Urbans infrastructures

Autoconstruction and city production: another genealogy of urban infrastructure studies

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Introduction

In the last decade, a number of collections, dossiers, bibliographic reviews and ethnographies have pointed to a certain "infrastructural turn" in Social Sciences (particularly in Urban Anthropology and Sociology), in line with Geography and Urban and Regional Studies (Graham & McFarlane, 2014; Venkateshan et al, 2017; Appel et al, 2018). These studies argue that the political dimension of everyday life should be considered from the standpoint of a denaturalization process enabled by the ethnography of infrastructures. In this paper, we seek to view this denaturalization through the lenses of Brazilian Urban Studies.

Since the publication of Susan Leigh Star's (1999) seminal paper 'The Ethnography of Infrastructures', and her call for more studies on "boring things", such as wall sockets and faucets, the ethnography of infrastructures is presented as a discovery, a kind of epistemological displacement, with consequences for our ontological understanding of the social world, and capable of uncovering new research questions and objects (Jensen & Morita, 2015). Infrastructure ceased to be a metaphor, as it was for Louis Althusser, and became the object of interest for its own material constitution.

Initial studies explicitly dedicated to infrastructural areas as an object of research in Social Sciences were anchored in the analytical possibilities located at the interface with Social Studies of Science and Technology and with actor-network theory potentialities (McFarlane, 2011). In this proposition, the standout was the unveiling of relation and interdependency constellations that made up a social world naturalized by devices or connections between things and people, ideas, techniques and roles, hierarchies and production of knowledge, made readable through materiality. The novel theoretical trend to investigate understudied subjects also culminated in the methodological innovation which reveals a series of documents and sources underused by social scientists. Some

examples are water and light meters and engineering reports (Von Schnitzler, 2016, Pilo, 2017). It is indeed a productive proposition. From the ethnography of infrastructures standpoint, a trivial act, such as opening a faucet, underlies a network of materials, techniques, processes, agents and social disputes that enable the water to run from its source to the sink. There are several connections and stages that are unveiled, as many as perspectives of analysis, enabling the description of a city's mechanisms of production and its inequalities as complex co-productions of knowledge.

This analytical "discovery" of infrastructure occurred in cities and contexts of the so-called "global north". For this very reason, this "discovery" was initially thematized from the perspective of possibilities and challenges imposed for its maintenance. These include disputes around patrimonialization, such as the discussion on the preservation of spaces linked to the world of industrialization, and, mainly, from its eventual collapse. In this sense, the September 11 terrorist attacks and the halting of commercial flights following the event reinforced the interest and relevance of infrastructures. The 2003 blackout in the United States and Canada, which left 45 million people with no electricity for 90 hours (see Graham, 2010), and the failure of the levees in New Orleans when Hurricane Katrina hit in 2005 pushed a series of studies on infrastructure from the perspective of its collapse in the 2000s (Sims, 2007), including places of the global south (Rao, 2007). In the following decade, Detroit's material ruin and the issues of water contamination in Flint also gave new impetus to the discussion on the infrastructure collapse in the anglophone world.

In the already established genealogy of infrastructure ethnographies, a classic paper on the theme, "People as infrastructure", by AbdouMaliq Simone (2004), heads into a new direction. With a different vocabulary, it takes up this issue from the (disputed) perspective of the so-called Global South urbanism (Simone, 2020). In his paper, Simone sheds light on the "informal economies" that constituted the daily life at a ruined downtown Johannesburg. The article's initial assumptions gave, and still give, rise to a number of appropriations, citations and discussions. This may be due to their potential to draw attention to the central role of people in the production of artifacts and in the production of infrastructures and improvised solutions (and the porosity among the objects that these terms can designate) that make up the daily lives in so many peripheral scenarios in the Global South cities (see Simone, 2021).

