

Fig. 1 1993. Aerial image from the construction of the elevated expressway on existing local roads of São Cristóvão. Department of Traffic and Transportation Management of the State Government of Rio de Janeiro.



Fig. 2 2004. São Cristóvão (study area diagram). The elevated expressways are indicated in white. Gabriel Duarte.



Infrascapes, Urban Androgyny and other unplanned effects of Metropolitan Dynamics

A Study on the Effects of Mobility Infrastructure and Flows on Rio de Janeiro's Urban Form *By Gabriel Duarte*

Infrascaping

Contemporary metropolises are structured by movements (of people, goods, and information), and, therefore, by the morphological bodies (namely mobility infrastructure in the form of highways, elevated expressways, and others) through which they occur. Functionally, these movements are expected to have coupled flow rhythms to keep the city working, as connecting bridges. Being such rhythms directly connected to the everyday movement of people and goods throughout a metropolitan network. These bodies – as substrates of the aforementioned flows – form a large-scale network, a super-grid, whose main connecting points go through a scalar downgrading before reaching the end of their planned trajectories. At the same time, the super-grid super-impose existing sub-grids and slice and tear apart already somehow stabilized conditions. Situations alike take place once a given elevated expressway is planned to cut through an existing neighbourhood and entirely transform their spatial, social and economical configurations. At first, such sectioning structures were poorly received in urban academic and professional realms in the early 1960's. Scholars, like Cullen and Lynch rated elevated expressways, road junctions, highway exits, roundabouts, and correlated elements as mono-dimensional, connecting distant points but creating undesired boundaries for urban living. Mobility infrastructure was, then, not regarded as a living part of the city, engendering new possibilities, as if skin is not considered an organ; but instead treated as something that limits the body, a boundary.

Indeed, mobility networks, like skin tissue, are fibrous and porous; do not provide clear lines, but blurred boundaries within metropoli-

tan domains. The connections between the pores and fibres of the city create a series of interstitial conditions and collisions at different scales, which open 'other' dimensions to urban life (1) outside the virtually stable and constant to-and-fro movement of metropolitan information, goods and people. These fibrous networks (2), the combination of super and sub-grids of urban movement, are, nevertheless, subject to relentless 'leakages' that foster a series of both dynamic and static discontinuities from within these constant metropolitan flows. These discontinuities are the source of what I refer to as infrascapes. They are formed by the residual zones created along, under, above, beside and around mobility infrastructure, and are characterized by being degenerative, yet potentially beneficial. By allowing local and metropolitan economic and social forces to merge towards unexpected and intensive exploitations of urban space, the infrascapes disregard assumptions on the low usefulness of regions degraded by infrastructural presence doing things that are not allowed elsewhere by standard city planning regulations.

Under the point of view of an idealized control sphere of urban space – or the illusory control framework imagined by planning agencies – the infrascapes do not fit the quality parameters expected from an ordinary liveable region. They are 'planning fugitives' ignored by the planning authorities' eyes. They are too close to traffic, too blighted, but remain well connected. However, this connectivity compensates for their decay, giving them potential to be effective agents within the metropolitan system. With intelligent and bottom-up development, these areas can be re-born if articulated with very specific functions: - for example, connected and 'unwanted' commerce such as, hardware retail, car-repair, or small

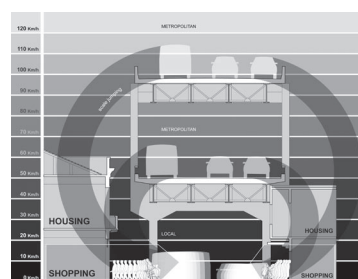


Fig. 3, 4, 5, 6 2004. The several metropolitan and local layers hovering and accessing local roads (interconnectivity diagram and photographs of its composing layers). Gabriel Duarte.



industrial activities, can freely take place, 'hidden' from less accepting neighbourhoods where they would not be given the chance to fully operate and evolve.

