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# From Demon to Darling: Child of the Dark or Model for Sustainable Cities? Fifty years of perception, policy, and reality in Rio's favelas

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Article

Abstract: Based on 50 years of primary fieldwork in Rio's favelas, this article tracks shifting 8 perceptions among academics and urban practitioners from demonizing favelas to fetishizing them. 9 It contests newfound enthusiasm with favelas as 'models for future urban development', suggesting 10 a more nuanced look at constraints and conflicting interests. The article offers a reality check on 11 claims that favelas are 'robust, green, dense, well located, self-reliant, close-knit, unplanned and 12 emancipatory'. It suggests that what appears as a light ecological footprint may result from scarcity 13 more than consciousness and that what seems like self-reliance may result from unpaid labor filling 14 in for lack of basic urban services. The article addresses two sides of informality: informal 15 settlements (where being informal is used to justify removal) and the informal economy (where 16 being informal is used to arrest street vendors). Both informalities generate income, intellectual 17 capital, and new knowledge. Further, the dichotomy between formal and informal obfuscates their 18 complete interdependence and blinds us to the recognition of 'the real city' composed by both. What 19 needs to be eradicated is not favelas, but poverty, inequality, and disrespect. The article ends with 20 the fundamental questions: Who is the city for? Whose lives matter? 21

Keywords: sustainable communities; urban informality; social justice.

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**Copyright:** © 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/b y/4.0/). Having spent a lifetime and career defending the value of favelas and favela 24 residents—in books, articles, talks, classrooms, and policy briefings, it is paradoxical that 25 Janice Perlman, the voice and principal author of this article, now finds herself forced to 26 bring some of the harsh realities of favela life into view as a reality check for a new fad 27 romanticizing favelas as an environmentally sustainable and a model for future urban 28 development. 29

## 1. Introduction: Do favelas exemplify ideal urbanism?

"... As an urban form the [...] is robust, green and 'sustainable'. It offers high-density, lowcost living in locations penetrating the city centre, within reach of work by foot or bike... close-knit, self-reliant communities in which ties of family and neighbour are strong... [they] delineate their own boundaries of loyalty and defensible space."

Simon Jenkins, The Guardian, April 30, 2014. [1]

This quote captures the principles of the new urbanism. It brings to mind Italian 38 hillside towns such as Positano, as seen below. But in fact, the missing word in brackets 39 is *'favela'*, the Brazilian term for informal settlements. While the precise definition of favela 40 – and the indicators used to determine what constitutes a favela – have changed over 41 time, what has remained constant is their designation as informal urban settlements. 42

Whether categorized as 'subnormal agglomerations' and obliterated from city maps or called 43 'social interest zones' or 'communities', the point is that they are distinct from the formal city. 44Colloquially in Rio, the distinction is between the 'hill and the asphalt' (o morro e o asfalto). 45



Figure 1. Positano, Italy. Photo by KaLisa Veer on Unsplash.

Rocinha, seen below, is one of Rio's largest favelas. A dense hilltop settlement with an organic, vernacular architecture, narrow winding streets, and defensible entry points, it could be compared with Medieval hill towns such as Positano. In both cases, each dwelling was individually constructed but together they create a coherent whole. They are dense, intense, appealing and attractive communities. 55

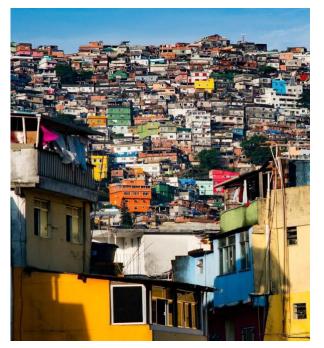


Figure 2. Rocinha, in Rio de Janeiro, Brazil. Photo by Bennett Cain.

While both Positano and Rocinha generally fit the definition of the new urbanism, Positano represents our urban past; Rocinha is closer to our urban future.

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In fact, there is a strong visual connection between Italian hill towns and some of 83 Rio's hillside favelas. Both are characterized by narrow cobblestone streets winding up a 84 hillside with beautiful views overlooking the sea below, and a coherent building style 85 with similar materials and colors that produce a beautiful amalgam of form. This visual 86 similarity between Positano and Rio's favelas made news in 2009 when it came to light 87 that a wealthy German businessman had bought 52 homes in Vidigal favela with the 88 intention to buy dozens more, build a luxury hotel, and "turn it into a tropical Positano" 89 [2]. 90

Jenkins is hardly the first renowned author to extol the virtues of favela communities 91 as models of conviviality and minimal environmental footprint. None other than Stewart 92 Brand, the creator of the 1968 Whole Earth Catalog, wrote that "favelas might lead the way 93 for urban development with their high density, strong solidarity, and environmental 94 sustainability" [3]. Brand, a biologist, came to this by observing that "buildings adapt best 95 when constantly refined and reshaped by their occupants" and that "a building is not 96 something you finish—it's something you start...and may be a many-generation process" 97 [4]. Indeed, that is true for favela housing. The house is always a work in progress, 98 adapting to changes in family size and resource availability [5]. Robert Neuwirth, whose 99 2005 book, Shadow Cities, gave compelling journalistic accounts of brief times he spent in 100 squatter settlements in several of the world's megacities, also argues in this vein that 101 "squatters are at the forefront of the worldwide movement to develop new visions of what 102 constitutes property and community" [6]. 103

## Research and Recognition of the Informal Sector

Research and urban policy debates about the 'urban explosion' and the concomitant 105 rise of informal settlements go back at least to the post World War II period when 106 urbanization began to draw attention in Latin American cities. Starting in the 1960s, 107 several seminal books were written about informality. Urbanists, architects, and 108 anthropologists drew attention to the incremental building, improvement, and 109 expansion-both outward and upward-of the initial shacks as families grew and 110 circumstances changed. These early works also document the use of the home for income 111 generation through micro-enterprise, retail, personal services, day-care centers, repair 112 shops, rental income and more. These and other practices were well documented by the 113 mentors of the entire field including Charles Abrams, John Turner, Anthony Leeds, Lisa Peattie, and others [7-14].

