



Charles Ari and
the Public Domain

open

*Hybrid
Space*

*How wireless
media mobilize
public space*

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Logo Parc

No. 10/2006
10/2006

editorial

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HYBRID SPACE

Public Agency in the Network Society

The philosopher Hannah Arendt defined public space as a place where people act to create a 'communal world full of differences'. But where does this space manifest itself today, that generally accessible domain where people meet one another and create public opinion and hence a form of political practice? In physical places like streets, squares and parks? In mass media such as newspapers and television? Or on the Internet, in chat rooms and newsgroups? Publicness is increasingly enacted in all these places simultaneously and in that sense has become supremely 'hybrid' in nature: a complex of concrete and virtual qualities, of static and mobile domains, of public and private spheres, of global and local interests.

The configuration of hybrid space is currently experiencing a powerful impetus thanks to wireless and mobile technologies like GSM, GPS, Wi-Fi and RFID, which are making not only the physical and the virtual but also the private and the public run into each other more and more. And although we apparent-

ly deal with this flexibly in our daily lives, what is often left aside in debates on environmental planning or on social cohesion, or in cultural analyses, is the fact that the use of these wireless media is changing the constitution of public space. They can be deployed as new mechanisms of control, but also as alternative tools for enlarging and intensifying public activities – whether it's a matter of parties, events or meetings, or of campaigns, riots and demonstrations. Wireless media make a 'mobilization' of public space possible, both literally and figuratively, so that it is no longer static and can be deployed by individuals or groups in new ways. *Open 11* deals specifically with the implications that these mobile media have for public activities, and hence with the public dimensions of hybrid space. The issue has been produced in collaboration with guest editor Eric Kluitenberg, theorist, writer and organizer in the field of culture and technology. In his introductory essay he asks himself how a critical position is possible in a hybrid space that is characterized by invisible information technology. Together with Howard Rheingold, author of the renowned book *Smart Mobs: The Next Social Revolution* (2002), Kluitenberg has also written a polemical piece about the

right and the ability to 'disconnect', that is to say, about not being connected with the 'network of waves' as a form of acting.

New wireless, mobile media and hybrid space are being used experimentally and reflected upon on a small scale by a select company of artists, designers, architects and urban designers. In her essay for *Open*, the sociologist and economist Saskia Sassen looks at ways that artistic practices can 'create' a type of public space within globalized network cities that can make visible the local and the silenced.

On the basis of their projects for the Ruhr region in Germany, architects Frans Vogelaar and Elisabeth Sikiaridi provide an account in *Soft Urbanism* of how urbanism and architecture can be combined with information and communication networks. The researchers of the design project *Logo Parc* critically analyse the 'post-public', hybrid South Axis area of Amsterdam and make proposals for experimental design strategies.

Assia Kraan writes about how 'locative arts' – art that makes use of location- and time-conscious media like GPS – can stimulate public acting in urban spaces. The *Droombeek* locative media project is discussed separately by Arie Altena. Max Bruinsma analyses *Optional-Time* by Susann LekČs and Joes Koppers. Klaas Kuitenbrouwer looks at the cultural and social possibilities of RFID. The artists/designers Kristina Andersen and Joanna Ber-

zowska discuss the social possibilities of wearable technology in clothing.

Noortje Marres's column reflects on the public's (in)ability to act and the role the media plays in this. The German researcher Marion Hamm reports on the Critical Mass bicycle tour in London in 2005, a political demonstration against neoliberal globalization, which was experienced and prepared as much on the Internet, particularly by Indymedia, as in physical space.

The interview by Koen Brams and Dirk Pültau with the Flemish television maker Jef Cornelis is part of a larger research project at the Jan van Eyck Academy in Maastricht about his work and also provides the theme of *Open 11* with a historical dimension. The conversation deals with the conditions of TV as a public medium and the changes in urban public space that Cornelis drew attention to in his early films such as *Mens en Agglomeratie* (1966) and *De Straat* (1972).

This issue of *Open* includes the CD-Rom *Amsterdam REALTIME. Dagboek in sporen/ Diary in Traces*, a GPS project by the artist Esther Polak in collaboration with Jeroen Kee and the Waag Society. Made in 2002, it deals with mobility and space and has in the meantime become a classic point of reference within 'locative arts'.

On the invitation of *Open*, the design and art collective De Geuzen has contributed *Mobiel Werk*, which is partly concealed in the cover.

Eric Kluitenberg

The Network
of Waves

Living and Acting
in a Hybrid Space

The emergence of digital media has meant that in recent years the use and significance of traditional public space has altered radically. The newest developments in information technology make use of apparatus which is less and less notice-

able, so making a critical attitude more difficult. Eric Kluitenberg, researcher in the field of the significance of new technologies for society and guest editor of the present issue, draws attention to a number of activist strategies to encourage public and private action in a hybrid space.

The office space above which I live, in a corner house in the Indische Buurt, somewhere in Amsterdam East, used to house a local police station. At that time I was not yet living there. The place was briefly in the national news because of a fair-sized riot which took place there. A couple of Moroccan youths were brought to the station for some minor offence. Their friends thought that this was not right, so they followed the police back to the station to besiege the policemen there. It was not just a few friends who ran after the policemen, but a much larger group which suddenly turned up at the station, coming from nowhere at the precise moment that the youths were brought in. At that time this phenomenon, later known as a 'flash mob',¹ was still relatively new.

The police on site were unpleasantly surprised, and had

1. For a description, see <http://en.wikipedia.org/wiki/flashmob>.

to issue a hasty call for reinforcements to negotiate with the besiegers. When it was all over a police spokesman said that it was a disgrace that the Moroccan youths had used their mobile phones to mobilize a mob. How else could these youths all have known at the same time that something was going on at which their physical presence was 'urgently desired'? And exactly where they needed to be? What the spokesman meant was that the youths had compiled mailing lists for text messages and then used texting to get together as many people as possible as quickly as possible. Texting with mailing lists was a popular application, because at that time text messages could still be sent and received free of charge.

A few years ago 'flash mobs' received a good deal of attention from the mass media. Semi-spontaneous public gatherings of groups of people, hardly if at all known to one another, nondescript, with no determining characteristics such as banners, uniform or logo, briefly performed some collective synchronous action, and then dissolved back into 'the general public'. Directions and information about the gathering were sent out by text messages, or e-mails, telling participants where, when and what. These short messages could easily be sent on to friends and acquaintances with the aim of starting a chain reaction resulting in the appearance of an unpredictably large mob at a predetermined time and place.

Reclaim the Mall!!

The 'flash-mob' phenomenon is thought by some people to have originated in a few relatively unmanageable actions in large shopping centres in American towns, disorganizing them temporarily and playfully. These actions generally had no political significance. This all changed at the end of the 1990s. The 'Reclaim the Streets' movement,² highly active at the time, which used to organize illegally orchestrated 'street raves' in the public spaces of large towns, made intensive use of text and e-mail address lists to organize quasi-spontaneous street parties. They did however give these street parties a layered political agenda. The parties were generally given concrete political and social themes and were linked to

particular actions, such as support for a strike by London Underground staff. The movement's desire to also use these actions to free public space from its economically determined function (for instance transport, shopping or advertising) was succinctly expressed in the slogan 'The streets for people!'. The parties followed a fixed procedure. The evening before, a sound truck with a generator, a DJ kit and a large number of loudspeakers would park in a wide street. Shortly before the start a double collision would be staged at the beginning and end of the street. The crucial factor here was the provision of information for the participants, who were, in principle, unknown to the organizers. Participants therefore received a short message containing simple directions to the place, the date, the time and a few instructions, such as 'wait for the orange smoke – that's when the rave will begin'. The double collision meant that at the agreed time the street was closed to all traffic. The cars used were fitted with smoke bombs which were set off by the mini-crash, producing enormous plumes of orange smoke, visible for miles around. This was the sign for which the 'Reclaim the Street' mob was waiting. Suddenly the street was flooded with people, sometimes more than a thousand at a time, while music began to boom from the previously parked truck or bus. These examples demonstrate that we are living in a space in which the public is reconfigured by a multitude of media and communication networks interwoven into the social and political functions of space to form a 'hybrid space'.

Traditional space is being overlaid by electronic networks such as those for mobile telephones and other wireless media. This superimposition creates a highly unstable system, uneven and constantly changing. The social phenomena which occur in this new type of space can not be properly understood without a very precise analysis of the structure of that space. The way the Moroccan youths in Amsterdam East used text message address lists to mobilize themselves rapidly and effectively against what they saw as unjustified police violence provides an interesting example of a social group which finds itself in a socially segregated and stigmatized position appropriating a newly available technology. Mobilization was possible because at that time real-time mobile communication (texting) was available essentially free of charge. Shortly after that incident, texting became a paid service, though the reasons for this were economic rather than political, and its use for this purpose quickly lost popularity. It was simply too expensive to send so many messages at the same time. The specific relationship between time, space and technology, and to a lesser extent simple economics, determined the way in which this social phenomenon manifested itself. More than e-mails, which almost always have to be downloaded from a terminal or laptop (e-mailing on a mobile telephone is extremely laborious and inefficient), the brief phase during which text messaging served as a free public medium provided an important indicator to a changing relationship in the use and organization of public

space. The mobility and immediacy of the medium gave birth to new social morphologies, like the 'flash mob', which still seem mostly to indicate a kind of mobile 'just-in-time-community' in physical public space.

Places and Flows

The question here is what this new kind of social morphology might mean. What lies behind the gimmick? What social, economic and technological transformations give rise to new phenomena of this kind? So far the most important sociological theory about this is set out in Manuel Castells' *Rise of the Network Society*, the first part of his trilogy on the information age.³ In it he describes the rise of flexible social network connections which resulted from economic and social transformations in late industrial societies and were strengthened by the introduction and wide application of new technology, primarily communication and information technology. Castells postulates that the network has become the dominant form in a new type of society that he calls the network society. He treats the influence of the network form as a social organization in physical and social space and establishes a new kind of dichotomy. According to Castells there are two opposing types of spatial logic, the logic of material places and locations (space of place) and the logic of intangible flows of information, communication, services and capital (space of flows).⁴

3. Manuel Castells, *The Rise of the Network Society* (Oxford: Blackwell Publishers, 1996).

4. Ibid.

The particularly striking thing about Castells' theory is the strict separation between the two kinds of spatial logic. Whereas the space of places and locations is clearly localized and associated with local history, tradition and memory, Castells sees the space of flows as essentially ahistorical, location-free and continuous. This last mainly because it moves across every time zone and so in some sense is not only location-free but also timeless.⁵ Castells believes there is a fundamental asymmetry between the two kinds of space: while the vast majority of the world's inhabitants live, dwell and work in the space of places and locations, the dominant economic, political, social and ultimately also cultural functions are increasingly shifting to the place of flows, where they make possible location-free ahistorical network connections, international trends, power complexes and capital movements. Only a very small part of the world population is represented in the bodies which take decisions about the organization and use of new location-free spatial connections. But increasingly the decisions made within such self-contained systems determine the living conditions in those places and locations where the vast majority of the world population attempt to survive and where their knowledge, experience and memory is localized. Castells feels that it is not surprising that political, social and cultural bridges need to be deliberately built between the two spatial dynamics, to avoid society's collapse into insoluble schizophrenia.

5. Consider for example the concept of the 24-hour economy.

The attractive thing about Castells' theory is that it makes it possible to grasp and clarify a multiplicity of asymmetric social developments in a single image – an image that has certainly not left popular culture unmoved. At the same time Castells' suggested contrast between physical locations and places and the intangible space of flows is misleading and ultimately even counterproductive for his political agenda: the deliberate building of bridges between physical space and informational space. Instead of a strict separation between physical space and informational space, all technological and social trends clearly indicate that these two 'spheres' are becoming more and more closely interwoven. A generic model of the sort suggested by Castells is totally unsuited to the analysis of this closeness and to gaining an understanding of how possibilities for public and private action come about within it, the central question posed in the present issue of *Open*. What threats to the autonomy and inviolability of the subject, the group, the community or cultural self-determination could possibly manifest themselves here and how can something be done about those threats?

