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Architectures of Millennial Development

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ABSTRACT

In Cape Town, as in other cities of the Global South, the paradigms of millennial development are continuously mobilised in specific material ways. The idea that poverty can be fought with profit is manifest in a series of urban experiments that involve informal entrepreneurs, corporations, real estate developers, local architects, economists, NGOs, and state agencies, in the search for market solutions to economic marginality.

To illustrate this argument about the spatial politics of development, this paper charts the architectural, organizational and pedagogical making of Philippi Village, a building complex in one of Cape Town's poorest neighbourhoods. A former cement factory turned into an entrepreneurial hub, Philippi Village is a material inscription, at the so-called *bottom of the pyramid*, of the possibility of expanding the frontiers of accumulation.

However, whilst this entrepreneurial village may be a brownfield site for new forms of profit, its architectures also reveal the diverse economic rationalities that emerge from the quest of good entrepreneurship, including the politics of seeking spatial justice amidst the urban legacies of apartheid.

Keywords: *architecture, millennial development, bottom of the pyramid, Cape Town*.

INTRODUCTION

Before the 2015 renovations, the Philippi Portland Cement Factory had long been a skeleton of concrete ruins and rusty metal trusses, standing empty in close proximity to Cape Town's international airport. An imposing, 200-mt-long steel nave, crumbling silos and an abandoned sand quarry made it the perfect location for rock concerts, raves and film shootings. In spite of its dilapidated state, however, the vestiges of the old manufacturing plant embodied a long history of colonial labour and spatial segregation.

Built in the Cape Flats —the vast lowland lying South-East of Cape Town's city bowl— the factory stood in close proximity to sand quarries and settlements where cheap coloured labour was available. Even after its dismissal in 1978, the plant remained a theatre of struggles, culminating in the 1986 razing of the squatted camps that had occupied the area. For a long time after that, the factory stood vacant, surrounded by plots of scorched earth.

Fast forward thirty years, the former industrial precinct is now bustling with life. The long metal nave, once empty, has been filled with office space. Several non-governmental organizations (NGOs) and social enterprises have moved in the new premises, which offer secured, connected, air-conditioned, world-class commercial real estate in what remains one of the poorest neighbourhoods in South Africa. On the border of the precinct, a large-scale container structure houses dozens of local microentrepreneurs, from welders to hairdressers. Prospective entrepreneurs from neighbouring settlements travel to the former factory, now called Philippi Village, to receive business training or advice on specific managerial issues. Ornamental trees are growing in the landscaped green spaces between the buildings. Plans are underway to further extend the successful precinct.

Much like the old factory embodied the spatial and social politics of separate development (i.e. apartheid), the new architecture of Philippi Village materializes the tenets of contemporary, "millennial development" (Roy, 2010) —a technocratic apparatus predicated on the failures of traditional development (Best, 2014) and on the possibility of extending market forces to the poorest of the poor.

As a critical concept, 'millennial development' captures a series of institutional practices and economic experiments promoted by traditional developmental forces, such as the World Bank, as well as by many of the NGOs once opposed to the project of development (Elyachar, 2002). The fundamental idea of this form of development is that poverty can be fought with profit, by empowering the survivalist spirit of informal entrepreneurs and, therefore, by expanding the frontiers of accumulation of contemporary capitalism to those who have yet to glean its benefits (see, among others, Roy, 2012a; Elyachar, 2012; Dolan, 2012; Dolan & Rajak, 2016). Ananya Roy has further argued that millennial development, with its internal contradictions between monetizing poverty markets and promising the end of poverty, bears the hallmarks of what she termed "neoliberal populism" (2010), a commodification of poverty economies as sites of profit extraction. This post-political, market-centric approach is particularly evident in one of the best-known economic theories of millennial development: the so-called 'bottom of the pyramid'. Thus wrote late business professor, and author of *The Fortune at the Bottom of the Pyramid*, C.K. Prahalad:

> The bottom line is simple: It is possible to "*do well by doing good*." [...] What is needed is a better approach [...] to innovate and achieve sustainable win—win scenarios where the poor are actively engaged and, at the same time, the companies providing products and services to them are profitable. This collaboration between the poor, civil society organizations, governments, and large firms can create the largest and fastest growing markets in the world. Large-scale and widespread entrepreneurship is at the heart of the solution to poverty. (Prahalad, 2005, pp. 2-4, my italics).

In Philippi Village, this profitable alliance of informal microentrepreneurs, large firms, state institutions and civil society could not be more visible.

This paper thus asks: what does a building complex such as Philippi Village reveal about the material politics of millennial development in South Africa? What can a genealogy of development that starts not from paradigmatic institutions such as the World Bank or from the subjects of entrepreneurial empowerment, but from a built architecture in a marginal township of Cape Town, tell us about the concrete making of urban experiments that are designed to do *do well* (financially) *by doing good* (lifting people out of poverty)? In other words, what can the expertise scripted into the built environment reveal about millennial development?

To answer these questions, this article brings together insights from a rich literature in urban studies, in which single buildings have been taken as entry points to the mutual making of social and architectural forms (e.g. Jenkins, 2002; Jacobs *et al.*, 2007; Kraftl, 2010; Edensor, 2011). On the other hand, this paper draws upon recent ethnographies of development, where critiques of the latter have shifted from its discourses to its materialities—that is, to the architectures, devices, protocols and technologies through which development is enacted in material ways (e.g. Dolan & Scott, 2009; Cross, 2013; Redfield, 2016; Harris, 2018).

Bringing into play these two rubrics of critical scholarship, this article shows how a building like Philippi Village is, in fact, a material "inscription" (Latour, 1987) of millennial development. It is a physical, organizational, and pedagogical architecture designed to extend the frontiers of profit whilst addressing spatial, racial, and economic inequalities in a divided city. A close look at how Philippi Village was purposefully enacted as a hybrid enterprise, one that would grasp the fortune at the bottom of the pyramid, reveals the multiple parameters, calculations and blueprints that are therein incorporated.

