## Quarantinology

A catalog of hyperfunctional logics for the quarantined city

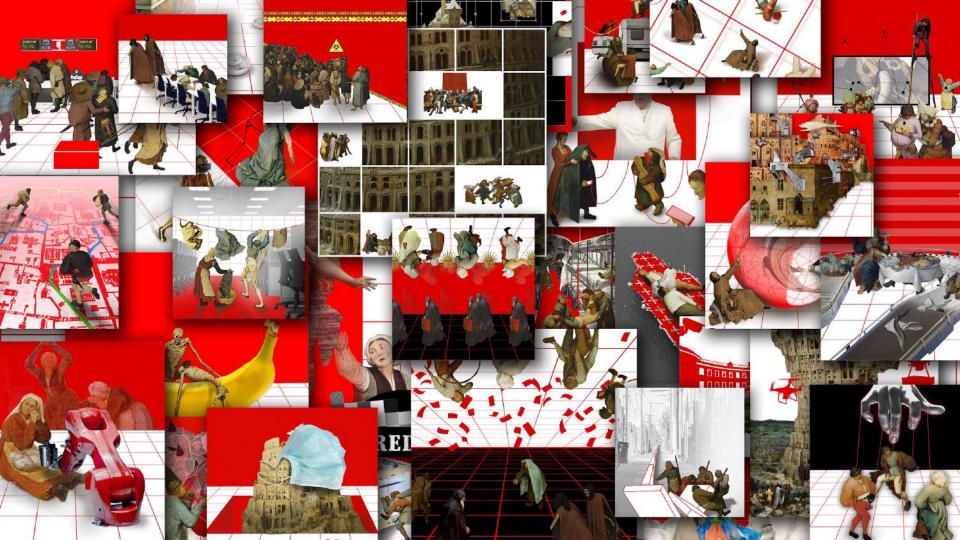
## Quarantinology

What will cities look like in the aftermath of Covid-19? What does the stress test of mass quarantine reveal about emerging dynamics in contemporary urbanism, from the platformization of public space to the new communalism of the precariat? Quarantinology is one attempt to answer this question: a catalog of hyperfunctional logics that builds upon the history of the quarantined city and speculates about its future. It asks how dual use and mixed typologies – from disaster urbanism in Japan to Berlin's Tempelhof Airfield (at once an airport and a park and a refugee shelter) – could produce a future in which we do not need to place homeless people in empty parking spaces overnight. It asks which aspects of social life can be enhanced within the metaverse – from love and sex to music festivals and workspaces – intensifying the results to see how weird things could get. It addresses central concerns about surveillance, real estate, industrial design, and the city-as-a-service, accepting contradiction and eccentricity as a condition of its method.

Produced during **The Terraforming** education programm

**Authors:** Philip Maughan, Eduardo Castillo Vinuesa, Julia Gankevich, Liudmila Gridneva, Tigran Kostandyan **Education Director:** Benjamin Bratton

**Education Director:** Benjamin Bratton **Tutors:** Liza Dorrer, Nicolay Boyadjiev



### Quar Fest 2030

On February 2, 2019, 10.7 million players dropped their weapons and gathered around a virtual arena within Epic Games's Fortnite to listen to a concert by EDM producer DJ Marshmello. In August 2020, Black Rock City will be reconstituted online. Resident Advisor's club listings have merged within a new nocturnal world known as "Streamland." As quarantine cycles are implemented and relaxed, festivals will offer digitized alternatives online, metaverses which condense mass participation in the microbial vacuum of the virtual. Digitizing their offering not only welcomes those who can't leave quarantine but expands the limited capacities of physical space. It makes cheap festivals for introverts which spill across regional and national boundaries. Under quarantine urbanism, you can experience Lollapalooza from the comfort of your datcha or floss at Coachella from a small apartment on the outskirts of Madrid.









#### Cubicle Communalism

In the 2010s, the loft apartment – a residence improvised in a warehouse or formerly industrial space – was the epitome of millennial aspiration. As the west moves further from deindustrialization the former offices and coworking real estate schemes <u>abandoned in the wake of Covid-19</u> will become a trend and lifestyle laboratory for Generation Z (aka, the last generation). After the WFH experiment of 2020, demand for a housing typology capable of incorporating the once distinct functions of work and domesticity, many cheap or abandoned unite will be thrown open to live-work experimentation, encouraging new types of relationship and cooperative potential among inhabitants ready to absorb the shocks of future quarantines by place social, professional and domestic life within a single, multi-use shell.



