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Making the Silicon Cape of Africa: tales, theories, and the narration of startup urbanism

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Dr. Andrea Pollio – andrea.pollio@polito.it
Future Urban Legacy Lab – Polytechnic of Turin

ABSTRACT

Silicon alleys, hills, peaks, beaches, savannahs, islands, lagoons and gulfs have mushroomed across cities of all continents, in the hope of fuelling profitable, innovative startup hubs. These Silicon-Valley replicas deploy economic theories, managerial fads, success stories and best practices that are metonymically linked to Northern California, but they also draw upon local arrangements of heterogeneous constituents: policy experts, entrepreneurs, reports, IT infrastructures, universities, coworking spaces, networking protocols, and so forth.

The making of one such ecosystem, Cape Town's so-called *silicon cape*, is the topic of this paper, which, however, does not try to uncover the specific economic and geographic factors of tech clustering. Rather, it addresses some of the narrative discourses that have framed Cape Town as the entrepreneurial capital of South Africa and Africa at large. It shows how these narrative praxes are both reflexive and ontological: they at once work as metatheories of entrepreneurial innovation in an African city and lay the groundwork for its very possibility.

Via an ethnographic engagement of these textual discourses in the making, this article charts the uneasy relationship between technocapitalism and economic development in a city scarred by its colonial past and its racialized inequalities. In doing so, it shows how the discursive making of the silicon cape of Africa mobilized multiple economic sentiments, weaving together the search for profitable technology-based economies and the demand for social justice in a city of the Global South.

KEY WORDS

Cape Town, silicon cape, startup urbanism, economic performativity, development

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1. INTRODUCTION

> *One day, foreign visitors stepping out of Cape Town International Airport on their arrival might even see a billboard saying, "You are now entering the Silicon Cape", or "Welcome to the Silicon Cape"*[1].

Eager to replicate the undeniable success of the Silicon Valley high-tech economy, national and local governments have long tried to reproduce one or more of the paradigmatic — though debated (Saxenian, 1996; 2007; Lee, 2000)— factors that contributed to the agglomeration of innovative companies in the Bay area. In the Nineties, national technopoles and digital corridors were an example of such attempts (see Rossi & Di Bella, 2017). In the last ten years, a few cities, from Stockholm to Tel Aviv, from Santiago to Berlin, have successfully garnered the reputation of alternative tech hubs, with startup companies such as Skype and Spotify symbolising the possibility of different geographies of digital innovation (McNeill, 2017). Arguably, the making of such tech hubs has been driven by governments (see Bresnahan & Gambardella, 2004; Senor & Singer, 2009; Mazzucato, 2015) just as much as by a diverse coalition of actors (Feldman & Francis, 2004; Foord, 2013), including non-human ones such as submarine cables (Strasioelsky, 2015) and, recently, cryptocurrencies (Parkin, 2018).

Among these hubs, African emerging tech ecosystems have too caught the eye of tech journalists and investors. Not long ago, in a *New York Times* opinion piece, billionaire philanthropist Melinda Gates described Nairobi's "Silicon Savannah" as an epitome of the possibility of addressing social and environmental challenges in Africa with scalable,

[1] https://www.siliconcape.com/welcome-to-the-silicon-cape-initiative/ [4/5/19].

profitable, technological innovation[2]. Lagos's Silicon Lagoon, also dubbed Yaba Valley, is another example of an African innovation cluster poised to create technology with "huge potential to transform the continent"[3]. Since 2014, the World Bank has been updating a map of tech hubs in Africa, suggesting that these ecosystems align with the "World Bank's twin goals of ending poverty and increasing shared prosperity"[4]. In 2017, Startup Genome, the largest startup survey globally, included three African cities in its *Global Startup Ecosystem Report*, a research which annually charts the "rise of entrepreneurial cities" (p. 6). In the report, Cape Town —South Africa's second largest city and legislative capital— is described as the startup capital of the African continent, its 'silicon cape[5]':

> Beautiful beaches and dramatic landscapes have long made Cape Town a popular place for tourists to visit and for locals to proudly call home. Yet recent years have given Cape Town a new status as Africa's prime locale for startups. [...] Cape Town is now home to the most IT-based companies on the African continent, including an estimated 700-1200 currently active tech startups (p. 129).

According to international rankings, Cape Town's universities and business schools top the African section. A 2015 report illustrated how a striking 56% of innovative SMEs (small and medium enterprises) in South Africa was headquartered in the Western Cape, mainly in the Cape Town-Stellenbosch metropolitan area (PwC, 2015). As of 2017, the city still boasts the highest concentration of venture capital in the country (and on the continent), although Johannesburg possesses a much higher economic output (SAVCA, 2018). At the same time, Cape Town tops the list of the most unequal cities in the world (e.g. UN-Habitat, 2016). Its large townships in the Cape Flats, a vast plain between Cape Town and Stellenbosch, experience one of the highest murder rates on the planet[6]—a result of economic marginality, unemployment and gang violence that derive from racialized urban planning during apartheid.