A review article about the work of Leeds says:

"More than localities where the urban poor resided, they were... dynamic structures 118 involving an intense circulation of people and capital, expressing the strategies developed by 119 urban workers to deal with the contradictions of a society undergoing a rapid process of 120 urbanization." [15]. 121

Contemporary scholars from around the globe have continued writing about the role 123 of informal settlements in providing urban newcomers a place to start their lives in the 124 city. Among those excavating urbanization and the growth of the informal sector are 125 Ananya Roy (Calcutta), James Holston (São Paulo), Marianna Cavalcanti (Rio de Janeiro), 126 Arif Hasan (Pakistan), Ahmed Soliman (Egypt), and Edgar Pieterse (South Africa) [16-22]. 127

On the policy level, the recognition of "housing as a verb", as an ongoing process, 128 and as an incremental investment by the family over generations led to a new approach 129 to affordable housing [23]. This approach, called 'Sites and Services', was an affordable 130 solution for newly arrived migrants and responded to the failure of basic 'core houses', 131 which were favored by international development agencies and some governments over 132 informal settlements. 133

In 1972, The World Bank sponsored the first 'Sites and Services' Project in Dakar, 134 Senegal. The idea was to anticipate incoming migration from the countryside, provide 135

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low-cost lots with access to water and electricity, thereby diverting new settlements from 136 the city center. The partially built houses, like the core houses before them, were not 137 designed with user needs in mind. In light of the numerous failed versions of serviced lots 138 with or without starter housing, it is surprising to see the Pritzker Architecture Prize and 139 eminent scholars touting partially built cement housing as a promising novel solution for 140 anticipated need. 141

#### Why is informality a hot topic now?

According to the International Labor Organization (ILO), the term 'informality' first 143 appeared in the early 1970s [24]. From the start, it had derogatory connotations and was 144 used to justify hostile policies such as preventing new settlements, limiting their growth, 145 prohibiting their improvement, and/or eradicating them. As Ananya Roy says, "ever since 146 the term informality was coined... informal urbanization has been perceived as a threat 147 to progress in Latin American cities and beyond" [16]. 148

Considering this half-century of research and public policy on informality, the 149 question becomes, why have prominent architects, planners, and social scientists recently 150 started speaking and writing about informality as if it were the new solution to "the urban 151 question"? [25] 152

One reason might be that urbanization and informal settlements –after decades of 153 being ignored- have gained space in international policy forums, academic publications, 154 and in public awareness. It is telling that in the first Earth Summit in 1992, cities and local 155 authorities were barely mentioned. Mayors and local authorities appeared in only one 156 paragraph (paragraph 28), along with other 'special interests' such as Women, 157 Handicapped, Indigenous People, etc. [26]. By 2012, the 20th Anniversary of the Earth 158 Summit (known as RIO + 20), urbanization and informality were recognized as global 159 trends. The rise of slums and squatter settlements had already been included in The 160 Millennium Development Goals (MDGs) and the World Urban Forums. 161

By 2016 when the third UN Urban Summit (Habitat III) was held in Quito, Ecuador, urban informality had taken its place as a focal issue. The New Urban Agenda, a blueprint for meeting the 2030 Sustainable Development Goal 11: 'Sustainable Cities and Communities' was signed by 167 UN member states. The text reads:

"We share a vision of cities for all, referring to the equal use and enjoyment of cities... promote inclusivity and ensure all inhabitants... just, affordable cities... foster prosperity, and quality of life for all" [27].

Over the same period that public policy recognized the extent and impact of 171 informality, the topic was gaining notice in academic discourse. Between 2005-2015, the 172 topic was popularized by dramatically titled books such as Planet of Slums (Davis), Shadow 173 Cities: A Billion Squatters, a New Urban World (Neuwirth), Cities from Scratch Poverty and 174 Informality in Urban Latin America (Brodwyn), and Arrival City: how the largest migration in 175 history is reshaping our world (Saunders) [6, 28-30]. The trend was even more striking in 176 academic articles. The word 'informality' appeared in the title of 234 articles in the 20-year 177 period between 1980 and 2000 and jumped to 3,380 between 2000 and 2020 (the first 6 178 months only). The little table below shows the exponential growth in the number of 179 articles with informality in the title from 1980 to the present. 180

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Decade	Number of articles
1980-1990	53
1990-2000	181
2000-2010	956
2010-2020	2,530
ble organized by the authors with	data obtained from Google Scholar

Table 1. Number of articles with "Informality" in the title by decade

Tal 's. retrieved from https://scholar.google.com.br/#d=gs\_asd

Julie-Anne Bourdreau and Diane Davis suggest an explanation for this:

"Recently, informality has received intensified academic attention as a tool for re-evaluating the building blocks of urban theory, in particular, of citizenship, infrastructure, and the state." 195 (Bourdreau and Davis, 2016, quoted in Müller, 2017) [31, 32]

This is a sociological take on informality, following the tradition of Lefebvre, who introduced the concept of 'the right to the city', and Castells, who has addressed 'the urban question' in his seminal book by that title in 1977 [25, 33].

## 2. Informality as an Ideal Type

The iconic book Child of the Dark, a diary by Maria Carolina de Jesus [34], showed the dire poverty and drudgery of life in a favela. It may or may not have been edited by a journalist, but in any case, it served to reinforce the negative stereotypes of favela life and 204 buttress arguments for eradication. In the Myth of Marginality and Favela I argue for the 205 resilience and brilliance of favela residents in creating thriving urban communities in the 206 context of an extremely hostile environment [12, 35]. Now, I am forced to confront the 207 over-idealized version of favelas as icons for the new urbanism. 208

In order to tease out how the reality on the ground compares with the concept of 209 informality as an ideal type for sustainable urban development, I have collected the 210 propositions and assertions about informality and created an *Ideal Type*, combining what 211 various authors have recently written. I identified two major sets of assumptions that I 212 call 'Properties of Informal Settlements' and the 'Link between Sustainability and Informality'. Looking at the components of each category helps tease out to ways that lived reality on the ground corresponds to the ideal type.