# Fully Automated Quarantine Protocol

The words "community" and "immunity" developed out of the same root—the Latin "munus" being the tribute or gift one offers to earn a place in society. In order to immunize the city we must first of all retreat from it. That's what quarantine is: a collective sacrifice administered at the individual level, whether symptomatic or not, to immunize the whole.

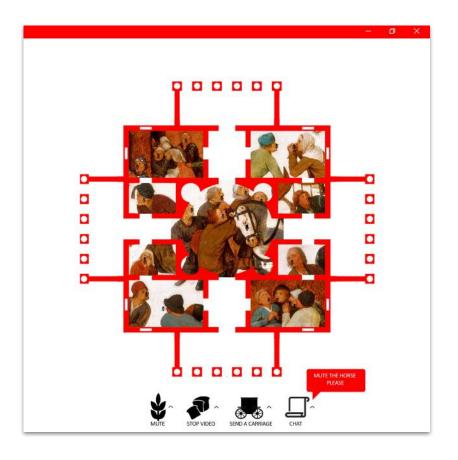
In one version of the future, an AI will monitor your contacts and interactions. When it detects the risk of contamination it will implement FA(L)Q: a fully automated quarantine suite curated to fit your budget. Smart locks will be triggered as your home engages a predetermined protocol: essential supplies will be ordered, applications for QBI (Quarantine Basic Income) will be made and the necessary disease testing kits will be provided along clean, uncontaminated and resilient delivery systems.



#### VIP VR

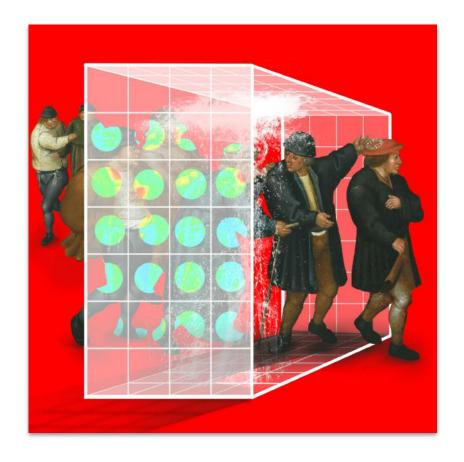
Will we ever pass the threshold of digital skeuomorphism? Whether we're attending a "house party" or Zoom conference, we seek to compartmentalize the fluidity between leisure and work by building spatial enclosures in the metaverse that resemble those with which we are familiar. Digital platform architectures will ensure you can seclude yourself with one or two others at a music festival or break-out for a quick war room meeting before the big pitch.

When every interaction can be recorded, packaged and distributed with minimal extra effort (and so long as the content industrial complex continues to expand at the expense of less social distancing-compliant cultural production) the pressure to monetise connectivity will increase. Designers will respond to this fact: subscription models for online real estate will shift the quality and characteristics of your extended floor-plan. Top ticket membership will provide spacious and bright rooms: hi-resolution, hi-fidelity, fluid and responsive to every form of labour. The free version will be like coworking in a Starbucks and being refused access to the toilet.



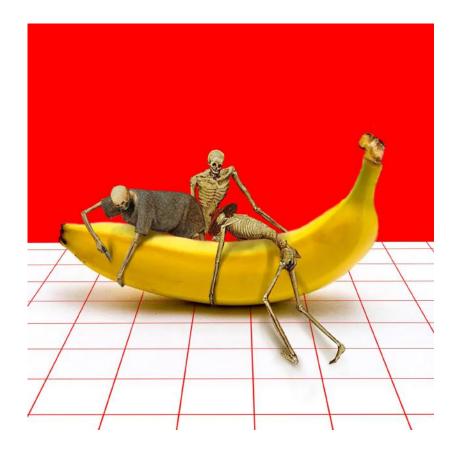
#### Filter Thresholds

Under quarantine, every doorway becomes an airlock, every window an aperture and orifice, mediating the transition of people and things between spaces of varying uncertainty. Protocols for entering and exiting one's personal quarantine will become permanent fixtures, derived from industrial standards and infectious disease wards. Thermal imaging will soon be as familiar, yet alien, as satellite imagery is today. Machine vision and auditory symptom checking will be embedded into doors, transit stations, stadiums and museums. Doorways in public and residential buildings will be used not only to minimize heat loss but to form a buffer for disinfection and testing. In cases where symptoms are detected, the entrance will close automatically so the individual can return to quarantine. Yet humans are vectors for life we wouldn't ordinarily consider pathological: microbes and cells, seeds, eggs and insect larvae form a shadow ecology that circulates in hair, clothes and skin. The intensification of barriers will disrupt systems of reproduction and distribution we only perceive in part.



