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Oraşul viitorului: beyond the Siliconisation of postsocialist Cluj

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The label of 'the Silicon Valley of Europe', for a Romanian city, implies a wholesale transplant of technologies and practices that the slogan's authors want us to believe will turn Cluj into 'the city of the future' – a future conceived on Western, technocapitalist lines. In this essay, however, we discover the highly specific socialist and postsocialist histories and entanglements that have underpinned Cluj's recent development, as well as the costs that are being exacted. McElroy shows us critical incredulity emerging from comparisons, between here and there, then and now. But must this process always be only one-way? What insights would emerge were we to think of Black, working-class East Palo Alto, say, with its history of segregation, redlining and predatory lending, now subject to aggressive gentrification from an influx of young, well-paid tech professionals from across the globe, as 'the Cluj of the West'?

In 2018, Cluj's mayor Emil Boc announced the introduction of a public robot named Antonia, as part of Cluj, Romania's newfound status as 'the Silicon Valley of Europe'.[1] Although Antonia proved only to be a computer algorithm, lacking the robotic stock-image body displayed in the press, she, as the first 'public robot mayoral servant', was nevertheless conjured as part of a widespread techno-futurist vision reflected in Romanian infrastructure and imaginaries alike. One only has to momentarily peruse Cluj's Mărăşti neighbourhood to breathe in new construction particles and observe fibre optic cabling sticking out of buildings like alien tentacles, waiting to be connected. New condos and co-working spaces materialise overnight, while former industrial socialist factories are transformed into office spaces for Western firms such as NTT Data, Bosch and iQuest. Sitting in the front yard of a local

anarchist, feminist social centre, A-casă, where I have attended meetings, workshops and skill shares over the years, the overgrown fruit trees and vegetables growing around me, not to mention the centre's aging dog, feel out-of-joint juxtaposed to the newly erected development closing in on the centre. But nevertheless, I am there with a handful of comrades and members of the housing justice group, Cași Sociale ACUM! (Social Housing NOW!), mapping out new anti-eviction efforts in the rapidly gentrifying city. Yet our conversations get interrupted by the sounds of construction nearby, as NTT Data flashes its astrofuturist sign above the Siliconising horizon.

As we have observed, across Mărăşti, rents have risen, and evictions too. Numerous Roma residents are being squeezed out, sometimes ending up homeless, sometimes banished to uninhabitable 'social housing' at the city's waste site, Pata Rât. Just blocks away from NTT, on Anton Pann Street, a Roma family who had been living there for twenty-two years was recently evicted. And today, on a sunny spring day in 2018, we ran into a Roma couple living between the new residential complex, City Casa and the German iQuest, who will be displaced later this month. 'All of the space around here is becoming too valuable', they lamented. While socialist urbanisation provided housing and jobs to Roma, many of whom had been living precariously before, postsocialist techno-urbanisation results in the opposite, restoring former privatisation regimes.[2] While there are undoubtedly racialising and gentrifying processes that Siliconisation induces, sitting upon the threshold of *oraşul viitorului* (city of the future), we find ourselves growing suspect of a form of comparativity that sees Cluj as Silicon Valley, rather than a city with its own non-fungible technoscapes. By Siliconisation, I refer to practices of becoming Silicon Valley, in which local imaginaries and materialities alike are co-opted by Silicon Valley's imperial structures of desire. As I suggest, Siliconisation does inhere new forms of technocapitalism, inciting contexts of gentrification, but at the same time, by simply understanding urban processes as such, unique techno-urban histories are torn from the palimpsest that is postsocialist Cluj.

Still sitting there in A-casă's front yard, we are peering at the surrounding 'chic modernist' development springing up in Mărăşti. While it appears flashy and new, in fact it builds upon former industrial and residential spaces. The German iQuest sits upon the ruins of the Flacara textile factory on Someșului Street, adjacent to where another German multinational, Bosch, is developing a new campus. The former factory's canteen now houses firms bearing techno-esoteric names such as Doc.Essensis and CCSCC. One block down, the old Napochim plastics

factory (known as 'The Red Flag' when it first opened in 1947) and the former Arbator butchery are being transformed into a new apartment block and the 'Oxygen Mall' respectively. 'See, it's not greenwashing of postsocialism – it's oxygen-washing!' we laugh. Today, the top floor of the nearby Central Commercial Centre, established as a centre of commerce in the 1970s, has been transformed into ClujHub, a co-working space with daily talks in which successful Westerners attempt local entrepreneurial inculcation. It also houses Uber, much to the chagrin of local taxi drivers, many of whom have been engaged in protests against the California-based startup. There, the futurism of the socialist project during which industrialisation, urbanisation and also informatics were made central priorities, poke out through the veneer of Siliconisation despite the newness that it espouses.

