aim for ecological and resilient cities (Balbim, 2016, p. 184).

Slum upgrading and conscious urbanization reduce overall poverty levels, and provide new opportunities, higher incomes and increased quality of life

2. On Informality

Urban reality is the culminating outcome of humanity. The urban accumulates human time without parallel; hence, spatial configurations and territories are open books to the past, present and future of their inhabitants. Current urban forms have a dual nature: formal and informal. Praised as the greatest achievement of humanity, the formal city amalgamates infrastructure, culture, history, networks and innovation. Far from perfect, this formal city is sold in a global market where the citizenry fades into the consumer ideal (Balbim, 2016, p. 148). In contrast, segregated by and product of the formal, there is the informal city. Informality emerges because of the inadequacies of the formal: its inability or unwillingness to fulfill the public interest (Hernández, Kellet, & Allen, 2010, pp. 229-230). In need for each other, the formal subjugates the informal to marginal spaces within and around it.

This formal-informal trap precludes a holistic social interaction city-wide: empathy and social capital cannot be generated given the stereotyping that formality and informality make of each other. The story told by the dual cities of today is one of physical and material development, but not of *human* development. Such narrative seems oxymoronic when, in the 1990s, and for the first time in history, urban population surpassed that of rural areas (Hernández et al., 2010, p. 163). Nevertheless, cities have for long grown in the formal-informal dichotomy, and in so doing, their development has never been complete. Present urban forms are living entities, the neglect and undervaluing of their informal parts forestalling full human progress.

Human settlements are the ultimate example of urban informality. Their current state — which is ever increasing in number— imposes an impasse on urban, therefore, human development. The right to housing was first recognized in 1948, in the Universal Declaration of Human Rights (UNGA, 1948), and housing has since then all but become a commodity. The lowest echelons of society claiming living space, city management models continue to approach housing as a market product (Esping-Andersen, 1990, p. 21). Nevertheless, dual cities have for long tolerated their own dichotomous nature. A mere fence suffices to neglect informality, and it is only recently that the slum question has become a problem for city authorities. The formal expects from the informal to be a quiet, economic engine, creating a virtuous cycle for formal inhabitants and a vicious, entrapping cycle for informal citizens (Balbim, 2016, p. 185).

Therefore, urban dualities must be rethought; a process which entails first and foremost, identifying the root causes. With that purpose, a UNU-WIDER vast quantitative analysis informed from data on a million informal settlers the world over, pointed out that the prevalence of slums, not surprisingly, decreases with income. In addition, the same analysis revealed that settlements are intrinsically related to migration flows (nationally and internationally), as well as to the legal and economic frameworks governing access to land and housing (Arimah, 2010, pp. 5-9).

For her part, urban expert Janice Perlman studied poverty and slums in Rio de Janeiro. Four decades spent in favelas enabled her to provide empirical evidence of poverty being a result of discriminatory structures that denied the poor the means and capabilities to realize themselves (Perlman, 1976, pp. 91-102). In his very influential book, *Development as Freedom*, Amartya Sen built on these concepts by articulating that poverty should be seen as the deprivation of basic capabilities rather than merely as lowness of income (Sen, 1999, p. 87). Sen established that thorough development needs of five types of freedoms: political freedoms, economic facili-

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ties, social opportunities, transparency guarantees, and protective securities (Sen, 1999, p. 10). Thereby, according to Sen's conclusions, slum residents are confronted with all the five types of *unfreedoms*; their development fully hindered. Rethinking informality means to focus on the ends that slum dwellers have reason to pursue, and, correspondingly, on providing them with the capabilities/freedoms to attain their aspirations (Sen, 1999, p. 90).

As French sociologist Henri Lefebvre theorized via his concept of "the right to the city", urban life must enable a new humanism —that of urban society. His "right to the city" gathers the interests of all citizenry, be it formal or *informal* (Lefebvre, 1996, p. 148). The Lefebvrian call for rethinking informality involves a new Rouseauian contract between states and citizens to blurry socioeconomic divisions and to reduce the gap between decision makers and inhabitants. Thus, the state becomes an enabler of inter-community networks; a provider of cross-cutting rights; and an establisher of obligations (Lefebvre, 1996, p. 208). Realizing the "right to the city", individuals develop "the capacity to change ourselves by changing the city" (Harvey, 1973, p. 315), contributing a radical, yet more comprehensive, approach to development.

Informality rethought, the slum question is taken seriously. To this day, there is still a very wide gap between policymakers and city managers, on one side, and urbanism and architecture, on the other. By taking the slum question seriously, such cleavages between theory and practice, policymakers and *all* stakeholders, north and south, are bridged. When urban and social elements are cohesive in providing better lives and environments to the urban poor, "architecture returns to its ancestral social meaning of responding and expressing everyday needs through the vital rescuing of lost human dignity" (Segre in Hernández et al., 2010, p. 175).