#### **Properties of Informal Settlements**

Looking across what has been written about informal settlements as an ideal type for 218 future urban development, six attributes can be identified. They characterized as 1) 219 affordable; 2) well located; 3) close-knit with rich social networks; 4) high density; 5) unplanned and unplannable; and 6) emancipatory.

The favela of Catacumba in Rio de Janeiro, where I lived and did research in 1968-69, 222 was a perfect example of these properties. Catacumba sat on a steep granite hillside which 223 explains why it was unoccupied when the settlement began. Each house was unique, but 224 they were all situated to catch the breeze, bring in natural light and leave space for plants 225 and trees. Together they created a coherent whole. The favela was ideally located, within 226 walking distance from the upscale neighborhoods of Copacabana and Ipanema, which 227 meant ample opportunities for work and easy access to schools, health care services, 228 transportation and other urban amenities. 229

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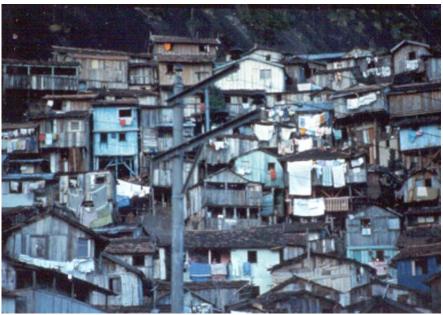


Figure 3. Catacumba, in Rio de Janeiro 1969. Photo by Janice Perlman.

This was the perfect location and settlement pattern for new arrivals from the countryside, looking for a toehold in the city and needing immediate income for basic necessities. It pre-dated the terms 'informality' by over a decade and the term 'new urbanism' by at least twenty years. However, its very desirability meant that once building technologies evolved to permit construction on those steep granite slopes, the land value skyrocketed and it was forcibly razed in 1970, one year after I left.

Taking a more nuanced view of each characteristic in the ideal type and looking at how history and policy correlate` reveals a different narrative:

Affordable. 'Low-cost living' is what makes favelas the solution of choice for newly 1. 243 arrived migrants. Most arrive in the city with little or no money, having sold 244whatever they owned to pay for the truck or bus that brought them to the city. Buying 245 or renting a place to live is beyond their means. For the first generation of arrivals, 246 there were many unoccupied and undesired places to settle, and many construction 247 sites provided both scrap material for home construction and immediate cash work. 248 However, today it is quite expensive to buy or rent in those favelas that are well 249 located, especially those where upgrading projects have improved urban services 250 and infrastructure. Still today, there are affordable favelas, but they are in the far 251 reaches of the peripheries, where it is nearly impossible to find work and public 252 transportation to work locations is scarce and expensive. Buying or renting in the 253 well-located favelas, especially those where upgrading projects have improved 254 urban services and infrastructure is prohibitively expensive<sup>1</sup>. In fact, the cost of 255 renting in well located parts of Rocinha, Vidigal, Santa Marta, Babilonia and other 256 favelas proximate to upscale neighborhoods, exceeds the cost per square foot of 257 many formal neighborhoods including Copacabana itself [36]. 258

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<sup>&</sup>lt;sup>1</sup> Furthermore, recent research commissioned by the InterAmerican Development Bank shows that 20 years after the much-admired Favela-Bairro Upgrading project, there was little improvement in quality of life. Once the infrastructure construction was completed, the government disappeared, with no investment in either maintenance of the physical improvements or investment in human or social capital [37].

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- 2. Well located near the center within reach of work by foot or bike. The location of the 260 favelas was indeed determined by proximity to work but equally by the availability 261 of land that was undesirable for the markets. These lands were typically on hillsides 262 too steep for construction, on riverbeds with seasonal flooding, or in marshes and 263 swamps that were breeding grounds for mosquitos. At the time these settled lands 264 had little value, but as the city grew around them and as technological advances 265 made it possible to build high rise apartments on rocky inclines, these lands became 266 increasingly desirable targets for eradication. By the turn of the century the favelas 267 that remained in proximity to jobs had become very expensive to buy or rent. Real 268 estate markets in those communities sometimes outpriced formal neighborhoods 269 [38]. 270
- 3. Close-knit communities with rich social networks. Fighting against removal and 272 organizing collective demand for urban services did create 'close-knit communities 273 with dense social networks, close ties to family and neighbors, and a sense of loyalty'. 274 Unity and solidarity were preconditions for survival. But by 2000, when I returned 275 to the same communities for a follow-up study, my interviews revealed that this 276 sense of community unity and mutual trust had not survived the intervening shocks 277 of 'war' among narco-traffic gangs, the militia, and the military police. Nor were the 278 residents' associations able to maintain their independence. Community loyalty still 279 existed but has been eroded by such hostile public policies as forced removal and 280 full-time occupation by the Pacifying Police Units. By 2022, the loyalty, solidarity and 281 community social networks remain a survival strategy<sup>2</sup>, but the ongoing brutality 282 and complicity of police, the militia, and drug gangs have become worse and are 283 exacerbated by government indifference or active hostility at the highest levels 284
- High density. Without doubt, most favelas are dense, especially those closest to the center where land values are high. The newer settlements in the peripheries are more precarious in location and construction and less dense. Density however is not always a virtue, despite its superiority over sprawl. Rocinha, one of the largest favelas in Rio has a density of 180,000 people per square mile, almost three times that of New York City, which has 67,000 per square mile.