The key argument of this paper is that such a material genealogy of millennial development discloses its diverse politics, much beyond the neoliberal search for market solutions to

poverty. Even if we broaden our understanding of neoliberalism as a heuristic category that describes a “discrepant, contradictory, and shape-shifting presence” (Peck, 2013), explaining with neoliberalism would be important to locate the extractivist violence of these market experiments, but would fail to fully represent the competing “metrological projects” (Mitchell, 2008) which contributed to the making of Philippi Village, or the diverse concerns which economic experts, architects and quantity surveyors were driven by (Redfield, 2012). In fact, this paper shows that the market envisioned for the former cement plant was manufactured at the intersection of multiple aesthetic, ethical and technical rationalities, including the effort of undoing the spatial legacies of apartheid planning.

To make these claims, both the paper and the research underlying it are epistemologically informed by the possibility of what Margaret Akrich termed “de-scription”: the unweaving of some of the scripts that are constitutive of the relationships between technical objects (in this case, a built architecture) and their social worlds (1994). Whilst looking at all the possible intentions scripted into material objects is impossible, Akrich writes, it is useful to frame those scripts that transform technical concerns into social or political concerns and viceversa. My focus, therefore, was on two types of research objects and subjects: the technical documents, from architectural blueprints to econometric models, and the experts that were involved in the transformation of the cement factory into an entrepreneurial hub. Experts are, according to Ananya Roy, the ethnographic scale at which the technocratic and contradictory nature of millennial development is best understood (Roy, 2012b).

The actual research was conducted between 2015 and 2016 as an ethnographic and archival inquiry into the making and the institutional history of Philippi Village and the National Portland Cement Factory. Formal, recorded interviews were conducted with two researchers involved in the project and one of the NGOs housed in the village, between August and September 2015, at the time of the launch. Participant observation notes and generous

conversations with employees, tenants, and NGO workers were also recorded in my research diary as invaluable sources for understanding the multiple politics embedded in the Village[1].

The limit in this methodological approach is that I did not formally engage the lived realities of the bottom-of-the-pyramid entrepreneurs who Philippi Village targeted as customers. In this sense, Ash Amin has critiqued the overrepresentation of experts, bureaucrats and technical professional in urban research as a form of "telescopic urbanism" which neglects the urban majorities in favour of very few actors (Amin, 2013). A rich literature on informal markets at the bottom of the pyramid, for example, shows that it is possible to detail the relationship between experiments of market inclusion and the subjects of those experiments (see Meagher *et al.*, 2016). However, my sole focus on documents and experts was instrumental in grasping the matters of concern that were given a technical or a material shape in the construction of Philippi Village.

This paper begins by briefly drafting an overview of current disciplinary debates in the geographies of the built environment, and their relation to the material politics of development, with a focus on South Africa specifically (section 2). I then move to three important features of Philippi Village: its architectural history and design (section 3), its organizational calculabilities (section 4), and its pedagogical intentions (section 5). In the conclusive remarks (5), I discuss how this paper challenges normative understandings of neoliberal development, which would fail to capture how the architectural, organizational and pedagogical scripts of Philippi Village mark its pursuit of spatial justice in Cape Town.

1 Interview recordings and the author's ethnographic diary are stored in the author's personal archive. Research informants were aware of the broad research project which encompassed many experiments of entrepreneurship at the bottom of the pyramid.

1. A DIVERSE GEOGRAPHY OF THE ARCHITECTURAL POLITICS OF DEVELOPMENT

The built environment has long been a core concern for geographers (see Kraftl, 2010). Several scholars have investigated buildings and urban forms as social products manifesting cultural, technological, moral, economic and symbolic intentions (King, 1984; Domosh, 1988, Bunnell, 1999; Lees, 2001; Wharton, 2001; Llewellyn, 2004; McNeill, 2005; to name a few). Whilst all these contributions (too many to fully acknowledge in this paper) have been influential in painting what Paul Jones summarises as a "cultural political economy of architecture" (2009, p.2519), this article follows in the footsteps of another stream of scholarship which has been more heavily influenced by STS (Science and Technology Studies). Such scholarship has questioned how material (here, architectural) and social forms are mutually constituted (Law & Mol, 1995) by charting the scientific, technical, and calculative practices that perform the built environment and *vice versa* (see Jenkins, 2002; Jacobs, 2006; Jacobs *et al.*, 2007; Faulconbridge, 2009; Yaneva, 2009; Edensor, 2011; Zaloom, 2012; Humphrey, 2015; McNeill, 2018).

This is too a rich literature, but there has been an overall dearth of studies coming from the Majority World, as Kraftl admits (2010)[2], reflecting on the asymmetry of knowledge that long characterised the presence of cities from the Global South in the scholarly debate (Robinson, 2002). A blind eye has been turned to the possibility that, by looking at different genealogies of architectural forms, a wider, more cosmopolitan (Roy, 2013), but also more diverse, urban scholarship may emerge.

The question of economic development, for example, so crucial for so many urban transformations taking place in cities of the Global South (Parnell, 2016), has remained confined within a few exemplary cases, mostly from South-East Asia, where the developmental thrust of city-states like Singapore and Hong Kong has manifested itself in unique ways (see

[2] With obvious exceptions, such as Bozdogan, 1986; Al-Naim, 2011; Söderström, 2014; Harris, 2018.

Roy & Ong, 2011). Very few African architectures have made their way into a critical study of the built environment[3].