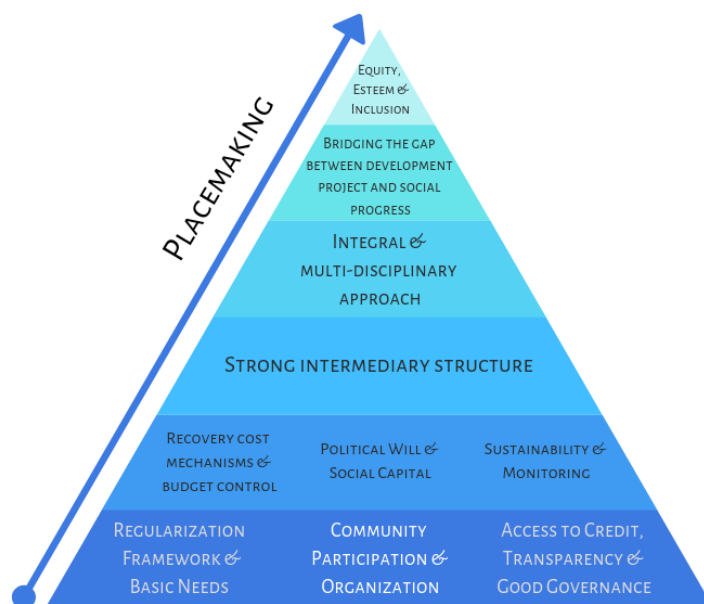
Borrowing from renowned architect Frank Lloyd Wright, architecture "must be true to time, place, development, environment and purpose" (Wright, 1939, p. 17). In this line, urban sciences must be performative, as well as human-centric. In adopting this approach, architects, urbanists and planners are able to stimulate social practices and virtuous circles, assisting in delineating propitious contours for communities. By endorsing the Lefebvrian principles, urban sciences galvanize the inclusion of informality into nearby, formal urban networks, comprehensively developing cities as unified wholes (Hernández et al., 2010, p. 130).

Slum upgrading is therefore the ultimate practice leading to the full satisfaction of Lefebvre's "right to the city". Slum upgrading is first and foremost a democratic and developmental action. If done comprehensively, it can empower and build on capabilities, attaining sustainable progress. Given the loss of social capital involved in clearing and resettlement strategies, slum upgrading is the most efficient solution. A well conceived slum upgrading program addresses physical/physiological, economic, political, social, cultural, psychological and emotional spheres, enhancing the potential of the whole city. The current urban systems ignore massive numbers of peoples, who, their essential needs unfulfilled, are blocked from thoroughly contributing to local economies and synergies (Sugiri, 2009, p. 26).

In this respect, Chilean economist Manfred Max-Neef has criticized conventional development models, arguing that they have led to increasing poverty, massive debt and ecological disaster. In this line of criticism, Max-Neef advocates for an integral transformation, which he develops in *Human Scale Development: An Option for the Future* (1987). This work presents his "Human Scale Development", which is "focused and based on the satisfaction of fundamental human needs, on the generation of growing levels of self-reliance, and on the construction of organic articulations of people with nature and technology, of global processes with local activ-

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ity, of the personal with the social, of planning with autonomy, and of civil society with the state” (Max-Neef, Elizalde, & Hopenhayn, 2010, p. 12).



Source: TM2018 Meléndez Pyramid on Slum Upgrading

In line with this understanding, the present article proposes a pyramid of indispensable elements for slum upgrading to fulfill the fundamental human needs of slum dwellers. Ours is not an attempt to provide a one-size-fits-all solution. Quite the contrary, we recognize the importance of localization, capacity building and a bottom-up approach. We have decided to follow Max-Neef’s taxonomy of needs for considering it encompassing and complete (i.e., physical/physiological, economic, political, social, cultural, psychological and emotional dimensions). Also, its comprehensive value is inferred in the way all human needs are portrayed as a system—that is, they are interconnected and interdependent. Even though it was Maslow’s pyramid which inspired our pyramid of slum upgrading elements, the pyramidal arrangement we recommend does not imply hierarchy, but logic in achievement. In the same way as we do, Max-Neef’s taxonomy rejects any hierarchy of needs (other than the basic need for subsistence or survival). Instead, needs must be based on simultaneity, complementarity and interrelation.

3. Meléndez’s Pyramid on Slum Upgrading

The Pyramid on Slum Upgrading was conceived after extensive and qualitative research of fifty slum upgrading programs. The slum upgrading paradigm exemplified in the pyramid should first and foremost aim at satisfying all human needs by means of a gradual, integrated and multi-disciplinary intervention. The rehabilitation phase shall consist of strong economic and sociocultural development strategies, with special attention being paid to strengthening social capital, equity, self-esteem, and inclusion. In addition, the Pyramid also advocates for a close cooperation among the different stakeholders, with a special emphasis on fostering community participation at all stages. The upgrading of urban precarious areas should be buttressed by

regularization tools, solid political will, good governance and sufficient credit. A further support element that ensures transparency is the setting up of a strong intermediary structure, conduit between communities and authorities. The combination of all these elements enables to bridge the gap between a development project and social progress, thus guaranteeing sustainable achievements. The formulation of the *Meléndez's Pyramid on Slum Upgrading* is therefore an association of the potential, the ideal, and the rational, regarding slum upgrading. Its ten blocs are detailed hereunder.