<sup>&</sup>lt;sup>2</sup> See my study of inspiring local initiatives taken in favelas to mitigate the negative effects of Covid in light of government neglect [39].

**Figure 3**. Rocinha has a density of 180,000 per square mile. Photo by Rasmus Bang on Unsplash

It is true that favelas demonstrate the high density-low rise urban development 298 model touted by the new urbanism. The dark side is that, as they become 299 consolidated, the need for additional space to accommodate growing families has 300 led to severe overcrowding. Once homes have been expanded upwards to 5 stories, 301 the tendency is to expand outwards to the edge of the plot, adding rooms without 302 any doors or windows. With no ventilation or fresh air, tuberculosis, and other 303 respiratory diseases have appeared. Government 'upgrading programs' and 304 pacification police units tend to exacerbate the lack of open space. They utilize former 305 green spaces, internal plazas, even soccer fields to site military bases, social housing, 306 or cable car stations. They pave over parks and remove trees and bushes that might 307 provide hiding places. This is not the idealized green urban ecosystem that would 308 be desirable and that many current community-based organizations are fighting for 309 with urban agriculture and forestry<sup>3</sup>. 310

- 5. Unplanned/unplannable, evolved organically. From what I have written it must be 312 clear that a great deal of planning has gone into the building, expansion, and 313 maintenance of informal settlements. They may not be planned by the government 314 or private developers, but they are carefully constructed little by little by the world 315 316 opportunity to work with planning students from the Federal University of Rio, the 317 residents of the favela Vila Autódromo threatened with removal developed a 318 Peoples' Plan that won an international award [40]. 319
- 6. An emancipatory practice. Urban Informality in itself is neither emancipatory nor a 321 practice. It is a term describing a constant process of adjustment and adaptation by 322 the underclass to changing circumstances, most of them deleterious and deliberate. 323 It is not 'a practice' in any sense of the word. One does not practice informality the 324 way one practices architecture, yoga, soccer or the piano. It is neither a cultural 325 practice, nor a family practice. The bottom line is that urban informality is a coping 326 mechanism for living with limited power and resources. It is the default option when 327 exclusion prohibits other options. In the absence of access to formal housing, work, 328 social services, and urban amenities. Informality is a necessity. The residents of 329 informal communities are denied the opportunity to develop their full potential. 330 They manage to survive (and even thrive) because of their resilience and 331 perseverance against all odds. But it is not easy and not to be taken lightly. 332

Urban informality is more about poverty, inequality, and social injustice than it is about architecture, planning, design or the relationship between the built environment 335 and the natural environment. 336

#### Link between sustainability and informality

The recent publication of an edited volume titled *Informality Through Sustainability:*338*Urban Informality Now* makes the case that informal settlements, long derided as sources339of pollution to be demolished are urban forms to be emulated [41]. This is where my title,340*From Demon to Darling*, comes from. Here, I interrogate the connection between *informality*341and sustainability. Does informal urbanism really engender or embody green lifestyles?342

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<sup>&</sup>lt;sup>3</sup> My recent research shows that only in the peripheral favelas where land is still available for cultivation, women have created community gardens that are helping with food insecurity. And with building solidarity in the face of covid's disproportionate rate of sickness and death in favelas [39].

Although I have a chapter in this volume, I would argue that what appears to be living343with a light ecological footprint could be the result of limited means, limited options, and344limited access [42].345

To provide a concrete example, take the case of basic urban services such as garbage 346 collection and sanitation systems in favelas. 347

Garbage collection has always been and is still problematic in favelas, especially 348 those on steep hillsides with narrow streets in which garbage trucks cannot 349 navigate. These are precisely those favelas on hillsides with lovely views, those closest to 350 the hotels, restaurants, and beaches that tourists are likely to visit. The more peripheral 351 ones are not as easy to get to, not as charming, and reputedly dangerous—not such good 352 candidates for emulation. 353

Despite various public policies by local and state governments to upgrade the urban 354 infrastructure in favelas, the services seem to revert to second-class status. Efforts to widen 355 streets, improve garbage collection, and hire local residents as monitors, huge piles of 356 waste putrefy in the hot sun, attracting vermin and spreading disease. When the 357 authorities fail to collect garbage at the necessary frequency, the stench and the invasion 358 of rodents and insects into alleyways and homes become unbearable. Most often the 359 residents organize cleanup campaigns themselves, without remuneration. One example 360 of this is Grupo Eco in favela Santa Marta, which mobilizes residents for clean-up 361 campaigns, sponsors recycling projects, runs a community garden, and works with 362 children on environmental education. Other environmental initiatives include terracing 363 hillsides, re-cycling greywater for planting, using solar power to heat water, opening 364 ecological trails, and demonstrating agro-forestry. The solidarity and effort to do this are 365 difficult to sustain without support. The poor end up working without pay to fill in for 366 government neglect. 367

The absence of *sanitation systems* is an even worse health and environmental 368 hazard. Some 91.7% of favela homes lack sewer connection [43]. Human waste is not 369 channeled into closed pipes, but simply runs down gullies on the sides of the road. During 370 heavy rains these drainage ditches overflow, pouring raw sewage into the streets and 371 flooding houses. 372

Extolling low levels of energy and water consumption in favelas is ironic. It is no 373 mystery that favelas' use of *electricity and water* is low. Aside from not having the 374 discretionary income to pay for these services where available, many homes are not 375 connected to the formal systems. Historically, they tapped into existing infrastructure 376 networks, which met immediate needs but hides the extent of their actual consumption. 377 Recently, the local government and the electric company (Light) have made a strong push 378 for 'formalization' by hooking up the homes to the formal systems and installing water 379 and electricity meters. The state has waged a campaign to convince favela residents that 380 paying their electricity bills is an indication of their citizenship [44]. For undisclosed 381 reasons, the electricity charges for households in favelas are triple the charges in homes, 382 apartments, and offices in the formal city. This is nothing new or confined to favela 383 communities. In his book, The Poor Pay More, David Caplovitz called this the "poverty 384 penalty", whereby poor people pay more for the same goods and services as people with 385 more money do [45]. 386

