

## Turning the invisible visible

Art, Architecture and the Unconscious Infrastructures of Cities  
In: Island, Synchronicity. Fundacja Bez Zmiana, Warsaw, 2009.  
Levente Polyak

*„In the late afternoon, as the sun reflects on the glass walls and reddens the brick partitions, it appears like a magic city made of crystal and porcelain, a city filigreed like a work of art, a transposition of the celestial Jerusalem dreamt up by the painters of the Middle Ages. But in front sprawls a sort of hell, or purgatory: cranes, immense bridges spanning platforms mines with containers, refineries and factories between which are creeping swamps, everything in poor condition and rusted out, as though irreparably polluted yet somehow endowed with a strange beauty.“*

Antoine Piçon: *Anxious Landscapes*, p.64.

*„The chief function of the city is to convert power into form, energy into culture, dead matter into the living symbols of art, biological reproduction into social creativity.“*

Lewis Mumford: *The city in history: its origins, its transformations, and its prospects*, p. 571.

Urban infrastructures were once objects of fascination and carriers of promises for generations of architects, urbanists and engineers. They represented modernity at work; meant to bring about mobility, health and energy, the creation of highways, sanitary and electricity systems was regarded as prior to the placement of other urban functions. In the second half of the 20th century, however, the post-industrial transformation of urban economies left an important part of the urban infrastructures in decay. This downturn has become an important source of social and environmental problems and consequently, it has gradually become a central topic of the debate on the contemporary city.

The two quotes above reveal two distinct regards at the urban infrastructure. The first one sees it as a sublime ensemble of visual elements, a vision of rust and ruins that has inspired a large number of visual artists to paint the degeneration of the post-industrial landscape. This vision, in many cases unaware of the social transformations that took place among these spectacular settings, has gradually entered into the society's value system as an „aesthetics of rust“, affecting the design of art centres and the scenery of music videos and disaster movies.

The other regard looks at the urban infrastructure as at a transformation machine, a hardware system that is necessary to the very functioning of the city; its decay is less an aesthetic phenomenon than the source and consequence of socio-political turbulences that together make the functionality of cities questionable.

If the first regard, stirred by an affection for ruins, has been analysed in a variety of psychological and culturalist approaches,<sup>1</sup> the second regard has led to a reexamination of urban infrastructures from the viewpoints of architectural and urban history.<sup>2</sup> The interest for infrastructures has by no means been limited to the architectural field. Environmental organisations that in the 1970s began focusing on the ways urban nature is produced and abused, and social movements concerned with issues of environmental justice have all had their share of talks about the infrastructure. Artists approached urban infrastructure through all these ways; as they have developed a strong sensibility for social conflicts and for architecture and urban phenomena, they inevitably turned to infrastructure as to a distinguished subject to investigate and to intervene at. In the following pages I will look at the ways urban infrastructure is approached by these different concerns; through the discussion of art and architectural projects I will explore the contexts in which these practices interweave.

## „What is infrastructure?“

1 Anthony Vidler: *The Architectural Uncanny: Essays in the Modern Unhomely* (Cambridge, MIT Press, 1994); Andreas Huyssen: *Nostalgia for Ruins*. In: *grey room 23*, Spring 2006. (Cambridge, MIT Press); Svetlana Boym: *The Architecture of the Off-Modern* (New York, Princeton Architectural Press, 2008)

2 Dominique Rouillard: *Territoire magique*. In: Claude Prelorenzo (ed): *Infrastructures, Villes et Territoires* (Paris, l'Harmattan, 2000); Matthew Gandy: *Concrete and Clay. Reworking Nature in New York City* (Cambridge, MIT Press, 2002)

This is the question posed by a 2009 summer exhibition at the AIA Center for Architecture in New York.<sup>3</sup> The show, as stated in the introduction brochure, „documents a series of contemporary experiments in planning, architecture and design that treat cities and their environments in holistic terms, as a complex social, political and ecological matrix. This exhibition makes the case that infrastructure cannot be divorced from the structure of democracy and the environment at large.“

This affirmation in itself brings us no news: infrastructure, as an agent of mobility and access to resources, has long been seen as crucial to any democracy, and with the emergence of environmental concerns, the universal formulations of infrastructural needs have been diversified and gradually adapted to local configurations. However, the topics raised by the exhibition's thematic sections („How do energy infrastructures define us as citizens - not just consumers? How does infrastructure build trust? How does trust build infrastructure?“) took a more peculiar position: underlining the importance of democratic control of infrastructures and resources, the exhibition proposed a hypothesis: to achieve this control, the key is information („How do we organize information? How does information organize us?“).