Following these two texts, a series of studies in anthropology of the state adopted the ethnography of infrastructures as a method for investigating development projects and the construction of post-colonial States. Antina von Schnitzler (2016) researched the formation of post apartheid South African democracy, taking water meter replacement as the reference point. Nikhil Anand (2017) discussed hydraulic citizenship in Mumbai, India, by following the uneven distribution of water through the city's pipes and faucets. Akhil Gupta

(2015) discussed the electricity supply in Mumbai, and Francesca Pilo (2017) analyzed the controversies over the installation of light meters in Rio de Janeiro's favelas. Stephanie Brown studied the sanitary regime in Kampala and the obstacles regarding the rightful access to the city and its resources (2014).

All of these studies draw on Michel Foucault as a key theoretical reference for the description of "technology policies and political technologies". By following connections and disconnections, the devices of letting live and making die are analyzed, in the most diverse places, to enable a discussion on the "government of matters and the matter of the government" (Appel et al, 2018). According to this research, the "politics and poetics" (Larkin 2013) of so many materialities, the promises of a future, progress and development of water, sewage, asphalt and electricity, provide points of view for the exercise of power and contemporary subjectivation. However, the history of infrastructure studies presumes a certain temporality that articulates infrastructure provision in the Global South with the financialization of its production. From the master plan to the urban project, from developmentalism to neoliberalism, it is as if infrastructure were a particularly suitable methodology for studying the politics and production of contemporary cities. As a methodology, the study of infrastructures opens fruitful comparison points, as in the case of the removals that preceded the 2010 World Cup in South Africa, or the London, Beijing and Rio de Janeiro Olympics. It also helps to consider the language of the urban social movements today, as the "Occupy" movements — which, from Wall Street to Tahir Square, fairly claimed for the material and symbolic reappropriation of spaces and infrastructures built by the colonial State, according to neoliberal logics (El-Husseiny, 2013). Using the "right to the city" terms, these movements support the production of the "common" — which necessarily implies another way of conceiving and inhabiting the infrastructures and spaces sculpted by capitalism (Harvey, 2011).

In this paper, we propose new points of comparison that allow us to go beyond the governmentality and neoliberalism paradigm. Resuming the discussions underlying Brazilian Urban Studies, our objectives are twofold. On the one hand, we seek to present an overview of theoretical discussions produced in Brazil which, from ethnographic research, have thematized the daily production of Brazilian cities anchored in the provision of urban infrastructure for the past fifty years. On the other hand, the very temporality of the ethnographic infrastructures is disputed. Facing the theoretical and political challenges of marginality and "urban swelling" phenomena since the 1960s, Brazilian sociologists and anthropologists have unveiled a set of issues about migration, modes of production and labor in the city, which, even today, guide a series of national research and may contribute to the international debate.

In addition to this introduction, the paper has two more sections and a conclusion. Next, we revisit the first ethnographies of Rio's favelas in the late

1960s. We highlight the intellectual links between researchers and the attention given to houses and urban services. Even in the face of precarious housing, the concern with materiality and its economic and political values has opened a path which is still explored by social studies on housing. In the following section, we shed light on the community agents of social housing policies, including their modalities of public housing construction and precarious settlements urbanization. Taking "social diagnoses" as paradigmatic objects, we argue that the technical knowledge of urban planning depends on the social relations of community agents, that is, the residents who act "as State". As a conclusion, through the community agents, we tie up with Simone's statement of "people as infrastructures". Technique and politics, work and militancy, documents and materialities are articulated in social diagnoses, so that the borders between State, market and urban social movements are blurred.

