

## Urban Fragmentation vs. Spatial Coherences.

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### Abstract:

Contemporary urban discourse is currently gaining momentum in questioning a diversity of urban landscapes. Present urban theories, are based on perceptions of the world, as morphological and formal figures, that are constantly *'dis-figured'*, through our reading of the environment, parallel to the infrastructures we in place in it, that keeps producing signs and signals of a *mismatch*. Even though the planners' tools or intervention strategies are of the best intention (geographical unifications, design alliances, planning programmes), the products become typological of nature, isolated and adrift in urban fields of activities, operating at various scale levels above or below one another.

The crux of the matter is to align an *architectural-object* driven discourse and interpretation to one that comprehends the operation of the landscapes and the metropolitan condition, in all its scales, infrastructures, and intricate patterns, seen as a *spatial* discourse. Space is therefore understood through the *'device mobile'* that acts as the unifying operational system, producing *effects*, responsible for the *'visible'* landscape and environment we see as being self evident. By this *'making visible'* of the spatial, a discourse dealing with urban and territorial fragmentation is replaced by a coherent program of transformation and spatial coherences, addressing all levels of scale, the dwelling environment, and even sustainability.

### Section A:

#### 1. To view the city or the Urban Landscape(s)

*"The new city is: an airy metropolis with villages, urban centers, suburbs, industrial areas, port, airports, woods, lakes, beaches, reveres, and monoculture of the high technology agricultural areas."* Adriaan Geuze. [1]

##### 1.1. Definitions(s):

1.1.2. "Landscapes: 'A scenery as seen in a broad view, *a* : the landforms of a region in the aggregate, *b* : a portion of territory that can b" [2]

1.1.3. Fragments: "To break or separate (something) into fragments, parts and pieces" [Ibid]

It is impossible to question the contemporary city, through a formal object orientated framework, which establishes the city as individual, isolated unit, separated from other similar urban entities in the landscape. What was known as the medieval city, confined by its walled enclosures and defense mechanisms [4], developed to what has become a 'modern' industrial city, bound to constructions of central, peripheral, or edge developments. The urban landscape of now, has moved beyond these edges as accumulations of an extended contemporary urban territorial figure. [see maps: 5]

This 'disfiguring' of the traditional city, has eradicated opposing polarities, into a complete new urban structure, with new set(s) of urban space-time construction [6]. What was seen as the interior or the exterior of the city has now become a city composed of '*figureground*', '*publiprivate*', '*landschitecture*' and '*citerritory*' [Ibid, p16.], confusing both urban thinkers and designer's alike in how to approach, not only the territory or city, but more so the aspect of space.

If we observe this territorial figure itself, from a zenithal height, a vast and elaborate system of settlement exposes itself to us, composed as a field of extended urban geography, mostly only visible by technological techniques of aerial or satellite representation. Within this large scale of urbanity, smaller clusters cannot longer be isolated to be studied and analyzed, to highlight character, configurations, internal working orders, architectures and spatial stories. In comparison to other structures of the same regions, questions could be raised to highlight similarities and differences regarding the connections, infrastructures and routes, that allow for these clusters to 'communicate' / operate and interact, between one another, by observation of the 'infrastructural' lines that link and connect each cluster to the whole.

Within a European context, this same landscape positions itself within higher strategies of order, the '*European device*' [7 +8], as one landscape has a new position and relation to other, external' order of urban settlements. Whole new geographic configurations have grown over political 'borders' and 'edges', resulting in one continuous mass of urban sprawl; visual in one way, but operating spatially, in another. For these very urban structures, and at lower resolutions of scale, emerge as contradictions within the urban small scale scenarios; where previously derelict edges of urban settlements have sprung up as new high points of activity, whilst, often the town squares and markets of old, are either deserted or problematic in achieving economic stability.