What unites the exhibited works is the conviction that social exclusion from access to resources is best fought with raising awareness of the functioning of infrastructures and making relevant informations circulate in a variety of media. In other words, borrowing the title of George Legrady's work, to reveal how infrastructure works one has to „make visible the invisible“.<sup>4</sup> The inspiration to this communicational approach was drawn from the work of the early 20th century Austrian sociologist, Otto Neurath, who introduced the methodical use of graphic design to communicate scientific ideas. He developed the model of the isotype, a system of pictograms, which a large influence on a variety of practices such as cartography and museology.

The participants of the exhibition – architects, artists, designers and research laboratories – take on a role of activist, as they bring to light the underlying economic and political structures shaping prison geographies, biodiversity, urban renewal and bankruptcy. To mention but a few: Laura Kurgan's Columbia Spatial Information Design Lab, for instance, visualizes incarceration data by tracing the communities and blocks of prison inmates.<sup>5</sup> The maps created by SIDL show how the prison geography of New Orleans is concentrated in the poorest African-American neighborhoods and how much incarceration money is spent „on“ neighborhoods; not „in“ them. Natalie Jerimijenko from the New York University's Environmental Health Clinic maps and analyzes biodiversity in New York City, deconstructing the romantic notion of the natural beauty and inviting the spectator to think about nature's functioning, offers and needs.<sup>6</sup> Lize Mogel shows results of her participatory mapping of how ordinary people are affected by the global economic crisis.<sup>7</sup> George Legrady, in his piece „Making Visible the Invisible,“ created for the Seattle Public Library, visualizes the circulation of books and other items of the library.<sup>8</sup> The screens hanging from the library's ceiling tell us about the number of items checked out, their titles, Dewey locations and keywords, giving a „real-time living picture of what the community is thinking,“ that is, a map of reader attention. Finally, the Center for Urban Pedagogy and its founder Damon Rich show new pieces of the „Making Policy Public“ and „Predatory Tales“ projects which investigate the political economy of the built environment in order to make social policy more accessible to the public.<sup>9</sup>

This enumeration illustrates well the diversity of what we may call infrastructure. Neighborhoods, housing, loans, prisons, libraries, flora and fauna, these are all intersecting layers of the environments that structure the way we live and have access to resources. To summarize, what is stunning in the Center for Architecture show is the way inequalities are approached by the exhibited projects: most of them use cartography – in a literal of metaphorical sense – to map exclusion and access. Another characteristic worth noticing is the strong heterogeneity of professional activities that result in these maps. The exhibiting artists, architects, designers or researchers come from a great diversity of backgrounds, and accordingly, they describe their works as belonging to different cultural fields.

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3 The Global Polis: Interactive Infrastructures. Center for Architecture, New York, May 15-August 29, 2009

4 <http://www.georgelegrady.com>

5 <http://spatialinformationdesignlab.org>

6 <http://www.environmentalhealthclinic.net>

7 <http://publicgreen.com>

8 <http://www.georgelegrady.com>

9 <http://www.anothercupdevelopment.org> and <http://damon.anothercupdevelopment.org>

This ambiguity just grows if we look at where the same works have been exhibited in the last few years. Some of the exhibited groups were involved in the „Shrinking Cities“<sup>10</sup> project, others were chosen for the 2008 Venice Biennial of Architecture's American Pavilion<sup>11</sup>, again others participate at the „Experimental Geographies“<sup>12</sup> exhibition travelling around the United States these months. These exhibitions, without any doubt, mean different contexts, gather a different public and consequently represent different forms of responsibility. The same works look different and carry different significations in centers of architecture, in art museums or in national pavilions.

But how come that scientific research, architectural analysis and artistic inquiry result in the same format, produce knowledge of the same nature and are exhibited in the same place? And why do artists and researchers turn so often to urban space and infrastructures to search for dysfunction and structures of inequality?