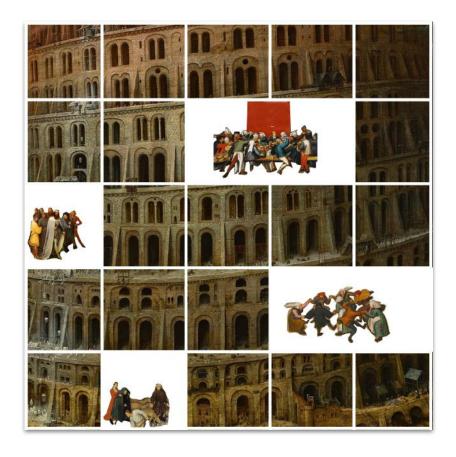
## Designer Vegetables

There is another pandemic underway. Panama disease is a soil-inhabiting fungi that infects bananas — most of which are clones and therefore existentially susceptible to disease. In the 1950s, disease wiped out the banana known as the "Gros Michel" (or "Big Mike") and the world transitioned to a new variety of banana known as "The Cavendish." On Dec 30, 2019, Panama disease (TR4 variance) was detected in the Cavendish. Columbia and Australia have put millions of bananas into quarantine. It's likely the banana as we know it will be wiped out. The FHIA-18, a new, less tasty yet disease-resistant species seems poised to take over. This is unlikely to be the last fruit genocide. As we move forward, quarantine agriculture will enable us to archive the fruits or vegetables of our collective history. We will be snacking on FHIA-18s while cooking GKL-43: a new vegetable engineered to taste like ice cream which provides the perfect balance of potassium and vitamin C prescribed by medical monitoring apps.



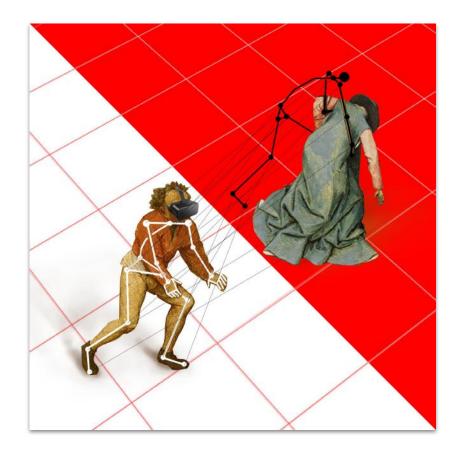
#### Bunker Urbanism

If public space is no longer the safe and secure bunker of communality we thought it was, it becomes a camp: a rigid landscape of population control (note the "attestations," QR passes, badges and disguises required to permit movement under Covid-19). As our interiors are better secured by hygienic barrier-enforcement mechanisms, concrete public spaces will be introduced into buildings, providing a secure extension of urban reality. Inside residential buildings, "capsules" will be designated for specific urban and public programs. Art, sports, leisure, production and entrepreneurship: a pool on the fifth floor, a music studio on the ninth floor, a cinema on the third, a common kitchen, a classroom, a craft workshop, a gym, a conference room. With this, the hybrid block escapes the domestic-private duality and reintroduces the social value of meeting, dialogue, production and exchange closer to home.



## Surrogate Playbor

Despite the move indoors, we still need to guarantee activity in the world outside, establishing connections between divided units, hidden microcosms, strategic nodes. By manipulating surrogates, robots, automated delivery vehicles and drones, humans can safely move towards half automated systems and a remotely managed world. These functions can be disabled in times of stability and reactivated in response to rising threats. Game interfaces that correspond to pizza making, coffee delivery, or restaurant management can be transformed to meet consumer demand. Your playbor will keep the community operational.