3.1. Regularization Framework and Coverage of Basic Needs

Regularizing human settlements, through their incorporation into city limits and service provision, reaches informal dwellers in the form of basic services and infrastructure, the legalization of land tenure, and access to politics (Fernández & Pereira, 2010, pp. 171-199).

Without a legal structure buttressing slum areas, upgrading cannot be securely institutionalized. Most squatters the world over, live without any securities over the lands they inhabit, permanently haunted by eviction (World Bank, 2012, p. 9). Thereby, sustainable slum upgrading entails a basis of regularization, to which there are many benefits. First, regularized slums automatically gain access to basic city services (Durand-Lasserve, 2006). A title deed translates into a greater sense of belonging, as well as an increased willingness to invest resources and time in developing infrastructures (Irazábal, 2009, p. 108). By improving tax recovery, regularization could potentially contribute to the financial base of cities (Arimah, 2010, p. 5), integrating—to a greater or lesser degree— informal activities into the formal economy (Durand-Lasserve, 2006). Furthermore, security and stability levels would also increase.

As aforementioned, regularization brings about the provision of basic services. These should include potable water access, sanitation, sewage systems, electricity and street lighting, storm drainage, garbage collection, and street and road pavement. In this line, upgrading of slum areas must also deliver community services such as playgrounds, schools, markets, daycare centers and health clinics (Arimah, 2010, pp. 1-4).

Ultimately, regularization and basic services provision yield the upgrading process more “market compatible”—i.e., more acceptable to urban economic forces and interests. It also strengthens the legal structure and securities of communities, decreasing their vulnerability *vis-à-vis* political and bureaucratic hurdles.

Regularization and basic services provision yield the upgrading process more “market compatible”

3.2. Community Participation and Organization

When community members are allowed to be part of the upgrading, they acquire ownership over their own development. Dwellers must be present at all stages, to a greater or lesser degree, depending on their needs and skills. By the same token, it is relevant that the program implements a self-help approach, whereby funders and planners act as providers and technical advisors, and, in turn, it is the community the main executing body (Calderón Arcilla, 2008, p. 33). The combination of these factors can contribute to overcoming the all-too-common paternalistic attitudes of outsiders towards dwellers, establishing a more equitable interaction (Ruster & Imparato, 2003, p. 9).

The paramount aspect of community participation is the practice known as ‘participatory budgeting’: funds allocation follows decisions made at the grassroots level. This cooperative and joint

approach results in political appropriation, reconciling politics and the *polis* (Balbim, 2016, p. 22). Having acquired a political voice through participatory budgeting, communities are able to voice their demands more effectively (Stein, 2001, p. 33).

Moreover, community participation makes needs assessment easier and more accurate, optimizing public spending. Additionally, his practice has been proven to also reduce costs, as it organizes the community's participation and contributions in kind, labor and materials. As a result, new habits of control emerge and the local economy is to a certain extent revitalized. By extension, when dwellers become decision-makers and executors at all project stages, achievements are more aligned with local culture and traditions, which in turn increases sustainability, as well as feelings of integration and self-esteem within the community.

However, coordinating community participation can be complex. For obvious reasons, community participation cannot involve every member. Therefore, an effective representative system must be set up (Calderón Arcilla, 2008, p. 36). This process should be conducted using GIS technologies, and by working through existing CBOs, which are aware of community synergies. Participation methods must be as inclusive as possible and careful not to perpetuate abusive power dynamics (Stein, 2001, p. 34).

Nevertheless, structures conducive to strong community participation and organization do not exist in most informal settlements. However, the engagement of dwellers is essential to create a sense of ownership towards their habitat (Calderón Arcilla, 2008, p. 33). Slum upgrading and community participation must coexist, as they are mutually enhancing, yielding more integrated and empathetic societies. Slum upgrading efforts completely miss the point if residents do not inform, reach decisions, nor partake in development.

Slum upgrading programs must include a robust financial scheme that results in sustainable access to credit, transparency and good governance

3.3. Access to Credit, Transparency and Good Governance

Slum upgrading programs must include a robust financial scheme that results in sustainable access to credit, transparency and good governance. Such scheme can radically transform human settlements by providing them with a reliable bureaucratic mainstay.

First and foremost, granting communities access to credit, poses the “loans vs. subsidies” dilemma. In the context of slum upgrading, however, loans may be the more sustainable option. As opposed to subsidies, loans do not hinder household's prospects of saving and indebtedness, nor do they impose a life beyond people's means (Gonzales Arrieta, 1999, p. 160). Thereby, a solid financial scheme would have to eventuate a revolving fund, whereby residents contribute to recycling seed-funding through community work and the repayment of loans by instalments.