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[2] https://www.nytimes.com/roomfordebate/2015/07/22/is-silicon-valley-saving-the-world-or-just-making-money/technology-can-make-a-better-world-if-we-want-it-to [2/22/19].

[3] https://www.newsweek.com/2016/12/09/nigeria-startups-yaba-lagos-mark-zuckerberg-525824.html [3/16/19].

[4] http://blogs.worldbank.org/ic4d/importance-mapping-tech-hubs-africa-and-beyond [3/16/19].

[5] In this paper I have used both Silicon Cape with capital letters and silicon cape with lower case initials. In the first case, I refer to the organization registered as Silicon Cape, whilst silicon cape refers more generally to the local tech ecosystem.

[6] http://www.businessinsider.com/most-violent-cities-in-the-world-2016-1/?r=AU&IR=T/#9-cape-town-south-africa-had-6553-homicides-per-100000-residents-42 [04/07/2017].

As I argue later in the article, the compilation of these lists, maps and surveys is not a mere act of description. Diagrammatic scores and rankings, from the Gini coefficient for inequality (UN-Habitat, 2016) to the Global Competitiveness Index (WEF, 2014), are what Donald McNeill describes as "global urban ordering[s]' which "render urban life technically commensurable" (McNeill, 2016b, p.74), but they are also political tools that engender spending priorities, modes of assessment, strategic frameworks, and economic alliances.

In acknowledging the performative power of these startup narratives, this paper charts the discursive making of Cape Town's *silicon cape*. As a tech hub, it is a heterogeneous alignment of entrepreneurs, investors, IT infrastructures, incubators, as well as, importantly, texts of various kind: reports, blogs, economic theories, lists, etc. Focussing on these textual praxes reveals the "self-awareness" of technocapitalism (see McNeill, 2015, drawing on Thrift, 2005), but also, in the specific case, its uneasy relationship with the question of economic development in a city and in a country where inequalities are at the forefront of the political debate. By foregrounding these narrative operations, this paper suggests two main arguments.

First, that narrating the silicon cape of Africa, with numbers, figures, lists, and various other modes of storytelling, is both a reflexive and an ontological act. It is reflexive because it allows economic agents involved in Cape Town's tech 'scene' to verbalise, measure, assess and even develop forms of attachment to the local startup ecosystem. It is ontological because it actively contributes to the production of the silicon cape as a fertile terrain for technological innovation, virtuous investment cycles, favourable legislative actions, networking opportunities, and supporting urban infrastructures.

Second, this paper argues that, at least discursively, Cape Town's tech hub has been caught between the seemingly diverging forces of "millennial development" (Roy, 2010): the search for new profitable markets and the search for solutions to poverty and inequality. In contemporary South Africa, as James Ferguson (2015) and others have shown[7], these forces have structured the political sphere of the post-apartheid nation, in the disjunctures and overlappings of market-friendly and socially just forms of economic redistribution (Ferguson, 2015), particularly in major cities (Parnell and Robinson, 2012). The making of a South-African tech hub has inevitably mobilised these contradictory discourses of development: I argue that it is precisely such uneasy diversity of economic "sentiments"[8] (Smith, 1759) that has contributed, materially, to framing Cape Town as Africa's silicon cape.

[7] See, for example, James, 2014; Von Schnitzler, 2016.
[8] For my use of the word 'sentiment', see Rothschild, 2001.

To make these arguments, this paper draws upon the economic performativity thesis (see Mackenzie, 2006; Callon, 2006), according to which economic knowledge is never a mere description of the world, but it participates in and produces the world it is purported to describe. The focus of this paper is not so much on economics itself, but on what Michel Callon has described as "economics at large" (2006) —that is, economic theories as such but also their pop(ularized) versions outside the academe.

This paper seeks to make a contribution to a growing body of scholarship concerned with startup urbanism (Rossi & Di Bella, 2018). Thus far, not only cities in Africa have mostly remained off its radar[9], but the performative power of theories of clustering and regional advantage has been underexplored. These theories, I argue in the article, are not just tools that explain the agglomeration of tech companies in Cape Town, but laid the groundwork for its possibility, through debates in which the question of economic development mobilized discourses that often escape the literature on the urbanization of technology-based economies.

Such literature has recently focused on the city-making power of technology unicorns (e.g. McNeill, 2016a), or the mobility of entrepreneurial policies that seek to attract high-tech firms (Wiig, 2015), or the spatial politics of places that become metonymically branded as "Silicon" locales (see Nathan & Vandore 2014, Nathan et al 2018). Moving in a different direction, this paper is neither concerned with undercovering the reasons of tech clustering, a research that is well documented in economic geography (e.g. Malmbegr and Maskell, 2002; Booyens et al, 2018), in business management studies (eg. Engel et al, 201) and economic policy (e.g. Nathan & Overman, 2013). Rather, building on the insight that the "Silicon" metonym offers a 'local' manifestation of high-tech culture that has come to transcend Silicon Valley itself" (Gill & Larson, 2014, p.532), my article shows how an ethnographic approach to the performative geographies of technocapitalism displaces some of the normative assumptions about startup cities. Specifically, it underscores the role that diverse rationalities, including the developmental question of economic inclusion, play in embedding technology economies in a city of the Global South.