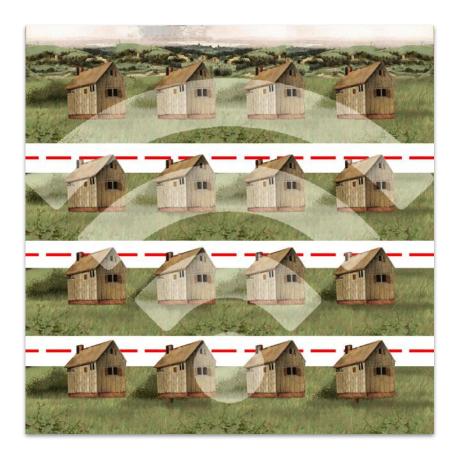
## Military Lazaretto

As the epidemiological lens continues to reveal the unbreakable interconnectedness of the planet, the role of the military will be under permanent review. Brazil, China, India, Indonesia, Peru, Russia, the USA and Vietnam have functioning hospital ships as part of their navy fleet. In the age of pandemics, those fleets will be instrumental in providing relief and strategic containment in places where future outbreaks occur. They need to move fast, however, most hospital vessels move at an average 31km per hour – no match for their invisible enemy.



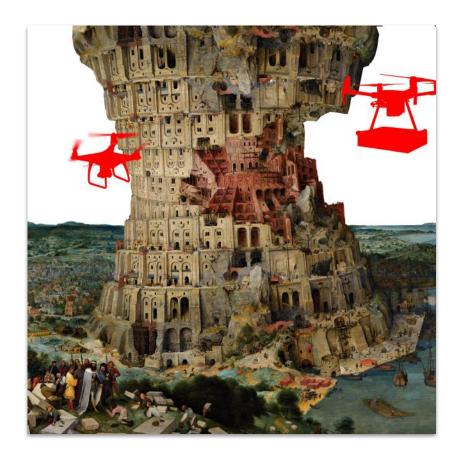
#### Countryside Exodus

Density has been brought in for questioning. The new trend is an old one: disappearing to the countryside with several hectares for yourself or seeking out the right upstate community to suit your lifestyle. Remote work and automation enables you to lead the life you once had in the city without ever being less than 10 km from your closest neighbor. But why stop there? Soviet-style profession-based social planning will reemerge (imagine villages of artists, scientists, writers, etc.) only voluntarily within the market. The degree of openness will depend on each settlement. With their new role enforcing virus and environmental controls, military cities will be open, while academic cities close themselves off, indulging themselves with a sense of stability and security.



#### Upside-Down Building Logistics

If the feudal city was zoned to service markets, the industrial city built to keep the factories running, and the post-industrial city a hive of offices, how will the post-pandemic city look? The platform logic of contemporary urbanism had been looking to the skies for years: gig economy helicopters, hyperloops and drones that will make ground-level delivery obsolete. The age of pandemics will accelerate this process: sanctioning drone delivery of "essential" packages in insecure conditions, upending the vertical logic of buildings in order to ensure the sanitary separation and monitoring of metabolic flows.



## Precognitive Models

The development of biopolitical detection systems and biometric monitoring will be complemented by increasingly granular data and epidemic information stacks capable of producing models that update in real time. In 2020, casual observers joined professional observers for a daily act of planetary time travel: attempting to figure out if their level of quarantine will have an impact two or three weeks into the future. These models are not only records and visualizations but will become autonomous logistical interfaces that can declare and implement measures to regulate infection. They are therefore predictive models capable of acting in accordance with what they predict: cameras that are engines for the pandemic age.



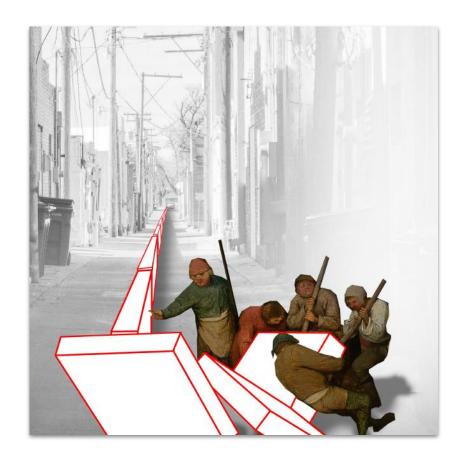
## Total Gridification

Thirty years later, the prophetic but impractical visions of the Soviet Union's Paper Architects are being realised. The rampant monoliths envisioned by Superstudio as a form of avant garde protest have settled on the earth. The world has been divided into cells, pixels, mesh: imposing new distances from the club to church which contract and dilate depending on the risk level, organizing people and things into nets. "Social distancing" is a contradiction in terms: how can we ever distance from the social in an incessantly networked age? The grid can be a mind state, too, instrumentalized by humans like everything else. The grid becomes a tool when you want it to: the only way to truly connect is to quarantine from quarantine.