They are entitled illegal and unplanned powers to manipulate public space to serve their specific wills, thus rendering the infrascapes with a different kind of liveability that dodges planning expectations. This essay aims to explore theoretical and empirical frameworks surrounding these infrascapes by documenting specific precedents in Rio de Janeiro, Brazil.

Friction

Collisions between movement and fixity are an important, yet ignored contemporary urban condition. Unplanned and unpredicted effects are rendered as tangible results of the movement X body binomial. Such antagonistic relations produce silent, yet powerful, frictions in everyday metropolitan flows. Such frictions occur whenever opposing urban rhythms collide in special spots throughout cities, opening doors for exchange in spatial and functional qualities. For example, intermediate boundaries between city regions, such as - the interface between downtown and the suburbs, industrial and housing districts, or between poor and wealthy areas. These boundaries are fundamentally characterized as residual zones that are infrascapes.

In the 1990's, Rio de Janeiro was bisected by a major new highway, constructed to permit rapid access to the city on its Northern edge and link this area with the national highway system. The work intersected a dense yet declining industrial core of the city, named São Cristóvão. (Fig. 1) Since massive demolition to bury the highway was economically impossible, a double-layered elevated expressway was planned to fly over two existing streets and flow alongside the buildings. (Fig. 2) At that time, São Cristóvão was mostly used for low-income dwelling and tiny industries and the construction of the expressway was considered the final blow in the region's development potential; however, what resulted was a different kind of urban vitality. Aside from the environmental inconveniences caused by the expressway (dust, noise, diminished lighting), the local operations of the shadowed streets were entirely transformed by the metropolitan movement right above them. With major and

minor access ramps connecting the streets below to the lanes above, the region exhausted the intense movement of the expressway and roundabouts, while remaining hidden from the public eye. (Fig. 3, 4, 5, 6) Removed from the planning authorities, yet physically well connected, the infrascapes unleashed a powerful local manipulation of the surrounding public space. The physical environment of São Cristóvão was completely transformed by local commercial communities, which exploited their new urban environment for personal gain, specifically, auto-related shopping. Curb lines are destroyed and sidewalks are taken over as shopping display appropriates auto access points from nearby expressways.

In one single linear environment, different modes of urban performance co-exist, and exploit the area's spatial features with consequences at the social, economical and political level. The fact that this region was forgotten by Rio's local planning authorities, - it was rendered as being beyond surveillance, - provided local users and residents with increased power to appropriate public street space more intensely than other regions of the city. The private influence on public ground transformed the streets and the body of the elevated expressways to accommodate the specific needs of local residents. It also attracted commercial activities whose performance was not welcome in other more 'visible' parts of the city that could benefit from the unprecedented freedom and connectivity - auto and hardware commerce. The area expanded. 'Nobody' was watching. It was freely permitted to physically modify its surroundings, veiled by biased perceptions of its potential.

(Un)Wanted Commerce and the Everyday

"The urge to make separations, between clean and dirty, ordered and disordered, 'us and them', that is to expel and abject, is encouraged in western cultures, creating feelings of anxiety because such separations can never be finally achieved."

(D. Sibley, in Geographies of Exclusion)

The kind of 'deteriorated freedom' that bloomed in São Cristóvão is not exclusive. Similar transformations exist in metropolises worldwide that yield different stages of deviant space, where the

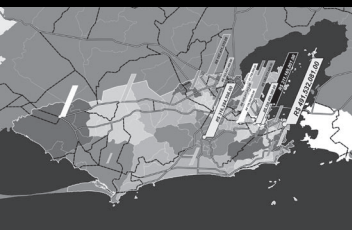


Fig. 5



Fig. 6

Fig. 7 2004. São Cristóvão, Retail Taxes (diagram) – information mostly derived from the official reports of the City Government of Rio de Janeiro on the economical potential of its regions. Gabriel Duarte.