The paper is organised in two core parts. The first section after the introduction charts some of the textual genealogies of Cape Town's regional advantage in the startup economy — arguing that these very tales were productive factors in establishing the city as Africa's entrepreneurial capital. The second section shows how various theories of clustering circulated at the origin of Silicon Cape as a registered not-for-profit organization, and how

[9] Though see Poggiali, 2016.

they informed its narrative and organizational strategies, some of which sought to improve the inclusivity of Cape Town's technology ecosystem.

Methodologically, this paper and the research that underlies it are informed by two epistemological cornerstones. First, that an ethnography of expertise was one of the better-suited tools for a research seeking to uncover the productive discourses that framed the relationship between development and startup urbanism. Experts, Ananya Roy writes (2012, p.31-33) "who negotiate the apparatus of development and who embody the contradictions of market rule" are a productive, "awkward" scale for an ethnography that strives to displace the narrative fictions of millennial development. This paper is thus based on the eight months that I spent, in 2015, immersed in Cape Town's entrepreneurial scene, collecting notes, artefacts, interviews and gradually building relationships that granted me access to "studying up" (Nader, 1972) the expert makers and making of Africa's silicon cape.

Second, these experts were themselves users and producers of theories, which, as such, deserved ethnographic attention. Many of the entrepreneurial subjects of my research, for example, belied the tech-nerd stereotype and were eloquent narrators, bloggers and essayists. Therefore, I was able to tap into what Douglas Holmes and George Marcus (2005) call "para-ethnography": the capacity of experts to develop their own ethnographies of the limits and the possibilities of their actions[10]. This kind of knowledge too, even in the form of debated controversies, I argue, reveals the diversity of sentiments underpinning Cape Town's tech hub.

2. TALES OF REGIONAL ADVANTAGE

The outset of the internet in South Africa coincided with crumbling of the Apartheid regime. It is not a case, writes Mike Lawrie (one of the three academics who dialled in the first connection to the Internet), that the first transatlantic link was set up in Grahamstown, a small university town which had a reputation for being left wing and anti-apartheid (Lawrie, 1997). Researchers at Rhodes University, in Grahamstown, defied the apparatus that regulated telecommunications[11] and established an email link with the private house of Randy Bush, one of the Internet's forefathers, in Portland, Oregon. However, it was in Cape Town that the first private ISP (Internet Service Provider) was established, in 1993, by a

[10] This resonates with Latour's call for recognizing that "actors are also able to propose their own theories of action to explain how agencies' effects are carried over" (Latour, 2005, p.57).

[11] The liberalisation of telecommunications was one of the most debated and controversial operations of the transition (see Horwitz, 2001).

group of young men who had previously been involved in these early university networks (Lewis, 2005). One of them, Chris Pinkham, would later become the Vice-President of Engineering at Amazon, and, after many years abroad, would move back to South Africa, leading the team of developers that engineered the Elastic Compute Cloud (EC2) — the software backbone of Amazon's cloud services.

Chris Pinkham's story was one of the tales that circulated, in the mid-2010s, as an explanation of Cape Town's regional advantage in the African startup economy. Accordingly, Amazon's success in the Cape attested to the presence of a successful Internet ecosystem, with several small companies that had cut their teeth as ISPs or value-added network services in the early 2000s. It also shed light on the availability of good software engineers coming out of University of Cape Town, as Pinkham himself. A few other "argonauts" and UCT graduates (see Saxenian, 2007) were also the source of other tales, especially those who had successfully built careers in Silicon Valley and then moved back, or made headlines for incredible exists, as did Mark Shuttleworth, the entrepreneur behind Thawte, acquired by Verisign for a record-breaking all-stock deal in 1999. As a researcher, I myself heard these stories more than once, at the beginning of tech conferences, as funny anecdotes during a hackathon, or even as a complaint, during a meetup, that Cape Town had only produced a handful of globally successful entrepreneurs and their stories kept being repeated *ad nauseam*.

In fact, these individualistic genealogies of Cape Town's purported advantage in the Internet economy were not the only ones circulating. For example, that during the transition to a liberal economy the Cape had become a preferred destination for IT-enabled business service offshoring was another possible story. This was originally shared with me by RM, a middle-aged philanthropist who had built his fortune with a franchising service during the dotcom boom, and, in 2015, was on the board of several social enterprises. A long-time observer and participant in the city small enterprise sector, he had framed his own metatheory of it after a failed attempt at creating a sector-lobbying group.

According to his recollection, Cape Town's entrepreneurial edge had its roots in the terrain of offshored call centre services. From the early 2000s companies like Lufthansa, IBM and Shell had been easily offshoring customer services in the city, leveraging two important colonial legacies: the multilingualism of the Cape and the low labour cost. Several smaller voice-service companies followed suit. This was supported by investment from all levels of government, including the city, which, at the peak of the call-centre frenzy, provided free space for such operators, in the hope of fuelling job creation (Bell, 2015). Sitting on the porch of his Italianate villa, RM told me that these call centres had not only generated a hunger for

a specialised, entrepreneurial workforce, but also developmental infrastructural investments, which resulted in a decently sized and relatively cheap broadband connectivity. He himself had relocated in the Cape for "*its good weather and good infrastructure*" (personal conversation, August 2015[12]). Other internet entrepreneurs with whom I talked to had actually been involved in the call-centre economy — a sector which also became well represented in text.