From "community development" to the "mode of production of urban peripheries"

In Latin America, but especially in Brazil, infrastructure was a central and constitutive empirical issue of Urban Studies and qualitative research that documented the production of Brazilian cities from the 1960s onwards. In Rio de Janeiro, a first generation of ethnographers articulated themselves around Anthony Leeds. A professor at the University of Austin, Leeds came to Brazil in 1965 as a consultant to USAid (United States Agency for International Development) and met, as interlocutors, the volunteers of the Peace Corps, a training program for young Americans to work in poor regions in Latin America (on Anthony and Elizabeth Leeds' story in Brazil, see Viana, in press). During fieldwork in the favelas of Rio de Janeiro, Anthony Leeds met two young researchers with whom he would establish important partnerships: the then undergraduate Brazilian sociologist Luiz Antonio Machado da Silva, who worked at Bemdoc (Brazil-United States Movement for Development and Organization of Communities), and the young political scientist Elizabeth Plotkin, an American volunteer in a Public Health and Community Development program. With his intellectual partner and future wife, Leeds edited the collection *A sociologia do Brasil urbano* ['Sociology of Urban Brazil'], originally published in 1978. Alongside colleagues such as Gilberto Velho, Alba Zaluar, and Licia Valladares, Machado was one of Leeds's student in the first course of Urban Anthropology of the then newly founded Postgraduate Program in Social Anthropology of the National Museum.

In 1967, Luiz Antonio Machado da Silva published a paper introducing the studies on favelas in Brazil. Based on fieldwork carried out in Morro do Tuiuti (North Zone of Rio de Janeiro), da Silva took, as a starting point, the empirical fact that Rio's favelas constituted socially heterogeneous and stratified spaces, in which a "favela bourgeoisie" controlled access to resources and infrastructure (Machado da Silva, 1967). The residents who were best adjusted in

the labor market had higher salaries and could thus invest in small businesses, breed animals for their own consumption and local sale, install water spouts and expand the electricity network. With these resources, they organized associations of residents, entities through which they politically negotiated with "supralocal actors", such as representatives and bureaucrats from various government agencies.

This ethnographic perspective was built in stark opposition to the hegemonic social theory of that time, in which Oscar Lewis's "culture of poverty" and the theory of modernization intertwined in what would later become the theory of marginality (on Machado's criticism of this theory, see Machado da Silva, [1971] 2018). According to the "marginality" perspective, favela residents failed to adapt to the modern or urban way of life, were isolated and should be integrated into a so-called national community (Machado da Silva 1967 [2011]: 699). For Machado, the favela should rather be considered as a "typically capitalist organization, with an economic vitality that would amaze those who saw it". (Machado da Silva, [1967] 2011, 701)

Machado's perspective was in line with the research directly or indirectly guided by Leeds. In 1968, at the Museum of Modern Art of Rio de Janeiro, Anthony Leeds gave a lecture called "Quanto vale uma favela" ["How much is a favela worth"] (Leeds, 2018), in which he discussed monetary calculations on the value materialized in the favelas, at various levels. Leeds began his lecture by criticizing the dominant interpretation at that time, which associated the subject of marginality with favelados, and therefore reduced a class issue to an ecological determinism, thus misinterpreting a kind of temporary housing condition as an individual mentality. Leeds thought of favela housing as a result, on the one hand, of the structure of the labor market, and, on the other, of a series of calculations and economic, material and subjective investments made by the residents. These calculations and choices were not restricted to the guarantee of daily survival. Rather, they produced a future: Leeds pointed out that housing in favelas constituted "savings" by suppressing rental and transportation costs embedded in other residential alternatives accessible to workers and lower middle classes. Conversely, he pointed out that favela's plasticity and physical adaptability provided a "functioning social security system", the transformation of the house space upon arrival of new members and adaptations to different stages of a family's life cycle; the house in the favela also enabled that child care, cooking of meals, small repairs or house works were shared.

This housing option also had perks from a labor market standpoint. Rio's favelas were (and still are) more than just dwelling places. Rather, according to Leeds and his interlocutors at the time, the favelas also provided work and work-related opportunities, as they made up the clientele for self-employed professionals. Small businesses, such as grocery stores, beauty salons, bars and ateliers running in spare or newly-built rooms prevailed, generating resources

to be invested in infrastructure or daily life improvements. Small livestock and gardens growing vegetables and greens also contributed to many families' food resources. Because of the material and work investments made, the houses in the favelas also constituted real or potential commodity or source of income through room rentals.