Hybrid Space as a Multiform Concept

Against the placelessness and continuity of Castells' ahistorical 'space of flows' stands the discontinuity and multiplicity of hybrid space. The hybridity of this spatial concept refers not only to the stratified nature of physical space and the electronic communication networks it contains, but every bit as much

to the discontinuity of the 'connectivity' or degree of connection between the multiplicity of communication networks. After all, even the universal presence of a telephone connection can not be taken for granted. More important still is the connection between local social and electronic networks: who communicates with whom, and in what context, is determined differently from one region to another, sometimes even from one day to the next. Because the space of electronic communication is rooted in local networks, it is also linked with local history. And questions about who controls electronic space or becomes familiar with electronic space are by no means easy to answer. Ravi Sundaram for example, co-founder of the Sarai new media initiative in Delhi, is constantly drawing attention to the coming into being of what he calls 'electronic pirate-modernity',⁶ which comes about when local groups or individuals, illegitimately and without permission, gain access to television, telephone or the Internet – 'Never ask permission, just appear!'. Hybrid space is never exclusively local, as in the case of the idyllic hippy commune at the beginning of the 1970s. Small local networks, hacked or not, never remain limited to the local bazaar or the vegetable market in the next village. Local networks interweave with the international networks into which they force their way. Thus, says Saskia Sassen, the local is newly established as a micro-environment with a worldwide reach. Free-software geniuses in Sao Paulo's *favelas* find no difficulty in

6. 'Electronic pirate modernity': see also www.sarai.net.

downloading the results of the latest interchange between the Amsterdam Waag (the Society for Old and New Media) and the Alternative Law Forum in Bangalore, but nobody pulls his or her local roots out of the ground.

Diktat of Visibility

The thing that strikes one about current discussion and the associated criticism of the rise of electronic media in public space is the preoccupation with the visual forms in which these media manifest themselves, such as screens, projections and electronic tagging.⁷ It is a sort of extended visual criticism, closely connected with a tradition which assumes that the visual arrangement of observable reality is a necessary precondition for any ability to exercise power over that reality. However, the thing that stands in the way of this preoccupation with the visual is a critical analysis of the more invisible processes which are rearranging public space and imposing a different utilization logic. Relatively invisible forms of social compulsion, which bring these processes into play, may well have a much greater significance for the way in which public space can and may be used in future. The concept of the perfect visual arrangement, expressing a social reality in which power structures are completely unambiguous and transparent, still always refers to Alberti's 'legitimate

7. See also www.urban-screens.org or the Logo Parc symposium held in Amsterdam on 16 November 2005, a cooperative project undertaken by the Jan van Eyck Academy, the Prensela Foundation and the Art and Public Space Lectureship (Rietveld Academy and the University of Amsterdam).

construction' and Piero della Francesca's ideal city, both of which reflect a visual articulation of daily life suggesting that everything, social and public, is completely controllable and constructible. Although the unifying point of view of a linear perspective has long been rejected, the street screens still stipulate for us a single perspective: a correct viewing distance and direction, while social relationships are radically altered.

The street screen is also the embodiment of spectacle in its most repressive form. Today spectacle is no longer alone in controlling the inner life, the interior of the alienation of the average TV junkie. The street, the classic stage of modern theatre, is overloaded with marching electronic screens and projections, so erasing the public functions of open space. Public functions become blurred by the flow of light and images drenching us in a fetish of alienating desires as we follow our necessary route through the city, from A to B.

Limitation of the Screen

Another point of criticism of the new urban visuality is its inherent limitation. Virtually every screen is rectangular and flat and has limited resolution (the number of pixels which determine the quality of the image). Media artists recognized these limitations years ago and have, with varying degrees of success, developed a multitude of strategies to attempt to overcome those limitations by, for example, a spatial type of installation, interactive media in which the screen itself also becomes an object

capable of being moved and manipulated, projection on walls, fabrics, curved screens, screens that are not rectangular,⁸ mirrored projections, moving projections, projections on glass materials and so on.

8. These 'shaped screens' do incidentally form a curious counterpart to Frank Stella's *Shaped Canvasses*.

Some artists, as for example the members of the Knowbotic Research collective, even leave out screens entirely, replacing them by new haptic interfaces and stereoscopic helmets from the Virtual Reality research laboratory or, as during the 1996 Dutch Electronic Art Festival, an installation on the roof of the Netherlands Architecture Institute, where network manipulations translated into sound and stroboscopic light.⁹ Yet another example of the movement to bypass the screen is the Xchange network, in which artists collectively explore the sonic dimension of the Internet.¹⁰

9. Anonymous Muttering: <http://www.khm.de/people/krcf/AM/>.

10. Website of the Xchange network, <http://xchange.re-lab.net>.

The new generation of media-architects can learn from media art that the screen is ultimately a dead end. It is interesting to see how these attempts at iconographic liberation keep on recurring. Avant-garde painters carried out endless experiments in their attempts to break away from the frame of the painting and the surface of the canvas, their ultimate aim being to announce the death of the 'retinal' object. This same death announcement is repeated by today's media artists, but this time in relation to the screen. Media architecture again venerates the screen as a window on a space first seen as boundless, but later

recognized as being largely subject to limitations and conventions. Ultimately the screen dissolves into the architecture, becoming less a screen than a membrane between physical and medial reality. Here the 'image' functions less and less as an autonomous object, but increasingly coincides with the architecture itself, its skin, its inner life and its internal processes, finally disappearing from the consciousness of the user of that architecture. The image becomes subliminal, 'vernacular', commonplace, merged with the environment, self-evident – in the end the spectacle neutralizes itself. Media theorist Lev Manovich was still positive about this new medially enhanced architecture in his essay entitled *The Poetics of Augmented Space*, that had *Learning from Prada* as subtitle and was based on the success of Koolhaas's creation.¹¹ By now we know that the concept has failed completely, screens have disappeared from the scene or have been cut back to a minimum. The lesson of Prada is that the strategy of visibility can quickly turn into its opposite.

11. Lev Manovich, *The Poetics of Augmented Space: Learning from Prada* (2002), see www.manovich.net

The Problem of Invisibility

In the present phase, the most important change in computer technology and its applications is that they are steadily beginning to withdraw themselves from sight. The European Union has for some years now been subsidizing a wide-ranging programme of multidisciplinary research and discussion with the remarkable title *The Disappearing Com-*

puter. This title alludes less to the disappearance of computer technology than to its ongoing miniaturization and the way that it is beginning to turn up everywhere. The programme is investigating the migration of electronic network technology into every kind of object, to built environments and even to living beings. The thesis is that miniaturization and steadily reducing production costs are making it simpler to provide all kinds of objects with simple electronic functions (chips containing information, tags that can send or receive signals, identification chips and specialized functions in everyday objects). This is more efficient than building ever more complex pieces of multifunctional apparatus and mean the abandonment of the old idea of the computer as a universal machine capable of performing every conceivable function.¹² In fact, this is how technology becomes invisible. A decisive step, with dramatic consequences for the way people think about and deal with spatial processes. This rise of computer technology in the environment introduces a new issue: the problem of invisibility. When technology becomes invisible, it disappears from people's awareness. The environment is no longer perceived as a technological construct, making it difficult to discuss the effects of technology. Lev Manovich speaks of 'augmented space', a space enriched with technology, which only becomes activated when a specific function is required.¹³ Wireless

12. The so-called Turing Machine, named after the mathematician Allan Turing – the machine that is capable of simulating any other machine.

13. Manovich, *The Poetics of Augmented Space*, op. cit. (note 11).

transmitters and receivers play a crucial role in such enriched spaces. Objects are directly linked with portable media. Chips are incorporated into identity cards and clothing. Even one's shopping is automatically registered by sensors. Screens and information systems are switched on remotely, by a simple wave of the hand. Miniaturization, remote control and particularly the mass production of radio frequency identification (RFID) tags is bringing the age-old technological fantasy of a quasi-intelligent, responsive environment within reach of digital engineers. Of course these applications are not exclusively neutral. Combinations of technologies of the sort described above make it amazingly simple to introduce new and infinitely differentiated regimes for the control of public and private space. The application to public transport of RFID smart cards, which automatically determine the distance travelled, the fare and the credit balance, still sounds relatively harmless. Fitting household pets with an identity chip the size of a grain of rice, inserted under the skin, has become widespread practice. Indeed most health insurance schemes for household pets prescribe the insertion of such chips as an entry condition. Recently, however, first reports have turned up of security firms in the United States which provide their employees with subcutaneous chips allowing them to move through secure buildings without the use of keys or smart cards. Such systems also allow companies to compile a specific profile for each individual employee specifying those parts of the building or object to

which the employer has (or is denied) access, and at what times.

It is not difficult to extrapolate these practices to society as a whole. Who has the initiative in such matters? If the initiative lies exclusively with the constructors, the producers of these enriched spaces, and their clients, then the space we are living in is liable to total authoritarian control, even if there is no immediately observable way in which that space displays the historic characteristics of authoritarianism. The more widely the initiative is distributed between producers and consumers and the more decisions that are made at the 'nodes' (the extremities of the network, occupied by the users) instead of at the 'hubs' (junctions in the network), the more chance there is of a space in which the sovereign subject is able to shape his or her own autonomy. The articulation of subjectivity in the network of waves is also an opportunity for the last remnants of autonomy to manifest themselves.

The Strategic Issue: 'Agency' in Hybrid Spaces

The concept of 'agency' is difficult to interpret, but literally combines action, mediation and power. It is not surprising therefore, to find it applied as a strategic instrument for dealing with questions about the ongoing hybridization of public and private space. Unlike Michel de Certeau's tactical acts of spatial resistance to the dominant utilitarian logic of urban space in particular, the action of this instrument in new ('augmented') hybrid spaces has mainly

strategic significance. A tactical act of spatial resistance, which is after all no more than temporary, is hardly comforting to anyone faced by such an infinitely diversified and adaptive system of spatial control. New hybrid spaces must be deliberately 'designed' to create free spaces within which the subject can withdraw himself, temporarily, from spatial determination. Given the power politics and the enormous strategic and economic interests involved, and the associated demands for security and control, it is clear that these free spaces will not come about by themselves or as a matter of course. I would therefore like to suggest a number of strategies to give some chance of success to the creation of these spaces.

☞ *Public visibility: 'maps and counter-maps', tactical cartography*

The problem of the invisibility of the countless networks penetrating public and private space is ultimately insoluble. What can be done, however, is to remake them in a local and visible form, in such a way that they remain in the public eye and in the public consciousness. This strategy can be expressed in 'tactical cartography', using the tools of the network of waves (gps, Wi-Fi, 3G, etcetera) to lay bare its authoritarian structure. An aesthetic interpretation of these structures increases the sensitivity of the observer to the 'invisible' presence of these networks.

☞ *Disconnectivity*

Emphasis is always placed on the right and desire to be connected. However, in future it may be more important to have

the right and power to be shut out, to have the option, for a longer or shorter time, to be disconnected from the network of waves.

☞ *Sabotage*

Deliberately undermining the system, damaging the infrastructure, disruption and sabotage are always available as ways of giving resistance concrete form. Such measures will, however, always provoke countermeasures, so that ultimately the authoritarian structure of a dystopian hybrid space is more likely to be strengthened and perpetuated than to be thrown open to any form of autonomy.

☞ *Legal provisions, prohibitions*

In the post-ideological stage of Western society it seems that the laws and rights used to legalize matters provide the only credible source of social justification. But because a system of legal rules runs counter to the sovereignty of the subject it can never be the embodiment of a desire for autonomy. It can, however, play a part in creating more favourable conditions.

☞ *Reduction in economic scale*

New systems of spatial planning depend on continuing increases in economic scale. To apply these systems to all market segments would require the production of an enormous number of instruments. Thus the political choice to deliberately reduce eco-

14. The mass production of RFID (radio frequency identification) tags compelled producers to minimize the security provisions incorporated to allow the tags to be applied cost effectively to virtually any conceivable consumer product. A policy of giving priority to the safety and reliability of the chips

conomic scale would be an outstanding instrument to thwart this 'scaling-up' strategy.¹⁴

☞ *Accountability and public transparency*

In the words of surveillance specialist David Lyon, 'Forget privacy, focus on accountability'. It would be naive to assume that the tendencies described above can easily be reversed, even with political will and support from public opinion. A strategy of insisting on the accountability of constructors and clients of these new systems of spatial and social control could lead to usable results in the shorter term.