unavoidable misfortunes of the idealized city find room to happen. Regular notions of public ordinance and organization are subverted and manipulated by the incipient potentials of these areas, transforming their spatial configurations in order to profit from adjacent metropolitan connections. Infrascapes have not been purposefully designed to be havens of illegal urban manoeuvres; yet, they are increasingly forming nodes where very specific and intense economical activities are taking place. For instance, even though São Cristóvão's potential has not yet been officially recognized, the area is consolidating itself as an important commercial hub. (Fig. 7, 8) The bars emerging from these maps show, in scale, the amount of taxes (in Brazilian currency - R\$) collected from retail activities (07) and from services (08), with São Cristóvão indicated in black. These numbers show that, even in an unplanned situation, São Cristóvão ranks third in collected taxes from retail activities. At the same time, other statistics show that São Cristóvão performs as a sort of 'average region' balance between the polarized situations comprised by the combination of downtown and the rich southern regions, in comparison with the northern poorer suburbs, reinforcing the superimposing qualities of the area.

In the search for a perfect world, we idealize criteria on which we base our aspirations towards our living environments. Dominated by models of perfection that extend from hygiene to social relationships and aesthetics, these aspirations are generally formed by common-sense nostalgic notions of urbanity. Such notions are derived from dream situations built on the ideals of community sustainability advertised by 'new urbanism' planners. A great part of contemporary, mid-to-upper class, urban populations tend not to dream of living or performing daily activities in areas normally regarded as blighted and decaying, such as areas around former industrial sites, dumpsters, or next to car-repair shops. Mentally, city dwellers in general still have a very normative perception of their idealized realities, while not fully behaving according to their own fantasies. Western urban societies tend to aim for living standards which they are unable to achieve while continuing to exploit situations that do not comply with their expectations, in this case cheap products and services.

The population does not perceive the overwhelming requirements of their own expectations, and continues to perform their everyday ordinary activities as tacit hypocrisies. In the São Cristóvão example, the area has become a derelict 'strip' for second-hand and car-repair shops, appropriating and manipulating the sidewalks' surface to their own accessibility and parking interests. Cheap former industrial warehouses in the area are also occupied by medium-sized factories, for extremely low prices. Everyday, more and more people learn of the area and as they freely park and load/un-load in front of their stores. A pact of silence hovers over the thematic shopping cluster that provides cheap goods and convenient car access, as nobody ostensibly publicizes its existence. Even public authorities and planners (who most probably repair their cars or buy supply for their homes in these areas) remain quiet.

These tacit hypocrisies might describe the ordinary activities of everyday life, and by ordinary I mean - the set of daily and trivial routines of urban life, which are "the basis of all social experience and the true realm of political contestation." (3) They denote a fundamental ambiguity of the everyday as the "screen on which society projects its light and its shadow, its hollows and its planes, its power and its weakness" (4), and are a key component of the infrascapes. It is not a coincidence that these kind of activities happen far from regular residential areas, forming a living drive-through, where 'respectful' citizens can go to do whatever they need, and quickly flee back home, disregarding the place where they have just been, dirty, illegal, and unseen. Providing a certain freedom of action, protected by their interstitial level of indeterminism, the infrascapes become the proper places for the crude activities of daily urban life, where utopias of the idealized city are replaced by the 'dystopias' of the everyday.

Dynamic and Static Associations – Bodies & Flows

Infrascapes emerge out of the associations between mobility infrastructure and the social fundamentals of the city, but not in a uniform manner. There is a distinction between dynamic and static associations built upon the kind of physical connectivity that is established between the bodies and flows set, and the city. A dynamic infraspaces

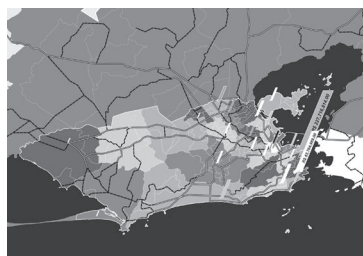
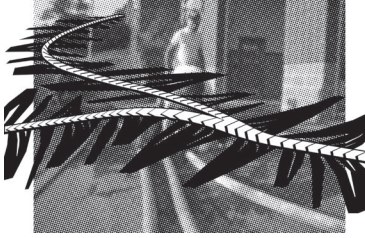


Fig. 8 2004. São Cristóvão, Service Taxes (diagram) – information mostly derived from the official reports of the City Government of Rio de Janeiro on the economical potential of its regions. Gabriel Duarte.