In his speech at the Museum of Modern Art in Rio, Leeds widened the analysis of value production from each house in the favela to think of the collective infrastructure – including the total value of buildings, water systems, light, access roads, stairs, streets, sewage system, inventories, machines, cars and trucks. In short, he took into account both the accumulation of investments and the daily work involved in maintaining the materialities at the favelas. Thus, he calculated the amount of US$60 million materialized in the Jacarezinho favela. Extrapolating this amount to the favelas of the entire State of Guanabara, Leeds estimated there were around 600 million dollars invested in the favelas infrastructure, "excluding labor, administration, financing costs, planning, etc." (2018, p. 837).

As counterintuitive as it may sound, the economic dynamism in the favelas would actually become especially visible when removal programs were in action. Between 1968 and 1973, in her fieldwork in Rocinha and in the then recently built public housing neighborhood of Cidade de Deus, sociologist Licia Valladares (1978) noticed that not only the residents' associations reacted to the announcements on "eradication of favelas", but, in fact, these removal programs unfolded many other events: arrival of "last-minute" residents in search of shacks, increases in rental prices, segmentation of houses into several housing units, protests and rallies of residents outraged at the costs of house payments and at the losses of their investments. Valladares' ethnography was concerned with the diversity of economic and political practices of favela's residents. He described that the promises of masonry and infrastructure were many, but, over the process of moving and rebuilding life in the new living spaces, the installments, bills, commuting and losses in business closure and rent took their toll on residents' daily expenses. Here, once again, the house proved its value. Transferring the house, a capital good, made it possible to pay off debts, circumvent evictions and rebuild life.

In the late 1960s, in the state formerly known as Guanabara (later incorporated by Rio de Janeiro), the prospect of 'community development' was opposed to the "eradication of favelas" initiative. In 1964, favela Brás de Pina fought against the removals advocated by Carlos Lacerda, then governor of Rio. The local association of residents, along with the local priest and architects of the University of Brazil (now Federal University of Rio de Janeiro), among them Carlos Nelson Ferreira dos Santos, were against the removal of the residents from the land near São Sebastião Market, a rapidly industrializing zone. Together, they proposed the first plan for the "favela urbanization".

In 1966, after Negrão de Lima was elected governor of Guanabara, the urbanization project was carried out in Brás de Pina along with three other favelas: Morro União, Mata Machado and Guararapes. In 1967, De Lima created the *Companhia para o Progresso do Estado da Guanabara* ['Company for the Progress of the State of Guanabara'], responsible for "coordinating the preparation of a joint program for the State of Guanabara in the planning, urbanism and industrialization sectors and conducting negotiations to finance the program with national and international financial entities" (CODESCO, 1973 apud Santos, 1981). The two guiding principles of the Company were "community work" and the "integration of favelas into the surroundings". In the following year, 1968, with the specific intention to intervene in the favelas, the Community Development Company, Codesco, was created. Codesco was a mixed economy state-owned company, which would share housing interventions with COHAB (Popular Housing Company), responsible for removals to housing estates funded by the National Housing Bank (1967-1986) and by Leão XIII Foundation, an entity belonging to the Catholic Church that had fostered and controlled residents' associations since 1947(Lima, 1989). Carlos Nelson and Quadra's architects were hired by Codesco as consultants, advisors and chiefs of urban and housing plans.

This urbanization, a concept that is now understood as public policy, was also pioneer in the sense that it integrated residents into the construction of the urban project. The residents' active involvement was inspired by urban planner John Turner's work in Peru, whose advocacy planning included listening to the residents' ideas and incorporate them both to the design of the houses and the planning of the favela as a whole (see Turner & Fichter, 1972). Constructions in Brás de Pina proved to be challenging, as the land was swampy and prone to flooding, and the wooden houses were built on stilts. Luckily, though, the 'neighborhood's urban infrastructure' was diverse, allowing residents and architects to come up with an array of solutions such as landfills, drainage systems, water pipe construction, road improvements and expansion of the electricity network.