☞ *Deliberate violation of an imposed spatial programme*

Civil disobedience is another effective strategy, especially if it can be orchestrated on a massive scale. Unlike sabotage, the aim here is not to disorganize or damage systems of control, but simply to make them ineffective by massively ignoring them. After all, the public interest is the interest of everyone, and no other interest weighs more heavily.¹⁵

15. Examples of a new kind of civil disobedience include deactivating RFID tags with the aid of an adapted mobile phone, hindering the operation of smart cards, regularly swapping client cards, deliberately supplying false information when registering online and using 'anonymizers' on the Internet, 'encrypted' (coded) mobile phones and local GSM blockers.

☞ *The creation of new social and political players – public action*

'Agency', the power to act, means taking action in some concrete form. The complexity of the new hybrid

spatial and technological regimes makes it appear that the idea of action is in fact an absurdity. However, new social and political players manifest themselves in public space by the special way they act, by clustering, by displaying recognizable visibility, by evoking an individual 'presence' (in the Anglo-Saxon anthropological sense) in opposition to others. The manifestation of concrete action by new social and political players in public space is a 'gesture'. The action, in this case, is the way the space is used, though there is still a difference between the use of a space and more or less public actions in that space. The use of space becomes an action when that use takes on a strategic form.

Saskia Sassen

Public Interventions

The Shifting Meaning of the Urban Condition

Saskia Sassen, professor of sociology at the University of Chicago, is specialized in the influence that globalization and digitization processes have on the transformations of urban space. In this essay, she looks at the possibilities

of artistic practice to ‘make’ public space that can produce unsettling stories and make visible that which is local and has been silenced.

The enormity of the urban experience, the overwhelming presence of massive architectures and dense infrastructures, as well as the irresistible utility logics that organize much of the investments in today’s cities, have produced displacement and estrangement among many individuals and whole communities. Such conditions unsettle older notions and experiences of the city in general and public space in particular. While the monumentalized public spaces of European cities remain vibrant sites for rituals and routines, for demonstrations and festivals, increasingly the overall sense is of a shift from civic to politicized urban space, with fragmentations along multiple differences.

At the same time, these cities contain a diversity of under-used spaces, often characterized more by memory than current meaning. These spaces are part of the interiority of a city, yet lie outside of its organizing, utility-driven logics and spatial frames. They are *terrains vagues* that allow many residents to connect to the rapidly transforming cities in which they live, and to bypass subjectively the massive infrastructures that have come to dominate more and more spaces in their cities. Jumping at these *terrains vagues* in order to maximize real estate development would be a mistake from this perspective. Keeping some of this openness might, in fact, make sense in terms of factoring future options at a time when utility logics change so quickly and often violently – an excess of high-rise office buildings being one of the great examples.

This opens up a salient dilemma about the current urban condition in

ways that take it beyond the fairly transparent notions of high-tech architecture, virtual spaces, simulacra, theme parks. All of the latter matter, but they are fragments of an incomplete puzzle. There is a type of urban condition that dwells between the reality of massive structures and the reality of semi-abandoned places. I think it is central to the experience of the urban, and it makes legible transitions and unsettlements of specific spatio-temporal configurations. Architecture and urban design can also function as critical artistic practices that allow us to capture something more elusive than what is represented by notions such as the theme-parking of cities.

Here I examine these questions through the actual making of public space and through the shifting meaning of the urban condition.

Public Making Against the Privatizing and Weaponizing of Urban Space

The making and siting of public space is one lens into these types of questions. We are living through a kind of crisis in public space resulting from the growing commercialization, theme-parking, and privatizing of public space.¹ The grand monumentalized public spaces of the state and the crown, especially in former imperial capitals, dominate our experience of public space. Users do render them public through their prac-

1. There is an interesting scholarship on this issue. It is impossible to do justice to it. Let me just mention a few texts that show the diversity of approaches: Richard Lloyd, *Neobohemia: Art and Commerce in the Post-Industrial City* (New York/London: Routledge, 2005); Annette W. Balkema and Henk Slager (eds.), *Territorial Investigations* (Amsterdam/Atlanta: 1999); Mari

tices. But what about the actual making of public space in these complex cities, both through architectural interventions and through users' practices?

Dwelling between mega buildings and *terrain vagues*² has long been part of the urban experience. In the past as today, this dwelling makes legible transitions and unsettlements. It can also reinsert the possibility of urban making – poesis – in a way that massive projects by themselves do not. The 'making' that concerns me here is of modest public spaces, constituted through the practices of people and critical architectural interventions that are on small- or medium-level scales. My concern here is not with monumentalized public spaces or ready-made public spaces that are actually better

Carmen Ramirez, Theresa Papanikolas and Gabriela Rangel, *Art* (International Center for the Arts of the Americas: 2002); George Yudice, *The Expediency of Culture: Uses of Culture in the Global Era* (Durham: Duke University Press, 2003); Roger A. Salerno, *Landscapes of Abandonment: Capitalism, Modernity and Estrangement* (Albany: State University of New York Press, 2003); John Phillips, Wei-Wei Yeo and Ryan Bishop, *Postcolonial Urbanism: South East Asian Cities and Global Processes* (New York/London: Routledge, 2003); Joan Ockman (ed.), *Pragmatist Imagination: Thinking about Things in the Making* (Princeton: Princeton Architectural Press, 2001); Malcolm Miles, *Art, Space and the City: Public Art and Urban Futures* (New York/London: Routledge, 1997); Peggy Phelan and Jill Lane (eds.), *The Ends of Performance* (New York: New York University Press, 1998); Thad Williamson, Gar Alperovitz and David L. Imbroscio, *Making a Place for Community: Local Democracy in a Global Era* (New York/London: Routledge, 2002); Andre Drainville, *Contesting Globalization: Space and Place in the World Economy* (London: Routledge, 2005); Linda Krause and Patrice Petro (eds.), *Global Cities: Cinema, Architecture, and Urbanism in a Digital Age* (New Brunswick, New Jersey and London: Rutgers University Press, 2003).

2. For one of the best treatments of such *terrains vagues* see Ignasi de Solà-Morales, *Obra*, vol. 3 (Barcelona: Editorial Gili, 2004). For an example of an intervention in one of these *terrains vagues*, in this case in the city of Buenos Aires, see Kermes

described as public-access than public. The making of public space opens up questions about the current urban condition in ways that the grand spaces of the crown and the state or over-designed public-access spaces do not.

The work of capturing this elusive quality that cities produce and make legible, and the work of making public space in this in-between zone, is not easily executed.³ Utility logics won't do. I can't help but think that the making of art is part of the answer – whether ephemeral public performances and installations or longer-lasting types of public sculpture, whether site-specific/community-based art, or nomadic sculptures that circulate among localities. Further, the new network technologies open up wide this question of making in modest spaces and through the practices of people. One question that might serve to capture critical features of this project is: How can we *urbanize* open-source?

Architectural practices are central here, specifically those that can take place in problematic or unusual spaces. This takes architects able to navigate several forms of knowledge so as to introduce the possibility of architecture in spaces where the naked eye or the engineer's imagination sees no shape, no

Urbana, an organization that seeks to produce public space by reactivating such *terrains vagues*. (see: www.m7red.com.ar/m7-KUintro1.htm).

3. E.g. Arie Graafland, *The Socius of Architecture* (Rotterdam: 010 Publishers, 2000); John Beckmann, *The Virtual Dimension: Architecture, Representation, and Crash Culture* (Princeton: Princeton Architectural Press, 1998); Kester Rattenbury, *This is Not Architecture: Media Constructions* (London/New York: Routledge, 2002); Susannah Hagan, *Taking Shape: A new Contract between Architecture and Nature* (Oxford: Architectural Press, 2001).

possibility of a form, pure infrastructure and utility. The types of space I have in mind are, for instance, intersections of multiple transport and communication networks, the roofs of recycling plants or water purification systems, small awkward unused spaces that have been forgotten or do not fit the needs of utility driven plans, and so on. Another instance is a space that requires the work of detecting possible architectures where there now is merely a formal silence, a non-existence, such as a modest and genuinely undistinguished *terrain vague* – not a grand *terrain vague* that becomes magnificent through the scale of its decay, as might an old unused industrial harbour or steel factory.

The possibility of this type of making, detecting, and intervening has assumed new meanings over the last two decades, a period marked by the ascendance of private authority/power over spaces once considered public. Furthermore, over the last five years especially, the state has sought to weaponize urban space and to make it an object of surveillance. At the same time, the increasing legibility of restrictions, surveillance and displacements is politicizing urban space. Most familiar, perhaps, is the impact of high-income residential and commercial gentrification, which generates a displacement that can feed the making of a political subjectivity centered in contestation rather than a sense of the civic on either side of the conflict. The physical displacement of low-income households, non-profit uses and low-profit neighbourhood firms makes visible a power relationship – direct control by one side over the other as expressed

directly in evictions or indirectly through the market. This politicizing of urban space and its legibility is also evident in the proliferation of physical barriers in erstwhile public spaces, perhaps most pronounced in US cities, and most visible since the attacks of 11 September 2001. US embassies worldwide increasingly resemble medieval fortresses. In this context public-access space is an enormous resource, and we need more of it. But let us not confuse public-access space with public space. The latter requires making – through the practices and the subjectivities of people. Through their practices, users of the space wind up making diverse kinds of publicness.⁴

In brief, several trends are coming together, enabling practices and imaginaries about making, rather than merely accessing, public space. One concerns some of the conditions discussed above. Specifically, the fact itself of today's wider unsettlements of older notions of public space. These unsettlements arise from the limits of public-space-making in monumentalized spaces as well as from the shifts towards politicizing urban space and weakening civic experiences in cities. Both conditions produce openings to the experience and the option of making.

A second trend is the option of making modest public spaces, which may well be critical for recovering the possibility of making spaces public. This type of making was historically significant in European cities and diverges as a project from the making of grand monumentalized spaces: it entailed making in

4. See, for instance the types of projects at www.transgressivearchitecture.org

the interstices of the spaces of royalty and the state. Today this type of making is geared to the interstices of private and public power, and adds a novel dimension: the repositioning of the notion and the experience of locality, and thereby of modest public spaces, in potentially global networks comprising multiple localities.

A third trend is the delicate negotiation between the renewed valuing of diversity, as illustrated in multiculturalism, and the renewed challenges this poses to notions and experiences of the public.

Cities as Frontier Zones: Making Informal Politics

The other side of the large complex city, especially if global, is that it is a sort of new frontier zone where an enormous mix of people converges. Those who lack power, those who are disadvantaged, outsiders, discriminated minorities, can gain presence in such cities, presence vis-à-vis power and presence vis-à-vis each other. This signals, for me, the possibility of a new type of politics centred in new types of political actors. It is not simply a matter of having or not having power. There are new hybrid bases from which to act. By using the term presence I try to capture some of this.

The space of the city is a far more concrete space for politics than that of the nation. It becomes a place where non-formal political actors can be part of the political scene in a way that is much more difficult at the national level. Nationally politics needs to run through

existing formal systems: whether the electoral political system or the judiciary (taking state agencies to court). Non-formal political actors are rendered invisible in the space of national politics. The space of the city accommodates a broad range of political activities – squatting, demonstrations against police brutality, fighting for the rights of immigrants and the homeless, the politics of culture and identity, gay and lesbian politics. Much of this becomes visible on the street. Much of urban politics is concrete, enacted by people rather than dependent on massive media technologies. Street level politics makes possible the formation of new types of political subjects that do not have to go through the formal political system.

Through the new network technologies local initiatives become part of a global network of activism without losing the focus on specific local struggles. It enables a new type of cross-border political activism, one centred in multiple localities yet intensely connected digitally. This is in my view one of the key forms of critical politics that the Internet and other networks can make possible: A politics of the local with a big difference – these are localities that are connected with each other across a region, a country or the world. Because the network is global does not mean that it all has to happen at the global level. Digital networks are contributing to the production of new kinds of interconnections underlying what appear as fragmented topographies, whether at the global or at the local level. Political activists can use digital networks for global or non-local

transactions and they can use them for strengthening local communications and transactions inside a city or rural community.

The large city of today, especially the global city, emerges as a strategic site for these new types of operations. It is a strategic site for global corporate capital. But it is also one of the sites where the formation of new claims by informal political actors materializes and assumes concrete forms.

