

Neo-materialism and urban planning

A contribution to new metaphoric understanding

H.A. Sap, M.Sc.
Eindhoven University of Technology
Department of Architecture, Building and Planning
Eindhoven, The Netherlands
E-mail: h.a.sap@bwk.tue.nl

Introduction

With the rise of postmodernism -as new period, as fundamental doubt concerning modernism, as a mere interruption or as fundamental revision- a crisis of modernism was revealed. Modernist thought about the city has been characterised by categorisability, makability and stability; man and city were reduced to statistics and four activities (housing, work, recreation and transport). This is shown in blueprint planning and masterplanning.

The static thinking in architecture and urban planning/design coincides with the notion of evolution since Darwin (De Jong, 2002). As far as evolution thinking penetrated modernist architecture and urban design it considered a preferred and known future; the *city of tomorrow*. This modernist city of tomorrow faced numerous unpredicted developments and made clear that the urban reality is more complex and dynamic than appeared in the reductionist modernist urban theories.

Modernism used a mainly materialist worldview, but often based on mechanist or vitalist presumptions. Especially the French Philosopher Henry Bergson (1859-1941) has had a vast influence on the penetration of vitalism in art, politics and spatial policy, as a romantic and idealist reaction against pure materialism. (De Jong 2002, Burwick e.a. 1992)

Both mechanism and materialism have (had) influence on architecture and urban design. Mechanist and organisist metaphors (a sign of vitalism; A. Harrington, 1999) have been used to describe phenomena, functioning and design of cities and buildings.

Leon Krier for example describes the city as an “*individual, possessing a body and a soul*” (Krier, 1982, p.101) and more recent Charles Landry stated that cities should develop a ‘personality’. Landry even drives the use of a body-metaphor so far that according to him “[A] heart attack might be traffic gridlock where everything stops running and the blood stops flowing. Uncontrolled population growth might be seen as a tumour. The organic metaphor suggests a way of looking at cities in terms of diagnosis, prescription and cure.” (Landry, 1995, p58) This results in a very restricted view on the city; everything unplanned or unwished is diagnosed as a disease and should be cut out by an urban designer-surgeon.

Mechanist metaphors for the city and its buildings can be found in the machine (Le Corbusier), the assembly line (Miliutin, Leonidov). Mechanist metaphors tend to reflect the ruling organisation of production of their period; at the moment 'post-fordism' or 'post-industrialism'. Associated with this the contemporary city is seen as (part of) a network and as specialised node within a flexible network. The notion of cities in/as a network corrodes the idea of makability and planability. In a body or a machine every part has its fixed position and indispensable function. Networks on the other hand are based on flexibility, dynamics and competition. Cities (often operating as city regions) have to win a position in the network by enhancing their accessibility and by specialisation (Eindhoven leading in Technology, Darmstadt city of Science, Lausanne administrative capital of world sport).

Can after vitalism and mechanism a new way of thinking (a new image of thought), perhaps with new metaphors, be of significance for contemporary urban design and spatial planning?

Nomadic thinking

With the diminishing of the idea of a to fixed make-ability and plan-ability of society, the city and space, there came room (and need) for a new thought in terms of movement, dynamics and alternative forms of organisation. The thinking of Gilles Deleuze and Felix Guattari (D&G) appear to connect with this and have proven to be a source of inspiration for architects, urban designers, geographers etc. D&G propose a 'nomadic thinking' in which planning and hierarchies are in constant tension with flows, dynamics and alternative 'nomadic' structures.

This tension is for instance shown in more recent metaphors such as the 'themepark city' or 'fortress city' (Sorkin, 1992) in which not the planning of a whole city is the aim, as was the case with earlier mechanist and organisist metaphors, but the planning of relatively autonomous parts of the city (and more or less implicit against other parts of the city) by the production of controlled, monofunctional and from 'chaos' isolated spaces. This form of repressive and exclusive urban planning/design can be regarded as attempt to protect the 'arboreal structure' -the existing hierarchy- against rhizomatic, apparent chaotic powers and (counter)movements of post-modern society. Michael Dear uses the metaphor of the Keno-card for this type of planning, which shows the apparent 'accidental' or 'random' occurrence of new urban spaces/functions and the barriers between them. (Dear, 2000).