A first problematic is established as the disparity between the physical morphological environment and the operational spatial processes, contradict our mental comprehension of the city [see 9]. More so, our reasoning of structuring and clarifying the city seems to slip through our fingers when we question any underlying basis for these new urban forms and their transformations. In actual fact, the signs and signals of a '*mismatch*' are becoming more and more apparent, as our design interventions and strategies for reunifications, seem to be failing us, producing either more isolated urban islands, or having no effect whatsoever, in trying to unify both islands and urban progress into one coherent entity.

Furthermore, we seek a basis on what this '*mismatch*' is founded on. Is it possible that our concept of the old city is still superimposed when we try and makes sense of any new urban landscape? Irrespective of what kind of landscape, as I shall highlight at a later time, we attempt to design the new landscape with old sets of ideas, perceptions and parameters, ensuring a position of conflict between the form of old, as city, and to that of the process that in actual fact structure and supports the landscape(s) of new.

Therefore, this paper is an attempt to contribute to a spatial comprehension of the city in various ways. The first intentions are to position a model for understating both the a) new landscapes of settlement and that of b) process, seen as principle of movement through the city, producing certain effects. Secondly, to highlight the shift from a typological compositional urban configurations, in which objects are positioned as a first principle (with intentions to produce place), towards a new urban

perspective in which structure that emerges, does so due to an affect of movement and flows in the landscape. Conclusively, to relate and link these differences of landscapes within a pattern of spatial flow(s) very much based on scale and intensity, in order to clarify an operational device (*'device mobile'*) as a model supporting the 'operational landscape'. Spatial coherences are established, linking fragmented and separated landscapes within one vast geographical territorial figure, producing the effects we see, not only from above but from within, tying in all forms, structures and scales together.

In addition, I would highlight these processes of thought and method through visual examples of a European Landscape, focusing on the Dutch construction of the 'Randstad', and in some cases extend relations or parallels to some Turkish and South African examples.

## **2. The old city and the new landscape(s): micro and macro parts**

*"The city has no fixedness, no center, no fixed parts and is an amalgam of often disjointed process and social heterogeneity..."* [10]

### **2.1. The first view on the landscape.**

In a 2003 publication entitled *Designs on the Land, exploring America from the Air*, Alan S. MacLean [11], published a series of photographs highlighting settlements, object and structures in an air aesthetic, which, as one review termed it [12], as an *"aesthetics and unintentional beauty [of the] coherence of the changes and structures which mankind has brought to pass on this continent"*. The 'artist / photographer, focused on a series of landscape objects whilst seeking similar typological structures / objects, to assemble in a glossy publication. These 'objects' range from a series of photos of oil containers, car scrap yards, and even, provincial small town settlements of which all are dispersed across barren plains of the of North American continent. In contrast to the small town representation, which conveniently fit onto one image frame, larger cities such as Los Angeles, Miami, and San Francisco could only have selected parts reproduced, due to the extensive scale and size these cities occupy. What for some settlements took one page, have now been stretched across entire double page spreads, of infrastructure, housing neighbourhoods, derelict or abandoned objects, high scale urban developments, or parks as part of the middle resolution perspective of the city. Our perspective is neither confused nor blurred through this first scale resolution or middle landscape, for this landscape is one which is constructed by way of our reliance on what we see individually, typologically, situated and individualised.

What other landscapes present themselves, or rather, how to view alternatives? From even further above the earth's surface, the satellite view opens the observer's urban perspective to yet another, second, 'form' of landscape, viewing the world from scales of 1:300 000, or higher [5]. A landscape that was only possible to be identified through middle resolution scales or its urban architectural objects, has now expanded, transformed and mutated into a structures such as the 'Pearl River Delta', the 'Dutch Randstad', 'Midrand - Johannesburg-Pretoria Corridor', 'Ruhrgebiet' or the constructed polder landscapes of parts of the Netherlands.

Even these 'bigger' structures of urbanity, could in turn be positioned against the even higher orders of urban conceptuality, that would again 'disfigure', perspective of isolation. Areas, such as the *Rhurgebiet, Randstad or Vlaamse Ruit* [Ibid, p23] only become scenarios of urban structures, 'as-part-of', and not 'closed-off' entities adrift on the greater European continent.