Housing and city planning was an object of research in Urban Studies in general, not only in Rio de Janeiro. In 1972, the publication of the seminal essay "Critique of dualist reason" (Oliveira, 1972) brought up new and contrasting points to the discussion on urban informality. In São Paulo, Francisco de Oliveira's thesis operated on the broadest scale of the capitalist mode of production, with its specificities in the world periphery. The argument was no longer supported by ethnography, but by theoretical appropriations and reviews on labor exploitation.

Like for many authors of his time, the interwar years was the starting point for Oliveira (1972). After Getulio Vargas' rise to power (1930-1945), the formal and structural relations among the economic sectors changed. At that time,

agriculture supplied food at low prices, which made it viable to keep workforce reproduction at a low cost in the cities. On the other hand, the progressive industrialization of production in the countryside boosted exportations and the influx of rural migrants, adding to the already large offer of workers in relation to urban demands of jobs. The industry, in turn, grew due to the substitution of imports, taking advantage of low labor costs. And services, instead of accommodating "urban marginality," grew as much as industrialization did.

Not a single one of these shifts occurred on account of the free market's invisible hand. When considering discussions regarding capitalism expansion in Brazil, Francisco de Oliveira shed light on the role of the State in the destruction of the established institutional situation of production and regulation of new work relations. Brazil's capitalist mode of production escalated as a consequence of two circumstances. On the one hand, partial profits from agriculture were confiscated and industry loans were increased. On the other hand, there was an active commitment to convert a relative overpopulation into a reserve labor force and to guarantee they had conditions of reproduction (with the Consolidation of Labor Laws and with incipient housing policies).

In a very innovative way, Brazilian State's apparent uninterest or lack of action in relation to the expansive services in the cities was also incorporated by Oliveira's analysis. Contrary to the formulation of Manuel Castells (1973) and other authors who linked marginality, services and urban density, Oliveira distinguished the three subsectors of services: production, collective and individual consumption. The first is closely related to industrial production and added value to commodities. The latter two started a discussion that lasted until the late 1980s in Urban Studies. "Collective consumption" services, largely discussed in the literature of Urban Social Movements (Castells, [1975] 2020), were related to a number of "non-capitalist" production activities of shared services in the workers' places of residence. And the individual services offered clothing, some food, household items and... housing. In this sense, Oliveira showed how capitalist accumulation was driven by the exploitation of the rural worker (whose living standard was the parameter for the cost of living in the city), the factory worker (by the expropriation of labor) and the service worker (by the provision of goods that guaranteed social reproduction, remotely different from a salary relation). These multiple exploitations suffered by the working class were linked to the collective efforts to build houses and urban infrastructures, and characterized, according to the author, an "accumulation through production of urban peripheries".

Oliveira's thesis presented a theoretical novelty to Urban Studies: the social production of the urban space added in the discussions on migration and circulation (of people, money and goods (see Durham, 1978). The "accumulation through production of peripheries" was the main theme of the collection A produção capitalista da casa (e da cidade) no Brasil industrial ['The capitalist

production of the house (and of the city) in an industrial Brazil'], edited by architect and urban planner Ermínia Maricato (1979). In his foreword, Francisco de Oliveira praised the book's pioneering idea of considering "the urban theoretical field from the urban standpoint" (Oliveira, 1979, p.13). Several issues, many of them still current, were investigated by the collection's authors: urban land as capital (Paul Singer and Rodrigo Lefèvre); the "possible architecture" of the auto constructed "house or public project" (Erminia Maricato); the urban peripheries mode of production (Raquel Rolnik and Nabil Bonduki); popular housing: real need, false problem (Gabriel Bolaffi); and, common to all the works, the role of the State, seen as social relationship (Oliveira, 1979, p.18).