A not-for-profit representative body for the call centre industry, CallingtheCape, was created to promote Cape Town on the international market and to lobby policy locally. The organization later merged into BPeSA (Business Process enabling South Africa), a national organ representing the business-service-outsourcing sector more generally, which continued the operations of CallinghteCape, with annual reports and case studies narrating the network of firms clustered around the Cape, as well as their effectiveness. In one of the early reports, for example, the performances of the Western Cape customer service industry are described with specific metrics:

> Budget Insurance, one of the first UK-based companies to set up a customer service call centre in Cape Town, has saved 35% of its UK costs while achieving a 30% productivity increase and equalling customer satisfaction levels. [...]
>
> More generally, the rate of "first call resolution" [...] is 89% in Cape Town, compared [sic] 66% in India (Mills, 2006, n.p).

Texts such as the one above highlighted the need for investments in ICT infrastructure, in light of the job-creation potential of such expenditures. For example, as explained in Bell (2015), the developmental prospect of capturing business service offshoring was a key ingredient in convincing government authorities to enact supporting policies (see Pandy and Rogerson, 2012). These infrastructural investments, as Nancy Odendaal as shown in the case of another South African city (Durban), were predicated on delivering access and redistributing connectivity to poorer citizens, but, in fact, followed the spatial patterns of business distribution (2011)[13].

BPeSA also circulated more detailed case-study researches, in which, for example, Amazon's customer service call centre in Cape Town was utilised as paradigmatic for understanding the locational advantage of the Cape (Thomas, 2012). Similarly, another report commissioned by BPeSA to Nelson Hall (2015) charted the strategies of a number of

[12] This and other recorded conversations, notes and written exchanges cited in the text are in the author's personal archive.

[13] Ilia Antenucci has further argued that IT-infrastructure projects in Cape Town, in spite of their purported inclusivity, have also been racialized practices of securitisation (Antenucci, 2019).

important companies, showing the rationale of their locational decisions. Arguably, reports such as the latter one, were far more than descriptive "immutable mobiles" (Latour, 1987), travelling across different communities of practice. They also contained useful how-to-guides on how to benefit from DTI (Department of Trade and Industry) grants, how to meet the Black Economic Empowerment legislation criteria, or how to gain support from government. They also contained inward self-promotion, narrating, for example, that in 2016 South Africa had been named "Offshoring Destination of the Year" at the Global Sourcing Association awards in London (BPeSA, 2018). In other words, whilst describing the conditions of regional advantage for locating in the Cape, these documents would also suggest and simplify metrological strategies to maximize the developmental promise of technology markets.

The key underlying idea in these reports was that the Western Cape's advantage in the BPO was an important opportunity, if supported by both government and private sector investment, and that addressing technical, supply-side economic factors (such as infrastructure, bandwidth, etc) would benefit the internal market as well (for example, through job creation among poorer South Africans). Job creation specifically was used as a developmental wedge to force Telkom to decrease international connection prices and increase the availability of bandwidth in specific areas of the Cape. The matter was so political that the country's president himself made it a topic of his 2007 opening address to Parliament (Bell, 2015). By then, also small ISPs in the Cape had waged their battle against Telkom's monopoly and prices (see Lewis, 2005). In 2009, the landing of the SEACOM fiber-optic undersea cable in Cape Town sealed off a decade of broadband lobbying.

During my fieldwork, the idea that Cape Town's startup ecosystem was linked to these early investments to support the business-process offshoring sector in the country was undoubtedly a less popular tale than the ever-present stories of homegrown high-tech entrepreneurs (whose successes were also more recent and exhilarating). However, the offshoring thesis had quite some purchase amongst policymakers, who believed that the informal alliance of local government, early internet pioneers and call centres had been a source of Cape Town's regional advantage in the startup economy. Specifically, the proactive role of the Western Cape provincial government yielded yet another genealogy in which the developmental state has a more prominent role. This explanation was articulated to me by MT, a bureaucrat at GreenCape, the provincial government's not-for-profit organisation established in 2010 to support the development of the green economy in the region.

In his computer, MT showed me a folder where he had systematised twenty years of national and, more importantly, provincial documents that, accordingly, had influenced a vibrant entrepreneurial ecosystem in the Cape. Although MT specifically worked in the compilation

of market intelligence reports in the field of sustainable energy investments, he had created a series of archives that included small and medium enterprise support documents of various kinds. When asked about innovative entrepreneurship in Cape Town, he opened one of these folders, and explained to me how he would use these documents to teach investors and entrepreneurs in the green economy to leverage the link between enterprise development and development itself (in the form of job creation, black empowerment, etc). For MT, the thriving innovation hub in the Cape had a lot to do with the way in which the three levels of government had conjoined —as a matter of law and else— innovative entrepreneurship, IT, and the issue of poverty reduction.