Arguably, some of the most interesting contributions concerned with the relationship between buildings and the technocratic "machine" (Ferguson, 1990) of international development have come from historians[4] and anthropologist. For instance, in Timothy Mitchell's *Rule of Experts* (2002), Hassan Fathy's specimen architectures in the Lower Nile Valley revealed the contradictory and often violent project of nation-building that the Egyptian state undertook after World War II. Some decades later, during the neoliberal reforms of the late 20th century, developmental ideas around the "informal economy", the "workshop" and the "craftsman" were given a material, architectural shape in two planned neighbourhood of The Cairo (Elyachar, 2005).

In recent years, water, electric, transportation and informational infrastructures have received much more attention than buildings, in their capacity to incorporate, at once, development ideals, technical concerns and poetic intentions (see Larkin, 2013, for an overview) as well as in their possibility to be hacked, mended when necessary, and manipulated for alternative political ends (see Amin, 2014, for an overview).

In the context of South Africa, specifically, scholars have suggested that both the project of a democratic liberalism in the postapartheid nation, and the struggles that ensued have been materially, historically and technically grounded in 'things' such as prepaid meters, sanitation systems, housing construction toolkits, nuclear protocols, remote points-of-sale and WiFi benches (Von Schnitzler, 2016; Hecht, 2006; Antenucci & Pollio, 2018; McFarlane & Silver, 2017; Amin & Cirolia, 2018).

These different contributions have shown that the making of liberal, developmental policies in South Africa —be them in the field of social housing or public WiFi or else— has fluctuated

[3] Again, with obvious exceptions, such as Sarmento & Linehan, 2018.
[4] Architectural historians as well, too many to credit here, but for example: Bromber, 2016; Levin, 2016; Stanek, 2015 and others.

between the seemingly contradictory forces of fostering economic growth and redistributing vital economic resources. Whilst Deborah James has spoken of a "redistributive neoliberalism" (James, 2014, p.28), and argued that these contradictions are vital to the reproduction of neoliberal governance, James Ferguson (2015) has questioned whether such efforts of redistribution are neoliberal after all. He suggests that recognising the divergent rationalities of these seemingly neoliberal policies of redistribution —or the possibility that neoliberal narratives and techniques are deployed for alternative purposes— not only reveals their radical indeterminacy but broadens the language and political possibilities of the progressive agendas that could be built thereupon, as Sue Parnell and Jennifer Robinson have demonstrated using the example of South African urban policies (2012).

Drawing on these insights, which resonate with JK Gibson-Graham's call (2003) for undermining an all-too familiar critique of development, with the aim of recognizing and opening its multiple possibilities and alternatives, in the remainder of this paper I use the architectural politics of Philippi Village to empirically engage the diverse aesthetic, moral and technical calculations that were mobilized to mine the "fortune at the bottom of the pyramid" (Prahalad, 2005) and, at once, produce spatial justice in a divided city.

2. FROM SANDS TO CONCRETE AND CONTAINERS. THE ARCHITECTURES OF PHILIPPI VILLAGE

Started in 1938 by the Schmidheinys—a family of Swiss industrialists who still own one of the largest concrete global subsidiaries in the world—the original factory, then known as the National Portland Cement Company (Linder, 1997), was one of a few European enterprises established in the Cape Flats. Philippi, where the factory was built, had always been a destination for European settlers, who had created farms and orchards on very inhospitable sandy soils. In the late XIX century, the British colonial government had literally found volunteer farmers in Lüneburger Heide—a sandy, infertile heath region in Lower Saxony,

Germany—to relocate in the area and transform it into the city's food garden (Rabe, 1992). Still recently, between 40 and 50% of the vegetables sold in the city come from Philippi (Battersby-Lennard & Haysom, 2012).

However, it was not only the available space and the presence of sands that made Philippi a perfect destination for a large cement plant. The Cape Flats happened to be at the intersection of a metropolitan region that, from the Natives Land Act of 1913 to the infamous Group Areas Act of 1950 (the apartheid legislation), was gradually engineered as the buffer zone between racially and spatially distinct communities in Cape Town (Western, 1981)[5]. Highways, fences, railway lines and the walled precincts of large factories would divide white neighbourhoods from non-white settlements, including migrant compounds and the illegal townships that appeared on the leftover pockets of land in between. Coloured workers were largely available in Philippi—an extremely useful resource for a labour-intensive industry such as cement production.

The plant in Philippi operated for many decades, until 1978. Not incidentally, the factory specialised in producing cement for a uniquely South African commodity, vibracrete (a form of precast concrete), which would later become a common urban feature, in the form of concrete fencing, across Cape Town's marginal communities[6]. Following its demise, the areas surrounding the factory, including part of the industrial precinct, were squatted by one of the most radical anti-apartheid groups, the "People of Crossroads" (Wale, 2016). As the name suggests, Crossroads was a triangle of land—caught between the cement plant and three motorways—which became the theatre of violent clashes between squatters, activists, apartheid vigilantes and the police, culminating in a deadly removal in 1986[7] (Cole, 1987).

[5] It should be noted, from a historical perspective, that segregation in the Cape started as early as during the Victorian era and, at the same time, was never a fully achieved project (see Bickford-Smith, 1995).
[6] As visually documented, for example, in David Goldblatt's photographic book *Cape Town: The structure of Things Then* (1998).
[7] The formation of the squatted camp at the cement factory and the violence that ensued is detailed in chapter 5 volume 3 of the TRC commission report.

For several years after that, the plant stood as an empty ruin, only used for the occasional parties and Hollywood location shootings. Finally, in the early 2000s, the 12-hectare property was bought by The Business Place Philippi (BPP), a not-for-profit entity established by two large corporations—Investec Bank and British American Tobacco—and two local NGOs—the Sustainability Institute and Abalimi. The BPP was and still is part of a network of now 8 entrepreneurial hubs across South Africa, offering business development support in marginal urban communities. The BPP's first initiative in the former factory was to transform one of the minor buildings in the precinct—the electric substation—into its operational centre, with money raised from its corporate funders. From that first intervention, it took more than ten years to finally launch Philippi Village.