Within 'nomad thinking' dynamics play a major role, but what causes these dynamics? Both vitalism and mechanism seem to be apparent in the work of D&G. On the one hand they claim that "*everything is a machine*" (D&G, 1977, p.2) on the other hand they say to hope that everything they've written is vitalistic. In *Anti-Oedipus*, however they conclude that it is irrelevant to make a distinction between vitalism and mechanism. (D&G, 1977, p.285) Notwithstanding this D&G make use of concepts with a vitalist or mechanist connotation.

Examples of concepts with an organisist or vitalist connotation are the 'Body without Organs' and the 'Rhizome'. The BwO however is described by D&G as inorganic life; "... *the life in question is inorganic, germinal, and intensive, a powerful life without organs, a Body that is all the more alive for having no organs, everything that passes between organisms.*" (D&G, 1988, p.499). This BwO is not a body from which the organs are removed, but a body in which that what functions as organs are divided as multiplicities. "*The full body without organs is a body populated by multiplicities*" (D&G, 1988, p.30). Manuel De Landa points

out the pure immanence of the BwO: *"The concept of the BwO was created in an effort to conceive the genesis of form (in geological, biological, and cultural structures) as related exclusively to immanent capabilities of the flows of matter-energy information and not to any transcendent factor, whether platonic or divine"* (De Landa, 2000, p.263).

The Rhizome also appears like a living organism in the polemic relation to the arborescent structure and the constant new connections, lines of flight, it makes and the autonomy and spontaneousness with which this seem to happen. *"A rhizome ceaselessly establishes connections between semiotic chains, organisations of power, and circumstances relative to the arts, sciences, and social struggles."* (D&G, 1988, p.7) The 'connections' these rhizomes make; the abstract or nomadic lines - the lines of flight (D&G, 1988, p.11) - are also described by D&G as 'inorganic life'. *"It is this nomadic line -that he says is mechanical, but in free action and swirling; it is inorganic, yet alive, and all the more alive for being inorganic"*. (D&G, 1988, p.498).

Protevi claims that *"as Deleuze insists on the univocity of being and hence on the reality of the virtual, he avoids a hypostasized spiritual agent of change (vitalism)"*. (Protevi, 2001, p 10).

Examples of concepts with a mechanist connotation are the 'abstract machine', 'aggregates', 'machinic assemblages' and 'war machine'.

"... referring not to an organ or an organic function but basically to a material, in other words, to an aggregate whose elements vary according to its connections, its relations or movement and rest, the different individuated assemblages it enters." (D&G, 1988, p.256) *"machinic functioning rather than mechanic functioning"* (D&G, 1988, p.256)

D&G state that 'everything is a machine', they speak about producing-machines, desiring-machines, codifying-machines, social-machines etc. to combine forces and mechanisms in relation to desire, codification, organisation of society etc. *"Everywhere it is machines - real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections."* (D&G, 1977, p.1) These machines are not 'ready made' but constantly in process, in becoming. Fundamental for the D&G machines are the connections they constantly make, and from which they exist. *"The productive synthesis, and production of production is inherently connective in nature: 'and...' 'and then...'"* (D&G, 1977, p5, see also Doel)

D&G machines are connected by 'flows' that they produce and that influence each other.

"The one produces a flow that the other interrupts" (D&G, 1977, p.1). A D&G machine can be defined as a 'system of interruptions' or 'brakes'. (D&G, 1977, p.36). These machines and connections are supposed to be actually productive: *"Something is produced: the effects of a machine, not mere metaphors"* (D&G, 1977, p.2). An important D&G 'machine' is the nomadic 'war machine' which they describe as the dynamic and fluent constructs contesting arborescent or State structures. (D&G, 1988, plateau 12 – Treatise on nomadology).

"...the war machine,..., consistst in being distributed by turbulence across a smooth space, in producing a movement that holds space and simultaneously affects all of its points, instead of being held by space in a local movement from one specified point to another." (1000P p363)

Just as D&G speak of 'inorganic life', the machines they describe are not technic or mechanic. According to D&G there is not so much a difference between life and machine, but rather between two conditions of life. Mechanism regards a structural unity in the explanation

of the functioning of an organism. Vitalism on the other hand regards an individual unity that makes the organism autonomous and makes mechanisms subordinate to this.

Neo-materialism

According to Protevi D&G provide us with a consistent materialism that avoids the opposition between mechanism and vitalism, linked with an immanent and univocal ontology of becoming; a consistent materialism without mechanist reductionism or vitalist reification.