This was clearly expressed, for example, as early as in the 1996 national *White Paper on Science and Technology*, which was the innovation policy framework in the context of Mandela's Reconstruction and Development Programme (RDP), the country's first economic plan after apartheid (DACST, 1996). The paper explicitly established a link between technological innovation and the redistribution of access to economic (and technical) resources for those that had been disenfranchised by the previous regime. An earlier national white paper had too suggested that poverty reduction could be addressed via innovative entrepreneurship, and dedicated an entire section to the enabling factors of a startup ecosystem (DTI, 1995). It is in these documents that the question of economic inclusion emerged as a key rationale for government support in favour of the IT sector, which has continued to this day, with the country's new president recently launching a 1.4-billion-Rand initiative to support investments in technology startups, channelled through four venture-capital funds, three growth-capital funds, two impact-finance funds, and one acceleration program[14]. At the national level, also the much-criticized Black Economic Empowerment policy (see Patel & Graham, 2012), in its most recent reform, encourages large companies to invest in seeds of smaller startups owned by at least 50.1% of previously disadvantaged groups.

More than ten years after the RDP, the *Regional Innovation Systems Strategy* (DTI, 2009) also pledged to deliver "wealth creation and poverty reduction through innovation" (p. 2), and recommended provincial governments the creation of innovation bodies, as had been pioneered by the Western Cape. The latter had long been at the forefront of this area of policymaking, ever since the 2000 *White Paper on Preparing the Western Cape for the Knowledge Economy of the 21st Century*, which aimed at making the Western Cape both

[14] https://ventureburn.com/2019/03/sa-sme-funds-eight-funds/ [3/30/19]

> a leading centre for entrepreneurship and innovation" [and] "*A Cape of Good Hope for All*, capable of promoting sustainable growth, equitable development, economic empowerment and an improved quality of life for all" (WCG, 2000, p. Vii, original italics).

Beyond its inclusive rhetoric, this document is interesting in that it collated (and, literally, listed) all other relevant reports and policy documents, including those of WESGRO, the Western Cape's Tourism, Trade & Investment Promotion Agency, which had recommended the creation of a private equity and venture capital forum, and even developed its own list of venture capitalists investing in local startups. At that time, the Johannesburg metropolitan region had a much higher concentration of high-tech firms (Rogerson, 1998), but the paper mobilized an academic report from the Development Policy Research Unit at the University of Cape Town (Hodge & Driver, 2000), based on a large survey of innovative firms and their needs, which had pointed to the potential of the Cape region to become a high-tech cluster as well. The survey had used a series of lists compiled by different organizations, including the Cape Town City Council's *Silicon Pages* and an inventory of information technology firms used by local hedge fund Capricorn.

Establishing the exact connection between this cascade of textual documents and the actual policies that they enacted, or their performative effectiveness, is beyond the scope of this paper. However, in twenty years, from having a much smaller IT sector than the Johannesburg metropolitan region (Rogerson, 1998), Cape Town came to rival and even surpass the former in terms of startups (Startup Genome, 2017), venture capital (SAVCA, 2018) and hub organizations (GSMA, 2018). A recent Google-commissioned report showed how 58 of the 100 largest startups in South Africa were headquartered in the cape, more than twice as many than in the country's economic capital (OC&C, 2018).

These rankings and the various texts that I mentioned earlier are specimens of the multiple acts of framing, calculating, reporting, listing that make economic knowledge *do* things to the economy itself. In fact, this was clearly recognised by my informants, and, I may add, by the original policymakers themselves, who did not shy away from positing, in the 2000 white paper already, that a key enabling factor for a thriving "knowledge economy" was the narration of it. A central point of the strategy had thus been to develop a coordinated marketing effort to extrospectively communicate the Cape as a "quality brand", a region of regional advantage, which, as I will explain in the next section, would later become a productive concern for a younger generation of internet entrepreneurs in the late 2000s.

3. THEORIES OF CLUSTERING AND THE CLUSTERING OF THEORIES

Navigating the online repository of BPeSA, one would find a 2013 report compiled by three academic/consultants from the London School of Economics (Laicity *et al.*, 2013). The report, *South Africa's Maturing BPO Service Advantage: Case Studies of Success*, is dedicated to the evolution of the country's offshoring sector from voice services to much more sophisticated forms of outsourcing, including cloud computing. As an explanation of this transition, the report puts to use Michael Porter's diamond model of competitive advantage (1990) —including the critiques (e.g. the overemphasis of competition over collaboration) that have been waged against the original formulation. Such diamond model is (also) a well-known theory of firm clustering (see Lundequist & Power, 2002), and offers consultants and policymakers an easy way of capturing different factors of competitive advantage, in that it simplifies complex social, cultural and economic situations into discrete categories. Its usefulness makes it also very popular theory of "economics at large" (Callon, 2006).