### **Art, architecture and inquiries of the built environment**

The investigations of the built environment, an the intersections of urbanism, architecture, geography and art, have created an unified field of interrogation, where art and architecture, science and culture converge. The convergence of artistic and architectural concerns has been noticed and analysed extensively in the art and architecture discourses of the last decade. The architectural historian Jane Rendell described this convergence as the emergence of a „critical spatial practice,“ occupying „a place between art and architecture in the public realm.“<sup>13</sup>

Although the works described above can be seen as „critical spatial practices“ - enlarging the place between art and architecture towards cartography<sup>14</sup> - the fusion of art and architecture is more often associated with „site-specific“ interventions and utopian plans, like in the works of Marjetica Potrć, Yona Friedmann and Alain Bublex. They propose solutions to conflictful urban situations, where the emphasis lays not on the analysis of the given situation but on the intervention in it. Potrć, Friedman and Bublex are all architects whose work – intended or not – has become more influential in the art world than in the field of architecture, due to their non-disciplinarity and utopian imagination, values more appreciated today in art than in architecture.

This shift between disciplines is not without any contradictions: the recent renaissance of interest in Friedman by art curators is often criticized as simplifying the architect's oeuvre: „Friedman's message is, once again, dramatically misunderstood, sublimated into an artistic artefact, and exorcized of its political significance,“ writes Manuel Orazi.<sup>15</sup> However, if we look at the ensemble of these projects closely (and here we can include some of the large-scale exhibitions witnessing the recent revival of architectural utopias in art museums: Superstudio in the Design Museum, Buckminster Fuller in the Whitney Museum, Megastructures in the Former State Mint Berlin, etc.), in the end, we see a revival of interest in infrastructures. For they all seem to be infrastructure projects: utopia is not so much about form then about lifestyles and radically new relationships to places; an evolution that makes new infrastructural solutions indispensable.

There is no place here to describe the process in which artists turn to public spaces and participatory techniques. But we have to note that artists' involvement in the public space leads to the reformulation of the role of the artist by leaving the gallery and addressing social issues: „By intervention, we mean simultaneously the action to project oneself into the public space, the will to get involved and the recourse to an aesthetic of eruption. The intervention turns the artist into a social actor and a heckler.“<sup>16</sup> Art and architecture start approaching each other when they realise that they share not only social concerns, but also methods and territories: artists continuously reappropriate the margins of architecture, parallelly to architects who expand their practices into the realm of art. Site-specificity, as a social and spatial critique, acts against the unifying tendencies of modernism and neo-liberal globalisation: artists and architects creating site-specific installations engage with non-places so that they seem again particular and rooted, replacing a Cartesian geography with

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10 <http://www.shrinkingcities.com>

11 <http://positioningpractice.us>

12 <http://www.ici-exhibitions.org/exhibitions/experimental/experimental.htm>

13 Jane Rendell: *Art and Architecture: A Space Between*. (London, IB Tauris, 2006)

14 David Gissen: *Architecture's Geographic Turns*. In: *Log 12, Spring/Summer 2008* (New York, ANY)

15 Manuel Orazi: *Utopia's Revival*. In: *Log 13, Fall 2008* (New York, ANY), p.40.

16 Paul Ardenne: *L'art dans son moment politique*. (Brussels, La Lettre Volée, 1999), p.233.

ethnographical topographies.<sup>17</sup>

The relation between analysis and intervention (or between theory and action) is very complex in the artistic practice. Hal Foster in his influential book, *The Return of the Real*, speaks about a new role taken on by the engaged artist: he speaks about the „artist as ethnographer“ who chooses to understand the identity construction of groups or persons; and eventually its inscription into an „elsewhere“, a rural, urban or media space where the artist may intervene.<sup>18</sup> Due to its extreme disciplinary flexibility, the field of art accommodates architectural, cartographic and activist approaches and provide them with discursive space and public attention. Consequently, environmental activism finds its natural place in art.