Protevi characterizes D&G's 'nomadic thinking' as *Historic libidinal materialism* concerning 'bodies politic'. "*Material systems whose constitution in widely differing registers (the physical, chemical, biological, neural, and social) can be analysed in political terms, for instance, the domination or putting to work of one body by another in a fixed hierarchy, or conversely, the formation of a free body with multiple, shifting, and increasingly intense internal and external connections*". (Protevi, 2001a)

De Landa speaks of 'nomad thinking' of D&G as *Neo-materialism*; a new form of materialism liberated from the 'dogma's' of the past. Reality consists of dynamic and unsettled matter-energy, in which changes are non-linear; meaning with strong mutual interactions and feedback between components.

"In a very real sense, reality is a single matter-energy undergoing phase transitions of various kinds, with each new layer of accumulated 'stuff' simply enriching the reservoir of nonlinear dynamics and nonlinear combinatorics available for the generation of novel structures and processes" (De Landa, 2001, p21).

Instead of essences and other transcendent entities something else is needed to explain what gives objects their identity; this 'something else' are dynamic processes immanent to the world of matter and energy (De Landa, 2002, p.2)

De Landa tries to use 'nomadic thought' and to represent historical developments and processes as flows of energy, matter, information and their stratification/re-/destratification in hierarchies and networks. "... *since what truly defines the real world (according to this way of viewing things) are neither uniform strata nor variable meshworks but the unformed and unstructured flows from which these two derive*" (De Landa, p260).

Cities hereby are considered as "*not only as structures operating at a certain degree of stratification (with a certain mix of market and command components), but they themselves performed destratifications and restratifications on the flows that traversed them*". (De Landa, 2000, p263) This also connects to the notion of transition from 'spaces of place' towards 'spaces of flow' by Manuel Castells.

Flows of matter and energy

Flows of matter and energy (money, data, resources, people, products, techniques etc.) and the interaction between them can be regarded as forces behind formation of new hierarchies, networks and more experimental immanent 'bodies politic' like nomadic 'war machines' and 'bodies without organs'.

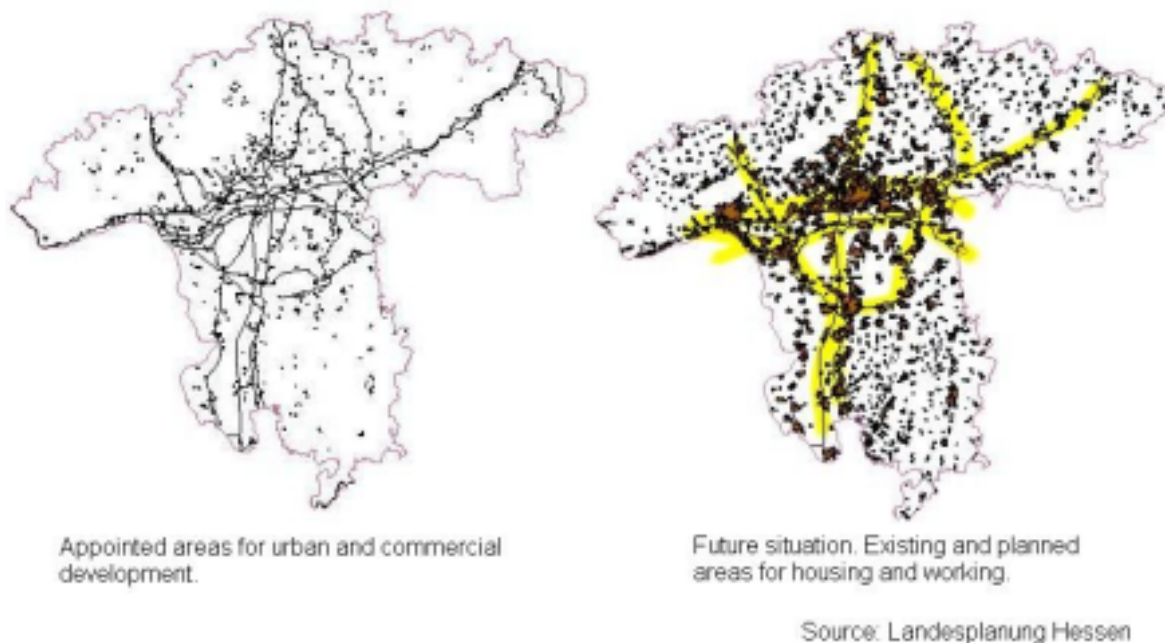
Flows of matter and energy traversing the landscape and mingling, collapsing and struggling there can be regarded as driving forces behind urban development and manifestation.