Rethinking the Notion of Locality

It will not be long before many urban residents begin to experience the ‘local’ as a type of microenvironment with global span. Much of what we keep representing and experiencing as something local – a building, an urban place, a household, an activist organization right there in our neighbourhood – is actually located not only in the concrete places where we can see them, but also on digital networks that span the globe. They are connected to other such localized buildings, organizations, households, possibly on the other side of the world. They may indeed be more oriented to those other areas than to their immediate surroundings. Think of the financial centre in a global city, or the human rights or environmental activists’ home or office – their orientation is not towards what surrounds them but to a global process. I think of these local entities as microenvironments with a global span.⁵

5. Elsewhere I have shown in detail the complex imbrications of the digital and the material, and of flows and places. Saskia Sassen, *Territory, Authority, Rights: From Medieval to Global Assemblages* (Princeton: Princeton University Press, 2006), chapter 7.

There are two issues I want to pursue briefly here. One of these is what it means for ‘the city’ to contain a proliferation of these globally oriented yet very localized offices, households, organizations? In this context the city becomes a strategic amalgamation of multiple global circuits that loop through it. As cities and urban regions are increasingly traversed by non-local, including notably global circuits, much of what we experience as the local because locally-sited, is actually a transformed condition in that it is imbricated with non-local dynamics or is a localization of global processes. One way of thinking about this is in terms of spatializations of various projects – economic, political, cultural. This produces a specific set of interactions in a city’s relation to its topography. The new urban spatiality thus produced is partial in a double sense: it accounts for only part of what happens in cities and what cities are about, and it inhabits only part of what we might think of as the space of the city, whether this be understood in terms as diverse as those of a city’s administrative boundaries or in the sense of the multiple public imaginaries that may be present in different sectors of a city’s people. If we consider urban space as productive, as enabling new configurations, then these developments signal multiple possibilities.

The second issue, one coming out of this proliferation of digital networks traversing cities, concerns the future of cities in an increasingly digitized and globalized world. Here the bundle of conditions and dynamics that marks the model of the global city might be a helpful way

of distilling the ongoing centrality of urban space in complex cities. Just to single out one key dynamic: the more globalized and digitized the operations of firms and markets, the more their central management and coordination functions (and the requisite material structures) become strategic. It is precisely because of digitization that simultaneous worldwide dispersal of operations (whether factories, offices, or service outlets) and system integration can be achieved. And it is precisely this combination that raises the importance of central functions. Global cities are strategic sites for the combination of resources necessary for the production of these central functions.⁶ Thus, much of what is liquefied

and circulates in digital networks and is marked by hypermobility, actually remains physical – and hence possibly urban – in some of its components. At the same time, however, that which remains physical has been transformed by the fact that it is represented by highly liquid instruments that can circulate in global markets. It may look the same, it may involve the same bricks and mortar, it may be new or old, but it is a transformed entity. Take for example, the case of real estate. Financial services firms have invented instruments that liquefy real estate, thereby facilitating investment and circulation of these instruments in global markets. Part of what constitutes real estate remains very physical; but the building that is represented by financial instruments circulating globally is not the same building as one that is not.

6. There are other dimensions that specify the global city; see Saskia Sassen, *The Global City* (Princeton; Princeton University Press, 2001), 2nd edition.

We have difficulty capturing this multivalence of the new digital technologies through our conventional categories: if it is physical, it is physical; and if it is liquid, it is liquid. In fact, the partial representation of real estate through liquid financial instruments produces a complex imbrication of the material and the digitized moments of that which we continue to call real estate. And the need of global financial markets for multiple material conditions in very grounded financial centres produces yet another type of complex imbrication which shows that precisely those sectors that are most globalized and digitized continue to have a very strong and strategic urban dimension.

Hypermobility and digitization are usually seen as mere functions of the new technologies. This understanding erases the fact that it takes multiple material conditions to achieve this outcome. Once we recognize that the hypermobility of the instrument, or the dematerialization of the actual piece of real estate, had to be produced, we introduce the imbrication of the material and the non-material. Producing capital mobility takes state-of-the-art built environments, conventional infrastructure – from highways to airports and railways – and well-housed talent. These are all, at least partly, place-bound conditions, even though the nature of their place-boundedness is going to be different than it was 100 years ago, when place-boundedness might have been marked by immobility. Today it is a place-boundedness that is inflected, inscribed, by the hypermobility of some of its components/products/

outcomes. Both capital fixity and mobility are located in a temporal frame where speed is ascendant and consequential. This type of capital fixity cannot be fully captured in a description of its material and locational features, that is in a topographical reading.

Conceptualizing digitization and globalization along these lines creates operational and rhetorical openings for recognizing the ongoing importance of the material world even in the case of some of the most dematerialized activities.

Digital Media and the Making of Presence

New media artists using computer-centred network technologies are enacting political as well as artistic projects in a growing number of cities worldwide. What I want to capture here is a very specific feature: the possibility of constructing forms of globality that are neither part of global corporate media or consumer firms, nor part of elite universalisms or ‘high culture’. It is the possibility of giving presence to multiple local actors, projects and imaginaries in ways that may constitute alternative and counter-globalities.

These interventions entail diverse uses of technology – ranging from political to ludic uses – that can subvert corporate globalization. We are seeing the formation of alternative networks, projects, and spaces. Emblematic is, perhaps, that the metaphor of ‘hacking’ has been dislodged from its specialized technical discourse and become part of everyday life. In the face of a predatory regime of

intellectual property rights we see the ongoing influence of the free software movement.⁷ Indymedia gain terrain even as global media conglomerates dominate just about all mainstream mediums.⁸

The formation of new geographies of power that bring together elites from the global south and north find their obverse in the work of such collectives as Raqs Media Collective that destabilize the centre/periphery divide.⁹

Such alternative globalities are to be distinguished from the common assumption that if ‘it’ is global it is cosmopolitan. The types of global forms that concern me here are what I like to refer to, partly as a provocation, as non-cosmopolitan forms of globality. When local initiatives and projects can become part of a global network without losing the focus on the specifics of the local, a new type of globality takes shape. For instance, groups or individuals concerned with a variety of environmental questions – from solar energy design to appropriate-materials-architecture – can become part of global networks without having to leave behind the specifics that concern them.

In an effort to synthesize this diversity of subversive interventions into the space of global capitalism, I use the notion of counter-geographies of globalization: these interventions are deeply imbricated with some of the major dynamics constitutive of corporate globalization yet are not part of the formal apparatus

7. See <http://www.gnu.org> for more information.

8. Indymedia is ‘a network of collectively run media outlets for the creation of radical, accurate, and passionate tellings of the truth’. See <http://www.indymedia.org>.

9. See www.raqsmediacol-lective.net.

or of the objectives of this apparatus (such as the formation of global markets and global firms). These counter-geographies thrive on the intensifying of transnational and translocal networks, the development of communication technologies which easily escape conventional surveillance practices, and so on. Further, the strengthening and, in some of these cases, the formation of new global circuits are ironically embedded or made possible by the existence of that same global economic system that they contest. These counter-geographies are dynamic and changing in their locational features.¹⁰

The narrating, giving shape, making present, involved in digitized environments assumes very particular meanings when mobilized to represent/enact local specificities in a global context. Beyond the kinds of on-the-ground work involved in these struggles, new media artists and activists – the latter often artists – have been key actors in these developments, whether it is through tactical media, Indymedia, or such entities as the original incarnation of Digital City Amsterdam¹¹ and the Berlin-based Transmediale.¹² But new media artists have also focused on issues other than the world of technology. Not surpris-

10. They are also multivalent, that is, some are 'good' and some are 'bad'. I use the term as an analytic category to designate a whole range of dynamics and initiatives that are centred in the new capabilities for global operation coming out of the corporate global economy but used for purposes other than their original design: examples range from alter-globalization political struggles to informal global economic circuits, and, at the limit, global terrorist networks.

11. The Digital City Amsterdam (DDS) was an experiment facilitated by De Balie, Amsterdam's cultural centre. Subsidised by the Amsterdam Municipality and the Ministry of Economic Affairs it allowed people to access the digital city host computer and retrieve

ingly perhaps, a key focus has been the increasingly restrictive regime for migrants and refugees in a global world where capital gets to flow wherever it wants. Organizations such as Nobody is Illegal,¹³ the Mongrel web project,¹⁴ *Mute Magazine*,¹⁵ the Manchester-based Futuresonic,¹⁶ and the Bonn/Cologne-based Theater der Welt,¹⁷ have all done projects focused on immigration.

In conclusion, both the work of making the public and making the political in urban space become critical at a time of growing velocities, the ascendance of process and flow over artefacts and permanence, massive structures that are not at a human scale, and branding as the basic mediation between individuals and markets. The work of design produces narratives that add to the value of existing contexts, and at its narrowest, to the utility logics of the economic corporate world. But there is also a kind of public-making work that can produce disruptive narratives, and make it legible to the local and the silenced.

council minutes, official policy papers or visit digital cafes and train stations. See <http://reinder.rustema.nl/dds/> for documentation; see the chapter by Lovink and Riemens in *Global Networks, Linked Cities* (New York and London: Routledge, 2002) for the full evolution, from beginning to end of DDS.

12. An international media arts festival. See <http://www.transmediale.de>.

13. A campaign carried by autonomous groups, religious initiatives, trade unions and individuals to support refugees and undocumented immigrants. See <http://www.contrast.org/borders/> for more information.

14. London based media activists and artists. See <http://www.mongrelx.org>.

15. See <http://www.metamute.com>.

16. A festival exploring wireless and mobile media. See <http://www.futuresonic.com>.

17. A theatre festival. See <http://www.theaterderwelt.de>.

Howard Rheingold
and Eric Kluitenberg

Mindful Disconnection

Counterpowering the Panopticon from the Inside

In this article,
media experts
Howard Rheingold
and Eric Kluitenberg
ask us to consider
if unquestioned
connectivity – the
drive to connect
everything to
everything, and
everyone to every-

one by means of
electronic media –
is necessarily a
good thing. To
stimulate ideas, the
authors propose a
possible alternative:
a practice of
'mindful disconnection',
or rather the
'art of selective
disconnectivity'.

Although I have devoted decades to observing and using participatory media – from tools for thought to virtual communities to smart mobs – I want to propose that disconnecting might well be an important right, philosophy, decision, technology, and political act in the future.

Howard Rheingold

My involvement with new media arts and tactical media initiatives such as Next 5 Minutes has always insisted on the right of access and connection. The only practical form of resistance I can personally claim credit for is that to date I do not own, nor have ever owned a mobile phone – quite out of key with most fellow organizers in the cultural social/political field, but an immense absolution from social coercion . . .

Eric Kluitenberg

Perhaps the act of mindfully disconnecting specific times, spaces and situations in our lives from technological mediation ought to be considered as a practical form of resistance – an act of will on the part of individual humans as a means of exercising control over the media in their lives. It remains uncertain whether it is possible or preferable to disrupt the technological augmentation of human thought and communication that is becoming available to most of the earth's population. We are not as convinced as others that technology is only, primarily, or necessarily a dangerous toxin. There is a danger in locating technologies' malignancies in the tools themselves rather than the way people use them and mentally distancing us from responsibility for the way we use our creative products might

diminishes our power to control our tools. We are increasingly convinced, however, that we need to resist becoming too well adapted to our media, even as creators. Perhaps tools, methods, motivations, and opportunities for making the choice to disconnect – and perceiving the value of disconnecting in ways of our choosing – might be worth considering as a response to the web of info-tech that both extends and ensnares us.

The capacity and freedom to disconnect might well be necessary to prevent the intoxication of technology from tipping into toxicity: it seems more effective and more humane to resist technologies' dangers through mindfulness, not through prohibitions, regulations, revolutions, or guardrails. It makes sense to expend intellectual energy instead of fossil fuels, deploy thought instead of bureaucracy, employ awareness rather than conflict. Mindful disconnection doesn't require a top-down change in large-scale institutions or a redesign of installed infrastructure. It only requires that enough people make a decision and act on it

Resistance to the pressure to adapt ourselves to our tools is not a new idea, but neither Lewis Mumford, who traced the 'megamachine' back to the ziggurat-building potentates of the first agricultural empires,¹ nor Jacques Ellul,² who warned about the seductive mechanization of humanity via 'la technique' in the early 1950s, before there were more

1. Lewis Mumford, *The Myth of the Machine: Technics and Human Development*, (New York: Harcourt, Brace, Jovanovich, 1971).

2. Jacques Ellul, *The Technological Society*, Translated by John Wilkinson (New York: Knopf, 1964).

than a dozen computers in the world, nor William Irwin Thompson, who called me out by name in the 1990s as an enthusiast for the demon of mindless mechanization,³ could have foreseen the complex battle we've engaged ourselves in: the same technologies of freedom that make democracy possible are also the technologies of control that enable fascism.