### **Ecology and the urban nature**

In the summer of 2008, an immense spectacle drew attention to the waterfronts of New York City. The giant waterfalls of Olafur Eliasson, installed at docks of Brooklyn and Manhattan, were expected to raise tourism revenues by \$55 Million - but how this amount was calculated remained unclear to most of the commentators. Eliasson, who had been planning this project for years, spoke more of nature than about money:

“You take the water around Manhattan for granted. (...) To help restore our sense of engagement with that landscape, (we have to) to make water explicit. (...) Falling water, it makes a sound, it engages a whole different range of senses. You see gravity. To make it explicit is to take it, hold it up, and let it fall.”<sup>19</sup> Besides the effort to make visible something otherwise invisible, Eliasson also underlines the importance of the waterfalls for the sense of community: “In developing *The New York City Waterfalls*, I have tried to work with today’s complex notion of public spaces. (...) The Waterfalls appear in the midst of the dense social, environmental, and political tissue that makes up the heart of New York City. They will give people the possibility to reconsider their relationships to the spectacular surroundings, and I hope to evoke experiences that are both individual and enhance a sense of collectivity.”<sup>20</sup>

Art in public spaces is a dubious affair. It is often instrumentalised to assume transformations of the urban landscape, to generate economic development or raise acceptance of politicians: public art can be „drawn into this zombification of the local and the everyday, this Disney-version of the site-specific.“<sup>21</sup> The intervention of Eliasson is no more than a cosmetic surgery after the life-saving operation of an urban landscape that is no longer in danger of death.

The changing production and transportation patterns transformed the relation of Western cities to nature: their rivers, seas and waterfronts. In the post-industrial urban condition cities embrace nature, and new functions appear in the former brownfields: „Paths and cycle trails replace closed spaces of mills and railway yards“<sup>22</sup> In appearance, natural areas are no longer enemies of economic development; on the contrary, they guarantee a certain quality of life that is necessary to keep populations in place. Regeneration of urban waterfronts, beginning in the late 1970s in Northern America and spreading out in all continents in the 1980s, restored communication between cities and their rivers and seashores, and created new centralities in the proximity of water.

Today, urban parks are inherent parts of regeneration programmes, and breathing spaces of the city are more appreciated than ever. The mayors Paris have been flirting with the idea of swimmability of the Seine for decades. But parks and waters are not all: the revitalisation of riverfronts is in fact a reconsideration of urban infrastructures, by removing circulation from the riverbanks, the conversion of port facilities into cultural, commercial and housing complexes and other interventions. Furthermore, with the help of more and more sophisticated water sewage and treatment systems not only the landscape of waterfronts and their use but their ecology and their modus operandi has also been transformed.

But these changes are not witnessed by all the urban waterfronts. The restoration of nature does not happen everywhere; while certain highly visible neighborhoods regain their access to nature, this process often brings about the sacrifice of other, more or less distant districts. Some of the

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17 Hal Foster: *The Return of the Real* (Cambridge, MIT Press, 1996)

18 Ibid.

19 Michael Joseph Gross: *The Falls Guy*. In: *New York Magazine*, June 8, 2008

20 Nadia Chaudhury: *Chasing New York City’s Waterfalls*. In: *Brooklyn Rail*, July 2008

21 Hal Foster: *Ibid.*, p.138.

22 Malcolm Miles: *Urban Avantgardes: Art, Architecture and Change* (London, Routledge, 2004), p.192.

urban problems created by the different phases of industrialisation and modernisation are not always solved by new landscaping and local rezoning, but are often displaced and made less visible. To understand how the access to nature and resources is distributed, one has to situate and socialise ecology.

Social ecology is based on the assumption that social inequalities are tightly connected to ecological problems. As the founder of the social ecology movement, Murray Bookchin puts it: „Economic, ethnic, cultural, and gender conflicts, among many others, lie at the core of the most serious ecological dislocations we face today - apart, to be sure, from those that are produced by natural catastrophes.“<sup>23</sup> This approach does not deal exclusively with extreme ecological problems: „To bring questions of urban justice into the frame of analysis compels us to see urban environmental change not simply as a function of technological change or of the dynamics of economic growth but as an outcome of often sharply different sets of political and economic interests.“<sup>24</sup> This leads to a „situated“ understanding of nature, where it is no longer the universal antithesis of culture or the city: „The cultural hybridity of urban nature warns us against transcendent views of urban nature as something beyond historical process.“<sup>25</sup>

When Spike Lee shot his film in the post-Katrina New Orleans, he was not interested in the disaster itself but in the racial and social implications unfolding in its aftermath.<sup>26</sup> When Mierle Laderman Ukeles participates at the redesign of the closed Fresh Kills waste depository landfill site, she does not surrender to the aesthetic of recycling but explores the social processes and meanings linked to waste.<sup>27</sup> To keep pace with art that engages with urban nature and acts in a form of – environmental and social – activism, we have to take a closer look at infrastructures.