In Rio's favelas, by 2010, the *consumption of household appliances* and large 387 consumer goods among the third generation — the grandchildren of the people I 388 interviewed in 1969, was on a par with the municipal average. Both those who had left 389 favelas and those who remained in favelas had a similar consumer index which includes 390 washers, air conditioners, and wall-sized plasma TVs among other things. Only they pay 391 much more. Since they buy on credit lines, they end up paying as much as 4-5 times the 392 original cost, and if they miss payments, the item is confiscated [35]. 393

In reality, I doubt that favela residents would still leave such a light ecological 394 footprint if they had access to the wealth and spending power of the 'formal city'. Informal 395 communities like favelas have adapted to life in undesirable places with low resource 396 consumption, due to a lack of other alternatives. My guess is that the environmental 397 consciousness of residents would be about the same in the favela and the rest of the 398 city. Holding up informal settlements as ecological models seems sadly romanticized. 399

My observations are based on over 50 years of research in the favelas of Rio de Janeiro 400and on over 30 years of working with informal settlements and informal economies in the 401 other megacities of the world. Over this time, I have seen favelas move from being 402 despised and demonized to being fetishized as the darlings of the new urbanism. The 403 important question before extolling informality is how stigma, exclusion, and lack of 404 recognition stunt the potential contribution to society and omit future leaders and problem-solvers 405 from emerging. It is easy to idealize favelas from afar. To see the delicate balancing act between the 406 community lifestyle and the harsh realities of that life requires a closer look. I take exception to 407 the idea that informal urbanism is a social and environmental template for professional 408 practice. Indeed, professionals stand to learn a great deal from community practices and 409 local priorities. My experience shows that more often than not, well-meaning 410 professionals, including architects, planners, journalists, and urban sociologists, end up 411 proposing design solutions such as open spaces, vistas, community centers, or more 412 efficient pathways among activity nodes when the community's most urgent needs are 413 water, sanitation, schools, health clinics, and job training. 414

The degree of courage, risk, and sacrifice people made to leave their hometowns, 415 arrive in an unknown city without money, and build homes from nothing is indeed 416 admirable. What foreign visitors, bloggers, and casual observers see as environmentally 417 friendly are more likely the results of living as second-class citizens in stigmatized spaces. 418 And what looks to outsiders as enviable collaboration may simply be unpaid labor filling 419 in the gaps in services that the city failed to provide. 420

The light environmental footprint reflects poverty and exclusion, rather than a 421 conscious effort to conserve energy or minimize environmental footprint. On the other 422 hand, there are now many environmental groups in favelas and much greater awareness 423 of conservation, sustainable resource use, recycling, composting, and collecting rainwater. 424 Nonetheless, first and foremost they need good local schools, health care, job 425 opportunities, and income. And they need the security to stay where they are, knowing 426 that the houses and community they have built over generations will not be demolished 427 or gentrified. 428

*In short, the reality of informality is not a blueprint for future urbanism.* While informal 429 urbanism can rightly be described as 'organic, flexible, and creative', *necessity is the mother 430 of this invention.* 

#### 3. What is urban informality and why does it matter?

Although informal urbanism may not reflect environmental consciousness or 433 conform to an *Ideal Type*, it is certainly going to shape "*our urban future*" [46] and by 434 extension, our planetary future. Almost all of the world's population growth is being 435 concentrated in the cities of the global south and within those cities, it is concentrated in 436 informal settlements. That makes urban informal settlements the fastest-growing segment 437 of the human population. 438

Yet urban informality and the informal sector remain somewhat amorphous categories. As Lisa Peattie wrote,

"The 'informal sector' is an exceedingly fuzzy concept which has come into wide use because 442 it seems to address the interests of a number of very diverse groups: those interested in growth 443 planning, those interested in alleviating poverty... structuralists, and those interested in 444 urban economic analysis..." [47] 445

She saw value in the concept insofar as it brought attention to urban poverty at a time 447 when research and public policy were focused more on rural poverty. In her words, *"The* 448 use of the concept has been helpful in directing attention to phenomena previously ignored" [47]. 449

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But she lost her argument that 'informality' was too vague to be useful as an analytical 450 construct. Today, it is the term of choice to signify slums, tenements, shantytowns, 451 squatter settlements, degraded public housing projects, clandestine subdivisions, and 452 precarious neighborhoods of various sorts. It has become increasingly useful insofar as 453 more specific terms seem derogatory in one context or informal sounds more neutral. 454

A 2017 article Urban Informality as a Signifier by Frank Müller [32] makes a similar 455 point about the multiple meanings, connotations, and functions of informality. It raises 456 many of the same issues with the word informality as I found for the word marginality 457 when I started working in favelas. Both informality and marginality have been used as 458 labels to distinguish between 'us' and the 'other'. The main message in both cases is: We 459 are essential, they are expendable. Their lives don't matter. If they are evicted from their 460homes to insure the "highest and best use" for valuable land, that is simply rational urban 461 planning. 462

Müller's article raises another consideration that was not relevant in the 1960s and 463 70's but was clearly at play in Rio in the lead-up to hosting the 2014 FIFA World Cup and 464 the 2016 Olympics. Both public and private interests seeking to showcase Rio as a 'world 465 class city' considered the favelas an embarrassing sign of underdevelopment and 466 potential source of violence and disruption during the games. Müller termed this 467 "territorial branding" and argued that it is effective in reinforcing spatial segregation [32]. Exactly as the ideology of marginality, the designation of informality is used to justify removal from public view. In his words, it is a "normative framework for antagonistic strategies of public and private actors... [which] fosters the imperative to eradicate".4 471

## 4. Two Urban Informalities: Settlements and the Economy

Informal settlements are only one way the term informality is used. The otherequally important for understanding cities—is the informal economy. What they share in common is that they are both unregulated and subject to constant threats by the authorities.