Between the "accumulation through production of peripheries", on a general level, and the "urban peripheries mode of production", on a spatial scale, an "urban spoliation" was created (Kowarick, [1978] 1979). In a series of articles published between 1973 and 1979, sociologist Lucio Kowarick detailed the three dimensions of the relationship between housing and the productive system: the civil construction industry, a subsector of low productivity that eased the assimilation of migrants in the city (Coutinho, 1975); the challenging urban land market; and the State, with its multiple roles in mediating the relation between capital and labor – sponsor of civil construction, land and labor contracts regulator, construction supervisor, social housing provider, financier of the house consumption and acquisition. As workers were forced to find and produce a place to live in the cities, issues piled up: access to unoccupied land, collective efforts, infrastructure provision (construction of roads, wells and septic tanks, extension of electricity grid, etc.). These autoconstruted houses were built during the worker''s "spare time" (Machado da Silva, 1971), that is, shifts of unpaid work, mobilizing family members, neighbors and, occasionally, paid construction workers. The constructions were financed by indebtedness and by the worker's income. Built according to this logic, urban peripheries became more than the fringes of the city or the place where the formerly called "urban marginality" lives. They now refer to a mode of social production of private urban space, one of the dimensions of "peripheral urbanization" recently discussed by Teresa Caldeira (2017).

Urban informality, community work and social engagement

In Brazil, Urban Studies have a particular origin, tracing a relation between city issues and the more general problems as a consequence of an unequal development (Fix and Arantes, 2021). As we have seen, the traditionally critical Brazilian research predates post-colonial studies and offers not just a "perspective of the South", but full-fledged urban theory, produced in and from the Global South (Fix e Arantes, 2021). This "divergent urbanism" (Simone, 2020) is challenging not because of a supposed temporarity and precariousness of the produced environment; in fact, it dissociates analytical keys that guided a lot of research on urbanization processes (Simone, 2020). The deterritorializa-

tions caused by the globalization process, which turned cities into an important locus of financial investment, and the reterritorializations of infrastructure arrangements and political challenges call the historical and geographical specificities of theoretical models into question. Latin America is placed in a particular spot in the history of this global process and offers a privileged view, opposing the "presentism in Urban Studies" (Fischer, 2014). The abundance of gigantic projects, orchestrated by starchitects in numerous cities, under the most divergent policies, goes far beyond the "rush to build" or any other expression of new neoliberal projects. Financialization promotes changes in the institutional conditions of production and urban governance, with the emergence of multiple new actors and the standardization of results (Borja and Castells, 1996). However, its practices are, from Brazil and Latin America's point of view, older (AlSayyad and Roy, 2009).

Taking into consideration the contributions of the authors in the last fifty years presented here, the era of globalization – and neoliberalisation – has not transformed informality into a "new way of life" (AlSayyad e Roy, 2009), but perhaps has made it widespread. Even though Brazil and other Latin American countries are not strange to the concept of wage earning as a social integration regime, since its decolonization in the nineteenth century, they have experienced complex transitions between enslaved and free labor. In his master's dissertation *Mercados metropolitanos de baixa renda e marginalidade* ["Low-income and marginal metropolitan markets'], Luiz Antonio Machado da Silva ([1971] 2018) analyzed, empirically for the first time, 'the difficulties and distortions of the incorporation of workers into the production process in contexts where wage earning was not widespread'. Opposite to what was being done on the sociology of development at the time, Machado adopted ' the position of the workers themselves as a perspective', to discuss, from their positions in the labor market, the different ways of insertion in the capitalist system. From the workers' point of view and their efforts to get and keep jobs, the labor market distinguished two types of employers: firms and clients. With the former, the subordination was due to working hours control and, with the latter, due to the need to cultivate personal relationships with economic meanings. If, on the one hand, the dynamics of the formal and informal market segments were distinct in the 1960s, on the other hand, there was a "continuum of jobs", with three important relations between them. Not only was the massive entry into the labor market a result of the informal market, but was there a frequent transfer between wage earning and self-employment, plus the simultaneous existence of the two working situations within families. In addition to the innovation of the methodological strategy, this argument was an important contribution at the time, which, unfortunately, due to lack of translation, did not make its way into discussions outside of Brazil. If the dissertation had reached international level, Machado would have preceded by two years the discussion raised on Keith

Hart's (1973) famous article 'Informal Income Opportunities and Urban Employment in Ghana'.