As a third landscape alternative, we revert back to the more conceptual landscapes, as theorised or constructed frameworks to aid thinking about the urban condition itself. Beyond the images of the city from above, we reflect and thematise [8] on simplified and complex landscapes through observations of cultural phenomena, density phenomena, network phenomena, and as simplified alternative, mono-

functional landscapes, producing radical alternatives to the landscape that we are used to think of. For the complex scenario; what was a landscape is transformed into systems that use these 'sets of perspectives' to interpret any further understanding of the environment. Density produces, Farman [13]; statistical information configures Datascape, and lastly, urban infrastructures materialise in the Infrascapes [6 + 14]. More simplified themes, such as the large homogeneous and mono-functional themes include that of the extensive housing settlements, economic and financial developments, or 'Disneyfied' activities, that are constructed to attract one type or sector of the urban processes, have all become landscape in their own right and with their own effects.

Whether we approach the environment from a perspective of city or urban landscape, and from whatever possible scales, we are faced with certain a problematic; of questioning what the city or landscape really is. a) Should the environment be seen as a single territorial landscape that encloses and envelopes all objects, structures and parts, and be interpreted from high scales of distance above the surface, or b) is the landscape a mere compositional construction of smaller parts (known as cities, neighbourhoods, block) in which we could only fully comprehend, once we have seen and understood, all its smaller constructive components, at an individual level?

Adding strength to the first problematic, a second problematic arises on an interpretation level, where the individual perspective, seems to alternate as the urban view and perspective itself, shifts. In short, our reasoning and questing, seems to be locked within an issue of object and not of framework with any interpretation, specifically relating to urban form. From higher levels of perspective we are ill equipped to comprehend the totality and gravity of the situation at hand, whilst at lower resolutions of view, designers adapt a device of a typological object-driven structural model, in which each building type is isolated, analysed and reflected upon, on the basis of function and geographical position. For the exact same reason of not being able to identify mono-functional activities in the landscapes, analyst's conclusions seem to produce results of conflict, as previously isolated industrial and modern urban structures have become unrecognizable, or geographically inaccurate. As previous state(s) of dichotomy are eradicated, such as center-based-functions or peripheral activities, urban inquiry seems to direct its focus on issues such as 'sprawl' and the 'collective image' [5] of the environment, as added critical points in the current urban discourse.

## **2.2. Making sense of the landscape.**

In a collaboration for the 2000 Venice Biennale, Stefano Boeri and Gabriele Basilico, produced a photographic recognisance of the Italian Landscape. "Italy: Cross Sections of a Country" [15], made 6 sections across the Italian urban landscape of equal size (50 x 12 km). These cuts included city and provincial sector, making no distinction between urban and non-urban, with the intention of portraying, through images, general changes and transformations of the landscapes, that had occurred over the last decade.

By sequencing the functions of the buildings, as found in the real life scenario, Boeri and Basilico made a first attempt in establishing a transformed urban condition of the city and its landscape. The single family house, lined up next to an apartment block, the car wash next to a airfield hanger, warehouse supplier situated next to the single family house, hotel, chalet, sports fields, apartment blocks, discotheque, detached house, and so on.

Urban functions that were previously only located within an urban centre, were displaced and located on the edge. What was once the 'in-the-city' and 'outside-the-city' activities had become intertwined and varied, that highlighted the change in compositional character of the contemporary metropolitan structure.

Various contributions from Boeri, have been strengthening this inside-outside dichotomy of the city as a landscape, seeking activities that are traceable for the whole territorial urban composition. Through an investigation on production activity of the landscape, Boeri has commenced activities of developing an urban 'index', in which we see small specific urban activities, or alterations, which mutate the landscape of the European context, termed the European, Uncertain States of Europe (USE). States of production are hence termed '*Osmosis*' for a Sicilian spatial narrative, whilst '*Eruptions*' are used in describing the sporadic surge of Dance festivals such as raves. Countless other states, are highlighted (intensifications, expansions, disseminations, transplantations or clearings [16]) as apparatus in the continuous, that are re-figuring the traditional urban as it is known.