Furthermore, loan application procedures must be transparent and fully understood by beneficiaries-to-be. In line with this, criteria for the allocation of loans should be equitable. It should be consonant with the socio-economic realities of residents, including the often-neglected low-income groups. The principle underlying this approach is a reassessment of what funding should target. Oftentimes, the state and funding institutions are expected to provide housing to all. However, there is no entity with such delivery capacity. Conversely, what these actors are obliged to is securing a more equitable access to market opportunities (Becerra, Revilla Zeballos, Rivera Castillo, & Solares de Valenzuela, 2005, pp. 159-160). In turn, such reassessment advances governability and transparency.

Financial schemes within slum upgrading programs should take special notice of governability through institutional development —strengthened via funding and capacity training, technical assistance, and, if needed, national reconciliation strategies. Good governance is essential to attain effectiveness and efficiency. In addition, anti-corruption and decentralization measures must be implemented, promoting continuity of actions despite changes in leadership as well as the partaking of beneficiary communities in decision making and responsibilities (Stein, 2001, pp. 12-28).

Increased governability and healthier finances yield enhanced transparency to slum upgrading mechanisms. Transparency ensures the cost-effectiveness of activities, and heals the dynamics between communities and authorities, by building on trust. A self-help, participatory approach involving communities throughout all upgrading stages enables communities to directly audit local budget allocation. When authorities report transparently to communities, national reconciliation becomes tangible. Overall, this methodology allows, on one hand, for communities to fathom the reality of local authorities, their political constraints and available funds; and, on the other, for authorities to listen, collaborate, understand and support slum residents (Stein, 1999, pp. 22-31).

For effective results to be achieved, slum upgrading programs must ensure continuous access to credit; foster a good governance environment; and act on a transparency-basis at all stages. These elements —combined with security of tenure, basic services and community participation— constitute the base of our pyramid: a strong foundation to unleash the huge potential of slum dwellers.

Committing communities to full cost-recovery would be chimerical: dwellers abide in the informal sector in order to avoid such costs

3.4. Cost Recovery and Budget Control Mechanisms

Incorporating cost recovery and budget control mechanisms is fundamental to ensure the sustainability of results. While cost recovery neutralizes paternalistic tendencies in slum upgrading, as well as it guarantees the sustainable development of informal settlements (Ruster & Imparato, 2003, p. 9); budget control ensures that upgrading projects do not stall for an “unforeseen” lack of funding, and, in turn, it expedites the attainment of cost recovery (Van Dijk, Etajak, Mwalwega, & Ssempebwa, 2014, p. 209).

As stated above, communities must be involved at all stages of the upgrading program. This entails that they become aware of real costs and available funds at all times. Cost recovery can be further ensured when slum dwellers engage in upgrading works themselves (Ruster & Imparato, 2003, p. 70). Additionally, a more-inclusive approach would also require them to make a financial effort —always adjusted to their incomes and capacities. Thereby, dwellers chip in a small percentage of the program’s total value, ensuring mainly four results. First, pricey schemes are avoided, furthering budget control. Second, the program ends up undertaking only activities which are really needed/wanted by communities. Third, communities have an early appreciation of each project, their readiness for long-term maintenance increased. And fourth, informal settlers grasp the real costs of development, their responsibility to contribute in kind (although only a small percentage), and their right to be correspondingly rewarded afterwards (Anguiano & Ordoñez, 1994, pp. 69-74). However, committing communities to full cost-recovery would be chimerical: dwellers abide in the informal sector in order to avoid such costs. Conversely, squatter communities need to learn the benefits of formal frameworks and the leverage acquired by contributing a share of total costs.

Cost recovery and budget control mechanisms work as reality checkers of slum upgrading programs. A cost recovery approach ensures that a real cash flow is generated and that investments made for upgrades can be subsequently paid back through returns (Van Dijk et al., 2014, p. 209). Controlling the budget acts as a buttressing measure to cost recovery; guaranteeing that investments do not escalate and can be reimbursed more smoothly. One of the wonders of slum upgrading is that, by its very nature and if done right, it guarantees cost recovery: comprehensively upgraded slums will deliver enhanced economic benefits to both the community itself and to the city at large (Calderón Arcilla, 2008, p. 28).

3.5. Political Will and Social Capital

Political will is particularly important when it comes to slum upgrading. All the elements addressed by our pyramid would stall in absence of political will, or in the event of political unwillingness. For their part, neutral authorities can enable change to happen, but only slowly and, in time, ineffectively (Ruster & Imparato, 2003, p. 227). Thereby, a robust political will furthering the upgrading of urban slums, the process becomes a hub for growth, bearing exotic fruits.

In line with this, special emphasis should be placed on local authorities. While political will should emerge from all political stratum, local activity has a decisive bearing over the whole process (TECHO, 2015, p. 136). It is the local politicians who have the most potential to fully grasp the realities and needs of slum dwellers.