## Infrastructures

Infrastructure is the link between the built environment and nature: it organises the access to nature's resources, channeling its energies to satisfy the everyday needs of modern society. Parallely to discussions of the „good urban form,“ arguments of infrastructure have accompanied and informed planners, architects and politicians in the construction of the modern city. The notion of infrastructure had long been dominated by discourses of hygiene that treated the city as a body. In the 19th century Paris, for instance, the city's functioning was often described by metaphors of „health“, masking class-oriented developments by using the absolute argument of „sanity“ (which shares its transcendent status with „nature“ in these discourses). Sanitary arguments prevailed also throughout the 20th century, in slum clearances and urban renewal projects, failing to recognise the specificity of local situations. Expanding the body metaphore, cyber theories also highlighted infrastructure as an extension of the body, linking this latter to a large-scale social and metabolic system.

As Michel Foucault reminds us, the organisation of the modern city is partly a procedure of sterilisation.<sup>28</sup> Just as the Cartesian body that is controlled by Reason, the modern city must be deprived of its dysfunctional and unwanted elements.<sup>29</sup> The sick and the disposed are separated from the functioning world in a way that implies that they become invisible. Delegating the useless into the invisible, disposing waste into the river or leading it into the incomprehensible urban underworld of pipelines and treatment systems, is like pushing the undesirable back into the unconscious of the city.

For the Modern Movement, infrastructure represented modernity and rationality. „The reference to infrastructures links to an immemorial past where physical experience prevailed over linguistic constructions, where emotion and reason were not separated yet and where the evidences of a shared experience cemented better the human collectivities than rhetorics of public interest,“ recalls Antoine Piçon.<sup>30</sup> Grandiose modernist projects such as highways, dams, public work projects all drew

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23Murray Bookchin: Social Ecology and Communalism (Oakland, AK Press, 2007), p.19.

24 Matthew Gandy: Ibid., p.4.

25 Ibid.

26 Spike Lee: When the Levees Broke: A Requiem in Five Acts (2006)

27 Mierle Laderman Ukeles: Leftovers / It's About Time for Fresh Kills. In: Cabinet Magazine 6, Spring 2002

28 Michel Foucault: Discipline and Punish: the Birth of the Prison (New York, Random House, 1975)

29 Mikhail Bakhtin: Rabelais and His World (Bloomington, Indiana University Press, 1993)

30 Antoine Piçon: Architecture et paysage de la technologie contemporaine. In: Claude Prelorenzo (ed): Infrastructures, Villes et Territoires (Paris, L'Harmattan, 2000), p.14.

their legitimacy from an urbanism seen as science that undertook the task of rationalising space. As Kazys Varnelis writes: „the city’s modernity became nearly equivalent to its infrastructure, as evident in Hausmann’s reconstruction of Paris, the ultra-real technological landscapes of Tony Garnier’s Cité Industrielle, or the wild, electric fantasies of Antonio Sant’Elia’s Citta Nouva. (...) With the massive burst of infrastructure building under Roosevelt’s New Deal, Americans came to believe that functionalism and technology would lead them to economic prosperity.“<sup>31</sup>

After the exhaustion of large-scale state-led construction projects throughout the developed world in the decades after World War II, emerging ecological concerns led infrastructure to be reevaluated. Its monumentality found itself in contradiction with a desire of mobility, and the necessity to reconcile the technological progress and the natural elements was gradually recognised.<sup>32</sup> Parallely to the triumph of megastructures, the ecologism of Buckminster Fuller and the radical architecture of Germano Celant both aimed to integrate the technological networks into the nature, to create a world disposed of architecture. This is a vision where „due to the control of environment by energy (artificial currents, thermal gates, radiations, etc.) the dams, the canals, the large climatic envelopes, all the large-scale infrastructures disappear.“<sup>33</sup> This is a context where the visibility of infrastructures becomes a choice: when Richard Rogers and Renzo Piano conceive the Centre Pompidou in Paris, they choose to make infrastructures visible.