Conclusion could be drawn on two aspects of naming the city and the operational framework at which we proceed to analyse and reflect on the urban environment. A re-examination in terms of naming and labelling the objects is required in order not to confuse matters of classification even more; certain names uphold certain notions, and hence produce no technique for advancement or development of a framework. Outdated terminology like city and village, uphold a traditional framework of a centre with suburbs, with interior and exterior urban distinctions, and with clearly definable edges. Alternatives such as '*Megalopolis*', '*citerritory*', '*figureground*' *landschitectuur*' have been challenging traditional urban terminology, breaking free form distinction and merit based on geographic situatedness. The traditional city has been replaced by the diffused city, and in turn displaced, by what Bernardo Secchi terms, a total *urban condition*. [17]

As alternative names have been suggested, it would be necessary to proceed to the framework that supports the expansion of the inhabited space, characterised by a continuous, indistinct, and borderless condition. In contrast to what USE states, even though the apparent operational framework of the current territory is not visible, we would have to argue that one does exist, still accountable for these uncertainties, production and transformations of the urban landscape. *Space* is hereby suggested as a most suitable, and effective framework, for analysis, design and intervention.

## Section B

### 3. Space as framework: Operational and coherent framework

*"[Hume] constituted a multifarious world of experience based upon the principle of the exteriority of relations. We start with atomic parts, but these atomic parts have transitions, passages, 'tendencies', which circulate from one to another. These tendencies give rise to habits. Isn't this the answer to the question "what are we?" We are habits, nothing but habits – the habit of saying "I". Perhaps there is no more striking answer to the problem of the Self."* Gilles Deleuze. [18]

**3.1 Coherences:** *"Having a constant phase relationships, consistent and easy followed".* [2]

#### 3.2 The spatial interweaving of the spaces.

The second part to this essay shifts away from a formal aspect of the morphological landscape, and focuses on the aspect of urban space itself. Spatial commentary, such as in social geography (Harvey [19]), philosophy (Elden [20] / Healy [21] / De Landa [22]), and even quantum theories (Arida [23]) is a much labored one, attempting to clarify the concept, notion and structure of urban space as we use it, perceive it and apply it throughout all levels of the landscape.

In contrast to the traditional compositional spatial perspective of the urbanist, space for Spacelab and its research, is first and foremost a constructive operation, a device and framework, that causes effects in the landscape, as it produces, generates and transforms the formal character of the city, throughout all levels of scale. The crux of the matter is based on the fact that space remains a first principle in the urban landscape, making the transition from fragmented cities to that of a coherent and operational

urban landscape, which is, for the lack of a better term, ‘glued’, ‘linked’ and ‘connected’. This model then binds the previous discussed incoherent urban fragments, ‘isolated’ territories, or small scaled urban ‘tremors’ (see USE [8]), into a spatial formation. To elaborate further [9], urban space is not a secondary ‘by-product’, as a spin off from a typological urban composition, emplaced after the architectural fact, but on the contrary, a device that relates, links, and topologically situates functions that were previously disassociated.

A new spatial model ties in hand in hand with the naming of the urban condition, as space operates and effects beyond the traditional city wall, city periphery, across and into a ‘distantiated’ sprawling landscape. This presents a self evident solution regarding any interpretation of space and it’s scale, as space is only operative once movement sets in, through our material practices, by way of the connections and links users construct, expressed in the urban mobility grid itself. [24].