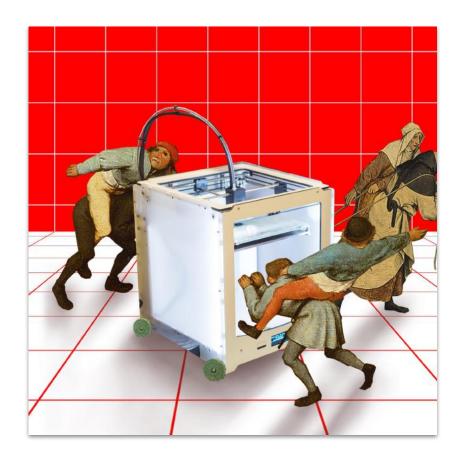
## Human Traffic

In the aftermath of the Covid-19 outbreak, human mobility and circulation within the city will adapt to diminish the likelihood of contagion in the street. New systems for the movement of people – like the intermittent daily flows pioneered in the earliest days of quarantine in the lazarettos of the Venetian Republic — will see people signal, advance and stop like traffic. This will extend to access and entry points, which will proliferate, puncturing the build environment as we knew it. The world has become a hospital, necessarily clean and necessarily dirty, a utopia of wards, sanitary standards, and waste.



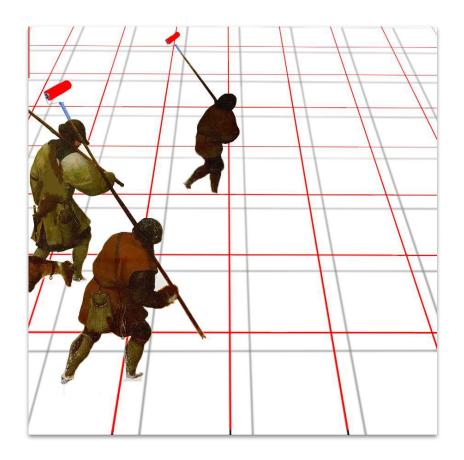
## Open Source Fabrication

3D printing has its roots in the medical industry. One of the first 3D printers was used by dentists to print crowns on demand for patients' teeth. But the technology escaped this narrow professional application to become a popular tool particularly among the three As: artists, architects and anarchists. The Covid-19 outbreak produced an entirely fallacious story about Italian volunteers being threatened with legal action after producing "\$10,000 ventilators" for around \$1. Nevertheless, the corporate vectoralist class retains control over innovation and distribution with its legions of patents, lawyers and computational capacity. The use of 3D printing machinery will be refined, optimized, safeguarded and made accessible to all. If the hacker revolution isn't fully dead, we must now seize the means of micro-production.



#### **Qontent**

Wordsworth famously said that poetry is emotion recollected in tranquility. Isolation leads to crisis and reflection, which, coupled with free time, provides an impetus to make art. In many ways, quarantine itself is performance. The empty streets and public spaces are a screen for the projection of fears and dreams. The memescape has responded. Nature is healing — or is it? New technical capacities make possible the coordination, broadcast and documentation of our lives as "content" so that our collective experience becomes a new index of world culture. All we need is a curator to help us make sense of it.



#### Pandemic Starter Kit

Some call it prepping, forward thinking, prudence or effective management: ultimately, we are living through a renaissance in coordinated planning at scale. After the resource shortages, the collapse of just-in-time manufacturing, the hoarding and misinformation of 2020, resilient subscription models will be ready to provide food, cleaning products and toiletries, clothing, toys and educational supplies before the next quarantine arrives. But for a more immediate response to escalating threats, the entry and exit of every home or small business will be supported by a quickly accessible disinfection kit.

A basic household package could contain: disposable gloves, disinfectant spray (and wipes to clean incoming goods), goggles, masks, labelled flat-packed boxes for outdoor clothes, shoes, personal effects and another for garbage disposal, a further spray and wipes for pet paws, smartphones and spectacles, plastic linen sacks for clothes to be taken to laundry. Finally, home entry and exit protocols, approved by the public health authority, to be hung on in the hall.