Porter's diamond was cited, for example, in one of the earliest posts of the Silicon Cape Blog, the online news platform of an organisation that was launched in 2009 by argonauts-entrepreneurs Vinny Lingham and Justin Stanford. Without delving into the specifics of the theory, the author of the post, then Silicon Cape member and now head of Uber Africa and Middle East, wrote:

> Important ingredients for creating [the right environment] include Michael Porter's Cluster Theory and Diamond Model, through to what economists call "positive externalities" — virtuous benefits from industry that spill out and become self-reinforcing[15].

At the time, Silicon Cape was about to be launched. In the words of one of its founders, the organisation was poised to be "the brand, the idea, the masthead" of a growing community of tech entrepreneurs based in Cape Town[16]. Specifically, it was conceived as a membership-based community organization that would represent the high-tech sector in the Western Cape, and, more importantly, facilitate the network of investors, business angels, and entrepreneurs that had been coalescing in the city. In fact, the "network" was a very important topology (see Law & Mol, 2001) in another theory (at large) of firm clustering that was used to explain the need of Silicon Cape as a not-for-profit organization. At the

[15] https://www.siliconcape.com/can-cape-town-become-sas-silicon-valley/ [3/28/19]
[16] https://www.siliconcape.com/welcome-to-the-silicon-cape-initiative/ [3/28/2019].

September 2009 inaugural event, held in the Victorian rotunda of a popular hotel overlooking one of Cape Town's Atlantic beach fronts, the master of ceremonies had opened the day with a very clear list of intents:

> "Half South Africa is tweeting, while the other half is not eating." There's a lack of entrepreneurs, and #SiliconCape needs to solve that. It needs to be a social network, and a resource centre, and a place where entrepreneurs can find VCs, and vice versa. It also needs to be a link with universities. […] Links with government, for investment, marketing, tax incentives, and international trade relations, are also key[17].

The explicit reference, as Silicon Cape's founder Justin Stanford later elaborated, were Paul Graham's writings about the success of Silicon Valley. Paul Graham, a globally known programmer, entrepreneur and investor, founder of Y combinator (the largest startup incubator in the world) was at the time and still is a very prolific author, especially through his own unapologetically simple feed of essays which address a range of topics, including the question of regional advantage in the Bay Area and the parable of New York's Silicon Alley. At the launch of Silicon Cape, he was quoted for writing: "It's about people, not buildings"[18], which meant, as Justin Stanford explained, that the Silicon Cape ought to create denser fabric of networked connections among people working in the ecosystem. Network density is indeed a key ingredient, or, as he puts it, an "antidote" to "startupicide", in Paul Graham's writings[19]. For the purpose, the first years of Silicon Cape were heavily invested into creating networking opportunities, with initiatives that sought to multiply industry connections (Office Hours) as well as the number of potential entrepreneurs and their skills (Silicon Cape Academy)[20]. In those years, the membership base grew exponentially, reaching some 5000 members in 2012[21], and Paul Graham's essays kept circulating on the online blog[22].

A few years later, in 2015, I met with TL, the vice-chairwoman of a somewhat transformed Silicon Cape, an organization now less focused on creating networking opportunities (a role that, she suggested, had been taken up by *Meetup* and other sectoral communities) and much more devoted to the communication and marketing of Cape Town's startup scene. We sat for a coffee in the newly opened Watershed, which had been the electrical repair workshop of the proximate drydock, in the Victoria & Albert waterfront. On the ground floor, the restored building hosted a market selling high-quality African crafts from all over the

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[17] Verbatim reported from https://www.siliconcape.com/the-spike-at-siliconcape/ [23/09/15].
[18] See note 16.
[19] http://www.paulgraham.com/hubs.html [4/1/19].
[20] https://memeburn.com/2011/08/silicon-cape-launches-startup-academy/ [3/7/16].
[21] https://businesstech.co.za/news/internet/8288/silicon-valley-in-south-africa/ [2/3/19].
[22] https://www.siliconcape.com/paul-graham-18-mistakes-that-kill-startups-what-startups-are-like/ [2/4/19].

continent, whilst the top floor had been transformed into a minimalistic coworking facility housing some of Cape Town's key digital economy players, including Silicon Cape, CodeX (delivering coding education across marginalized communities), smaller startups and even some investment funds.

At the time of my meeting with TL, a demographic change had happened in Silicon Cape's elected leadership, now featuring two women as chair and vice-char. In fact, although its community had grown to boast some 10000 members, the organization had not been immune to criticism, especially for the overrepresentation of white men[23] in its exco. Under the new headship, as TL explained, it had also shifted to a more proactive role in the marketing of the Cape as a startup hub. Whilst this was not a new concern for the organization, TL reported, Silicon Cape had not been capable enough in external promotion. Nairobi, she continued, a city with way less startups and venture capitalists, was on everyone's mouth (including Melinda Gates's), whilst Cape Town had not attracted the same media attention, in spite of a much more mature ecosystem. "*For an ecosystem to thrive*", she said, "*you need to become good at telling its story*" (personal conversation, October 2015). In light of this fact, the new exco had secured private funding (a large investment from a local financial institution) to hire full-time employees working on the promotion of the Silicon Cape brand, against a series of set metrics that, at the time of our conversation, were being discussed internally (she mentioned the number of seeds and the number of exits as two possible measurements). Previously, all activities had been run on a volunteer basis by the elected members of the committee, across 12 portfolios.