Fig. 9 2004. Infrascapes can be visualized as ramified and encircling by-products of metropolitan movement, feeding from its movement leakages and potential. Gabriel Duarte.



happens whenever there is a direct and abrupt connection between the metropolitan super and local grids, mostly in the various forms of highway connections towards a secondary and low-scale traffic system. This process entails a shift of scales, a break in the pace of constant movement flow from the expressway, a reduction of speed, which influences the flow itself. (Fig. 9)

The infrascapes mark a non-obstructive clog in the continuous flows of the highway grid of a metropolis; creating infinitesimal transitions, decompressions, along their courses. The ramifications created by the infrascapes are the channels through which time-space compression is concurrently formed and disintegrated (Fig. 10) This map shows the area of study in São Cristóvão and how it is connected to the surrounding metropolitan highway systems. Roundabout options from the expressways are highlighted to illustrate the scalar shifting of nodes from infrastructural scale to the local scale of the 'buried' streets. By describing three consecutive moments from the expressways to the local streets, it is possible to see how a parallel system is formed by interfacing a local network with numerous connections of the super grid. (Fig. 11) In this map, fast reaching fields emanating from the primary (expressways) and secondary (local streets) systems are diagrammed to show the potential commercial influence of the connections. Commercial streets flourish in the close surrounding regions of the systems, and expand where the network permits direct auto access. The more obvious detour options present themselves as options to exit and return fast traffic, resulting in more intense commercial activity. However, the existence of these places does not necessarily involve the creation of a forced centripetal turmoil outwards the 'speed zones' of a city's super-grid, as in a whirlwind effect. Conversely, they present themselves as options, which do not interrupt higher-scale movement flows, but create linear disturbances in them, denoting their presence. The effectively lived spaces created by these ramifications are imbued with ambiguity, uncertainties and unregulated freedom, forming what I referred to before as 'urban androgyny'.

Infrascapes are composed of relational and spatial agencies, not organized as binary connections, but, through temporal processes of continuous appropriations. These processes offer the 'dynamic contradictions' (5), which connect the interstices of super-imposing,

yet disconnected dimensions of urban life. They are super-architectural spaces (6), where different scales of spatial use and appropriation collide without collapsing. Infrascapes, thus, provide spaces for functional subversion, where the laws and definitions of the planned city are overlooked by the pragmatic and mundane needs of the users, dwellers and tradesmen of these areas. (Fig. 12, 13) In São Cristóvão, public space is turned into an extra room for display and storage of goods, for informal commercial activities, and for irregular delivery operations of heavy goods. All these activities are providing very straight-forward responses to initially constrained situations, developing ways to exploit their limitations by exploring the possibilities offered by leftover spaces they occupy which can be easily manipulated and managed whenever it is required.

In static associations the movement in the different scale levels is not interrupted, the bodies and flows set is also present, but the bodies and the physical manifestations of the flows, through odours, noise and vibration are the ones to exert influence. This region is changed by the material presence of the bodies, which become concrete architectural-urban entities in their spatial configuration, as happens throughout the 'buried' streets of São Cristóvão. There, façades are obsolete. Now, the buildings and the elevated expressways function as elements of an enclosed urban realm, and behave almost like an interiorized version of the Venturian 'billboard architecture'. (Fig. 14, 15) Being devoid of their primary architectural attributes, stores announce their presence by banners, backlit plates and hanging signs or product samples placed under the first level of the viaduct. Architectural form and image does not matter for the tradesmen in this area any more, only maximum visibility.

Superimposing Worlds & Reaction Surfaces

"Living adjacent to, beneath or above highways, railway lines and flight paths is today symptomatic of the modern city. The effects on living standards have been less than desirable due to the environmental problems of noise and pollution. Yet the spatio-economic potential of these apparently blighted sites is slowly being recognized: highly accessible and relatively cheap."