When I first visited the Village, in September 2015, the first phase of the development had just been completed. Construction workers were hurrying to deliver the final touches for the grand opening, a celebration to which the entire township had been invited. Some tenants were already moving in, unloading furniture from their vans, when my guide, one of the operational managers, took me around the premises, explaining the various functions and the next stages of the project. A similar explanation would be provided by Philippi Village's general manager, to the cameras of the Cape Business News Channel[8].

> Philippi village is an integrated development: [...] We've got three types of tenants that we aim to attract in this building. On the ground floor we have what we call our social and our normal tenants. We are having a beautiful new library move from Nyanga to here. On the south side what you have is either business incubation or [...] employment acceleration. The first floor will be used by small-medium entrepreneurs, so it's small offices where you have co-locating and coworking. You also have split-spaces you can rent for a day, [or for] one hour, if you want to, and meeting facilities. The second floor will be used for call centres, either that, or the creative industry: we're not sure yet, we

[8] <https://www.youtube.com/watch?v=2u10oZfIss0> [accessed 29/04/2016]

> are trying to attract those tenants in [...] We are trying to accommodate all the tiers of the economy (interview transcribed by the author, May 2016).

My guide was more specific about the grand scheme. In the following investment stages, the rest of the industrial precinct would be reconverted as well. The silos would become a hotel, with a nightclub on top. Plans for a private hospital were under way. During my visit, she pointed to some of the remaining concrete ruins:

> these buildings here are the famous ones, they have been used for movies many times. Sometimes, I hope they would leave them like this, but there is a plan to transform them as well, as part of the hotel (personal conversation, September 2015).

Walking to the back of the main building, she also indicated that a common farm would be created on the vast empty land where cows were grazing, separated from us by an old fence.

The last section of phase 1 of the project is called 'container walk' and was also launched in late 2015. Whilst this part of the development was not ready yet for the launch party, it had already caught the eye of the public in 2014, when the artist's impressions of the complex had been showcased in the main exhibition for Cape Town's year as World Design Capital (see Nkula-Wenz, 2018). One of the highlights of the show[9] that took place both online and in Cape Town's city hall, the container walk is an entirely new building made of brightly coloured shipping containers stacked along one of the borders of the complex. Doors and windows are cut through the corrugated metal sheets. The containers host up to 120 retail outlets, workshops and additional office spaces for local entrepreneurs who cannot afford the coworking space in the main building.

The architecture of the 'container walk' mimics the makeshift architecture or 'real' township retail spaces and workshops: brightly-dyed hair-salons, cobblers, internet-cafes, *shisa nyama* (butchers/barbecues), *spazas* (convenience stores) and other small businesses that are spread

[9] https://www.wdccapetown2014.com/projects/project/10 [accessed 06/09/2015]

throughout South African townships, usually in containers or even more haphazard shelters. The result is a visual imitation of the improvised architecture that tourist brochures use to promote their township tours[10]. While container-made buildings are common all over the world, from London to Brooklyn, often housing artists and makers, here there is an unmissable link between the informal microentrepreneurs that the container walk targets as eventual tenants, and the real, makeshift containers that these same entrepreneurs normally use, just on the other side of the road from the Village. That this is an aesthetic take on poverty (see Roy, 2004) is a fact confirmed by the explicit plan to make Philippi Village a destination of slum tourism (see Dovey & King, 2012). The planned hotel, as media reported, would "give guests a taste of the township experience"[11] and, my guide added, would be the first of its kind in the Cape, strategically located few minutes away from the airport.

The container walk also speaks to another important rationality of millennial development: microfinance/entrepreneurship (see Roy, 2010; Rankin, 2013). Purposefully designed to host microentrepreneurs, the colourful containers might be an innocent architectural homage to the beauty of picturesque and low-cost building techniques, but they are also a canny representation of the idea that, if provided with the right tools—in this case, low-cost workshops and office space—survivalist entrepreneurs can create new profitable markets at the bottom of the pyramid (Elyachar, 2012; Maurer, 2012; Dolan & Roll, 2013). Corroborating this idea, on the homepage of its the website, Philippi Village is described as aligned to the National Development Plan 2030 (NDP), a government initiative geared around promoting economic growth and equality through "entrepreneurial communities"[12]. The NDP, now in its

[10] I will limit my discussion of the aesthetic scripts of Philippi Village to this very visible relationship between the container walk and the actual refunctioned containers used by township traders and slum-tourist guides. Although there is a growing body of literature charting the technopolitical power of architectural aesthetics and visualizations (see Yaneva, 2009; Sklair, 2017) this was not an area that my research addressed and, therefore, my claims would remain at the level of speculation.
[11] <http://www.iol.co.za/news/south-africa/western-cape/plan-for-capes-new-central-suburbs-1894411> [accessed 13/12/2015]
[12] http://www.philippivillage.co.za/home/welcome [accessed 4/4/2018]
https://nationalplanningcommission.files.wordpress.com/2015/02/ndp-2030-our-future-makeit-work_0.pdf [accessed 4/4/2018]

second iteration, has marked a clear neoliberal shift from earlier, more welfarist plans, as exemplified by its focus on small enterprises and microfinance (Rogerson & Rogerson, 2015).

This does not mean, however, that the creation of Philippi Village could be simply ascribed to a 'more neoliberal' developmentalism, whereby fighting poverty becomes a matter of creating opportunities for entrepreneurial profit. In the remainder of this article I show how, in fact, the making of Philippi Village mobilized a wider range of diverse calculations around the organizational and institutional life of the complex, some of which only remain in the archives as unrealized architectural blueprints and reports, and yet have had a tangible influence on the material politcs of the Village.