„To understand the technical systems that support a society – roads, bridges, water supply, wastewater, flood management, telecommunications, gas and electric lines – as one category, it was first necessary to see it fail,“ writes Kazys Varnelis in a special issue of Volume, dealing with the architecture of crisis.<sup>34</sup> He continues on his website: „It’s true that infrastructure was once the least sexy of topics, a term barely used in English as late as the 1960s, but (...) it spread widely after the publication of *America in Ruins*, co-authored by economist Pat Choate and Susan Walters. (...) Over the next two decades, infrastructure continued to rise in the public eye, in large part because, as our book points out, it is in a state of constant failure. This is something that virtually all of us experience. (...) As humans and objects interact ever more directly, the lives of these systems become more and more important.“<sup>35</sup>

Infrastructure is not neutral but political, and a key to understanding its anatomy is visibility. In the society of risk, where our dependence of technological networks otherwise taken for granted (electricity and water supply, elevators, air-conditioning, etc.) is only revealed by crises, and when the hidden scarcity of resources only comes to the fore when it comes to the privatisation of public companies, a way to repoliticise infrastructure, that is to resituate it into its social and environmental context, is to make it visible. This is exactly what the works exhibited in New York’s Center for Architecture this summer do.

### **Making the invisible visible**

One approach to make the invisible visible is to become an „experimental cartographer“, and to decipher systems and reveal mechanisms, without having to adapt to conventional logics of representation. This seems to be a direction where „research architecture“ is heading to.<sup>36</sup> Experimental cartography is used in a great variety of ways. At the 2007 autumn exhibition „Just Spaces“ in Los Angeles, Amy Balkin, Tim Halbur and Kim Stringfellow created a critical audio guide for the Interstate 5 highway between Los Angeles and San Francisco, investigating the stories of people and communities fighting for environmental justice along the I-5 corridor.<sup>37</sup> At the same exhibition Liz Mogel mapped publicly accessible green spaces and distributed her maps in city buses and transit shelters. Also in the frame of Just Spaces, the Syracuse Community Geography project investigated the geography of hunger in the city, resulting of a multiplicity of decision and manifesting the complex topography of access to resources, the right to benefits and the provision of emergency aid by churches. In another context, the artists of the NoGo Voyages collective have been working on

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31 Kazys Varnelis: Systems Gone Wild: Infrastructures after Modernity. In: Volume C-Lab Issue, 2009

32 Dominique Rouillard: Territoire magique. In: Claude Prelorenzo (ed): Infrastructures, Villes et Territoires (Paris, l’Harmattan, 2000)

33 Ibid., p.27.

34 Kazys Varnelis: Ibid.

35 Kazys Varnelis: Back to infrastructure

([http://varnelis.net/blog/the\\_infrastructural\\_city\\_in\\_the\\_los\\_angeles\\_times](http://varnelis.net/blog/the_infrastructural_city_in_the_los_angeles_times))

36 David Gissen: Ibid.

37 <http://www.justspaces.org>

the cartography of the unknown Paris for years.<sup>38</sup> They create maps, itineraries and postcards showing forgotten and invisible places in the Paris metropolitan region, in order to transform the representation of the city by including areas which are usually excluded from the public imaginary of Paris.

Another way to make visible the invisible is to become an ethnologist, as Hal Foster suggests, and to examine the unconscious infrastructure of cultural phenomena. Ethnology in this sense means locating the global, situating the universal, so that its mechanisms are unveiled. As the philosopher-ethnologist Bruno Latour reminds us: „To use an expression of Sloterdijk, politics is not revolution but *clarification*, that is, the unfolding of artificial elements that we have not been aware, of which we depend to exist. Politics, in other words, is a question of *air conditioning*, the progressive recognition that we live together within compounds that are as little natural as greenhouses, and the mechanisms of which appear to us bit by bit.“<sup>39</sup>

This attitude works directly against what Modernism taught us: „Whereas in earlier periods, the advent of the Reason was predicated on the non-local, non-situated, non-material utopia of mind and matter, it is now possible to dissipate those phantoms and to observe them move inside specific spheres and networks. (...) Modernism is good at displacing, at migrating in various utopias, at eliminating entities, at vacuum cleaning, at breaking with the past, and claiming to go outside, but if you ask it to place, replace, sustain, accompany, nurture, care, protect, conserve, situate – in brief, inhabit and deploy – none of the reflexes we have learned from its history are of much use.“<sup>40</sup>