(Anthony Hoete, in ROAM - Reader on the Aesthetics of Mobility)



Fig. 10 2004. Metropolitan and Local Connectivity (diagram). Gabriel Duarte.

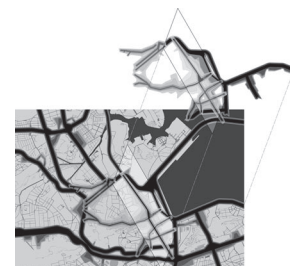


Fig. 11 2004. Emanating Fields (diagram). Gabriel Duarte.



The fibres that comprise metropolitan mobility do not behave as simple linear connections, but as landscapes with varying peaks of activity that originate from folds in the continuity of 'surface', formed by material and immaterial inputs; - the concrete physical structures upon which urban movements occur, and the political, social and economical intentions that orchestrate the movements through planning strategies. This combination forms an intricate surface comprising of several layers of spatial network that exchange energy across each other, yet without being ruled by any one established order. As an ensemble of complexities, this surface unfolds as connections from specific local identities (local roads and neighbourhoods) to the metropolitan rhythm (highways), causing the friction discussed earlier in this text, without letting it fall under an extremely generalizing and compartmented organization. The complex orders of such a model are not established by imposed regulations, but configure 'field conditions', that "are bottom-up phenomena, defined not by overarching geometrical schemas but by intricate connections". (7) The infrascapes are not mere results of a metropolitan influence on local grids, but also the reverse influence of local conditions on the metropolitan infrastructure.

"Each surface is an interface between two environments that is ruled by a constant activity in the form of an exchange between the two substances placed in contact with one another."
(Paul Virilio, in *L'Espace Critique*)

They acknowledge the existence of error by composing open-ended conditions, which subverts pre-established orders, enabling, rather than restraining, events. As 'spaces of propagation' (8), infrascapes melt together once separated conditions, which activate urban networks of 'becomings' (9), in a constant and spontaneous production of space through hybridizations of the material and immaterial options available. They form reaction surfaces out of the intersecting folds among the stability of the opposing speeds of the local and the metropolitan. In particular, these folds are composed by abrupt connections among the fibres of super-imposing networks, which exist simultaneously within the infrascapes. Once these different movements are connected by the folds, the material base (the bodies) of their connections is transformed into a site of exception, which is charged with attributes of all the involved urban realms

(or scales), as a reactive surface that bows to several masters. The infrascapes do not develop their own unique rhythm, yet, it lives on as symbiotes of the several urban qualities posed on them, having local and metropolitan characteristics at the same time.

Androgynous Urbanity

"General history or the history of events? From now on, such an academic distinction is no longer merely ambiguous but illusory, for, even if nothing is equivalent, the scale of values of the facts no longer allows simple discrimination between the 'general' and the 'particular', the 'global' and the 'local'."

(Paul Virilio, in *A Landscape of Events*)

Another fundamental feature of the infrascapes is that they simultaneously retain several, and rather opposing, metropolitan domains within the (sub)systems created by them. Infrascapes form a penetrable threshold that allows 'energies' and physical conditions from different metropolitan scales to occupy a same relative urban hiatus. Such hiatuses are formed along bordering conditions throughout metropolises, which are normally believed to restrain and expel events. In the infrascapes, the metropolitan exist in the local, and, conversely, the local exists in the metropolitan. Through the 'open-ended' and interstitial qualities of the infrascapes as continuously morphing systems, such hybrid conditions are rendered concrete. By using the same spatial bodies, several urban domains connect to each other leaving behind traces of their specific characteristics, fostering environments that are unable to be easily classified by regular urban planning jargons. As a matter of fact, infrascapes often end up with the least positive classifications.