3. ARCHITECTURE AND ORGANIZATIONAL CALCULABILITIES

According to the media outlets that celebrated the launch of Philippi Village, the mind behind its design was Philip Briel, a local architect with a rich portfolio of high-end residential projects[13]. News also reported that it was during a Masters in Sustainable Urban Development at the University of Oxford[14], that Briel decided to use the cement plant as case study for his final thesis. As he himself narrated:

> My earlier work as an architect revolved solely around the design of high-end residential projects in affluent areas of South Africa. It was only through my education [...] at the University of Oxford that I came to truly understand the meaning of sustainability and began to question the quality of my input as an architect and contributor to sustainable development [...]. My involvement and exposure to the 'other' side of my city was a true eye opener[15].

[13] https://www.cbn.co.za/videos/philippi-village-cape-town-s-new-business-centre [accessed 9/7/2018]
[14] https://www.property24.com/articles/innovation-and-growth-in-cape-towns-philippi-village/22538 [accessed 9/7/2018]
[15] https://www.conted.ox.ac.uk/profiles/student-spotlight-philip-briel [accessed 9/8/2018]

However, sustainability and inclusivity had long been important metrics in the definition of what ought to be the market envisioned for the former cement plan. In fact, multiple metrics, not least Philip Briel's own field data about local informal entrepreneurs, have shaped the Village's economic enterprise. In this section I chart some of the the plans, protocols, formulas, and organizational blueprints that informed its multiple "spaces of calculability" (Callon, 1998)—that is, the metrological scripts that contributed to the organization of the village spatially, legally, safety-wise, environmentally, etc.

The idea of a new urban hub located in Philippi, South of Cape Town's airport, first appeared in the 1999 Municipal Spatial Development Framework, a strategic plan aligned to the first urban strategy of the new democratic nation. As a wide attempt at mending the deep scars of apartheid planning, the plan had garnered inputs and support by individual experts, city authorities and grassroots organizations, through a public planning forum (Watson, 1998). The framework strategy for "reintegrating the divided city" involved the creation of "a large new economic centre in the underdeveloped south-east sector of the city at Philippi and a major new activity corridor linking the south-east to the prosperous southern suburbs (the Wetton-Lansdowne-Philippi Corridor)" (Turok, 2001, p. 2355-2356).

What the strategy envisioned, through the hub and the corridor, was not just a spatial plan but also a micro-regional industrial scheme that would feature public investments in the hope of attracting further capital. Such a scheme mirrored on a local scale what the state was producing at a national level with the Spatial Development Initiative (SDI)—a programme that was meant to restructure the idiosyncratic regional disparities of separate development, which had, over several decades, engineered a divided industrialization (see Jourdan, 1998). With the aim of fast-tracking small and medium enterprise development, SDIs had been orienting public industrial investment across clusters and corridors (Rogerson, 2002). Whilst heavily influenced by the neoliberal dogmas of the nineties and scarcely successful in its results (see Bek & Taylor, 2008), the SDI model set the path for and gave the topological vocabulary to

(see Bek *et al.* 2005) further economic initiatives at a smaller scale, such as the Wetton-Lansdowne-Philippi Corridor.

In the meanwhile, Philippi had been chosen for another landmark national strategy, the integrated serviced land project (iSLP), a presidential project tasked with delivering housing, services, and economic development initiatives in the area, within Mandela's flagship Reconstruction and Development Programme. Working in tandem with the corridor committee, which received a financial boost from the Department of Transport, iSLP chose to focus its economic development mandate in the area surrounding the cement factory, through the creation of a section 21 company[16] called PEDI (Philippi East Development Initiative) in 1998. Whilst iSLP built some 40000 homes, dozens of school and other facilities, following a strict protocol of community engagement and nationally standardised practises for subsidised construction of social housing, and eventually lapsed its mandate, PEDI remains active as the main developmental body in the Cape Flats and was crucial in setting the groundwork for Philippi Village—as well as one of its first major tenants.

The establishment of PEDI as a company, amidst the numerous other activities of iSLP, is documented by hundreds of pages of reports, as well as a rudimentary online repository, which tracked the metrics of the public enterprise across a series of targets, including job creation. These metrics were regularly sent to a mailing list of community leaders and stakeholders, with updated maps tracking the physical transformations in the Cape Flats, and also shared with the wider community in iINDABA ZASEKHAYA "news from home", a quarterly coloured, trilingual magazine freely distributed to the iSLP families, in direct contrast with the lack of transparency through which apartheid government officials had managed—or failed to—service and housing delivery in the area.

[16] As of 2017, the Non-profit Organizations Act 71 of 1997 allows NGOs to have a legal structure that resembles that of large businesses, reprising Section 21 of Companies Act 61 of 1973, the old commercial legislation of the country. According to my interlocutors, this legal form is recommended for public-private developmental enterprises, as it allows more flexibility than a strict not-for-profit organization.

These “immutable mobiles” (Latour, 1987) circulated alongside the metropolitan plan itself, generating consensus, with newsletters and reports, around the idea of a hub located in East Philippi (Turok, 2001). Following these generic guidelines, BPP, which had, by then, bought the plant and moved its consulting services in the electric substation, adopted a conceptual framework that would give momentum to the proposal of having a business centre in and around the industrial precinct. A year later, the concept became a more detailed strategic framework (1996), prepared by BPP in collaboration with the expertise of the Sustainability Institute, various energy and environmental consultants, the largest quantity surveying consultancy in the country, the National Council of Research, and Noero architects, a firm with an established history of work with marginal urban communities.

The strategic framework included a long report which painstakingly detailed the organizational, financial, technical and architectural rationales underpinning the new hub. The document purposefully translated qualitative principles and ideas, such as equity and entrepreneurship, zero waste, cultural diversity, sustainable food, democratic governance, etc, into quantifiable design principles, namely 12 postulates that would guide the actual implementation of the real-estate development. For the purpose, Noero architects provided a blueprint of the resulting transformation, an overarching plan that included bird’s-eye views of the converted industrial precinct, surrounded by sustainable housing, farms, as well as a metal structure for local informal entrepreneurs (which would eventually become the container walk).