It was at the interfaces between formality and informality of work that the formality and informality of cities were produced. Not only did the aforementioned research on auto construction discuss how work in non-formalized collective and individual consumption services (also understood as non-capitalist) produced urban peripheries. Alongside them, research on civil construction in Brazil showed how informality at construction sites (Coutinho, 1975; Maricato, 1984; Shimbo, 2010; Araujo, 2017) are forms of work that raise the many middle class buildings, luxury condominiums, large urban facilities and public projects. And it is not only the work in construction sites, which produces the many urban infrastructures, that makes use of informal work. Regarding urban rights (Fernandes, 2001) and good practices in urban programs (Villarosa and Magalhães, 2012), Latin American experiences also created work opportunities that circulated through international networks of "poverty capital" (Roy, 2010). In Brazil, the engagement of those in government aid programs and community work date back to the moment when self-building spread itself as a public policy.

In the late 1970s, when Brazil began the "slow, gradual and safe" redemocratization process, headed by the armed forces who had been in power since the 1964 coup, the state's position towards favelas and peripheries began to change. After decades, the policies for "eradicating favelas" gave way to urbanization programs, implemented for the first time by Codesco in 1968. In the late 1970s, with international financing from multilateral organizations, such as the World Bank and the Inter-American Development Bank, carrying out their "urban adjustments" (Arantes, 2004) to guarantee the "urbanization of capital" (Harvey, 1985), Rio de Janeiro and São Paulo municipalities started to invest in "mutual aid" programs or collective efforts (Araujo, 2013; Rosa, 2014). Guided by newly hired technicians (young engineers, architects, urban planners and social workers), favela's and outskirts' dwellers built their homes and a number of urban infrastructures themselves.

The relationships between these technicians and the residents involved in urban projects resulted from previous experiences. In the 1970s, several neighborhood associations and urban social movements were created to produce "collective consumption" resources, such as health centers, community daycare centers, literacy courses and affordable theaters and cinemas. Many union activists, then under strong political repression, began to carry out 'groundwork' aiming at politicizing the workers' daily lives in their living places. Later, the militancy created a political socialization and solidarity bonds aimed at employing favelas' and peripheries' residents as "community agents" in urban government programs. Therefore, practices continued, even though the forms of relations had changed. It is worth noting that, because these daily jobs were considered "female business", women outnumbered men.

In the mid-1980s, these community agents began to question the nature of their relationship with governmental agencies. By organizing strikes and marches, they expressed disagreement with the belief that the urban services they provided were "community work", rewarded with "grants", and claimed recognition for what they did as labor, for which they should receive wages and rights (Araujo, 2013). Just before the passing of the new Federal Constitution, between 1987 and 1988, hundreds of "community agents" were included in the state staff as public agents. From the 1990s, with the new Constitution, these agents were subject to various labor relations – regular, cooperative and, more recently, as juridical entities. These different relations reflect the transformations of a labor world strongly marked by non-formalized relations.

In light of the discussion throughout this paper, we then suggest a reformulation of the idea of "improvisation" attributed to so many informal practices that make up the cities in the Global South (Simo-ne, 2004). With the fruitful notion of "people as infrastructures", AbdouMaliq Simone sheds light on "economic collaboration" with a certain "sense of readiness", regarding "lack of economic and political power" (p.409), which makes it possible to rethink the idea that people belong to cities and the construction of communities. In a perceptive way, the author highlighted the "emerging interdependencies" between those whose daily lives make the cities. However, Simone characterizes these interdependencies as "flexible" and permeated by "customer relations" between immigrants and entrepreneurs in hazy situations of legality, in the original text of 2004, and "resilient", when revisiting that notion in the 2021 article.