A perfect example for the artistic-ethnological excavation of hidden infrastructures is Mierle Laderman Ukeles's "Touch Sanitation" project. In 1979-80 Ukeles spent months meeting all the 8500 workers of the New York City Department of Sanitation, shaking hands with each of them and saying: "Thank you for keeping New York City alive." Ukeles intended to subvert the invisibility of garbage and of the people work with it: „As an artist, I tried to burn an image into the public eye (shaking, shaking, shaking hands...) that this is a human system that keeps New York City alive, that when you threw something out, there's no ,out'.“<sup>41</sup> A contemporary version of unveiling the hidden ways garbage leaves us will be Carlo Ratti's project planned for 2010 at the Architectural League of New York. Following the disposed garbage items by smart tags attached to them, the trajectory of waste will be traceable through geo-localisation systems. As Ratti puts it: „we know everything about the supply chain, but very little about what happens to products after we stop using them.“<sup>42</sup>

Infrastructure is back, in the very centre of architectural and artistic interests. „Many of the projects that were in that Biennale were infrastructure projects, as opposed to architecture projects“ told me William Menking, curator of the American Pavilion at the 2008 Venice Architecture Biennial, about his exhibition. „That's because America has neglected its infrastructure for 20-25 years. Architects went to those places which have been neglected and were reengaging with those problems. There they realised that the problem was with infrastructure, before, let's say, architecture or buildings.“

To the growing interest in infrastructure from the part of architects, theorists and artists has recently been added a strong political interest. In the convergence of economic and ecological crises, the Obama administration proposed early this year, as part of the stimulus plan, a major investment in infrastructure projects. The plan, the first major state-led development initiative in decades, was called in its early days by many commentators "the New New Deal." However, its intention is not so much the erection of infrastructure monuments, then the launch of "less-glamorous but widely distributed projects such as repaving battered streets, repairing rundown schools and replacing aging sewer lines.“<sup>43</sup>

Infrastructural concerns are shared by many local and national administrations. While states and cities are less and less able to maintain their infrastructures by themselves, priorities and

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38 <http://www.nogovoyages.com/>

39 Bruno Latour: Paris, ville invisible: Le Plasma. In: Catalogue Airs de Paris (Paris, Éditions du Centre Pompidou, 2007), p.262.

40 Bruno Latour: Spheres and Networks. Two Ways to Reinterpret Globalization. In: Harvard Design Magazine, 30/2009

41 Mierle Laderman Ukeles: Touch Sanitation. In: Robinson, H. (ed.) Feminism-Art-Theory (Oxford, Blackwell, 2001), p.106

42 Lecture of Carlo Ratti at the World Information City Conference, Paris, May 30, 2009

43 Richard Simon: Obama stimulus: More old school fix-ups, less New Deal grandeur. In: LA Times, February 23, 2009

responsibilities of private companies that manage highways, railways, energy and water supply systems are not always clear. Sitting in his office in a visibly ageing metropolis, Menking went on describing the crisis of infrastructure:

„Western Europe hasn't neglected its infrastructure the way we have in the US. I always feel when I go to Europe that I'm going to the future; when I come to America I feel like I'm going to the past. Which is different from what it felt like when I first went to Europe as a teenager. I felt as if I was going to see the Old World. When I came back to America, there was great music, fantastic-looking cars. It was all this bright future. Now I feel the reverse: I feel like when I come back here that everything is falling apart.“