This is shown for example in the development of the Frankfurt Rhein Main Region where from the beginning of the 20th century a vast increase of urbanisation and industrialisation

occurred along the 'flows' of matter and energy; along the river Main, the main (rail)roads and the lines for power- and data transport in the region.

New appointed spaces for urban development and the for development of new spaces for the postfordist and postindustrial complexes in the region also show the preference for proximity of infrastructures (Landesentwicklungsplan Hessen 2000, Regionalplan Sudhessen 2000).

Besides these appointed spaces, municipalities are also accused of additional 'unplanned' developments (Cuadra, 2002). This goes with a vast de- and reterritorialisation of spaces in- and outside the traditional cities in the region. This de- and reterritorialisation, especially due to 'unplanned' developments can be regarded as a postindustrial 'nomad war machine', in the way that it contests the traditional planning (structures) and replaces it with a less hierarchical spatial structure.



The following advertisement for an officebuilding in Burostadt Niederrad situated along the highway between Frankfurt and the Airport points out clearly how the importance of the flows mentioned earlier is propagated. *"Access, whether to communication, roads or people is of paramount importance today. The AccesTower is positioned to benefit from the best of all worlds. It is in close proximity to both, the City Centre and the international airport. The access tot the latest IT infrastructure means that the building is at all times at the very core of global commerce"* (www.accesstower.de)

The importance of flows is also made clear by the amount of commuters working in Frankfurt. The city offers work for 478.000 employees; more than 300.000 of them arrive everyday from outside of Frankfurt. This is spatially translated in the, still continuing, building of new more or less suburban residential towns and the expansion of existing towns along the main infrastructures and in a transition form the traditional city of frankfurt



towards a specialized node for work, culture and tourism. One example of this development is the planned extension for Kalbach, between two highways at the north of Frankfurt. Another example is the Burostadt Blauer See along the A60.



Nomadic thinking can provide instruments, a vocabulary, to research how these flows shape the landscape and are being organised by/in 'abstract machines' (or Protevi; 'social machines', or De Landa; 'engineering diagrams'); structure generating processes that lead to more or less rhizomatic spatial, experimental politic/societal structures. These abstract machines connect simultaneously to the global economy and local spatial/economic policy or action; such as the 'offensive flexibility' strategy used in Germany focussing on the spatial quality and . It can provide a materialist way of thinking and analysing that simultaneously gives a broadening and a precision of dialectics by not limiting itself to oppositional abstract concepts but by regarding a multiplicity of virtual and actual (but always real) dynamic and interrupting flows.

References

- Burwick F., Douglass P. e.a. 1992. *The crisis in modernism*. Cambridge University Press
- Cuadra M. 2002. *RheinMainRegionale; Der Ballungsraum Frankfurt af dem Weg zum Kulturraum*. Berlin. Junius Verlag
- Dear M. 2000. *The postmodern urban condition*. Oxford etc. Blackwell.
- De Landa M. 2000. *A thousand years of non-linear history*. New York. Swerve Editions.
- De Landa M. 2002. *Intensive science and virtual philosophy*. London. Continuum
- Deleuze G, Guattari F. 1977. *Anti-Oedipus; Capitalism and schizophrenia*. New York. Viking Press.
- Deleuze G, Guattari F. 1988. *A thousand plateaus*. London. Athlone Press.
- Deleuze G, Guattari F. 1988. *Bergsonism*. New York. Zone Books.
- Doel M. A hundred thousand lines of flight
- Doevendans C. 2002. *Metaphors result in Technology*. Presented at 1th USO-Built conference. Darmstadt
- Harrington A. 1996. *Reenchanted science*. Princeton University Press
- Hessisches Ministerium für Wirtschaft, Verkehr und Landesentwicklung. 2000. *Regionalplan Sudhessen 2000*
- De Jong M.D.Th.M. 2002. Scheidslijnen in het denken over natuurbeheer in Nederland; een genealogie van vier ecologische theorieën. Delft. Delft Univesity Press.
- Landry C. 1995. *The creative city*. London. Demos.
- Protevi J. 2001. *Political Physics; Deleuze, Derrida and the body politic*. London. Athlone Press.
- Protevi J. 2001a. *The geophilosophies of Deleuze and Guattari*. Paper for SEDAAG conference Nov. 2001, Lexington.
- Sorkin M. 1992. *Variations on a themepark; the new American city and the end of public space*. New York. Hill and Wang,