These demographic and organizational changes had been inspired by yet another theory of startup clustering: Brad Feld's 2012 *Startup Communities,* a book that had popularised the so-called "Boulder thesis". Accordingly, one of the key ingredients of a successful ecosystem was its inclusiveness, its capacity to embrace and foster diversity, weirdness, and creativeness (2012). One of the most recent steps of the new Silicon Cape in this direction had been to tactically move the annual Startup weekend[24] —a franchised hackathon competition owned by Brad Feld's Techstars—to a newly opened incubator space in Khayelitsha, one of Cape Town's poorest townships (Pollio, 2019).

Not having participated in any of the discussions that led to the changes in the management and in the outreach of Silicon Cape, I cannot be sure of the role that Feld's thesis played. However, the book was a ubiquitous reference at the time, and TL was admittedly

[23] https://medium.com/@imsickofmaps/silicon-cape-must-die-what-must-rise-71531a453def [3/3/19].
[24] The event was coordinated by Silicon Cape and managed by the Bandwidth Barn, Cape Town's main incubator space.

considering the opportunity of visiting Boulder to garner inspiration. Moreover, she did link *Startup Communities* to the work that the new exco had undertaken. As an example, she discussed with me one of the policies that they had been lobbying for, as means for creating a more diverse ecosystem: the introduction of a 'startup VISA', in the form of special working permits for other African and non-African entrepreneurs. However, it was her belief, she added flatly, that "*women, black women in particular, were at the forefront*" of Silicon Cape's potential success. Not incidentally, when Silicon Cape eventually moved to a managing-director type of structure (a change engineered by TL's herself) the first MD of the organization, Alex Fischat, pledged to:

> get the Cape's tech scene — long tagged as an "old boys' club", with moneyed white males dominating the region's startup ecosystem — to become more inclusive[25].

Reportedly, she added that being a "black female in the industry", she was committed to expanding "access to knowledge and opportunities to the previously disadvantaged"[26].

At the time of my conversation with TL, internal discussions rotated around how to combine the two needs of becoming better at storytelling and becoming more inclusive. For instance, thanks to an informal partnership with Wordpress, whose regional director was also a member of Silicon Cape, the website moved to a more user-friendly, content-rich platform. The newsletter started featuring stories of diverse entrepreneurs, female leaders, and unexpected tales of success originating in marginal areas of the Cape and elsewhere in Africa. A lot of the content was pulled and reproduced from *Ventureburn*, an online magazine dedicated to covering digital entrepreneurship in Africa. Modelled on *TechCrunch*, *Ventureburn* was the brainchild of yet another Silicon Cape member, a successful media entrepreneur who had a very active voice in the ecosystem, if anything, for having founded the most-read technology-related online press platform in Africa. Not coincidentally, *Ventureburn* had also reproduced content from Brad Feld's blog and book. One particular opinion article by CodeX founder Elizabeth Gould even assessed Cape Town's tech scene against the qualitative metrics of *Startup Communities*[27].

TL also explained that the exco had decided to become heavily invested in a nation-wide survey that had been conducted by consulting firm PwC — as part of a strategy that acknowledged, in TL's words, the "*power of lists*"[28] in showing that government support,

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[25] http://ventureburn.com/2017/05/new-silicon-cape-head-hints-making-sectors-old-boys-club-inclusive/ [4/2/19].
[26] See note 28.
[27] http://ventureburn.com/2015/02/cape-town-will-never-silicon-valley-thats-good-thing/ [4/3/19].
[28] See Law, 2009.

capital and working spaces were "*actually*" available in the Cape. The report of that survey had been launched a few weeks earlier at the South African Innovation Summit, which I had attended, in the near-windowless conference centre built underneath the spectator terraces the of the Green Point stadium, a controversial 2010 World Cup legacy. There, Silicon Cape's chairwoman and a senior PwC partner had presented the findings of the research to a crowd of entrepreneurs, government bureaucrats, and politicians, debunking a series of myths that usually surround developing markets (e.g. excessive red tape) and pointing to disheartening statistics, such as the racial composition of female founders, which had recast the optimism of the event in a more realistic political framing.

In a previous conversation, MD, the PwC partner, had explained to me that the survey outputs would be a deliberate attempt at shifting the conversation to issues of ecosystem building, such as the question of inclusivity, which were usually obfuscated by more common, yet less relevant, "*myths*" of "*strictly economic impediments*", such as the availability of seed or venture capital (personal conversation, September 2015). The report also aimed at reaffirming the link between innovative startups, job creation and poverty reduction. However, local media only focused on the more salient and headline-making elements of the survey, for example that Cape Town had emerged as a much more vibrant ecosystem than its long-time rival Jo'burg[29]. The author of the latter article also tried to explain the reason of this dominance, using a few ideas from Paul Graham's blog, namely the 'buzz'[30] as an ingredient of clustering:

> Paul Graham famously wrote that the recipe for a startup cluster is having a great university near a town that smart people like [...] Cape Town's coffee-loving, laid-back hipster culture fits Graham's theory perfectly[31].