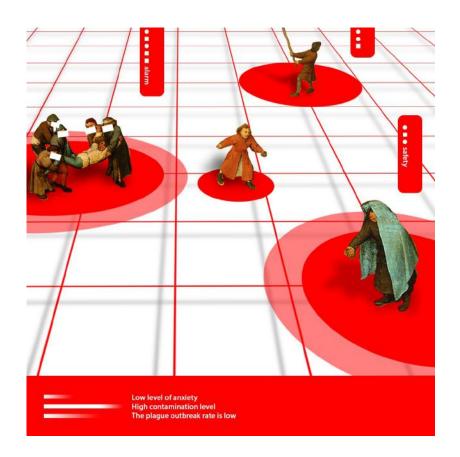
#### My Cordon Sanitaire

As the current pandemic wanes, the full force of individuated software design and a market-friendly interpretation of western "freedoms" will produce user-centric alternatives to the Russian or Chinese zoned city. Much like fitness apps use GPS to track your running route so you can share them with friends (or as ankle tags monitor your movements so you can share them with your probation office) a Self-Mapping Cordon Sanitaire will enable individuals to define the boundaries of the territory for which they take responsibility. Instead of allowing states to dictate who can go where, your hygienic property – whether a one-bed studio or a fifty-acre estate – will become a geospatial layer shared publicly through Yandex Maps, Google Maps or Apple Maps and colour-coded according to the risk level you report: blue means anyone is free to enter, yellow is under suspicion and red is confirmed as unsafe.



#### New Sensitivities

Biology is not destiny. We have always outfitted ourselves with new skins, devices, pharmacological stabilisers and a million cognitive tools. Where would we be without spectacles? New sensitivities will develop through innovation and evolution. We have moved beyond the seismic upgrade pioneered by cyborg artist and dancer Moon Ribas, with an earthquake sensor set into her ankle. Our wrist implants allow the detection of virologically safe distances to emerge as a seventh sense for essential movement in times of quarantine. Being able to receive data without using gadgets will transform the feeling and understanding we have for our environment: revealing risks that are presently invisible.



#### *4M NEO95 SS25*

The N95 is dead. The next generation of commercially available masks will leave behind the flimsy polymer cup model pioneered in its most basic form by crucial plague doctor Lien-teh Wu who recommended the first city-wide quarantine in Harbin, China, in 1910. The NEO95 preventative mask will incorporate a latex-free skin with 99 percent Dräger X-plore® bayonet filtration cups that do not impede the line of sight. What's more it will incorporate built-in lung capacity sensors and the option to connect via smartphone to report symptoms and offer in-mask warnings when the wearer approaches a known transmission hotspot. The NEO95 from Shenzhen-based 4M is one among many smart masks about to hit the market and its rubber bands and steel buckles can be built from bespoke specifications printed with the user's mouth and nose to aid facial recognition payments and immunity passport controls.



## Digital Theology

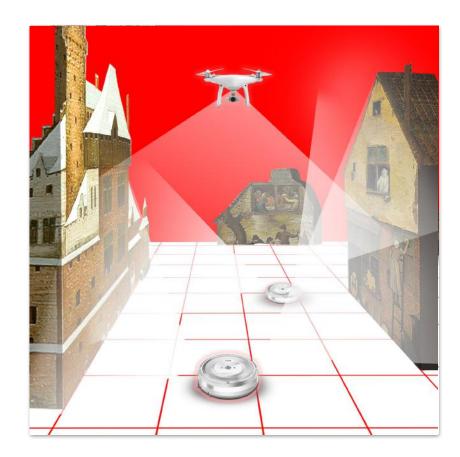
Religion, despite being oriented towards things not of this earth, is fundamentally materialist. Yet at the onset of disease, Mecca is empty. Tibet receives no pilgrims, and the pope celebrates mass alone at the residence of Santa Marta in Rome. The remote broadcasts that comfort the faithful, proving that holy acts are happening somewhere, will need to be enough during quarantine as the human body goes on sacramental fast.

While the phenomenon of the religious organizations making the most of up to date media is not a new phenomenon – from ISIS's PDF magazines to Jesuits on Minecraft – the rate of adoptions will curve exponentially upward. The Internet is a flattening monolith. It raises the inconspicuous comments to crimes worthy of a prison sentence and reduces moral leaders to the status of mere avatars. Your local priest and Pewdiepie are on the same platform. The church is a stream among streams. The faithful have become followers.