The questions that Mumford and Ellul asked were not about a mystical human essence that is endangered by our species' proclivity for tool-making, but rather they were attempting to address the risk of losing autonomy, the bedrock of liberty. Liberty is a political concept that must be constructed by a literate population, a Gutenberg-era expression of collective action that increases the range of control individuals have over their lives.⁴ Autonomy, the broad range of activities that an individual has, in theory, some choice about, is fundamental. If we gain health and wealth, amusement and empowerment, through our use of a tool or medium, how have we, by that use, acted to constrain or expand the range of potential choices?

The matrix of change for global culture in the twenty-first century is the technology-mediated connectivity among people, data, media, products, processes, places, and devices that began in the nineteenth century and accelerated through the twentieth. The

technologies that enable the growing hyper-connectivity are microchips, personal computers, the Internet, mobile phones, bar codes, video cameras, and RFID tags. Such diverse social and economic phenomena as just-in-time manufacturing, virtual communities, online outsourcing, smart mobs, supply chain management, surveillance, and collective knowledge creation are all human socioeconomic behaviours that weren't possible before connective technologies made them possible.⁵ While the enabling technologies have received intense attention since the 'Victorian Internet'⁶ wired the world at the end of the nineteenth century, less attention was paid until the end of the twentieth century to the social reactions of communication-enabled populations. Perhaps most significantly, Manuel Castells pointed out recently that we live in a network society, not an information society:⁷ the Phoenicians at the time of the invention of the alphabet or Europeans after Gutenberg were information societies; humans are natural social networkers – cooperative defence and food gathering is probably what enabled our primate ancestors to survive and thrive in a predatory environment.⁸ But

there are natural limits to who any person can network with, how many people they can organize, spread over how large an area, at what speed. The significance of the global technological network is precisely its ability to amplify the scope, reach, and power ideation and socialization: the telephone, the Internet, the digital computer combine to create a worldwide, powerful, inexpensive, radically adaptive amplifier of human social networking capability. The question to ask in this time of turbulent social change is whether our use of connectivity increases or decreases our autonomy.

One can sense a paradoxical influence on autonomy – both the individual device such as the personal computer and the aggregated network of the Internet provide more choices for more people. But the technologies of connectivity have been evolving. First, the network was tethered to desktops, then it untethered and colonized the pockets of billions, and next it is going to leap out of the visibility and control of individuals as trillions of smartifacts infiltrate the physical world.⁹ The technologies that allow widespread creation of culture and political self-organization also support unprecedented surveillance capabilities – surveillance not only by the State, but by spammers, stalkers, and the merely curious. Nobody thought seriously about spams and viruses when the Internet first began to grow, and very few suspected that the first webcam (aimed at a coffee pot in a laboratory in Cambridge,

England) would spawn a global, interconnected, CCTV web of spycams. How much information about individual data traces left by bridge toll transponders, credit cards, RFID tags, CCTV cameras is captured, compiled and dataminated? Who designs these connecting technologies and makes decisions about their implicit functionality, such as the things they allow and restrain? Who controls the technologies and the effects they produce? Who defines to which ends these connecting technologies will be used, and what exactly they will be used for – more specifically, to whom will these technologies mean increased freedom, and in what ways will they be used for ever closer scrutiny and control over our movements and behaviour?

If we knew the answers to these questions, and didn't like them, what could we do about it? In a world of prevailing disconnectivity, to be able to connect is a privilege (e.g., the 'digital divide'). In a world of always-on connectivity, this relation might very well be reversed and the real privilege could then be the ability to withdraw and disconnect – to find sanctuary from eternal coercion to communicate, to connect, or to be traceable. In a society increasingly predicated on connectivity and real-time communication and trackability, shouldn't the ability to withdraw be enshrined as a basic right for all? In other words, in a network society the right to disconnect should be acknowledged as a fundamental human right, as crucial to our mental and physical well-being as the right to food, water, integrity of the body, or protection from political oppression.

3. William Irwin Thompson, *The Americanization of Nature: The Everyday Acts and Outrageous Evolution of Economic Life* (New York: Doubleday, 1991).

4. Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, (New Haven: Yale University Press, 2006), http://www.benkler.org/wealth_of_networks/index.php?title=Main_Page.

5. Howard Rheingold, *Smart Mobs: The Next Social Revolution*, (Cambridge: Perseus, 2002).

6. Tom Standage, *The Victorian Internet*, (New York: Berkley, 1999).

7. Manuel Castells, 'Why Networks Matter', in: Helen McCarthy, Paul Miller and Paul Skidmore (eds.), *Network Logic: Who Governs in an Interconnected World?* (London: Demos, 2004), http://www.demos.co.uk/networklogic17castells_pdf_media_public.aspx.

8. Robert Boyd, Joseph Henrich and Peter Richerson, 'Cultural Evolution of Human Cooperation: Summaries and Findings', in: Peter Hammerstein (ed.), *Genetic and Cultural Evolution of Cooperation* (Cambridge: MIT Press, in cooperation with Dahlem University Press, 2003).

9. *Everyware: The Dawning Age of Ubiquitous Computing*, (New York: New Riders Press, 2006).

Without this right to withdraw/disconnect, the network society indeed becomes an electronic prison of the type Gilles Deleuze muses about in his 'Postscript on the societies of control', a society of constant and real-time scrutiny.¹⁰ In such a society, freedom, as first of all a particular state of mind relatively free from external coercion, cannot exist, and thus many of the other emancipatory claims made (by myself and others) about the rise of networking technologies and a networking social logic are rendered failed enterprises. Foucault's notion of the Panopticon is too generic to be productive in understanding all of what is at stake and what could be an effective antidote. The question here is not about whether or not we are scrutinized. That is already a *fait accompli*, whether you like it or not. The question is whether we can develop procedures, methods, possibilities, spaces for 'selective connectivity', which make it practical to choose to extract ourselves from the electronic control grid from time to time and place to place.

Politically, the human right I propose is neither intrinsically a left nor right-wing question – rather it is a question of twenty-first-century democracy. Only when people are free and able to choose can the choices they make be in any sense truly democratic. The right to withdraw from public life into the sacred domain of the private is constitutive of the democratic experience – the seclusiveness of the private enables the public as an alternate role,

yet the very possibility of seclusion seems to be at stake in the networked, device-pervaded, communication-and-information-saturated, always-on society.

We do not propose a final answer to the question about how we should go about growing a technology regime around disconnectivity, but rather that we should begin by compiling examples, and proceed inductively. If anyone wants to transfer the preliminary list we compiled here to a wiki, that would be a splendid way to build on this beginning – what follows is a collection of anecdotes and tools related to the art and science of selective *disconnectivity* . . .

10. Gilles Deleuze, 'Postscript on the Societies of Control', in: idem., *OCTOBER 59* (Cambridge, Mass.: MIT Press, 1992), 3-7.

Resource List on the Art and Science of Selective *dis*Connectivity

☺ *unconnected*

Steve Cisler visits people and organizations *not* on the Internet. Cisler is a librarian and telecommunications technology consultant.

HR: 'I first met him online in 1985 when he was one of the first librarians to use the Well. Later, as one of the librarians at Apple, Computer, he organized meetings around the nascent community networking movement and was involved in the lobbying that led to the Wi-Fi standard. He has extensive experience with the use of Internet-related technologies in the context of public information provision, such as via libraries, but has also worked with many community groups on how they can use networking technology in their particular local context and geared to their specific needs.'

A couple years ago, Steve attempted to get in touch with people who were not or no longer connected to the Internet in the USA, for whatever reason. Some of these people might never have been on-line, others dropped out for economic reasons, and still others deliberately went or stayed off-line. The blog page contains travel stories, interviews, impressions and some pictures of the road trip across the continent that Steve made to talk to the 'unconnected'.

EK: 'When he did this he went off line for a whole year. I had been in continuous but intermittent contact with him online, and now I am again today, but in this in-between phase, even

though he would receive letters to his home address, he completely dropped out of my life – a peculiar experience.' (<http://tingilinde.typepad.com/unconnected>)

☺ *Bubl-Space*

Beep Free

Do you need a break from the daily mobile soap? Surround yourself with soothing space. Simply press your pocket-size BuBL device. Release a bubble of silence. You'll feel pleasantly isolated inside, even in a crowded place. Evaporate all phone signals up to 3 m around. Enjoy the silence. Create your Personal BuBL Space. Illegal as hell, but nobody has to ask why it's so appealing.

This is a very funny art project by Arthur Elsenaar and Taco Stolk, both from the Netherlands. They created this battery operated pocket size GSM blocker that blocks wireless signals (it is also W-Fi compliant) in an area of approximately 3 m around you. What it does is send out white noise on the required frequency bands – a mobile phone or other wireless device interprets this as 'no signal' and switches off/disconnects – especially handy in public transport! One reason it is illegal is that this device can also block vital communications (police, ambulance, fire fighters, emergency services, etcetera).

☺ *The Privacy Card*

The Privacy Card action was an elegant hack of the biggest loyalty card in Germany. The site of German artist Rena Tangens on which this event is presented, offers information and

brings the fun back to resistance, but also includes the current prototype of a game on data collection and privacy. This counter-card actually worked – and still does. People can get their bonus reduction without their data being collected.

(<http://www.foebud.org/fruehere-projekte/privacycard>)

📶 *i-See*

‘Now More Than Ever’

The Institute for Applied Autonomy (USA)

iSee is a web-based application charting the locations of closed-circuit television (CCTV) surveillance cameras in urban environments. With iSee, users can find routes that avoid these cameras (‘paths of least surveillance’) allowing them to walk around their cities without fear of being ‘caught on tape’ by unregulated security monitors.

Check the videos on their site – they are very funny and instructive!

Also good about this project is that they extended the service for hand-held devices so that people can invoke up-to-date paths of least surveillance, add to them on the spot, and share the maps with other users.

This project was also implemented in Amsterdam – with a cam-spotting action in public space called ‘Spot the cam in Amsterdam’. For the wedding of crown prince Willem Alexander, an impressive range of remotely operated motorized cameras were placed on the roofs of buildings along the route of the royal wedding parade. The promise was that these cameras would be removed after the wedding, but of

course they never were. Weeks after you could see them happily swinging to and fro, focusing on any passer-by – thus the cam spotting action to show this broken promise.

(<http://www.appliedautonomy.com/isee.html>)

📶 *Phonebashing*

This is a street action performance, carried out when mobile phones first started polluting public space in London – two guys in big mobile phone suits literally smash people’s mobile phones on the street, even in a café – amazing!! Funny and subversive/confrontational – grainy but great videos! (<http://www.phonebashing.com/>)

📶 *Internet Privacy Switch*

Janos Sugar / Media Research Foundation, Budapest

A project proposal by Janos Sugar, a conceptual and media artist from Budapest, Hungary and cofounder of the Media Research Foundation. In Budapest he worked closely together with Geert Lovink for a number of years. In response to a discussion years ago about disconnectivity he came up with the internet privacy switch, which is brilliant in its simplicity, it just disconnects you when you push ‘off’ – the button has the word ‘line’ written on both sides of the switch so that when you push it ‘on’ it says ‘online’ and when you switch it off it says ‘offline’.

Janos Sugar - International Corporation of Lost Structures:

<http://www.icols.org/pages/Main-Frame.html>

Media Research Foundation, Budapest:
<http://www.mrf.hu>

📶 *TV Turnoff Week*

Adbusters/Media Foundation

‘We’ve always known that there’s a lot more at stake than just getting people off their couches: TV Turnoff Week is all about saying no to being inundated with unwelcome commercial messages. Saying no to unfettered media concentration. And challenging the heavily distorted reflection of the world that we see every day on the screen. All of this is why, in the nearly 15 years since Adbusters launched TV Turnoff Week, it has grown into such a runaway success – such a success, in fact, that there are now literally dozens of groups dedicated to promoting TV Turnoff, at the local level, in schools, universities, malls and public spaces all across the globe.’