Reaping all the benefits of strong political will implies a considerable increase of social capital levels. Both these concepts are intertwined, as both are based on trust. "Social capital" encompasses civic virtue, social cohesion, solidarity, collective action, capacity building, and community growth, being fostered by connectivity, security, identity and diversity (Vilar & Cartes, 2016, p. 58). In a slum upgrading context, social capital is the ballast of sustainability. According to urban development theory, the design and form of cities and buildings influence how people interact with each other; i.e., urbanism can yield strengthened community bonds, generating social capital (Moobela, Price, Mathur, & Paranagamage, 2009, p. 257).

In practical terms, slum upgrading programs can bring about social capital via strengthened institutions, community participation at all stages, employment opportunities, education and cultural activities, public spaces, and increased self-esteem, in short: all the elements included in our pyramid. The combination of these triggers achievements which are much more intertwined, that is, more resilient and autonomous. Ultimately, the blueprint for generating social capital is not to conceive communities and their participation as a means but as the end itself.

Programs undertaking a social capital approach have proven it to be an element that boosts community investment (i.e., time and efforts) in ameliorating their surroundings, given the perception that one's own actions will be reciprocated by others (Saracostti, 2007, p. 519). Thus, social capital gives place to a much powerful pool of resources for slum upgrading: improved people's health and happiness, boosted economic development, safer neighborhoods, improved communication channels between communities and authorities, and happier and more proactive communities (Moobela et al., 2009, pp. 256-257).

Therefore, substantial development can be attained through political will and social capital: the two sides of a single coin. For its part, political will guarantees sustainable progress and integral

While political will should emerge from all political stratum, local activity has a decisive bearing over the whole process

development; while, social capital safeguards the autonomy and stability of communities, so that they can build on achievements once the program is completed.

3.6. Sustainability and Monitoring

Despite great progress in slum upgrading the world over, sustainability is still the main challenge —its absence rendering all efforts futile. According to human settlements expert Diana Mitlin, it is very often that some years into completion, slum upgrading results are found to be in decay (Mitlin, 2002, p. 176). For a program to be sustainable it must give place to permanent improvements, sparking a long-term development process (Ruster & Imparato, 2003, p. 42).

Planning in sustainability should take into account five dimensions³: a) the preservation of physical benefits; b) the training and coaching of communities to prompt durable social development; c) the economic growth of the locality, targeting towards self-sufficiency; d) the enhancing of the budget; e) the environmental compatibility of all works and initiatives.

Thereby, in order to safeguard the physical benefits attained by the program, dwellers must have agreed on priorities and needs before the program starts. This course of acting guarantees that the program components are really needed by and adapted to the community, which in turn increases their willingness to preserve them. In this same vein, settlers must be trained on maintenance. When involved in the construction stage, dwellers automatically develop relevant conservation skills. It also follows that, programs should only undertake those initiatives that communities are able to preserve: expensive or complex projects should be averted (Rivas, 2007, pp. 18-26).

With regards to social development, communities should be trained and motivated in social progress, transforming them into social catalysts. Some initiatives to be considered are: teaching dwellers the value of their participation, initiatives on sexual education and gender equality, building community centers and public spaces, paving sidewalks, among others. These actions can also promote enhanced social support networks (via childcare, collective works, health centers, etc.), which can in turn foster the continuity of upgrading works (Rivas, 2007, pp. 21-22). However, efforts must be bilateral: technical experts should also be taught how to include, communicate and share technical knowledge (i.e., on planning, execution, financing, monitoring and maintenance, social and economic development) with communities (Constance, 2005).

For programs to be economically sustainable, it should be ensured that, after completion, residents maintain their individual and collective capacity to draw on the market (Mitlin, 2002, p. 177). Planners should account for opportunities to invest the program funding, instead of merely spend it. Professional development, for instance, is a way to achieve this, as it enables settlers to then access job opportunities or earn extra income (Rivas, 2007, pp. 27-53). Furthermore, training empowers people, making them more comfortable in their own skin, their ability to voice their needs to government authorities strengthened. Moreover, combined with social sustainability, these actions can promote local commerce and even tourism (Rivas, 2007, pp. 21-22).

Efforts must be bilateral: technical experts should also be taught how to include, communicate and share technical knowledge with communities

3 Dimensions extracted from Satterthwaite, 2016, pp. 99-118 and Ruster & Imparato, 2003, pp. 42-43.

Regarding financial sustainability, programs should nurture the necessary conditions that secure and enhance available funding. Upgrading options should be affordable to both communities and sponsoring bodies (Mitlin, 2002, p. 175). Also, in the longer term, either communities or local authorities must be able to afford potential reparation/maintenance costs—which underscores the relevance of setting a revolving fund. In addition, dwellers' inclusion at the construction stage reduces building costs considerably. Moreover, prior consultation with communities teaches settlers the real costs of elements, as well as how to make cost-efficient upgrading demands. This change of perspective raises their awareness, prompting their eagerness to participate/repair/maintain achievements (Brakarz, Rojas, & Green, 2002, p. 118).