As Simone himself comments, the informal practices of "people as infrastructures" are regular; they assume continuity, have duration and recurrence. The discussion on auto construction and the problematization of urban informality in Latin America help to scrutinize the meanings of this expression. Here, non-formalized work practices have occupied a key role in the material production of houses and urban infrastructures, as well as in the organization of worker's daily life in cities, in the creation of meanings of time, plans, projects and futures. By specifying that the practices in question are work-related, we can recover valuable sociological aspects, such as social and technical activity, means of managing people, money and artifacts, materialities and imagination. It is worth mentioning the economic calculations and future projections that Rio's ethnographers highlighted in their studies on the house in the favela. It is useless to thread on the now unstable ground of informality, whose meaning got expanded after the dismantling of wage earning (Machado da Silva, 2018b), which made the category lose heuristic potential. In fact, it is better to face the challenge of analyzing the modes of urban space social production(Lefebvre, 2008).

Community agents are characters in Brazilian urban life who unveil the challenges posed to Urban Studies and problematize the "novelties" of neolib-

eralism and post-colonial Asian and African government. The history and lines of continuity between Brazilian social movement and state practices make us think about relationships that do not fit into split views on social participation and cooptation, but articulate development, work and citizenship projects in a complex way. The ambivalence between state practice, militancy and labor reveal problems related to presumptions of political spontaneity, interests and class consciousnesses. And the "labor struggles" of community agents and the many transformations of labor relations with the State make us question the hard boundaries between formal and informal.

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ABSTRACT – This article examines the so-called "infrastructural turnaround" in urban studies of the past two decades from the theories and timelines of the urbanization of Brazilian cities. Our objective is to bring to international debate on the ethnography of infrastructures a comprehensive view of theoretical discussions developed in Brazil over the past fifty years. The first section examines the first ethnographies of Rio de Janeiro's *favelas* in the late 1960s, including the intellectual relations among scholars and the attention given to house construction and the provision of urban services. The next section presents the figure of community agents of social housing policies and infrastructure upgrade programs. We conclude by reading the work of community agents in the light of AbdouMaliq Simone's notion of "people as infrastructure". Community agents render legible the techno-politics and the labor and technical logic, thereby blurring the boundaries between the State, the market and urban social movements..

KEYWORDS: Urbanization, Infrastructures, Favelas, Urban peripheries, Ethnography.

RESUMO – Este artigo procura pensar a chamada "virada infraestrutural" nos estudos urbanos ao longo das últimas duas décadas a partir das teorias e das temporalidades da urbanização das cidades brasileiras. Nosso objetivo é apresentar ao debate internacional sobre a provisão de infraestruturas urbanas uma visão panorâmica de discussões teóricas produzidas no Brasil, a partir de pesquisas etnográficas que há cinquenta anos tematizam a produção cotidiana das cidades. Na primeira parte, retomamos as primeiras etnografias feitas sobre favelas cariocas, no final dos anos 1960, destacando as relações intelectuais entre pesquisadores e a atenção dada às casas e aos serviços urbanos. Na seção seguinte, trazemos para o debate a figura das agentes comunitárias de políticas de habitação socias. Como conclusão, a partir das agentes comunitárias, dialogamos com a proposta de AbdouMaliq Simone de pensar "pessoas como infraestruturas". Técnica e política, trabalho e militância, documentos e materialidades se articulam nos diagnósticos sociais, de modo que as fronteiras entre Estado, mercado e movimentos sociais urbanos se borram.

PALAVRAS-CHAVE: Urbanização, Infraestruturas, Favelas, Periferias, Etnografia.

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