## **Bibliography**

- Ardenne, Paul: *L'art dans son moment politique*. (Brussels, La Lettre Volée, 1999)
- Bakhtin, Mikhail: *Rabelais and His World* (Bloomington, Indiana University Press, 1993)
- Bookchin, Murray: *Social Ecology and Communalism* (Oakland, AK Press, 2007), p.19.
- Boym, Svetlana: *The Architecture of the Off-Modern* (New York, Princeton Architectural Press, 2008)
- Chaudhury, Nadia: *Chasing New York City's Waterfalls*. In: *Brooklyn Rail*, July 2008
- Foster, Hal: *The Return of the Real* (Cambridge, MIT Press, 1996)
- Foucault, Michel: *Discipline and Punish: the Birth of the Prison* (New York, Random House, 1975)
- Gandy, Matthew: *Concrete and Clay. Reworking Nature in New York City* (Cambridge, MIT Press, 2002)
- Gissen, David: *Architecture's Geographic Turns*. In: *Log 12, Spring/Summer 2008* (New York, ANY)
- Gross, Michael Joseph: *The Falls Guy*. In: *New York Magazine*, June 8, 2008
- Huysen, Andreas: *Nostalgia for Ruins*. In: *grey room 23, Spring 2006*. (Cambridge, MIT Press)
- Latour, Bruno: *Paris, ville invisible: Le Plasma*. In: *Catalogue Airs de Paris* (Paris, Éditions du Centre Pompidou, 2007)
- Latour, Bruno: *Spheres and Networks. Two Ways to Reinterpret Globalization*. In: *Harvard Design Magazine*, 30/2009
- Miles, Malcolm: *Urban Avantgardes: Art, Architecture and Change* (London, Routledge, 2004), p.192.
- Mumford, Lewis: *The city in history: its origins, its transformations, and its prospects* (London, Secker and Warburg, 1961), p. 571.
- Orazi, Manuel: *Utopia's Revival*. In: *Log 13, Fall 2008* (New York, Anyone Corporation)
- Piçon, Antoine: *Anxious Landscapes*. In: *Grey Room 1, Autumn 2000* (Cambridge, MIT Press)
- Piçon, Antoine: *Architecture et paysage de la technologie contemporaine*. In: Claude Prelorenzo (ed): *Infrastructures, Villes et Territoires* (Paris, l'Harmattan, 2000)
- Rendell, Jane: *Art and Architecture: A Space Between*. (London, IB Tauris, 2006)
- Ratti, Carlo: *Lecture at the World Information City Conference, Paris, May 30, 2009*
- Ratti, Carlo: *Lecture at the World Information City Conference, Paris, May 30, 2009*
- Rouillard, Dominique: *Territoire magique*. In: Claude Prelorenzo (ed): *Infrastructures, Villes et Territoires* (Paris, l'Harmattan, 2000)
- Simon, Richard: *Obama stimulus: More old school fix-ups, less New Deal grandeur*. In: *LA Times*, February 23, 2009
- Ukeles, Mierle Laderman: *Leftovers / It's About Time for Fresh Kills*. In: *Cabinet Magazine* 6, Spring 2002
- Ukeles, Mierle Laderman: *Touch Sanitation*. In: Robinson, H. (ed.) *Feminism-Art-Theory* (Oxford, Blackwell, 2001), p.106
- Varnelis, Kazys: *Back to infrastructure*  
([http://varnelis.net/blog/the\\_infrastructural\\_city\\_in\\_the\\_los\\_angeles\\_times](http://varnelis.net/blog/the_infrastructural_city_in_the_los_angeles_times), accessed July 26, 2009)
- Varnelis, Kazys: *Systems Gone Wild: Infrastructures after Modernity*. In: *Volume C-Lab Issue, 2009*
- Vidler, Anthony: *The Architectural Uncanny. Essays in the Modern Unhomely* (Cambridge, MIT Press, 1994)



## **Artists & Projects**

Center for Urban Pedagogy (<http://www.anothercupdevelopment.org>)  
Environmental Health Clinic (<http://www.environmentalhealthclinic.net>)  
Lee, Spike: *When the Levees Broke: A Requiem in Five Acts* (2006)  
Legrady, George (<http://www.georgelegrady.com>)  
Mogel, Lize (<http://publicgreen.com>)  
NoGo Voyages (<http://www.nogovoyages.com>)  
Rich, Damon (<http://damon.anothercupdevelopment.org>)  
Spatial Information Design Lab (<http://spatialinformationdesignlab.org>)  
Ukeles, Mierle Laderman: *Touch Sanitation* (New York, 1979-1980)

## **Exhibitions**

Shrinking Cities, various locations, 2002-2008 (<http://www.shrinkingcities.com>)  
Just Spaces, Los Angeles, September 26-November 18, 2007 (<http://www.justspaces.org>)  
The U.S. Pavilion for La Biennale di Venezia, *September 14 through November 23, 2008*  
(<http://positioningpractice.us>)  
The Global Polis: Interactive Infrastructures. Center for Architecture, New York, May 15-August 29, 2009  
Experimental Geography, various locations, 2008- (<http://www.ici-exhibitions.org/exhibitions/experimental/experimental.htm>)