Lastly, slum upgrading—both in process and results—should go along with the environment. Program stages should include reforestation, garbage collection, and environmental education. Workshops on hygiene and citizenship should also be organized (Rivas, 2007, pp. 27-53). Likewise, upgrading actions should also address risks of erosion, landslide and mudslide; symptoms which are extremely common to informal settlements. As an added value, these initiatives are very likely to improve the environmental sustainability of cities at large (Rivas, 2007, p. 14). Furthermore, aesthetics and quality of life boosted, communities feel proud of their neighbors, as well as more cared for by their local authorities

Overall, sustainability levels are the most precise indicators of the power of a slum upgrading program. The five dimensions of sustainability incorporated into slum areas, the larger city witnesses a tremendous increase of its capabilities and growth: it becomes more attractive to investment and tourism, creates more productive jobs, and generates cleaner air and higher quality of life. Sustainability thus provides the necessary tools for development to be set in indefatigable motion.

The five dimensions of sustainability incorporated into slum areas, the larger city witnesses a tremendous increase of its capabilities and growth

3.7. Strong Intermediary Structure

In order to avoid bureaucratic hindrances and to magnify results, upgrading programs should set an intermediary structure. Given the wide range of stakeholders involved in slum upgrading (i.e., residents, public authorities, public and private companies, landowners, donors and NGOs), a non-partisan body should bring all their interest together.

The role of a strong mediating body would be to set strategic partnerships among them, ease communications channels and protect the interests of the whole and each party. This, in turn, transforms negotiations into a more flexible and efficient arena; strengthens community organization and participation; builds the capacities of communities; and allows each stakeholder to give its best (Ruster & Imparato, 2003, p. 8).

Strong intermediary structures must be self-reliant and unbiased. This body is also conducive to the formation of a technical group, localized to the area of operations. Given its incorporation from the earliest stages, this structure would be able to compile a convenient information and knowledge management system, which could enrich monitoring and evaluation, as well as the extraction of lessons learnt (Ruster & Imparato, 2003, pp. 65-69). Moreover, their expertise on triggering community action makes them invaluable actors in situations where community participation is weak or scarce (Irazábal, 2009, p. 98).

By filtering out bureaucratic and political hurdles, intermediary structures open doors for institutional innovation, optimization, transparency and efficiency. Also, they constitute a focal

point of assistance for communities. Furthermore, when these structures are competent, they set helpful standardized procedures, and refined managerial and information management systems (Sida, 1997, p. 218).

3.8. Integral and Multidisciplinary Approach

Building on top of the abovementioned elements, slum upgrading programs must constitute an integral and multidisciplinary intervention. All its constituent projects should be strategically interconnected, coalescing in transforming the many aspects perpetuating urban poverty. Thereby, slum upgrading must undertake physical/physiological, economic, political, social, cultural, psychological and emotional interventions (Magalhães, 2016, p. 77).

The rationale behind an integral and multidisciplinary approach to slum upgrading is its paving the way for “placemaking” to take place: the comprehension and respect of local idiosyncrasies, and the recognition of the multi-dimensionality of dweller’s needs. This notion unveils a whole new realm for slum upgrading. Current programs appear stagnant or inefficient due to their only addressing physical dimensions. Nevertheless, according to the human geography aphorism, “as people construct places, places construct people” (Holloway & Hubbard, 2001, p. 7). Thus, as slums are not urbanistically designed for community living, the perspectives and aspirations of their residents are nothing but an outgrowth of the places they inhabit. Thereby, slum life is a clear illustration of a self-fulfilling prophecy; the only way to tackle such conundrum is by means of an integral and multidisciplinary approach.

The essential aspect of placemaking is not to overregulate the organic life that blossomed in slums in the absence of public support (Risom & Madriz, 2018). During the designing stage, slum upgraders must pinpoint the strengths and weaknesses of the area, to later operate alongside the place’s potential. To this effect, planners need a profound understanding of the characteristics of each slum area and its inhabitants. The only way to achieve such insights is by including and appreciating the community at all stages, instead of consulting them sporadically.

Since current formal cities have the capacity to satisfy all anthropological needs, interventions only need to integrate slums into adjacent formal grids. This action can be easily achieved by dint of improved transport networks, cultural activities, increased frequency in garbage collection and enhanced institutional presence. Such an approach is conducive to a multidisciplinary scheme, slum upgrading bolstered by broader formal structures (e.g., public and private companies) (Calderón Arcilla, 2008, pp. 30-56).