The strategic plan also included specifics about the protocols to follow for housing delivery (specifically the PHP model, a housing programme designed to target households too poor to access credit by involving a community-based intermediary that would receive the subsidy[17]), a detailed plan of infrastructural work, as well as an outline of how the design principles would translate into the organizational matrix of the enterprise. Specifically, the document pledged to create another company that would act as development corporation in lieu of BPP, which

[17] For an early critical overview of the programme see Miratfab, 2003

remained the owner of the precinct. It also committed to creating another section 21 organization that would take over the governance of the precinct, once activated, by implementing some form of shared ownership with the eventual tenants and the local community. Such kind of shared ownership schemes have recently become a key organizational technology within the 2015-updated Broad-Based Black Economic Empowerment, after critiques that the government initiative had favoured only a very small section of the population which it had targeted (see Patel & Graham, 2012).

The development company that was eventually established, Philippi Village, took the form of a pty ltd., a private company owned in equal shares by PBP —which has since merged into a larger NGO called 'Business Activator'—and Bertha foundation, a global philanthropic entity already active in the Cape. The investment was packaged as a joint seed between the Bertha foundation and the Jobs Fund, a grant-making institution of the National Treasury, which matched the foundation's pledged funding. The general manager of the Village specifically described this link between entrepreneurship and employment as part of the vision that defined the urban nature of the intervention:

> [E]ntrepreneurship is often a means of survival in townships where jobs are scarce. […] The vision behind The Hub […] is to create vibrant, creative 'new urban space' in which to work, learn, create and play. A space where two worlds —that of the Philippi township and the rest of Cape Town — can meet and interact[18].

The two worlds represented in the lines above are more than a metaphor of a divided city. They also reflect the functional distribution of the Village space. On one hand, the container walk caters to the needs of the local bottom-of-the-pyramid entrepreneurs, who are confronted by the dearth of retail space, workshops, office space and internet connections. On the other hand, the commercial space hosted in the main building serves the need of developmental

[18] <http://www.news24.com/SouthAfrica/Local/City-Vision/Philippi-now-launches-the-Hub-20150916> [accessed 17/04/2016]

organizations to have offices that are safe, connected, relatively cheap and central to their humanitarian work in the township.

Strategic plans and organizational strategies have not been the only spaces of calculability thrusted upon the metric organization of the area around the Village. In fact, PEDI, which then moved its headquarters in the main building, had laid the groundwork for justifying the need of office space in the Cape Flats by commissioning a report to Demacon Marketing Studies, a firm specialized in market research for the real estate sector. The 199-page-long report (2013) used a specific econometric model to forecast office space absorption in Philippi. The equation below, purposefully shifting from a supply-demand to a multivariable estimation that would yield more realistic and more desirable figures, calculated that the area would need offices for approximately 25 000m² over the short to medium term and 65 000m² over the medium to longer term—a very appetible promise to eventual investors.

> ABt =*CO)t – OCt-1) =)α0 + α1EM1 + α2EWt + α3Qt – α4Rt-2) - 1 OCt-1 (with AB = Net absorption of space OC = Occupied Space EM = Employment in Finance sector EW = Employment in Business sector Q = Finance and Business Output per Worker R = Rental Rate for Office Space).

The report also recommended building typologies (Low-rise, medium-density, suburban-lifestyle offices), the use of modular architectures (which eventuated in the blueprint for Philippi Village, as epitomized by the container walk) as well as a series of other provisions that included security programs, public transport and road upgrading. The market research distinctly stated that the release of the real estate potential for Philippi depended on the improvement of urban security.

Safety was not a new concern for PEDI, which had, in 2011, post-municipal elections, attempted to establish a CID (central improvement district—the local name of the North-

American 'business improvement districts'), in Philippi[19]. The CID is an urban area where landowners choose to pay additional levies to constitute an authority that provides supplementary services to the neighbourhood, particularly in the domain of policing public space (see Didier et al., 2013). Whilst the CID proposal for Philippi had fallen through, the idea of having a lighter-form of landowners' association were still being discussed, as security anxieties loomed large around the former cement plant. As the press reported during the opening launch,

> Philippi doesn't have a reputation as a welcoming space. It's close to Nyanga, Cape Town's "murder capital" and access from major roads is difficult. Instead of just hiring more security, [The General Manager] said the Village would have a security training school on-site [sic], and would also rely on neighbourhood watches that would get people to the precinct safely[20].

The "light CID" proposed by PEDI, on the other hand, would address the generally low rates earned by landowners in Philippi and the findings of a 2014 survey which had highlighted safety concerns along the industrial corridor[21]. Eventually, the first step towards the creation of hybrid CID involved the establishment of a Peace Officer Corps in the village. Five private guards, in teams of two, in two vehicles, with one officer on radio duty, are now patrolling five routes criss-crossing the Village precinct, where they are stationed when not on duty. According to another PEDI report[22], this pilot project will work as a testbed for potentially expanding this business model to the remainder of Philippi. By tracking the metrics of the five patrolling routes, PEDI's Peace Officer Corps is not only constituted within the entrepreneurial

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19 <https://www.capetown.gov.za/en/MediaReleases/Pages/PEDIandthePhilippiLandownersinitiateestablishmentofaCIDforPhilippiEastIndustrialarea.aspx> [accessed 05/05/2016]

20 <http://www.iol.co.za/news/south-africa/western-cape/plan-for-capes-new-central-suburbs-1894411> [accessed 09/05/2016].

21 <http://pedi.org.za/wp-content/uploads/2016/07/BRE-Summit-Reportback-12-April-2016.pdf> [accessed 9/20/2018]

22 <http://pedi.org.za/wp-content/uploads/2016/07/BRE-Summit-Reportback-12-April-2016.pdf>[accessed 9/20/2018]

mandate of the organization, but also packaged as a pedagogical business experiment in the nexus of security, sustainability, and humanitarian entrepreneurship.