Ironically, this narrative was deeply at odds with what MD, TL and other informants had been trying to engender, both reflexively and productively: a less "hipster" ecosystem, not-so-much based on geographical privileges, and more capable of including those who had been excluded by a past of racialized capitalism. It ought to be added, although the spatial politics of Cape Town's tech hub are not the topic of this paper, that the concentration of creative startups in "hipster" suburbs such as Woodstock has indeed manifested into a subtly, and at times openly violent, process of displacement (see Wenz, 2012). Unsurprisingly, a 2014 crowdsourced map charting the location of startups in the western

[29] https://ventureburn.com/2015/11/why-is-cape-town-a-world-class-hub-for-tech-startups/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+memeburncom+%28memeburn%29 [4/3/19].
[30] See Bathelt *et al*, 2004.
[31] See note 32.

cape —a now defunct mapping project that one of my informants had kept in her archive— showed how not only the majority of startups in the cape were almost exclusively located in central (such as Woodstock) and wealthy southern suburbs of the city, but also that supporting infrastructure, coworking spaces, venture capital firms and business services were similarly concentrated in those areas.

Conversely, areas of poverty in the city were seen as new frontiers of technology economies. I have no doubt, because MD told me perspicuously, that she saw urban poverty as a potential terrain for profitable entrepreneurship —her own take on recent developmental doctrines (see Roy, 2012)— and that this was a major reason for her commitment. In fact, PwC had been harvesting prospective digital entrepreneurs from marginal communities through a dedicated acceleration program that sought to straddle the divide between rich and poor areas of the city. However, the clustering of theories of economic life that is well represented by the Silicon Cape as a community organization, reveals a wider spectrum of "matters of concern" (Latour, 2004) which, at least in their discourses, had been mobilising economic "sentiments" (Smith, 1759) other than the quest for entrepreneurial profit; questions of economic inclusion, for example, were also productive, debated rationalities which helped shape the technology-based economies of a city divided by its racialized past.

4. CONCLUSION: THE PRODUCTIVE LIFE OF UNRESOLVED DEBATES

On the last day of March 2016, I had the fortune to attend the launch of *The Rise and Decline of Urban Economies: Lessons from Los Angeles and San Francisco* (Storper *et al.*, 2015), at the American Association of Geographers annual meeting, in San Francisco. Soon after the authors' contributions, the book launch turned into an animated debate about the causes of regional advantage in the Bay area, attesting to the liveliness of an unresolved dilemma that I had earlier encountered in my fieldwork.

I had witnessed similar discussions among my informants, who disagreed on the causes of Cape Town's cluster of technology startups. Importantly, the debate also concerned the future of the silicon cape: what were the best strategies for maintaining and fostering its regional advantage? What were the appropriate metrological projects to achieve its manifold goals? Even at the organizational level of Silicon Cape, these disputes are unresolved. Recently, a new strategy has been launched to reorient the organization to a more global marketing outreach. A freemium membership model has recast the original all-inclusive ethos.

Debates about the appropriate clustering strategy, I have shown in this paper, would go far beyond organizational strategies: in the form of texts, reports, maps, stories and marketing gimmicks (in 2017 Silicon Cape produced ready-to-use infographics to showcase Cape Town as the startup capital of Africa), these multiple discourses all contributed to the very existence of the tech cluster. Converging urban policies, personal stories of success, economic metrics, advertising materials and lobbying reports have been aligned by a series of textual practices—some of which I discussed in this work—that are both reflexive and ontological. As materially enabled narratives, they were an integral part of the economic forms that they supposedly narrated, and their capacity exceeded the creation of capitalist awareness (see Thrift, 2005).

This paper thus speaks to the scholarship concerning firm clustering and the making of startup cities (McNeill, 2017): it shows how an ethnographic approach to the economic geography of technocapitalism displaces some of the normative assumptions about its capacity to extract value in a metropolis of the Global South— an "emerging start-up city" (Rossi & Di Bella, 2017). While such critiques are important to locate the violence of technocapitalistic "operations" (Mezzadra & Neilson, 2015), they ostensibly reproduce a singular narrative that fails to account for the multiple values —economic sentiments— that my informants (and the narrative discourses surrounding the Silicon Cape) foregrounded. In fact, I have argued that "diverse" (in the Gibson-Graham's sense, 2008) clustering factors were the object of productive, unresolved debates that participated, alongside seemingly neoliberal, market-driven rationalities, in the making of Cape Town's technology-based economies.

In this sense, this paper also contributes to the recent scholarship of development, by considering the ways in which the search for market solutions to poverty is given a discursive form through the narration of startup urbanism. A postcolonial geography of tech-clustering challenges the "regulating fiction" (Robinson, 2003, p.275) that places the Silicon Valley at the origin of its developmental replicas, and it produces an alternative genealogy of regional advantage. Specifically, this paper urges to consider the clustering of innovative firms in the making of "millennial development" (Roy, 2010) as a "political act" (McNeill, 2015) — one that mobilizes a multitude of debated economic geographies in the hope to produce profit at the African urban frontiers of capital, but not only.

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