Therefore, an integral and multidisciplinary approach that tackles all deficits at once, can attain sustainable, mutually reinforcing results. However, when some dimensions of poverty are excluded from the equation, the program as a whole cannot flourish. Slum upgrading must aspire to break the exclusion cycle ensnaring the urban poor. To illustrate, physical interventions can considerably increase quality life levels for slum dwellers. Home upgrading, health clinics, and piping systems are some of the means to achieve that. For their part, activities such as local economic development, music or dance events, and more qualitative and colorful architecture have been proven to have a huge impact in resident’s mental health (Calderón Arcilla, 2008, p. 105). Social, cultural and psychological interventions could translate into the organization of pedagogic workshops and the construction of libraries, which in turn increase literacy rates, school attendance and culture levels (Calderón Arcilla, 2008, pp. 105-108).

Current programs appear stagnant or inefficient due to their only addressing physical dimensions

Moreover, multidisciplinary reinforces community participation, prompting more constructive relationships between communities and authorities. Social networks within communities become more integrated, furthering community building, development and sustainability (Calderón Arcilla, 2008, p. 56). Security and safety levels are also increased, given the renewed esteem residents develop towards their localities. A last and very relevant advantage of this type of approach would be the increased investment in the area (Magalhães, 2016, p. 82).

All in all, by means of placemaking, an integral and multidisciplinary program renders slum upgrading a more humanized process. It is only through the coalescence of all dimensions of needs (physical/physiological, economic, political, social, cultural, psychological and emotional), that slum upgrading can tackle the root causes of poverties. These needs addressed, slum upgrading can work alongside placemaking, informal settlers advancing towards their fullest potential.

3.9. Bridging the Gap between a Development Project & Social Progress

Drawing by Ruster & Imparato's "bridging of the gap between a development project and a *social process*" (Ruster & Imparato, 2003, p. 95), a slum upgrading program that ignores the human dimension of slums and, therefore, does not turn into *social progress*, cannot result in placemaking. Attaining social progress entails a comprehensive penetration and understanding of the community. Namely, the program must collaborate, at all stages and from all its segments, with slum dwellers, as well as with their complex amalgam of culture, internal dynamics, demands, vested interests, hopes, and prospects about the intervention. Naturally, community participation and community building are fundamental to this bridging.

Recognizing the importance of building this bridge is paramount, informal settlers are more often than not their own main opponents. According to the notion of 'placemaking', urban contexts chisel identities. Ergo, the bridging of the gap entails a strong psychological component. In this line, the psychological dimension of slum upgrading should coach residents on their inherent value and growth potential. To this end, programs should analyze social networks and work along dwellers in making up for deficiencies.

To complement these efforts, slum upgrading programs should also remove all hindrances for future growth. It is fairly common that residents' counterproductive habits end up undermining the autonomy acquired via physical ameliorations. For instance, programs can focus on fighting male chauvinistic stereotypes, on providing legal assistance to combat gender-based violence, on empowering women or on educating on sexual health (Bartres et al., 2006, pp. 27-114). All these initiatives build positively upon previous efforts, making achievements more sustainable and further development more likely.

Ultimately, the bridging of the gap cannot be divorced from placemaking. A bridged gap changes residents' mindsets about their lives and futures, and provides the requisite capacities to accomplish their ambitions. All the pyramid blocs described above, are fundamental to succeed in bridging the gap. Yet, for slum upgrading and placemaking to fully blossom, a further and last element is required: equity, self-esteem and inclusion.

The psychological dimension of slum upgrading should coach residents on their inherent value and growth potential

3.10. Equity, Self-Esteem and Inclusion

The tip of our pyramid is mainly of an emotional nature, which is hardly a topic when it comes to current slum upgrading practices (Magalhães, 2016, p. 7). Nonetheless, when the gap is not bridged and residents do not feel a sense of equity, self-esteem and inclusion, development cannot be sustainable. Thereby, upgrading interventions need to go beyond infrastructure, to target culture, education and public transportation, which is the formula to attain equity, self-esteem and feelings of inclusion among slum dwellers (Magalhães, 2016, p. 37).

Alarmingly, most slum upgrading practices and housing policies have still to internalize the importance of emotional elements, such as quality culture, education and public transportation. And so, they ignore an indispensable socio-spatial aspect. Instead, a quantitative approach predominates in most urban planning practices, continuously segregating and belittling the urban poor (Magalhães, 2016, pp. 7-10). Thus, slum upgrading must aim to transform the present political culture, by incorporating elements that boost equity, self-esteem and inclusion, realizing mutual awareness among all city areas.

Regarding culture, the best way to promote it, is by increasing and optimizing public spaces within cities. These are sites of coexistence and sharing; channels for articulating culture and “exercising citizenship” (Berney, 2010, p. 554). Some examples of public spaces that promote culture are: public squares, community centers, libraries, library parks (as in Medellín), playgrounds, museums, and wider pedestrian streets. Public spaces favor more unbiased interactions between citizens from diverse socio-economic backgrounds, breaking down prejudice and stigma. In addition, these healthier social synergies contribute to commercial dynamism and local tourism, which, in turn, can help decrease the prevalent sense of insecurity characteristic to slum areas. Insecurity and violence are rooted in the unknown, and therefore eradicated through coexistence (Melguizo, 2011). Furthermore, when these public spaces are satisfactory and aesthetic, they can confer a new image and reputation to stigmatized neighborhoods (Esteves, 2012, p. 165). Communities dignified, the sense of pride generated by beautiful sites champions social capital (Vilar & Cartes, 2016, p. 64).