#### Urban Roombas

Pandemics have a decentering effect, making space for other inhabitants to reclaim their place within the city. The task of managing urban metabolisms is both a human and non-human one. Cleanliness is next to godliness and sanitation has been a laboratory for labor-saving technologies since humans decided to wrap grass around a stick and start sweeping the floor. In the wake of Covid-19, drones, robots, disinfectant systems, and other automations were deployed to somewhat questionable effect. With the arrival of the ground-level and aerial Urban Roomba, following a successful test run in Tallinn, we have two functional interventions. Municipalities across Europe have placed orders numbering in the millions.



#### Transposed Tourism

In 1791, under house arrest in Turin, the young aristocrat Joseph de Maistre wrote A Journey Around My Room. Later, the Moscow Conceptualist Viktor Pivovarov devised his Projects for a Lonely Man (1975), a dreamscape of isolation and a psychogeography of the indoors. As tourism declines, the marketable exposure of interiority will expand. Cribs Under Quarantine allows celebrities to welcome streamers into their pied-à-terres, country homes, and private islands while the explosion in AR and VR devices will provide a replacement for the cruises, round-the-world trips and package tours that briefly filled our golden years. Paid surrogates will climb Everest for multiple patrons and oligarchs will live stream from the bottom of the ocean – experiences funded and delivered by a haptic revolution.



#### Parasite Architecture

The virus is reprogramming our relationship to domestic space: no longer a place of rest but an operations center where work, leisure, and domestic labor converge. The virus commands its own spatial ontology. Modest luxuries such as balconies, gardens, or terraces, become the conditions for the good life under quarantine. Our understanding of sanitation and habitability, how it depends on access to exterior space, ventilation, generous dimensions, the play of light, must also be revised. While new buildings incorporate the teachings of quarantine urbanism, existing residential spaces must adapt. Folding balconies, new openings in facades that let in new streams of light, rooftop platforms for communal gathering, inter-house connection links across streets and between floors. Each new appendage forms part of an appendix that aims to smooth over the deficiencies of pre-Covid building design.



## Coronapreneur Window

In 21st century cities every window is an aperture but it's also an orifice. The spatial separation of the professional from the domestic was a historical anomaly produced by the labour and gender politics of the early 20th century. In the age of pandemics, that dichotomy has come under strain. With the addition of new technological capacity for remote work and the strangulation of real estate-as-asset, it will all but collapse. As global delivery and logistical networks strengthen after Covid-19, a new localism will emerge alongside it, particularly with regard to bespoke, micro-production, one-to-one services and entertainment. Designed to resemble the systems created for late-night payment at gas station windows, any home can be fitted with a sanitary interface for the safe transfer (or collection) of homemade commodities, DIY creations, vintage items and custom gifts.



#### Radical Harvest

After the 2020 pandemic laid bare the centrality of human labour within the global economy a new food labelling standard was instituted – first within the European Union and later worldwide. Inspired by the Chinese food delivery service Meituan whose quick response in Wuhan saw the company install contactless, insulated lockers in the city's hospitals and send digital receipts about the health of those who had prepared and delivered food, a new system of radical labelling took hold. What began as regular health checks for the eastern European labourers flown under quarantine to pick fruit and vegetables in Germany and the United Kingdom became a new regulatory transparency that included the names, salaries, and carbon footprints of all workers involved in picking, manufacturing, and delivering goods. The myth of "locally" grown produce at scale was exposed and the true cost of agriculture became a shared concern.



#### Crisis Quarantine

In Japan, skyscrapers are designed to sway when the earth shakes. Parks are fitted with emergency toilets and benches that turn into cooking stoves – dual use interventions that are engaged when natural disasters occur. Berlin's Tempelhof Airfield is at once an airport and a park and a refugee shelter – a glimpse of a future in which we do not need to place homeless people in empty parking spaces as happened in Las Vegas in 2020. Now hotel rooms, RVs, construction units, empty homes, and failed retail spaces will be pre-configured to serve as quarantines – reserved for individuals experiencing homelessness, victims of domestic violence, and medical personnel. The epidemiological view of society is not a Benetton metaphor: it's a microbial truth. We are only secure when the weakest among us can humanely isolate.