What exactly are infrascapes such as the studied region in São Cirstóvão? Urban? Suburban? / Local? Metropolitan? / Small-scale? Large-scale? / Street? Highway? / Road? Home? / Dirty? Necessary? / Sidewalk? Garage? / Drive-in? Drive-through? / Free? Limited? Is it marginality that spawns an inherent uncertainty in the infrascapes, or the other way around? Ideas of categorization and classification are destroyed by the 'otherness' (10) of the infrascap(e)s. The only concrete and certain quality that they offer is, indeed, more and more uncertainty.





“This manifested ambiguity, this flux, this incompleteness mysteriously releases me from me from my ambiguous conscience because I see complexity, movement, energy, potential, even hope in their explicit contradiction.”
(Lars Lerup, in *After the City*)

Superimposing Metropolitan Forms

“The Centripetal City is characterized by strong pockets of isolated development surrounded by what will be called ‘weak’ metropolitan form. Weak metropolitan form is not difficult to characterize. Throughout the post-war years massive zones of construction have emerged which stand beyond conventional means of urban representation. Somewhere between the scale of a single comprehensible ladder (such as a commercial mall interior or single subdivision street) and the scale of a regional road map, an immeasurable urban realm has come to establish the space of routine existence. It is this apparent collapse of metropolitan identity into sprawl which propels the characteristic mutations of contemporary urban production.”
(Albert Pope, in *Ladders*)

What Pope refers to as ‘weak metropolitan form’ happens in the study-site in São Cristóvão through the previously mentioned androgynous qualities of their organization and physical structures. The crisis in urban classification that came with the sprawl and metropolitan expansion that Pope describes is present in the infrascapes, but in a sort of inward multiplication of metropolitan characteristics. The infrascapes phenomenon in São Cristóvão establishes redefinitions of interior metropolitan networks, which are found not as extensions, but as superimposing conditions. And what I mean by interior metropolitan networks is the opposite of what is widely considered as regular urban territorial expansion or sprawl. The infrascapes act like multiplications, expansions, towards the metropolitan already existing spatial framework. By further disseminating metropolitan and local qualities in different spaces they create structures that belong to both levels at the same time. These conditions disguise themselves in normal cartography, where we are only able to visualize one side of them. By taking closer looks into the spatial structure of the study-sites it is possible to see how spatial structures that are believed to be local have already been modified



Fig. 17



and adapted to a more metropolitan and high-speed profiles, and vice-versa.

In order to make this phenomenon visible, I have chosen two very clear and opposing features of the urban public realm and measured them to check whether their dimensions correspond to what their initial definition conveys. Measurements of the main circulatory surfaces the streets, namely the car tracks (Fig. 16) and the sidewalks (Fig. 17) show that the width of the car domains far exceeds that of the pedestrians. Excessive road lanes enable the presence and greater flexibility of car movement in the area, even within an urban architectural enclosure more related to a residential region. It is like a densified version of a suburb reliant solely on private transportation. These streets accommodate vehicle influxes and activities often held only in distanced clusters of highway mega-stores, in the outskirts of the metropolitan core.

Through their manipulated physical spaces it is possible to see how streets have been incorporated into metropolitan profiles, extracting their conventional features of local environments.

In all diagrams the actual dimensions have been scaled up ten times in order to be better visualized in correct proportion. The diagrams show clearly how streets that are directly connected to the metropolitan grid are increasingly becoming more like them in spatial terms, even though their position in relation to other streets of the interior strata still denote otherwise. The domains of the cars are expanding while regular pedestrian space is contracting. And this situation is mostly caused by the spatial adaptation required by the ‘drive-through’ logics of the study-sites, which need easy access to architecture.

Emerging Fields

All over the world, with very few exceptions, infrascapes are playing a decisive role in dismantling grounds for assumptions on imposed transformations of contemporary metropolises and their future implications. The set of daily and trivial routines of urban life surrounding infrascapes prove a constant and unconscious disregard of the city’s idealized boundaries. The culturally disguised dichotomy among the lived, perceived and conceived spatial dimensions,



as described in Lefebvrian works, is progressively more apparent in the breaches between the idealized and the effectively lived urban conditions, as in the scenarios emerging from the infrascapes that transgress the “engineered certainties” (11) of planning.