In spite of these advantages, most slum upgrading programs choose to replace psycho-emotional elements, such as public spaces, with more urgent actions. Notwithstanding its non-pressing character, the promotion of culture is still vital and must be generated throughout the upgrading process (Garau, 2015, p. 49). Drawing inspiration from the notion of placemaking, slum areas need to generate culture in order to transform attitudes and become places of meaning (Schneekloth & Shibley, 1995, p. 1).

For its part, education must also be placed at the center of slum upgrading and regeneration. Together with culture, education is considered the powerhouse of social transformation. Bringing up generations in an environment that cherishes education and culture, is proven to empower communities and to boost social capital (Vilar & Cartes, 2016, p. 62). Thus, slum upgrading must design new schools or to redevelop old ones, to meet quality education curricula. Children must have access to spaces where they feel safe and which are conducive to developing a sense of equity, self-esteem and inclusion. Improved education opportunities at early stages in life will have definitive effects: higher expectations and ambitions, increased tolerance, and strengthened community and family ties.

Quantitative approach predominates in most urban planning practices, continuously segregating and belittling the urban poor

Nevertheless, education and culture need not only to exist but also to be accessible. Most slums in the world are located either far from city centers or on steep hillsides, excluded from formal services and city life. Thus, slum upgrading should finish off by establishing a network—i.e., public transportation—that connects reformed slum areas with formal cities. This action has three main advantages. First, it dignifies dwellers' time, by speeding their commuting to workplaces or formal services. Second, it links slum areas with further culture and education opportunities. And third, it fosters informal settlers' interaction with formal city areas, services and peoples; thus attaining more equity, self-esteem, and feelings of inclusion among slum residents (Heinrichs & Bernet, 2014, pp. 55-67).

When equity, self-esteem and inclusion are neglected, slum upgrading can only aim for a deficient response to the slums. These emotional elements tip off our pyramid, providing an integral approach to slum upgrading. The slum question is a human question after all, which makes it imperative for slum upgrading schemes to reach the emotional. Programs that overlook this could not possibly address the root causes of urban poverty, but only offer a temporary workaround.

4. Conclusion

The widespread and ever-increasing presence of slums in world cities attests to inadequate urban practices, for it is unquestionable that current slum life goes against human dignity. A rethinking of informality, therefore, seems vital. Thereby, slum upgrading programs must satisfy the physical/physiological, economic, political, social, cultural, psychological and emotional needs of informal settlers. On this matter, our Pyramid on Slum Upgrading puts forward a set of indispensable elements to address thorough slum upgrading, humanizing informality.

The most relevant input of our pyramid is its advocacy for an evolution of urban rhetoric. Future upgrading interventions must have a frame that places slum residents at the core, satisfying the whole range of their needs. However, the main obstacle to this transformation is an inequitable distribution of resources. Our pyramid tries to shed light on the extent to which cities' potential has not been sufficiently tapped. Thus, tension between formality and informality—which are also indivisible according to economic logic—must be reevaluated through integral slum upgrading. Despite housing being a profitable market product with many powerful vested economic and sociopolitical interests opposing effective slum upgrading, a change of approach will be the only way to reverse increasing slum figures the world over, and to attain the full potential of cities. Slum upgrading stands then as a strong economic policy, favoring the general well-being of *all* city dwellers.

The state of affairs with regards to slum upgrading mostly consists of physical interventions with touches of social and economic development initiatives; progress in these dimensions undermined by oversight of all others. Without consistent, ongoing and sustainable results to legitimize investment, donors have become fatigued, funding of slum upgrading considerably decreased (UN-Habitat, 2016, p. 13, p. 106). Conversely, peaks of high hopes and disappointment have undermined the confidence of settlers on development as well as on authorities. The cities of tomorrow need inclusive, quality housing policies, and political will to redesign space, rethink informality and foster urban equity. Yet, without forthcoming economic and political powers, cities are certainly creating bleak futures for themselves, particularly in environmental terms.

Slum upgrading stands then as a strong economic policy, favoring the general well-being of all city dwellers

Thus, the way forward is a revitalization of the social contract: an initiative that can be achieved through slum upgrading—its perks reaching far beyond informal settlements. Slums are visible by-products of the many vices of present economic and political systems. Since urban informality is the product of multi-dimensional marginalization, slum upgrading will be able to restore many of the shortcomings of present systems. The home is where everything starts, architecture and urbanism influencing lives to intimate degrees. How these forces interplay with people's lives—at the home, neighborhood and city levels—will equally shape development pathways. Hence, our recommendation is for cities to renew the “right to the city”, for informality to be rethought, and for tangible, integral and comprehensive slum upgrading and placemaking to be implemented across peripheries and rings of poverty.

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