Experiments of this kind are not new in the Cape, with several public-private partnerships designed to maximize real-estate values and—at once—address the socio-spatial legacies of apartheid segregation, often in a predatory manner (eg. Lemanski, 2006; Jensen, 2010; McDonald, 2012; Didier et al. 2013). What is stressed in the Village, however, is the pedagogical nature of the experiment: on one hand, local unemployed men are trained as Peace Officers; on the other, their results can be learned and scaled up to other parts of the township. This didactic purpose, as I show in the next section, is not limited to the delivery of safety, but distributed throughout the whole enterprise of the Village.

4. THE PEDAGOGICAL PROGRAMME

To fully understand Philippi Village's pedagogical programme, it is necessary to look at it as a hybrid enterprise—that is, as an organization designed to *do well* financially *by doing good*. According to my interlocutors, these hybrid organizations, despite the lack of a clear definition in South Africa's corporate law, are often described as 'social enterprises'. A key driver of Village was the Bertha Foundation's investment, but equally important was the contribution of the Bertha Centre for Social Innovation and Entrepreneurship, which provided key expertise in the field of impact finance. As one of the research units at the Graduate School of Business at the University of Cape Town, Bertha Centre is the "leading academic centre in Africa dedicated to uncovering, pioneering, connecting and advancing social innovation and entrepreneurship in Africa"[23].

From the perspective of Bertha centre, the investment in the village could be bundled as a case study of impact finance, an asset class whereby investments are intended to create positive

[23] http://www.gsb.uct.ac.za/s.asp?p=389 [accessed 19/03/2016]

impact beyond financial return[24]. Specifically, my interlocutors at the research centre described Philippi Village as a prototype of large-scale social entrepreneurship and as a testbed of this particular financial tool, which combines multiple metrics of return on the investment. The Bertha Centre's own magazine, *Inside/Out*, explained that Philippi Village would showcase "market-based solutions" to the issues affecting "Phillipi and surroundings", and function as a display case of "impact finance", "combining scalability and educational purposes"[25].

The graduate school of business was also the first unit of the University of Cape Town to venture in the Cape Flats, when in 2016 a branch of the MTN Solution Space opened at the Village, extending the existing startup acceleration programme to local entrepreneurs. A year later, a satellite campus was opened in the complex, with the aim of allowing students attending the privileged Breakwater campus (in the wealthy, securitised Waterfront precinct) to experience first-hand the challenges of a community such as Philippi. In the words of the GSB director Associate Professor Mills Soko:

> Here at Philippi Village, we get to practise what we preach. The reality is that we live in a thoroughly divided country and city from a geographical perspective and that creates a divide in understanding, in connections and in networks and our presence in Philippi seeks to bridge that.
>
> Being here helps our students to develop empathy and resilience and to open their eyes to wider perspectives[26]

The GSB is not the only pedagogical institution in the Village. The list of NGOs that moved into the complex, as of 2017, is a striking catalogue of Cape Town's most popular 'social enterprises' and hybrid organizations. 2nd Take Clothing, for example, is a franchise that brings second-

24 Much has been written about social entrepreneurship, fair trade, corporate social responsibility and hybrid financial models in Southern Africa. See for example Bek *et al*, 2007; Rajak, 2011 and more.
[25] 59 http://insideoutpaper.org/7-things-you-need-to-know-about-the-bertha-foundation-insouth-africa/ [accessed 4/5/2018]
[26] https://www.news.uct.ac.za/article/-2017-07-31-gsbs-philippi-community-campus-breaks-the-mould [accessed 9/24/2018].

hand high-fashion clothing to deprived urban areas of South Africa. Abalimi is a large NGO whose aim is to fight poverty through urban gardening and training microfarmers. The Afri-CAN charity, as the name goes, is a charity organization which operates various initiatives: a support programme for entrepreneurs, hospitality training, and other projects in the field of food security and entrepreneurship. The Fish Farm Philippi is a social business that employs local workers on a communal basis. Ethical Co-Op is an ethical purchasing business that delivers organic produce.

Other not-for-profit organizations are more specifically in the education sector. Edunova promotes ICT literacy programmes for schools and other learning institutions. The PBP, which owns the cement factory, is also a provider of technical education and consulting services in the field of entrepreneurship and management. Community Connections is a NPO that designed a training course for community-based development initiatives. Sizisa Ukhanyo Training, a spin-off of a township-based driving school, provides short courses to obtain skills as cashiers and petrol attendants. Leap Academy channels donations to Science and Maths programmes in areas of poverty and marginality. The list goes on, showing a very diverse assortment of organizations: from an office of the Department of Agriculture, to one of the corporate social responsibility programmes of Anglo-American, the global mining company, to Sebenza, a microfinance fund that delivers business development support as well, to Siyazana, which compiles an open-source database to map the political and commercial connections of both profit and not-for-profit organizations in South Africa.

Philippi Village is thus a pedagogic institution, not only in its formal mandate, but also in the way it cultivates entrepreneurial subjects. Many of the tenants explicitly or implicitly embrace the idea that poverty entrepreneurship is a catalyst of innovation and, eventually, social justice. Some explicitly target these entrepreneurs with leadership, management, marketing and other courses. Others show the way by applying entrepreneurial schemes to development work. In general, the whole entrepreneurial system revolving around the village is itself is a large social enterprise that sets the example and narrates a success story of impact investment, as

explained to me one of my interlocutors, the CEO of a, now failed, business school startup designed to target bottom-of-the-pyramid entrepreneurs.