Here I want to pause and offer that, despite the imperiality of Silicon Valley and its fantasies of replication, perhaps more generative understandings of local techno-urbanism might emerge through analytic decentralisation. What other worlds might emerge if Silicon Valley ceased being the zero point in contemporary analysis and if we read history as accumulative rather than as repetitive? After all, the Siliconisation of Cluj does not simply reproduce technocultural dynamics upon a *tablă ştearsă* (tabula rasa). On the contrary, it lands upon the infrastructure of former plants, most of which were part of socialist modernity's own project of techno-urbanism – a project conceived of to implement class equality, national autonomy and urbanisation. Siliconisation also entangles with other post-1989 infrastructural processes of property restitution and privatisation, which have been cumulatively restoring presocialist property to the heirs of former owners through the anti-communist rhetoric of 'transitional justice'.[3] Due to a long history of racism in Romania, few Roma were presocialist property owners. Not only did many Roma workers lose industrial employment post-1989, but many also lost their homes. Siliconisation, while framed as futuristic, in fact incentivises the restoration of presocialist racist private-property topographies while nevertheless co-opting socialist-era infrastructure. In writing about the impossible dreams of becoming California's Silicon Valley, locally and globally, it suggests that 'Silicon Valley was always a promise, never a place'.[4] *Orașul viitorului* too is always a promise, one today layered by a thick palimpsest of various futurisms – not only that of socialism and transition, but also that of presocialism. Presocialism, plagued by antisemitic and anti-Roma eugenic technoscientific visions, was also the era in which Bucharest aspired to become 'the Little Paris of the East' – a different yet connected *oraşul viitorului*.

While seeking to restore presocialist private-property regimes in the name of *oraşul viitorului*, by co-opting socialist-era infrastructure, Siliconisation preys upon the technological and linguistic prowess of Romanian workers as well. As I have repeatedly heard, the only real requirement for IT employment is English fluency, as most jobs are simply communications outsourcing. As a German CEO of a smaller Cluj startup explained, Romania's interstitial geography provides the cheap labour costs of 'further East and South' locales, but also a sense of Europeanness harder to obtain elsewhere. Meanwhile, Romanian software developers, often praised for 'being so damn good at programming', are only paid a fraction of their Western contemporaries, a friend working for a small Seattle-based startup grumbled. But why is it that there is such technological and linguistic prowess in Romania to begin with?

In Cluj, IT is the largest professional sector, driven by global capital and outsourcing, and fed by public universities offering a wealth of courses in programming.[5] Yet it is not simply global capital nor universities responsible for expertise. Unbeknown to many promulgators of Siliconisation, socialist Romania excelled in hardware production. This was partly due to the country's own maverick status in the Soviet-led satellite state trade agreement, Comecon. Though Romania was slated to specialise in agriculture, the Communist Party dreamt of other futures, ones involving industrialisation, urbanisation and informatics. As Vasile Baltac, who had been a key researcher in the state's first computer projects, recounted to me in the same Bucharest office in which he worked during socialism (and in which he now leads a software company), socialist Romania invested heavily in computer production. Soon it produced more third-generation computers than any other Eastern bloc state, selling machines to China and the Middle East. Meanwhile, university informatics, physics and cybernetics research centres became highly valorised. By the end of socialism, Romania had produced more than 25 computer models, from the FELIX in Bucharest to the TMS in Timişoara. As a programmer in Cluj recollected to me one day over beers, in the 1980s the national radio station even broadcast raw code after midnight on Thursdays, so that emergent programmers could record and then decode it on their computers. Most of these computers were replicas of Western models, either developed in state factories (which cloned models such as the British Spectrum or French IRIS) or assembled in apartments and university computer labs. In fact, more models were built underground than in factories, a practice that continued after socialism ended in 1989 and austerity plagued the country.[6]

After 1989, the land that factories (computer and otherwise) sat upon was bought by real estate speculators, divided into joint-stock trades, and sold. Western firms such as IBM swept in, absorbing former workers. In Cluj, the production of HC386 computers was halted, and 'everything just shut down', Bogdan Tirziu, a self-taught programmer and retrocomputing enthusiast, explained. There are only four HC386s left in the country today. Bogdan is trying to implement a local computer museum in Cluj, but he has received no funding support from the City Hall. Official computer memory, it seems, has become devoured by what Liviu Chelcea and Oana Druța describe as 'zombie socialism', the anti-communist discourse that in valorising neoliberal futurity pathologises socialism as a dark aberration to be overcome through the ongoing project of transition.[7]