Deleuze’s relational space (see quote) is of much use here. The individual part, is distinguished in the way that it relates within the total structure. Sorrensen and Kakihara [25] point us towards a ‘*device mobile*’ (of ‘regions’, ‘networks’ and ‘fluids’) for urban application, where the urban conditions and their social or economical constructions, remain linked and active within the whole system, through the ‘spatialities’, that links, weaves, interweaves each element into urban fabric. This active device remains the crux in establishing a technical apparatus for urban thinkers to move beyond obstacles that sees the world as isolated landscape, but as a reality of interconnected and web like urban structure. Both these authors continue to address and stress the crucial contextual requirements that would be useful for analysts, as space-time constructions, expressed in terms of the mobile situatedness.

### **3.3 Particularities of the urban machine.**

The Urban Spatial Machine [8] operates through a distinction between 4 scales (global, metropolitan, neighbourhood, and local scales), and the infrastructures that represent these scales. Roads, highways, pathways, construct an complete and elaborate schema of formalized engineering infrastructure. These infrastructures are but one quarter part of a complete morphological set, of Architectures, Infrastructures, open spaces, and ground-figure-footprints for sections of the whole territory. Once the *scale* is related to each particular line on paper, the Urban Machine, begins revealing its (trans)formative impact on the territory. What Castells defines as a ‘network society’ that acts as grounding for the urban question, has been completely transformed, from a sociological and economical understanding, into a spatial and formal device that reflects a different ‘ergonomics’ of human action, and that forms and transforms urban landscapes.

Through empirical investigations of the Randstad and South Africa [26], Spacelab has developed and exploited the notion of the urban machine, in order to test and collect spatial narratives that would highlight both a gravitational pull of certain activities to specific infrastructures, to render visible and design a spatial morphology that is at first invisible. The aforementioned movement scales of the territory are at first decomposed and separated.

A second step, by using the settlement structures, is to isolate and color all similar levels of operations, through the same 4 scales as with the movement grids into a comparable format that could be superimposed upon one another. Scale is taken as the factor of division, and it brings to light a spatial morphology of operation and use of the city, as we have not seen it before.

## **Section C:**

### **4. Applications: (refer to Fig. 1.)**

#### **4.1 vertical Image : Randstad and the Urban Machine (UM). [8]**

For the Randstad, 10 samples underwent similar analysis. Extractions of the aforementioned spatial and morphological components were completed, with scale indices, and at this time still being elaborated upon. Visualization of the urban machine and its scales, sets a scene for the interweaving of the Randstad territory, and its fragmented landscapes of before.

#### **4.2 Image bar 1: Hoofdorp as Vinex.** [27]

Tendencies within certain samples highlight spatial narratives that have shifted in activity scales for both the global and local levels. 'External' new town, or known in as the 'Vinex' locations, were planned as regions where new housing and neighbourhoods had to operate between the local and metropolitan scales, vastly different to the city or region of 50 years ago.

The local fixed residential place of the traditional village has therefore been incorporated into the metropolitan spatial dynamic, transforming the landscape into what is possible to term, the '*metro-village*' as part of a '*citerritory*'. Scales are now operating at all levels which 'unify' these settlements into coherent spatial constructions link to, Rotterdam, *Schiphol International Airport*, *Castricum*, Amsterdam, and beyond, Belgium, Paris and Berlin.

A number of high scale service-provider-agencies and head offices (such as KLM head office, *Neckerman travel group*, *ICE insurance services* or *TNT logistics* and handling, or Aalsmeer flower market), are continuously relocating offices to these peripheral spaces, as their centrality needn't be part of any traditional center. Their connectivity to the highway, or other high intensity mobility lanes, is what attracts companies to such 'new centralities' and spatial configurations.

#### **4.3 Image bar 2 + 3: Amsterdam's spatial story.** [28]

Numerous other exemplars could be highlighted, not only for the housing landscape or residential environment, but certainly for places that have always been perceived as being 'central', such as the high streets of Amsterdam (Sample 8), the '*Grachtengordel*' (Canal belt), or the '*Red Light District*'. The supply of international and national commuters are what is responsible for the global and metropolitan 'spatial' forces, so prominent in these specific parts of the city.