This is a ‘classic’ case of disconnectivity, of course . . . But I think this is an important campaign. Although it refers to an old medium (television), it rings true to the spirit of disconnectivity. (<http://www.adbusters.org/metapsycho/tvturnoff/>)

RFID Related Resources/Projects

📶 *RFID Blocking Wallet*

With the proliferation of RFID devices and related privacy concerns, it seemed due time to create the RFID Blocking Duct Tape Wallet. There are many ways to prevent Radio Frequency ID tags from being transmitted from devices. I often use my work badge and school ID which both contain RFID tags. With drivers licenses, credit cards, and cash now beginning to contain RFID tags, why not create a protective wallet. (<http://www.rpi-polymath.com/duct-tape/RFIDWallet.php>)

📶 *RFID pocket-replacement*

As RFID tags become more pervasive, how does the consumer avoid being tracked? One easy way to subvert the technology is to build a homemade faraday cage around your RFID tags. This project describes how the average person can rip out a pocket from a pair of jeans and replace it with a cotton like fabric which contains enough conductive material to block most RFID tag frequencies. (<http://www.electric-clothing.com/rfid-pocket.html>)

📶 *Tag Zapper*

The TagZapper™ is being developed to be a light-weight, handheld device for deactivating RFID transmitting devices. This is intended to fulfil consumer demand for a means to protect their privacy. (<http://www.tagzapper.com/>)



📶 *RFIDWasher*

‘Don’t let RFID tags and chips breach your privacy rights, get RFIDwasher.’

‘RFIDwasher’ and ‘Be Free of RFID’ are registered trademarks of Orthic Limited. All other trademarks are acknowledged. ‘Our Patented RFID product allows you to locate RFID tags and DESTROY them FOREVER!’ (<http://www.rfidwasher.com/>)

📶 *Chris Oakley’s short film ‘The Catalogue’*

‘Crystallising a vision of “us seen by them”, The Catalogue explores the codification of humanity on behalf of corporate entities. Through the manipulation of footage captured from life in the retail environment, it places the viewer into the position of a remote and dispassionate agency, observing humanity as a series of units whose value is defined by their spending capacity and future needs.’

An amazing short film of 5 minutes and 30 seconds made in 2004 that projects a near future in which RFID tagging and completely transparent databases merge to make unprecedented on the spot profiling of people possible.

(<http://www.cinematicfilm.com/the%20catalogue.html>)

📶 *Reader for RFID Workshop*

A collection of projects, theory and criticism on RFID

A growing number of logistical companies see the advantages and possibilities of RFID for managing large bodies of objects. But to what uses can this technology be applied that are not in the logistical realm? How can it serve

and/or change society and human interaction? How does it change the concept of information and information networks as we know them today? This reader compiles a number of resources on the technical and philosophical aspects of RFID. (<http://www.mediamatic.net/article-9691-en.html>)

Assia Kraan

To Act in Public through Geo-Annotation

Social Encounters through Locative Media Art

Locative media art makes artistic use of location-aware and time-aware media to promote social encounters between users and locations. The social contact is usually experienced via a PC. Assia Kraan wonders whether the

shared location is only the pretext or also the location for social activity.

During the last few decades, the use of digital media has changed traditional public space into a hybrid space, Eric Kluitenberg claims in the introduction to this *Open*.¹ Electronic networks are interwoven with social, political and physical space, leading to a new dimension in the use and experience of that space. The new hybrid space also calls for new forms of public action.² These can only be created and facilitated if the users of hybrid space learn to see the influence of the relatively invisible digital structures and appropriate their technology where possible for alternative use. For example, the practice by which *Google Maps*,³ albeit from a commercial angle, offers users a view of the world that

1. Kluitenberg introduces the term hybrid space and problematizes public action in it because of the increasing invisibility of digital technology.

2. In this essay I use the term public action to refer to public human activity in public space to bring about a social effect.

3. <http://maps.google.com/> consulted on 25-08-2006.

used to be the preserve of the US military, is a successful example of the appropriation of – in this case GPS – technology.

Because of its more experimental and critical explorations, locative media art can bring new possibilities to light on this front.⁴ By making use of digital technologies for public action, it can enable the users to understand hybrid space and bring about social activity. A particular type of locative media art that works with geo-annotation causes communities of users to form who

4. The term locative media was introduced in 2001 by the Canadian media researcher Karlis Kalnins and published in 2003 in the *Acoustic Space Reader* (RiXC Center for New Media Culture) as a test category for media art that explores the interaction between the virtual space of Internet and physical space. The term locative media is used nowadays to refer to both location-aware and time-aware media and to this form of media art. This is confusing, which is why

share something special with one another; their experiences of a specific space. They give meaning to hybrid space and form social relations on the basis of that. A new form of public action in hybrid space is manifested in the activities of these social communities that confer meaning through geo-annotation.

the term locative media art is used in this essay to refer to artistic practices that explore the use of locative media in hybrid space.

Locative media art makes use of locative media to annotate space and to bring people together. But what are the specific characteristics of locative media, and why are they suitable for public action in hybrid space? A closer examination of the concepts of space and location and of examples of locative media art with geo-annotation seems called for.

Hybrid Space

The new hybrid space calls for a different understanding of the concept of ‘space’. Using Henri Lefebvre’s notion of space may help us to understand hybrid space better.⁵ Discourse about ‘space’ today is influenced by his theory, introduced in the 1970s, that space consists of an interaction between perceived, conceived and lived space, and that it is in motion. Hybrid space could then be understood as a space in motion and an interaction between perceived, conceived, lived and virtual space. This space is formed not only by materiality and social and political actions, as Lefebvre argued, but also by digital technology.

5. Henri Lefebvre’s *La production de l’espace* (1974) attracted the attention of Anglo-Saxon theoreticians after the publication of an English translation, *The Production of Space*, in 1991.

We try to understand the world

around us from an elementary survival instinct, and then we act in accordance with the spatial concept that has been formed in that process, according to the urban planner Kevin Lynch and the social geographer Yi-Fu Tuan.⁶ This probably also applies to people in hybrid space. The distinction that Michel de Certeau makes between the actual city (the physically experienced and lived city) and the concept of the city (the rational, ordered model of the city) is applicable here.⁷ With the transition from traditional to hybrid space, the concept that people have of the city, which is determined by everyday experiences, changes. It is precisely this that is problematized by the development by which digital technology invisibly influences the experiences of people in public space and thereby affects the images that they form and their actions, without their being aware of the fact. When people learn to know and use the characteristics and working of digital media, they will have a better understanding of the character of hybrid space and will be able to handle it better. Their spatial concept is in need of adjustment so that they can function better in the public space of today. Opportunities for this lie in the alternative use of digital technologies and in the exchange of spatial concepts with others, as this takes place in locative media art.

6. K. Lynch, *The Image of the City* (Cambridge: M.I.T. Press and Harvard University Press, 1962); Y.-F. Tuan, *Space and Place* (Minneapolis: University of Minnesota Press, [1977] 2003).

7. M. de Certeau, *The Practice of Everyday Life* (Los Angeles: University of California Press, [1984] 1988).

Mental Maps

People form their spatial concept by ordering public space and conferring meaning on it. It is important to make a distinction between space and *plek*. Anglo-Saxon theoreticians talk about *space* and *place*. The Dutch word *plek* (plural *plekken*) will be used here because the alternative ‘place’ does not express its meaning adequately. ‘Place’ is used, for instance, to refer to the physical space of a settlement, while *plek* refers to the meaning that a physical space has for somebody. A *plek* can be described as a complex ensemble of physical characteristics, cultural experiences, history and personal logic. Geographers target the navigational characteristics of *plekken*, but the computer scientists Paul Dourish and Steve Harrison emphasize an aesthetic quality. They recognize the function of *plekken* in a creative appropriation of the world and describe *plekken* as ‘developed sets of behaviour, rooted in our capacity to creatively appropriate aspects of the world, to organize them, and to use them for our own purposes’.⁸

The formation of a concept of space is essential for an understanding and appropriation of hybrid space because on the basis of this concept the space acquires meaning and the user can survive in it. The psychologist Stephen Kaplan claims that users organize information in a cognitive (mental) map using the information-processing mechanisms that are theirs by nature. Back in 1913 the geographer Charles Trowbridge talked about imagi-

8. P. Dourish and S. Harrison. *Re-Place-Ing Space: The Roles of Place and Space in Collaborative Systems. Computer Supported Cooperative Work* (Boston: ACM, 1996).

nary or mental maps. He had noted that some people are better at orientation than others. He sought the explanation for this in their informal, imaginary maps, which were built up around the location of their home. As long as they remained on familiar territory (and thus on the imaginary map) they could find their way. Trowbridge’s term ‘mental map’ referred to the perceived space, but according to Kevin Lynch it also consists of conceptualized space. In his view, it is the two-way process between the resident and his or her environment that forms the mental map. The environment suggests distinction and relations, and the resident selects, organizes and confers meaning on what he or she sees, on the basis of his or her interests. A mental map is in a process of ongoing development from the moment that the user is in relation to the space, and thus often from childhood.⁹

For users to become aware of the influence of hybrid space on public action, it is necessary to understand the character of that space. The traditional opportunities for public action are supplemented with the new ones offered by the current shift in the spatial character of the public domain. Where the traditional way of acting cannot deal with the network of electronic elements, the public should make hybrid space created by that shift operational by seeing that network as a part of public space. The hybrid space can then become a part of everyone’s mental cartography. What remains for the users of public space is to gain access to the new public domain through

9. I go in detail into the formation of *plekken* by individuals and the role that locative media art can play in that in my master’s thesis, available at http://www.assia.nl/docs/scriptie_A.Kraan.pdf.

technology that makes use of the hybrid character of the space. Locative media art offers such access.

Geo-Annotation Reinforces Social Contact

Locative media art takes place in public space and makes artistic use of locative media. Locative media art with geo-annotation explores the possibilities for public action. Artists use locative media artistically to get people to use technology and to annotate and exchange the meanings that they confer on *plekken*.¹⁰ This can result in a better understanding of the nature and working of technology among users and in the formation of a community around the *plek*.

The art and design theoretician Malcolm Miles distinguishes the following forms of public art: integration art; handiwork in designing the built-up environment; and intervention by artists in public space.¹¹ Locative media art could be regarded as a form of intervention art. It intervenes in public space to create environmental awareness, that is, an attentive perception of the physical environment with a feeling for the meaning of *plekken*.

In the project (*Area*)*code* (2004)¹² by the artists’ collective Centrifugalforces, for example, with the assistance of SMS users discover meanings of specific *plekken* in Manches-

10. Following the definition by Karlis Kalnins, locative media are regarded as ‘location-aware and time-aware media’, such as GPS technology, mobile and fixed networks, in combination with PDA, smartphone or laptop.

11. M. Miles, *Art, Space and the City* (London: Routledge, [1997] 1999).

12 <http://www.areacode.org.uk/> consulted on 25-08-2006.

ter, which can be experienced in a very aware way as a result. Locative media art not only shows the environmental awareness of users, but is itself environmentally aware too. This is its strength: it can determine the spatial position of the user and relate it to other locations and locative information.

Besides the artistic use of technology, the interactive way in which users collaborate to produce the work of art is also a characteristic of locative media art. The role of the artist as initiator and the trend to let users take part in the work of art can be historically derived from the happenings. A happening is a specific dramatic activity that originated in the work of Dada in 1916-1921 and in the Surrealist art that came afterwards. The work *18 Happenings in 6 Parts* (1959) by the US artist Alan Kaprow was seminal for this artistic movement and defined the elements of a happening: the public is both spectator and participant; actions and events happen simultaneously just as they do in life; the 'stage' of the performance is virtually infinite and the acting is largely improvisation. Early happenings were focused on person-to-person interaction, but the introduction of technology into performances led to a person-to-machine interaction.

The use of (locative) media technology in works of art has its roots in the activities of the US collective Experiments in Art and Technology (E.A.T.) (1966), one of the first initiatives in which artistic experiments were conducted with technology and in which the interaction between people and machines was explored. The engineers Billy Klüver and Fred Waldhauser and the artists Robert

Rauschenberg and Robert Whitman brought technicians and artists together to work on performances that incorporated new technologies. E.A.T. realized that artists could contribute to the development of technologies and developed interdisciplinary projects in which artists and technicians participated. In the 1970s the emergence of hardware technologies in communication, data processing and data control led to a new generation of software systems in which artists were interested.

There is no conventional classification of types of locative media art, but terms such as geo-annotation, geo-tagging and collaborative mapping are used on an occasional basis to refer to locative media art projects. In the case of geo-annotation, locative media are deployed artistically to establish a link between public space and the users, between hybrid space and mental space. The world is made legible via a transparent interface between the spatial object and the spatial metadata that are linked to it. Users are given locative media to annotate the meaning that they give to *plekken*. Image, sound and text are linked to the geographical coordinates or positions in the digital network by storing everything in a database, often on a website. This locative informative is made accessible in a map that is placed on the website and is accessible to all. Annotations are linked with other information, thereby acquiring context. Users can view annotations on the website using a PDA, smartphone, laptop or PC.