Although the case described here seems to be essentially specific, the conditions it illustrates increase everyday in metropolitan areas all over the world; and even faster in the under developed and developing worlds. In Lower West Manhattan, in New York, the region around the intersection between Holland Tunnel and the West Side Highway sets up a similar situation (in morphological terms) to that of São Cristóvão, where unused warehouses and elevated railway tracks are increasingly housing activities related to the heavy movement and relatively easy access of the area. (Fig. 18, 19, 20) This area in New York, north of the Meat-Packing District, is mutating into a sort of theme park for car-related businesses. Old warehouses and areas beneath the Highline’s rail tracks are taken over by parking lots, gas and service stations, car accessories shops and mechanic workshops. One can quickly leave West Side Highway and return to it, like the roundabout movements also found in São Cristóvão.

This is not to suggest or imply that the scarcity of planning surveillance mechanisms is the fundamental source of infraspaces generation. The situation in NY is far more stable than in Rio. Indeed, it is the very over-deterministic nature of ‘tight’ planning that is manifesting its own inadequacies towards dynamic and hybridized contemporary metropolises through the channels of the infrascapes. By describing these environments, I intended to denote that, in dealing with these ambiguous environments, it is somewhat awkward to keep on establishing well-defined sets of problems and solutions.

What has been rated as urban problems in planning operations must be subverted, as means to better and more critically adapt our cities to the increasingly blurred reality of a ruling neo-liberal and post-Fordist politics, economy and culture. Metropolitan areas are in need of a new and completely different kind of public space. One that we cannot yet see, name or classify. The defined and secure places of our urban ideologies and utopias are ceasing to be a crucial challenge in contemporary urban design, even though urban

planning agendas remain grounded on nostalgic perfection models of hygiene, social relationships and aesthetics. The infrascapes are concurrently solutions and problems amidst different social, cultural and economical spectra. They are not models ready to be applied to situations alike, but phenomena that cannot be controlled. If infrascapes are regularized and strictly defined, they will succumb to the same sores of current planning. As a matter of fact, infrascapes are samples of bottom-up emerging fields of action for urban design and planning, where private and public, and local and metropolitan spatial matters step on each other’s influential scope. Their description should not incite questions about how to apply them elsewhere but how to understand their broad and complex origins in order to boost their existing impact to open up further possibilities, rather than regulate the existing ones.

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notes:

- (1) Foucault, Michel. *The Archaeology of Knowledge & the Discourse on Language*. New York: Pantheon Books, 1972.
- (2) Mateo, Josep Lluís. “Els Immaterials”, in *Quaderns d’Arquitectura i Urbanisme* v.187, Barcelona: Col·legi de Arquitectes de Catalunya, 1990.
- (3) Crawford, Margaret in. Chase, John; Crawford, Margaret; Kaliski, John (ed.). *Everyday Urbanism*. New York: Monacelli Press, 1999.
- (4) Lefebvre, Henri. *The Critique of Everyday Life*, Vol. 1. London: Verso, 1991.
- (5) Certaeu, Michel de. *The Practice of Everyday Life*. Berkeley: University of California Press, 1998.
- (6) Borden, Iain in. Hill, Jonathan (ed.). *Occupying Architecture – Between the Architect and the User*. London: Routledge, 1999.
- (7) Allen, Stan. *Points+Lines – Diagrams and Projects for the City*. New York: Princeton Architectural Press, 1999.
- (8) Kwinter, Sanford. *La Città Nuova: Modernity and Continuity*. New York: Zone ½, 1986.
- (9) Gausa, Manuel; Salazar, Jaime. *Housing/Single-Family Housing*. Basel: Birkhäuser, 2002.
- (10) Foucault, Michel in. Leach, Neil (ed.). *Rethinking Architecture: A Reader in Cultural Theory*. London: Routledge, 2002.



Fig. 19

Fig. 20