Distinction between the local and global activities, are hard to make, as the scales fold and weave into spatial configurational sets, that effect the way in which we think of the neighbourhood. Commercial activities destined for the local populations, is transformed where the local is embedded but servicing, the higher scales of flow formulating 1 spatial narrative. The local bar, or café, frequented by the person residing above, now acts as gathering point in the fabric where the business men and Japanese tourist meet. Amin and Thrift's [10, p31] theory on '*centrality and propinquity*' not requiring any metrical central position, or fixed spots, is supportive of a narrative(s) for the '*Uncertain States of Amsterdam*'. We observe incomplete 'states' of appropriations, insertions, situatedness and more, as a small part of the spatial vocabulary for only one settlement of the Randstad.

#### **4.4 Image bar 4: South Africa [26] and Turkey.** [29]

The South African and Turkish examples are of a comparable nature, to some extent. The importance of the individualized 'situated' moment in the city, as informal traders are juxtaposed against formal economies, are what makes the narratives of these situated livelihoods, of mayor importance. Spatial configuration, and scale are, for most parts, altered to align the individual to that of the urban process. If one lane of traffic is closed down, Traders and proprietors, shift all activity to spots where exposure and acknowledgement are at its highest. [see 26] We think of the cell phone merchant and corn seller that appropriates on the busy street of either the CBD of Pretoria, or those routes where high and middle scale spatial flows enters the urban fabric.

On Taksim Square, Istanbul, the shoe cleaner and nut roaster, however illegal it may be, still remains a fluid figure, as they move from corner to corner, avoiding police prosecutions. Today the actives are located here, tomorrow there, as the Urban Machine allows for shift and alterations to be made within a framework of mobility and fluidity.

### Conclusion:

“The essence of what insist on calling urbanism is composed / decomposed by these transfer, transit and transmission systems, these transport and transmigration networks whose immaterial configurations reiterates the cadastral organizations and the buildings of monuments” (Paul Virilio) [30]