Place-Based Authoring

In short, the meanings of *plekken* can be recorded with geo-annotation and then shared with friends and strangers. The art project *City Songlines* (2003)¹³ by Karlis Kalnins and others is an example of geo-annotation. In this project a map of Utrecht (the Netherlands) was formed on the basis of shared annotation. Users could make an interactive map on the website of *City Songlines* and link image, sound and text to specific locations around the Central Museum in Utrecht. Users in the physical space had access to the reports through their PDAs and smartphones.

The research studio Proboscis project *Social Tapestries* investigated the advantages and costs of locative mapping and sharing information. On the basis of its findings, it designed the software platform *Urban Tapestries* (2004-now),¹⁴ which has since been the basis for many test versions of place-based authoring. This annotation system emphasizes the thread formed by a series of annotations, by which insight can be gained into their context. The project *GeoSkating* (2005-now)¹⁵ by Just van den Broecke is built on the software platform *GeoTracing* and works like *City Songlines* and *Urban Tapestries*. Skate routes are mapped on the website, and locations on them are annotated with image and text. The unusual feature of this project is that specific users of public space, namely skaters, are given the means to annotate their

specific experience of the space (such as the quality of the asphalt). *Socialight* (2004-now)¹⁶ not only allows users to pluck annotations from the website, but also bombards them with reports when they are on a specific location. Whenever someone is in a sticky shadow (a specific geographical location), he or she receives a report with information about that location. These sticky shadows (annotations) are added to the website by the users themselves.

The position of the user in the public space is important in geo-annotation. It can be traced using a variety of techniques. In the case of *Cellspotting* (2005-now),¹⁷ it is done on the basis of the position in the mobile network, the cell where the user is located. This project by Carl Johan Femer helps friends to spot one another and provides users with location-bound information. *Plazes* (2004-now)¹⁸ traces users on the basis of their internet connection and does not distinguish between PC or mobile media users. On the basis of the location of the user, information about that particular location can be made available, such as who is in the neighbourhood and how often it has already been visited.

Joint Cartography

Cartography is a familiar device to make location-bound information tangible in a visual representation. The Situationists experimented in the 1960s and '70s with recording the personal experience of

space in alternative cartography. Their practice was called psychogeography, and their products psychogeographical maps. Today Lori Napoleon is one of those occupied in exploring personal cartography. In *Mapsproject* (2004)¹⁹ she documents personally hand-drawn paper maps that describe a route or say something about how their maker experiences the space. Julian Bleecker's art project *PDPal* (2002-now)²⁰ is an artistic exploration of alternative cartography in the service of geo-annotation. Using locative media, users of *PDPal* make a multimedia representation of the city. In the first project this resulted in a visual haiku with text, but the following projects had increasing recourse to characteristics of Cartesian cartography to give the personal maps a common denominator on the basis of which they could be merged. In the second project the product was a digital schematic map with a grid, and in the third project users could only link audio reports to geographical locations but no longer represent them on a map.

PDPal illustrates the choices that artists have to make between the personal character of the user's annotation and the shared character of the joint map. Once the idea is to exchange annotations among users, they will have to be made in accordance with a pre-arranged system. Jason Wilson's *Platial*²¹ and John Geraci's *Foundcity*²² work with an annotation system. Users can make use of limited possibilities to make

19. <http://www.subk.net/maps.html> consulted on 25-08-2006.

20. <http://www.pdpal.com/> consulted on 25-08-2006.

21. <http://www.platial.com/splash> consulted on 25-08-2006.

22. <http://www.foundcity.net/> consulted on 25-08-2006.

their own map on the website. Locations are drawn in the same type of map and annotated with specific symbols. A title, description, photograph and/or video can then be added in defined fields.

Annotations of public space generate reactions, discussions and conversations, in short, social contact between users. As media theoretician Lily Shirvane claims, there is 'a potential for the space between individuals and their environment to become a location for spontaneous formations of collective activity'.²³ Experiences that people have in their familiar environment may be a pretext for meetings not only with acquaintances 'in the street', but also with strangers. Collective activities can lead to communities around a specific *plek*. Projects such as *GeoSkating*, for example, create a community of skaters who exchange information about skate routes. *Droombeek*²⁴ and *The Former-Resident-Project* (2006) also bring people together, but this time around a shared (former) place of residence. In the first project, residents and former residents of the Roombeek district in Enschede (the Netherlands), where there was a devastating explosion in 2000, share their recollections and experiences; the latter project is about New York City.

The practices of conferring meaning carried out by these communities are forms of public action. Meaning is annotated and distributed within the community. The exchange of spatial concepts

23. L. Shirvane, 'Locative Viscosity: Traces of Social Histories In Public Space' *Leonardo Electronic Almanac* MIT Press, vol.14 issue 03 (2006), http://leoalmanac.org/journal/Vol_14/lea_v14_n03-04/lshirvane.asp consulted on 25-08-2006.

24. For a detailed account of the Droombeek project see the article by Arie Altena in this *Open*.

leads individuals to form a community that experiences that hybrid space differently, and possibly understands it better. The *Familiar Stranger Project* (2003)²⁵ is based on the fact that we make use of the public space with other people. Elizabeth Goodman and Eric Paulos do not focus on the formation of a community of acquaintances, however, but on that of familiar strangers: those strangers we regularly meet in public space, but whom we choose to ignore and by whom we are ignored. The mobile application, called *Jabberwocky*, is based on Bluetooth technology.²⁶ When two people who both have a mobile telephone fitted with Bluetooth approach one another, the *Jabberwocky* software detects the other's presence and indicates it as a red square. The other person's unique characteristics are recorded, and at the next meeting they are recognized and visualized as a green square. This colour code shows whether you are passing familiar strangers whom you have seen before or not. This project illustrates both the importance of the other in the experience of public space and an unusual form of social contact between strangers on the basis of the use of space.

Public Action: Online Media or Locative Media?

Geo-annotation projects promote social contact between users of a *plek*, but they do not bring them together in that physical space. Using online digital media (fixed network and pc), communities are

25. <http://berkeley.intel-research.net/paulos/research/familiarstranger/> consulted on 25-08-2006.

26. <http://www.urban-atmospheres.net/Jabberwocky/> consulted on 25-08-2006.

formed around a website about a particular *plek*, where members enter into contact with one another via their pc. However, we should not forget that media are only devices for representing mental maps so that locative experiences can be exchanged and experienced together. A *plek* is still best experienced, however, on the physical location itself instead of behind a pc. The represented mental map on the website can not replace the far richer, genuine mental map, but only offer a shared language for communicating about locative experiences. In order to experience *plekken* in a genuinely shared way, there is thus no point in only chatting about annotations in the virtual space via websites, but the physical location has to be taken as the starting point. It is important to take this step after forming a representation of mental maps.

But online digital media are in the last resort perhaps not the most suitable instrument for promoting social contact on the basis of the experience of space. The locative character of locative media may offer many more opportunities for contact in hybrid space. Unlike online digital media, locative media generate communication about space on location. By means of locative media, members of communities can recognize one another in physical space. Moreover, the user can scan the environment on the *plek* itself for the presence of members and exchange locative information. There is more point to the exchange of location-bound information on the *plek* itself than on a website. Information about a location can best be experienced and discussed on location, in the physical proximity of other users.

Strangely enough, there are hardly any art projects that deploy locative media instead of online digital media to bring people in physical space into contact with one another. Still, there are a few examples of commercial projects, including *Sensor*²⁷ by the Nokia telephone

company, in which this does happen.

27. <http://europe.nokia.com/A4144923> consulted on 25-08-2006.

When users are distant from one another within a particular radius, messages can be exchanged via Bluetooth and contact is possible. The content of those messages can come from a portfolio compiled beforehand, or be created on the spot. Since the portfolio is only kept on the mobile phone and not on a website, it can only be exchanged with other people in a physical space. It is thus personal information, not location-bound information. Other commercial applications are *Streethive*²⁸ and *Dodgeball*,²⁹ in which location-bound information is exchanged. Users of *Streethive* indicate on a digital map

28. <http://www.streethive.com/home> consulted on 25-08-2006.

29. <http://www.dodgeball.com/> consulted on 25-08-2006.

(from their PDA or smartphone) where they are, and can also see which fellow users are in the vicinity, with a view to an actual meeting. Moreover, *plekken* can be annotated and gain visibility on the map. *Dodgeball* brings people together by informing them with text messages about other users who are geographically close on the basis of their position in the mobile network.

Projects like *Droombeek* and *GeoSkating* demonstrate that geo-annotation with locative media offers experimental and artistic opportunities to make social contacts on the basis of the experi-


ence of *plekken*. To sum up, this takes place in three ways. First, users make use of locative media to link multimedia information to a geographical location. In this way the meaning of a *plek* is recorded and represented on a digital map. Second, locative media are used to request annotations when you are on location. The user accesses the locative information by accessing the website or subscribing to a news service. Third, locative media could be deployed to inform users when they are near to one another, so that they can meet physically and exchange their experience of a *plek*.

As far as the last possibility is concerned, artists still seem to make use of online media and not locative media on the whole. Social contact is brought about while the parties concerned are not in close physical proximity to one another, but behind their PCs. It is striking that none of the art projects mentioned makes use of locative media to bring about social contact on location, while some commercial projects do exactly that. Locative media seem pre-eminently suitable for this purpose of geo-annotation. In the case of social contact on the basis of online digital media, the point that gives rise to the contact – the *plek* – is not a meeting place but only a theme.

Locative media should be deployed in locative media art to bring about social contact in physical space. The location of a *plek* is important for social contact because meaning is annotated to that *plek* on the basis of it. Presence on location offers a richer experience of the contact about that *plek*. In addition, the character of locative media does justice to the hybrid character of the public space.

By deploying locative media, physical, digital, social and mental space can be linked with one another. It can be a challenge to make optimal artistic use of the character of locative media to confer meanings on hybrid space and to exchange them with one another. Location must also have a metaphorical place in a genuine social public action in public space.

WRITE YOUR OWN CITY.




HOW?

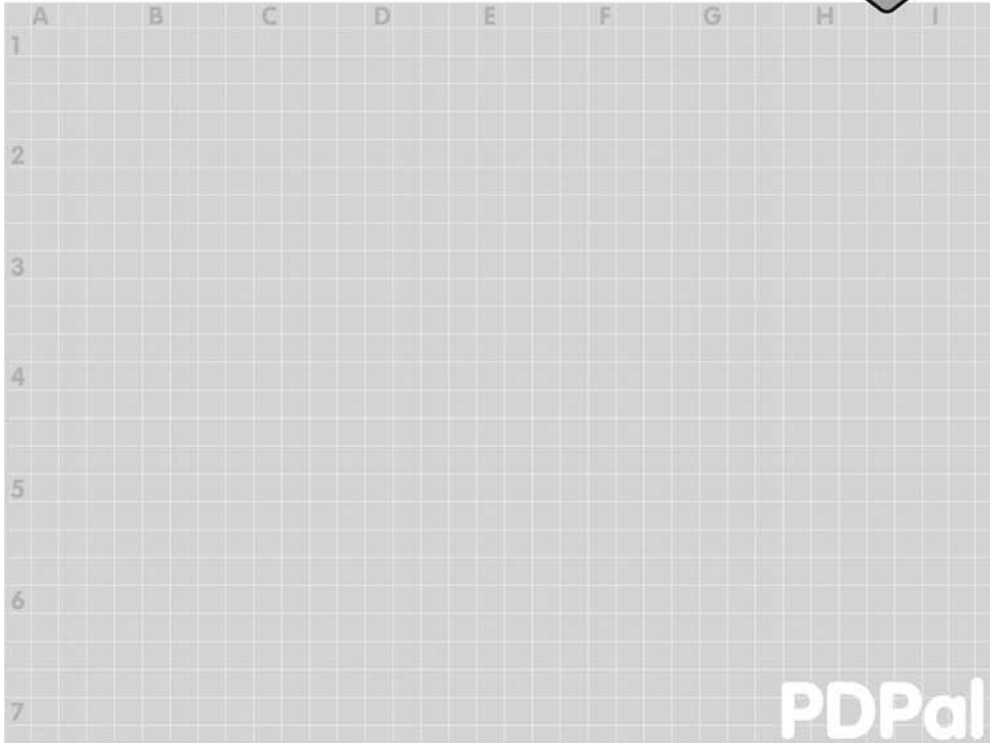
You can use PDPal to record the places and routes that constitute your city.