The hallmark of informal settlements is that residents do not own the land on which their homes were built. The hallmark of the informal economy is that it is 'off the books' and earnings are not taxed.

## Informal Settlements - the territorial dimension of informality

Definition: informal settlements are characterized by lack of land tenure – meaning 483 that residents or their parents or grandparents squatted on the land and built up their 484 houses and community over several generations. It represents an ongoing investment of 485 household resources. They are owners of their homes and many have occupancy permits 486 (given by various local and state administrations), but they do not own the land on which 487 their homes were built. 488

Specific characteristics used earlier to define informal communities have become 489 irrelevant over time as they have improved the quality of their homes, installed urban 490 infrastructure; participated in urban upgrading programs and/or received government 491 certificates of occupation. 492

The importance of land tenure is one of the things that has changed most dramatically 493 over time. When I first lived in Rio's favelas in the late 1960s, the residents' main concern 494 was getting land tenure as a protection against arbitrary removals. But in the past 20 years 495 the situation there has changed. Rio's favelas achieved a kind of de-facto tenure after the 496 dictatorship, once they wielded electoral power. Shortly thereafter, favela upgrading 497 projects were implemented with significant public resources and assurances of land 498 regularization, giving residents a sense of security. 499

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<sup>&</sup>lt;sup>4</sup> See section in Perlman, 1976 on "the Power of an Ideology" [12].

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As living conditions and public safety improved, the threat of *gentrification* or 'white 500 expulsion' arose for the first time. The only thing preventing a buyout from residents by 501 wealthy investors from Brazil and other countries was the lack of land title. Residents now 502 feel that having legal title would make them more attractive to outside buyers and no level 503 of compensation could compensate for all they had invested in their homes and 504 community or for a lifetime of social relationships and proximity they have enjoyed [35]. 505

Another reason the residents do not want tenure is because they cannot afford to pay property taxes. They can barely make ends meet as is and the taxes, plus water and electricity rates (not to mention formalization of their local economy which would imply taxing that as well) would be untenable. Even so, it has become apparent that even when they have title and pay property taxes, favelas are still subject to eviction at the whim of the government.

## Growth and Magnitude of Informal Settlements

When people refer to 'the urban explosion', a 'world of cities' or 'the urban age' they514are really talking about the growth of informal settlements — whether or not they realize515it. That is because the informal sector is growing faster than the formal sector in most cities516around the world. Population growth in the formal city has generally levelled off and in517some places, it is actually shrinking.518

It is now widely known that informal settlements are home to a billion people today. 519 They serve as a toehold on the city for new arrivals, a stepping-stone to a better life, and 520 a source of mutual aid —which often makes the difference between life and death. As of 521 mid-2020, one billion people (nearly 1/7 of the world population) are living in informal 522 settlements. That number is projected to double by 2030 to 1/4 of the human 523 population and to triple by 2050, reaching 3 billion, that is one in every three people on 524 the planet [48]. 525

To picture the magnitude of this growth, imagine 156 million people leaving their homes in the countryside for the city every year [49]. That is equivalent to 13 million people every month, 3 million every week, 400,000 per day, and 20,000 every hour.

As seen in the Table below, that means that 4.5 out of every 100 rural people are picking up stakes and coming to the city each year. This trend has reached a peak in Latin America and the Caribbean, where 81% of the population is currently urban, but it is in full swing in Asia (which is 50% urban) and just beginning in Africa (which is 43% urban). In order to provide housing for this population influx, cities would need to provide 26 million houses/year (assuming an average of 6 people/household). That translates into 530 530,000 dwelling units a week, 71,500 houses/day, or 3,000 houses/hour.

	Cityward migrants	Housing units needed	Equivalent population size
Per year	156,000,000	26,000,000	18 New York cities
Per month	13,000,000	2,150,000	Rio's Metro Area
Per week	3,000,000	500,000	Berlin and Chicago
Per day	400,000	71,500	Miami
Per hour	20,000	3,000	1/20 of Raleigh, NC

#### Table 2. Incoming Migrants and Housing Needs

Table organized by the authors. [Sources: 50-52]

Neither the state nor the market has the capacity to provide housing at this scale. 540 Self-built homes in informal settlements have been and continue to be the only viable 541 solution to housing the newcomers. The fact that informal settlements result from 542 exclusion from housing markets is not in doubt. Real estate markets, public policy, spatial 543

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segregation, discrimination and other factors play into this. And once established, informal544communities face constant threats of expulsion by the state or by the market.545

However, just because favelas originated from necessity, does not negate their 546 enormous value in the lives of their residents and their importance in collective memory 547 and identity. I have seen how favelas are beloved by their residents, most of whom were 548 born there and —in their own words—have their umbilical cords buried there. 549 Attachments to *place* run much deeper than in the formal city. Homes have been built with 550 great love and sacrifice by the parents and grandparents before them [53]. 551

In fact, my research, following hundreds of favela families over four generations, 552 shows that many residents choose to stay even though they have the financial means to 553 leave. Their reasons varied from person to person, but almost all of them spoke of the 554 importance of Community and social support networks on the one hand and 555 independence or freedom on the other. 556

When talking about community, they specified the value of being close to family and friends; of sharing bonds of solidarity, common roots and history; and of their collective fights for rights. When speaking about independence, they pointed to their freedom to build their homes and plant their gardens in their own way; freedom to work on their own without a boss; and most of all, the freedom to be yourself, to deviate from the norm –ie not conform to the norms of formality. 557

My research showed that many nuclear households had incomes sufficient to move out and rent apartments in formal neighborhoods, but did not choose to do so insofaras they could not bring their extended family and independent lifestyle with them.