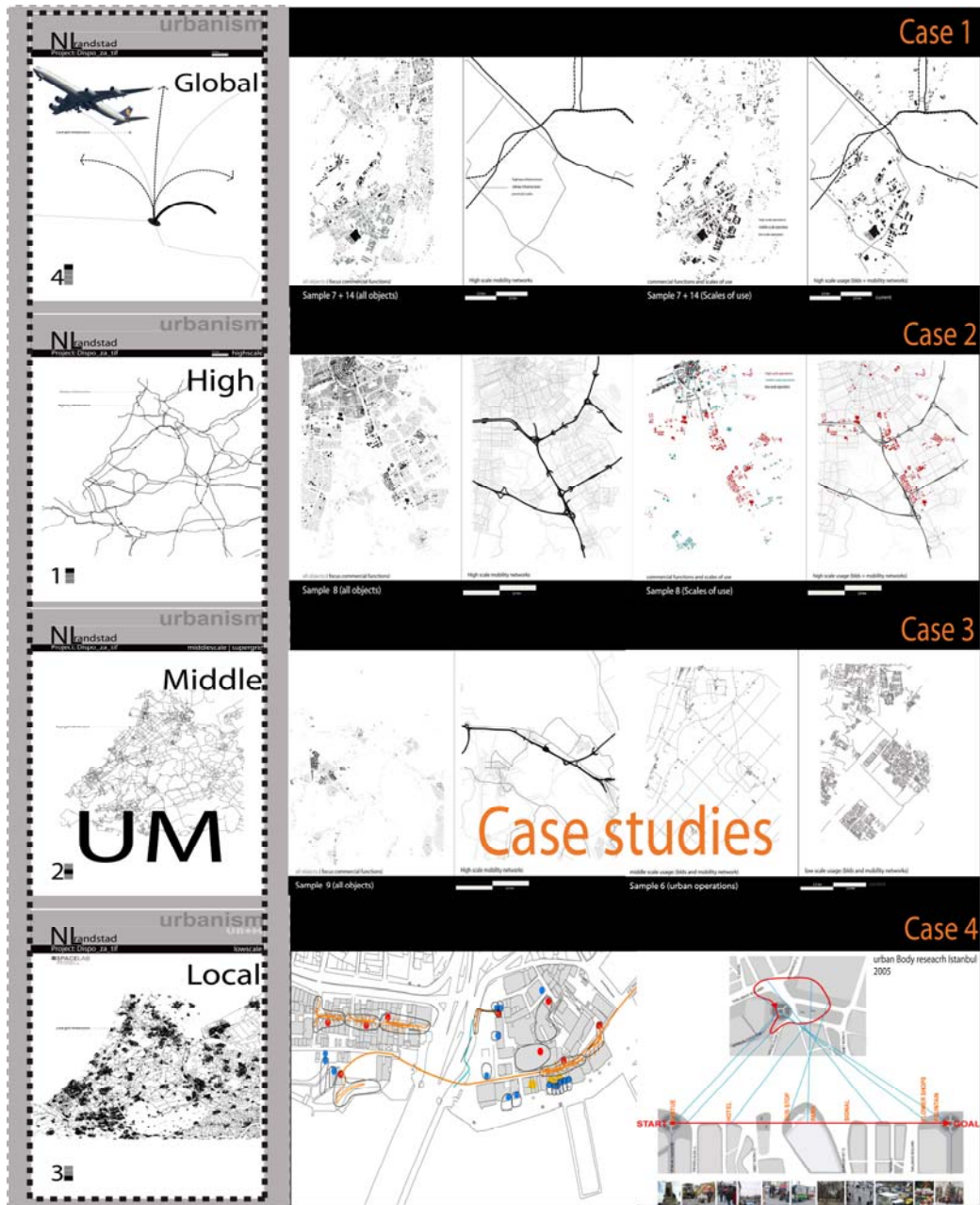
Various urban perspectives have been taken under examination, whilst seeking a framework that would re-link and ‘tie’ the territory into one operative system. The ‘*device mobile*’ inserts, a system of scales, to produce the spatial device and operative framework for certain urban strategies.

I would like to conclude with these, post-mortem, remarks:

1. It is advisable to address all scales of the landscape, for effective analysis, strategies, and design intervention. No one singular scale receives hierarchy over the other, as all urban interventions exert consequences on both higher and lower levels. Singular object might position themselves on multiple scales, simultaneously.
2. Our terminology reflects an underlying basis for our conception of the world. If we keep to the traditional naming of the city, whilst the operation is territorially and topologically situated, the effects clearly leaves systems and objects in a state of conflict.
3. We breach this conflict though and by *Space* itself. Space is the tool and technique in understating the urban environment. Apart of the Cartesian architectural space, urban space is mobile and fluid. Unlike Calabrese’s [31] design manifesto in weaving all three elements of urbanism, mobility and architecture (UMA) into a single unit, space from our perspective is effective, produces, and is not produced.
4. Graham and Marvin [32], is in support of an emphasis that design practices should be more in-tuned to processes and relations, than to forms and objects. Forms, types or geography are a secondary concern, whilst process and space remains primary goal expressed as the ‘*Forms to relations*’ versus ‘*relations to forms*’.
5. In conclusion, the ‘*fluid nature*’ of urbanism, for both levels of concepts and application, remains misunderstood. Architectural thinking is busy suffocating devices and notion that might be very effective for ‘*certain*’ and ‘*uncertain*’ urban states that still require development. ‘*Strategies*’, ‘*space*’, ‘*emergence*’, ‘*situatedness*’, ‘*material flows*’, and so forth, require further elaboration, for both practices of the ‘weaving’ and ‘reweaving’ as a professional and territorial skill. Without this, we will remain ineffective in ensuring our goal of spatial coherences for the whole territorial landscape.



Figure 1: Urban Machine (vertical) and the Case Studies (horizontal)



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