But Bogdan offers another insight, useful for theorising the entwining of Siliconisation and zombie socialism in Cluj: 'Contrary to what people think, the tech boom is not being led by firms, but by a particular generation of people, now in their mid thirties'. This 'Xennial' generation, occupying that interstitial space between Gen X and Millennials, correlates with what Bogdan describes as the 'X86 Generation', a reference to Intel's x86 microprocessor architecture. Conceived of in Cold War-era Silicon Valley the x86 microprocessor has since embodied numerous iterations, and still dominates desktop and mobile technology. In the West, Xennials are defined as being born pre-digital, but easily adapting to digitisation in the 1990s. But in post-socialist Romania, most Xennials were not able to afford Silicon Valley technology, despite its growing prevalence. Instead, this generation learnt how to create its own hardware and infrastructure, often by adapting and hacking existing models. By reading computer magazines and socialising in internet cafes, Bogdan learned how to create his own internet network, and soon connected twenty-four people in his block. It's really people in this generation that are creating all of the software and systems that the West desires, he tells me. This underground techno-culture was one that many characterised as *șmecherie*, a Romanian word with Romani roots inferring cunning, or a street-smart cleverness.[8] It was *șmecherie* cyber deviancy rather than official computing culture that Bogdan understands as having established the bedrock for Siliconisation. 'Our language skills are related to this too', he explains, offering a history of how, after socialism, Western undubbed programming flooded the channels with English. 'Now schools teach English to all the kids, but we learned from the Cartoon Network.' It is the perfect combination of socialist informatics, socialist and postsocialist austerity, and Xennial temporality that created the foundation for Cluj's Siliconisation.

Gentrification is not the fault of this generation, and while intricately connected to phenomena ranging from the Cartoon Network to socialist computer development and *șmecherie* computer cloning, is reducible to none. Rather, perhaps it can be understood as a complex process in which Western firms capitalise upon a unique layering of presocialist, socialist and transitional technological histories, which, through zombie socialism, seek to replace presocialist versions of *orașul viitorului* with that of Siliconisation. Critical area studies is a useful tool in understanding the spatiotemporal entanglements of this conjuncture in which the installation of Siliconised public mayoral robots is all but a fantasy, yet in which the materialities of Siliconisation still bear material and often racially dispossessive effects. Perhaps writing *orașul viitorului* requires crafting a new 'field language' committed to what Gayatri Chakravorty Spivak describes as the 'irreducible work of translation'.[9] Such a language bears its own interstitial geography, neither part of nor fully absorbed by any cardinal direction.

Like Intel's x86 microprocessor, area studies emerged under the auspices of Cold War knowledge production. While Intel's technology was hacked, modified and altered to bypass Western technocapitalism's paywall, critical area studies too has sought to creatively avert Cold War disciplinarity.[10] Spivak has suggested that by entwining comparative literature with area studies, a new 'planetary' path can be forged to facilitate cultural translation beyond post-Cold War globalisation and its necessary erasures.[11] Such a translational approach avoids the pitfalls of comparative methods which, as Lisa Lowe warns, too often are used to universalise Western rationality and ideals, upon which everything else gets compared.[12] Yet at the same time, by focusing on connections and entanglements, rather than only comparisons, enduring imperial geographies and their connected digital transits of global capital come into focus.[13] As an 'imperial formation',[14] Silicon Valley thus needs to be studied both in terms of its own global desires, but also through local critiques of its universal and often anti-communist aspirations. Spivak writes: 'Just as socialism at its best would persistently and repeatedly wrench capital away from capitalism, so must the new comparative literature persistently and repeatedly undermine and undo the definitive tendency of the dominant to appropriate the emergent'.[15] Not writing for a new comparative literature but rather for a connected and translational approach to mapping the entanglements, connections and frictions of Siliconisation alongside other technological futures past and present beyond its reach, *orașul viitorului* has much to offer.

Notes

1 This text was based upon the book, *Silicon Valley Imperialism: Techno fantasies and frictions in postsocialist times* (McElroy, 2024).
2 Vincze, 2017, 29–54.
3 Popovici, 2020, 97–111.
4 Schrock, 2020.
5 Petrovici, 2014.
6 Fiscutean, 2017.
7 Chelcea and Druță, 2016.
8 McElroy, 2024.
9 Spivak, 2003, 13.
10 Koch, 2016.
11 Spivak, 2013, 15–16.
12 Lowe, 2005, 409–14.
13 By entanglements, connections and frictions, here I draw upon Karen Barad's (2007) *Meeting the Universe Halfway: Quantum physics and the entanglement of matter and meaning*, as well as Anna Tsing's (2004) *Friction: An ethnography of global connection.*
14 Stoler, 2008.
15 Spivak, 2003, 100.

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