For those who see the aim of urban development as eliminating informality, this may be hard to imagine. I wrote an entire article to address this, called "*A city without slums is a cityy without soul*" [54]. What needs to be eradicated is *not informality, not the freedom to create and deviate, not the sense of community* but *poverty, inequality, and the lack of respect for the dignity and rights of all urbanites.* 

#### **Precarious Neighborhoods**

I found the term precarious neighborhoods particularly useful to designate slums, 574 underserved communities, social housing projects, and living conditions on the urban 575 peripheries. This term has the advantage of including the types of slums and degraded 576 areas in Europe and North American cities. An International Conference was held in Paris 577 in June 2015 on "Rethinking Precarious Neighbourhoods" and a book with the same title was 578 launched at the Habitat III Summit in Istanbul in 2016 [54]. I was struck by the similarities 579 between the precarious neighborhoods, in the global north, and squatter settlements in 580 the global south. They faced the same type of exclusion, stigma, and vulnerability as 581 marginalized communities the world over. 582

There is a tendency in both cases to conflate *precarious neighborhoods with precarious people*. Once an area is perceived as precarious, the people living there are seen as undeserving, dirty, and dangerous [55]. Public policy and planning decisions flow from that perception. This is what I find so devastating—the mindset that a significant number of people in the city do not count, do not matter, and do not deserve respect.

Chronic *vulnerability* and constant *stress* permeate the lives of those in marginal and precarious neighborhoods in three ways:

- Vulnerability due to *insecure occupancy of territory*. Uncertainty and fear are present 590 in conditions running the gamut from homeless people living on the streets, in parks, 591 or under bridges (as seen in New York City), to the occupation of patches of grass in 592 the middle of traffic circles (as seen in Paris), to living on construction sites (as seen in 593 Bombay), to sharing abandoned office buildings (as seen in Johannesburg), to social 594 housing projects and squatter settlements across Latin America Asia, and Africa. 595
- 2. Vulnerability due to the *instability* or *impermanence* of the *dwellings*. Construction 596 materials are often taken from the garbage: scrap metal that becomes burning hot in 597

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the sun, plastic sheeting that becomes torn in wind and rain, packed mud, lean-tos,598and tents, or even, as in the case of pavement dwellers in India, cloth saris strung on599poles on the sidewalk (using the wall behind them as the back of the shack). What600these have in common is precariousness and danger for the inhabitants.601

Vulnerability of *entire neighborhoods*, which may be due to: 1) *deterioration* due to 3. 602 neglected maintenance, lack of urban services, natural disaster, or population 603 succession; 2) partially or totally demolished; or 3) abandoned due to economic and social 604 transformations. Regardless of the circumstances, the cruel reality is that *precariousness* 605 erodes not only one's sense of security but also one's sense of self. Families and individuals 606 live in a state of constant stress. Their lives and the meaning they imbue to their home 607 and community can be ripped apart at any time without notice. They are totally 608 powerless. Decisions are made about them without including them. In the case of 609 favela removal, the implementation and removal to apartments are often quite brutal. 610

Eliminating informal communities—or pacifying and controlling them is anathema 611 to urban vitality. It undermines the very essence of urbanity. Innovation blossoms in cities 612 because of their diversity, density and proximity. Homogenizing the city wipes out the 613 sources of cultural creativity and community solidarity. Urban conviviality dies without 614 the chance of serendipitous encounters among people with different cultures and 615 lifestyles. 616

In short, formalization of informal communities is no path to the desirable city. It does not reduce but increases vulnerability while decreasing vitality.

#### The Informal Economy: work in the informal sector

The informal economy is the aspect of informality that deals with 'space of flows' as 621 opposed to the 'space of place' in the words of Manuel Castells. It is the unregulated flow 622 of labor, goods, and capital. The principal marker of informality is precisely this lack of 623 regulation. Informal work is generally not taxed, not legally registered, and has no written 624 contracts, fixed salaries, personnel policies, labor protections, or unemployment benefits. 625 This includes a wide variety of activities, many of which are parallel to those in the formal 626 economy. Incomes can range from barely subsistence to extreme (off the books) wealth. 627 Informal enterprises vary in size from an individual worker to family businesses to 628 outsourced production of multinational corporations. Much of the work is done at home, 629 along busy streets, in parks and plazas. As one writer points out, "the informal sector is 630 often referred to as 'hidden' or 'invisible'. A better term would be 'statistically 631 unrecorded' as most of the activities in the market segments encompassed by these names 632 are conducted out in the open" [56]. 633

The sector includes odd-jobbers who do a bit of everything including street vendors; 634 small repair shops for cars, bikes and home appliances; women who sell homemade baked 635 goods from their front window; motor taxi and van drivers, janitors; personal service 636 providers such as hair and nail salons, barbershops, daycare and elderly care; household 637 work in cooking, cleaning, laundry, and child care; gardeners; chauffeurs; and 638 construction jobs from unskilled labor to skilled masons, bricklayers, builders, 639 electricians, plumbers, roofers and the like. 640

Sometimes the informal economy is referred to as the *parallel economy* or the *grey* 641 *economy*, to distinguish it from the formal economy on one side and the illegal/criminal 642 economy on the other. It is important to distinguish between *unregulated* and *illegal*. Illegal 643 activities are criminal offenses — trafficking in drugs, arms, women, children, and human 644 organs. Of course, there is a continuum between unregulated and illegal. The sale of fake 645 name-brand accessories and clothing is different from the sale of stolen merchandise 646 which in turn is different from the sale of narcotics. 647

The informal economy is huge. It is a source of income for 2 billion people and generates 1/8 of the world economy. These are two different issues: how many people earn their living in the informal economy? And what is the economic value produced by the informal economy? 651

How many people work in the informal economy? Work in the informal economy 652 (unregulated, not illegal) provides livelihoods of two billion people, as mentioned above. 653 The International Labor Organization calculates that 61% of the world's employed 654 population work in the informal economy [57]. 655

What is the value of the informal economy? As stated above, the informal economy produces 1/8 of the world's economic value as measured by Global Domestic Product (GDP). The value generated by informal economic activity is estimated at \$10 trillion dollars [58]. As a country, this would be the 3<sup>rd</sup> largest economy in the world, following the United States and China.