Contemporary scholars of development have indeed argued that present experiments and initiatives that are designed to extend market forces so as to include the world's poor rely on the capacity to produce hopeful, appealing prospects: for state agencies, for international development organizations, for private companies, and for eventual entrepreneurs alike (see Cross, 2014; Elyachar, 2012; James, 2012). These anticipatory capacities, whilst they might appear instinctive and spontaneous, need in fact to be trained. As Dolan and Rajak write:

> while this new paradigm of development places the 'raw entrepreneurial energy of the people' (Chang, 2010, p. 53) at the heart of economic growth, we see a significant shift from earlier framings of African entrepreneurialism in which it was cast as innate (even indigenous), needing only to be unleashed, to an emphasis on training, disciplining and transformation, driven as much from without as from within. [...] The entrepreneur emerges as both beneficiary and catalyst, producer and product of this new economy of development (Dolan & Rajak, 2016, p.515).

Fostering the right kind of entrepreneurship, one that is creative, collaborative, and addresses the urban questions of a place like Phillipi is clearly one of the didactic purposes inscribed in the 'new' old cement factory. More precisely, it is inscribed in the future-looking promise that the village is —as in the words of its CEO[27]— a "little gold mine", a prospect that appeals to financial investors just as much as to aspiring entrepreneurs that in the village seek guidance for their journey to economic emancipation.

[27] http://www.iol.co.za/news/south-africa/western-cape/plan-for-capes-new-central-suburbs-1894411 [accessed 12/13/2015]

CONCLUSION

As of 2018, the latest addition to Philippi Village is a memorial to the People of Crossroads, a wall that will remind future generations, according to its proponent Mlandeli Mbiko, of the violence of separate development and of the "unsung heroes and heroines"[28] that fought for spatial justice on the grounds of the former cement plant. Even if just symbolic, the wall is one in a long list of pedagogical operations that inscribed new moral and economic purposes into a building that once epitomized the spatial violence of apartheid.

In this sense, I have argued that Philippi Village was configured as an enterprise of millennial development at the bottom of the pyramid, one that would at once produce profitable opportunities and address economic marginality. Its multiple, competing architectures, calculabilities and pedagogies thus speak to three important and interrelated "matters of concern" (Latour, 2008) about millennial development in a city of the Global South.

First, Philippi Village illustrates the necessary pedagogic operations that allow the economic doctrines of millennial development to become real-life experiments. These experiments are not only epistemic, but they also do ontogenic work: that is, they "provoke" economic realities (Muniesa, 2014). Philippi Village, for example, was at the same time constructed as a prototype of impact finance and as a machine that would foster the entrepreneurial individuals needed by impact finance. Similarly, it put to test the job-creation hypothesis of such entrepreneurial policies by hosting organizations that would train local informal entrepreneurs to be self-employed job creators. It also explicitly experimented the scalability of a security programme by attaching it to a sustainable financial model. It would be easy to fault all these performative pedagogies for (a form of) urban neoliberalism, but such move would neglect the multiple ethical concerns that Philippi Village embedded in its attempt at undoing the spatial and social legacies of apartheid – an attempt that was carefully calculated over more than twenty years of spatial plans, investment schemes, reports, and architectural blueprints.

[28] https://www.iol.co.za/weekend-argus/in-memory-of-the-unsung-heroes-of-philippi-11441668 [accessed 9/25/2018]

Relating to this first concern, this paper establishes a dialogue with some South African geographers' documented impatience with normative understandings of neoliberalism and spatial justice in post-apartheid South Africa (and in general) (Robinson, 1998; Visser, 2001; Oldfield *et al.* 2004; Parnell & Robinson, 2012). For example, the centrality of entrepreneurship in the making of Philippi Village and the partnership between public and private actors may be characterised as a hallmark of neoliberal governance (see Mitchell, 2017). However, my "de-scription" (Akrich, 1994) of the experiment shows a much more complex and divergent political field, if anything in the fact that (sometimes contradictory) redistributive governance was crucial in laying the planning and financial grounds of the Village. Jaime Peck (2013) concedes that neoliberal policies or market experiments are never a fully realized showcase of neoliberalism and are necessarily incomplete (2013). It is however this focus on the discrepancy of the outcomes that my article questions, in its failure to acknowledge that the design itself —or the planning processes— of these experiments may involve multiple scripts in which neoliberal ones cohabit with alternative political agendas (see Collier, 2012) and, I might add, alternative theories of the economy. Both the expert informants and the archives that I interrogated for my research belied any simplistic reading of these market-making endeavours in Philippi Village. As Peter Redfield writes,

> it might be tempting to gloss this attempt at reconfigured governance simply as neoliberalism. However, such an analytic move risks overlooking specificities involved and the manner in which actors foreground moral [...] rather than market values. (2012, pp.158–159).

Similarly, in the case of the Village, its multiple organizational calculabilities revealed how the building complex was not merely designed to produce profit but mobilised a much larger spectrum of economic and moral rationalities, which coexisted or even overrode the attempt at expanding the possibilities of profit. This is what some of my interlocutors, for example, saw as their success: the fact that multiple metrics, including poverty reduction, had been included in what was, ultimately, a real estate investment. For the director of a local NGO, one of my

research informants, it was the very location of the Village that spoke to the possibility of a different geography of urban investments (personal conversation, September 2015): a geography that bore the promise of economic inclusion regardless of its actual results.

Lastly, this paper speaks to our understanding of millennial development, which is a useful, eloquent metaphor, but may also overshadow the diverse political economies that emerge by charting a different material –in this case architectural– genealogy of poverty enterprises. Philippi Village may well become (or be already) the brownfield site of new forms of accumulation, where the capital of poverty is harvested. Future research may instead reveal that Philippi Village was also, at the same time, the unorthodox, unexpected architecture of new forms of entrepreneurship, new ethical concerns, new dynamic alliances in the search for spatial justice in a city still scarred by its long colonial histories. If anything, this is what my research informants had believed in and used their expertise to fight for.

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