## Overlap between informal settlements and the informal economy

A valid question regarding the intersection of "the hill and the asphalt" (a colloquial 663 reference to the favela and formal city) is to what extent do favelas residents work in the informal side of the economy? And, conversely, to what extent do informal workers live in favelas?

The answer varies depending on the location, skill set, and history of each favela, but 667 it is fair to say that there is considerable overlap between informal settlements and the 668 informal economy. As represented in the Venn diagram below, the dark area in the center 669 represents the overlap between living in an informal community and working in the 670 informal economy. 671

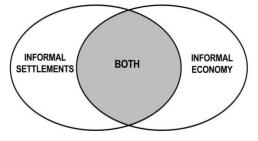


Figure 4. Venn diagram illustrating the overlap between informal settlements and the informal economy.

While informal economic activities thrive in the non-conformist atmosphere of 676 informal communities, that is not to say that living there *fosters* entrepreneurship any more than it *fosters* autonomy or social mobility. Or that favelas *foster* democracy and political participation.

#### 5. The Real City and the Real Economy

I have long argued for the importance of moving beyond the dichotomy between formal and informal and recognizing that these conceptual constructs obscure the way the 'real city' and the 'real economy' function. Rather than a clear-cut line between, there is a continuum. The boundaries are porous, and the interactions are mutually interdependent.

Ignacy Sachs wrote in 1987,

"Neither the 'formal/informal' nor the 'open/hidden' dichotomy offers a suitable framework to describe the latticework of the real economy... The ways in which... activities combine are quite complex...and [together] they constitute the fabric of the 'real' economy." [59]

Cities need both to function. I can imagine what would happen in Rio if the favelas went on strike. The city would be totally paralyzed. Breakfast would not be served, newspapers would not be delivered, the babysitter would not come, the elevator would not run, travel to work would be a nightmare, and office workers would have to manage without their customary support services. The Covid-19 pandemic gave us a taste of what this not-so-far-fetched scenario is like, when the invisible workers who keep the

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city running had to choose between risking their lives on busses and trains or not	698
showing up to make life smooth for their patrons and bosses. My point here is that	699
neither the high nor the low end of the spectrum of urbanites is <i>self-reliant</i> . They need	700
and feed each other.	701
Looking at some of the ways that urban informality contributes to the <i>real city</i>	702
makes it clear that benefits flow across the created conceptual boundaries. Among the	703
innumerable contributions of informality to the real city are:	704
1. Production of affordable housing $\rightarrow$ offers an alternative to massive homelessness	705
2. Cheap source of labor $\rightarrow$ reduces the cost of goods and services. Transnational	706
corporations farm out tasks for home production which lowers their overhead and	707
labor costs.	708
3. Cultural production and creativity $\rightarrow$ generate authentic music, art, dance, theater, film	709
and fashion fuel tourism.	710
4. Social capital and civil society $\rightarrow$ make the city more resilient. A piece in the NYT	711
about the ability to recovery after natural disasters found that "the density and	712
strength of social networks are the most important variables $-$ not wealth,	713
education or culture $-$ in determining resilience in the face of catastrophe" [60].	714
5. Intellectual capital and new knowledge $\rightarrow$ needed to address the <i>complexity of future</i>	715
challenges. More diverse inputs generate more creative outcomes.	716
<ul> <li>6. Purchasing power → fuels entire segments of the urban economy.</li> </ul>	717
As an example, one study found that Brazilian favelas represent a purchasing	717
power of approximately US\$ 30 billion per year, which is greater than the income of 20 of	718 719
the 27 Brazilian states and exceeds the GDP of entire countries including Paraguay,	719
Uruguay and Bolivia [60].	720 721
And, as mentioned above, <i>the poor pay more</i> in terms of supporting the economy of	721
the real city. Their charges for basic urban services are higher than they are in the formal	723
city "on the grid" [44]) and consumer goods are more expensive because they pay in	723
installments with interest [62].	724
instalments with interest [62].	725
5. Reflections	726
Only through an integrated inquiry of formal/informal can we comprehend the	727
way cities work in real space and time. This dynamic is produced and reproduced by the	728
ever-shifting commingling of these aspects of the real city. It is conceptually and	729
practically revealing to move beyond those distinctions.	730
And it is liberating to look beyond 'romancing the favelas' to their real value, real	731
struggles, and real needs. While I appreciate the spirit behind seeing favelas as "leading	732
the way for urban development teaching us much about future urban living" [63] and	733
the impulse behind declaring that "squatters are at the forefront of the worldwide	734
movement to develop new visions of what constitutes property and community" [6],	735
neither helps understand the pressing question, what is to be done.	736
The metamorphosis of perception about favelas from despised, dirty, and	737
dangerous to an icon of sustainable self-reliant urbanism refers specifically to the	738
imaginary in the academic and journalistic world. As seen in this headline from May 26,	739
2022, "Brazilian Military Police Raid Leaves at Least 23 Dead in Rio de Janeiro Favela"	740
the attitude of the police—with the complicity of the state—remains demonizing the	741
very existence of favelas and their residents, conflating criminal gangs with entire	742
populations and depriving them of equal rights [64].	743
A more grounded way of perceiving the real city will be useful for informing	744

planning, public policy, and professional practice. What is needed to get there is a rate change in perception so we are able to recognize that the *other* is really part of the *we* and that without including —or actually embracing—the other, we will never fully thrive. 747

The fundamental issue at stake here is: Who is the city for? Does the polis exist for	748
the privileged elite or for all who reside there? Whose lives matter? Who has the right	749
to be treated with respect and dignity? That is today's urban question.	750

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