As you find relevant, draw geographic landmarks that might give context to the places and routes you record. Landmarks could include major land features, lakes, rivers, highways, roads, buildings, railroads—anything that catches your eye.

WHAT TO MAP: some possible directions


1. **Map your week.**
For five days, draw where you go and how you get there. What are the routes and landmarks you use? Use lines instead of distance as your measurement.
2. **Map your character.**
What is the city personality you'd like? How would you create a portrait of yourself in space? For starters, try spelling your name using the names of your favorite routes and locales.
3. **Map your fantasy city.**
If you could extend the city system, the greenways, or the water routes, what would they be? What kinds of locales or routes would you create?






TOOL KIT	ATTRIBUTES	RATINGS	RUBBERSTAMPS	ROUTE LINE STYLES
<p>This is your tool kit for making your maps. Use it as a guideline.</p> <p>A. Name your locale or route.</p> <p>B. Pick an attribute to describe your route or locale. Is it soggy? Is it steep? Is it pretty? Is it scenic?</p> <p>C. Pick a rating: how much, how fast, how big?</p> <p>D. Pick a rubberstamp to designate your locale, or make your own, and draw it on the graph.</p> <p>E. Pick a line style to designate your route.</p>	<p>bright dark buzzing desolate crowded clamorous harmonious rotten delicious sterile lowless controlled comfortable dangerous fluid rough sharp dull roughy</p> <p>sexy bleak fun blustery soggy jittery sleazy efficient haywire blasphemous sacred meandering speedy slow dirty clean tiny vast</p>	<p>impercipitly audibly loudly squeamishly gritty brutishly hardly pathway unimaginably prudishly famously lustily</p> <p>faintly visibly boldly a little pretty very slightly somewhat totally rarely occasionally frequently</p>	<p>STRUCTURES [Icons of buildings, trees, etc.]</p> <p>ICONS [Icons of people, animals, etc.]</p> <p>BOOKS [Icons of books]</p> <p>ATMOSPHERES [Icons of weather, etc.]</p>	<p>pick one per locale entry (or insert your own)</p> <p>pick one per route entry (or insert your own)</p>


WRITE YOUR OWN CITY




WHAT TO CHOOSE
WHEN YOU CHOOSE YOUR ROUTE OR A LOCATE WHAT DOES IT SAY ABOUT YOU AND YOUR CITY?




WHAT TO MAP
WHAT ASPECT OF YOUR WEEKEND WOULD YOU CHOOSE TO MAP?




WHAT TO CHOOSE
WHEN YOU CHOOSE YOUR ROUTE OR A LOCATE WHAT DOES IT SAY ABOUT YOU AND YOUR CITY?




WHAT TO CHOOSE
WHEN YOU CHOOSE YOUR ROUTE OR A LOCATE WHAT DOES IT SAY ABOUT YOU AND YOUR CITY?



WHAT TO CHOOSE
WHEN YOU CHOOSE YOUR ROUTE OR A LOCATE WHAT DOES IT SAY ABOUT YOU AND YOUR CITY?



WHAT TO CHOOSE
WHEN YOU CHOOSE YOUR ROUTE OR A LOCATE WHAT DOES IT SAY ABOUT YOU AND YOUR CITY?



what

What is the city personality you'd like? How would you create a portrait of yourself in space? For starters, try spelling your name using the names of your favorite routes and locales.

why

Why is it relevant? How would you create a portrait of yourself in space? For starters, try spelling your name using the names of your favorite routes and locales.

how

How would you create a portrait of yourself in space? For starters, try spelling your name using the names of your favorite routes and locales.

Klaas
Kuitenbrouwer

RFID & Agency

The Cultural and Social Possibilities of RFID

RFID (Radio Frequency Identification) is rapidly finding new applications and this is giving rise to concerns about threats to privacy. It's therefore worth thinking about how individuals can have a say in

which privacy they are willing to share with whom and when. If citizens can acquire more access to particular RFID implementations, then RFID can also become a support for other, socially interesting value systems. Recent developments in online culture provide exciting ideas for this.

Radio Frequency Identification (RFID) technology consists of components, notably RFID labels, usually called tags. These are small microchips with radio antennas that carry a small amount of data and have a unique identification number. The data on some chips is rewritable. The second component is the RFID reader, which transmits a radio signal so that the RFID tags are loaded up and their unique number is transmitted to the reader. In order to read a RFID tag the reader only has to be in the vicinity of the tag, rather than having to be pointed at it, and the signal penetrates all sorts of material except metal. If the chip permits it, the data on the chip can also be changed via this radio contact. The RFID reader is linked to a computer with a database – the third component. Here the information belonging to RFID tags' identification numbers is stored. In principle, the tags can be attached to anything – objects, places, animals, people. In addition to their number they can sometimes contain a considerable amount of information, as well as their own power source, for example, so that they can actively transmit their signal and thus be readable at much greater distances. The RFID readers can be weak or powerful, enabling tags to be read at shorter or greater distances, and the databases can be small and only locally accessible, but also enormous and accessible from all over the world via Internet.

If you Google RFID the first ten hits include a few links to major logistical companies and consultants (AIM, RFIDInc), for whom RFID is a dream come true; a dream of controllability, transparency and efficiency as regards the worldwide tracing of goods. Five of the first ten hits are links to organizations that see the replacement of the barcode by RFID as the greatest possible threat to the privacy of ordinary people. The search-term 'RFID' results in more than a hundred million hits, 'RFID+privacy' nearly fifty million hits. In short, if we take Google as the norm, RFID chips are synonymous with 'spychips'.¹

1. <http://www.spychips.org>.

EPCGlobal Inc. is an organization that promotes and supports the worldwide use of RFID standards. EPC stands for 'electronic product code'. Wal-Mart, the biggest American supermarket chain – and in terms of turnover the biggest company in the world – has demanded of its 300 chief suppliers that, before the end of 2006, they equip all their pallets with an EPC standard RFID chip. The American Ministry of Defense demanded the same of its suppliers in 2004. As a result of Wal-Mart and the Ministry of Defense opting for RFID, the technology has suddenly become the focus of global economic interest. Wal-Mart is taunting RFID critics with the planned and already, on a modest scale, implemented introduction of RFID for products on the supermarket shelves. Individually tagged articles can be used to precisely trace customers' routes through the shop as well as their shopping habits, so that special personal offers can be made to customers with a specific profile in real time. In the words of Joseph Turow, a professor at the Annenberg School of

Communication, 'This all might make sense for retailers. But for the rest of us, it can feel like our simple corner store is turning into a Marrakech bazaar – except that the merchant has been reading our diary, while we're negotiating blindfolded, behind a curtain, through a translator.'²

The EPC/Wal-Mart version of RFID uses a worldwide standard for managing the unique identification codes attached to goods, which can be read by high-capacity RFID readers up to a distance of 4 m in the EU and 8 m in the USA and which are linked via expensive 'middle-ware' to large, heavily guarded databases accessible world-wide via Internet. Big companies buy access to this standard and thus roll out their 'supply-and-value-chains', permanently updated via RFID, across the whole world.

There is absolutely no reason to assume that the large-scale implementation of RFID does not represent a serious threat to what remains of supermarket customers' privacy. It is easy to envisage scenarios in which privatized health insurance companies, for example, have access to dieting information via databases maintained by supermarkets about customers' shopping habits sorted according to postal code, sex and age, so that the data involved does not quite contravene the law on personal information and the special responsibilities that this entails. The technology is also easy to hack. It is therefore essential to keep a close eye on how personal privacy is dealt with in connection with RFID. But to reduce RFID to 'spychips' obstructs the view of other interesting cultural and social effects that RFID can have.

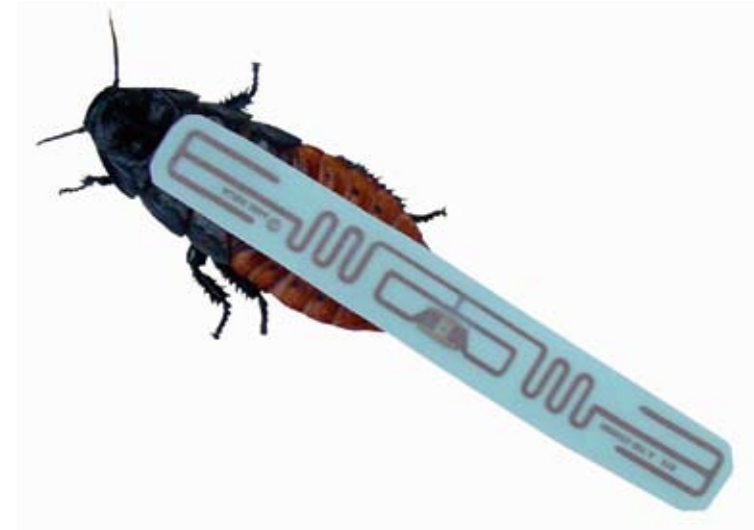
Agency

Most critics are concerned not so much with maintaining at any cost an unequivocally defined notion of privacy pertaining to individuals deemed to be autonomous, but with the enforcement of negotiability in the interplay between a desired connection with communication networks on the one hand and privacy on the other. This requires flexible ways of defining privacy. Critics of RFID want individuals to have a say in the degree of privacy that they desire in relation to which (market) force at which moment. This degree of privacy can be related to the services or products offered by the market. For example, those who would like to receive a personally tailored dietary advice will have to provide the information needed for such advice. But the degree of privacy can also be coupled to a local context or to the time of day.³

Ultimately the debate is not about protecting privacy but about promoting 'agency' on the part of citizens: the ability to act in a determinate way.

Analysing the possible distribution of 'agency' in relation to the different RFID components offers interesting handles for getting a picture of the cultural and social significance of RFID. In the EPC/Wal-Mart scenario all the RFID components are in the hands of marketing people. They control what is 'tagged', they determine where the (often invisible) readers are and what is read with them, they have exclusive access to the databases and an idea about the way these react. Ordinary people are only there in this scenario to

Preemptive Media, *Zapped!*, Hissing cockroaches equipped with RFID chip, 2004.



z25, *Dat-a*, Huis aan de Werf, Utrecht, 2005.



purchase 'tagged' products and thus to be read themselves.

Preemptive Media – a group of New York-based artist-activists – criticize this type of RFID application and is deliberately and explicitly subversive. Within the framework of their *Zapped!* project (www.zapped-it.net) they developed a few appealing devices specially focussed on RFID. They recently fitted a sizeable group of hissing cockroaches from Madagascar with RFID chips and set them loose in branches of Wal-Mart where, all by themselves and particularly at night, they polluted databases with noise and disruptive messages.⁴ Among other *Zapped!*

designs is a do-it-yourself RFID tracer

4. <http://www.zapped-it.net/devices.html>.

which sends out a warning if there is a RFID reader in the vicinity, which can then be evaded or destroyed. They also designed special clothing and bags that are impervious to radio signals. Consumers are thus given the choice of whether or not to participate in the RFID scenario of his or her local supermarket.

A Dutch project that reacts in a critical way to the spychips scenario is z25's *Data*, carried out under the auspices of the Huis aan de Werf Festival in Utrecht in November 2005. The makers themselves built the components of their RFID installation. All visitors to Huis aan de Werf were equipped with tags and their movements in the building were meticulously recorded and translated into an obtrusively presented personality profile.⁵

An artistic RFID experiment was recently carried out by Sara Smith in The Box in Liverpool, under the title *Attention Please!*,⁶ which

5. <http://dat-a.z25.org>.
6. <http://attentionplease.wordpress.com/tag/exhibition/>.

copied Wal-Mart's marketing fantasy, with its accompanying distribution of 'agency', but then in the context of an art space. Visitors were given a 'tagged' card which was used as an indicator for registering their interest in a video loop. The loops reacted to the length and frequency of the attention paid to them. When one video received a lot of attention, the other videos began to behave more noisily so as to gain more attention.

The projects mentioned so far stand in a rhetorical relation to RFID as a 'Big Brother' instrument, resulting in projects that are conceptually fairly unambiguous. It gets more interesting when creators become interested in different sorts of participation on the part of those present and in other types of entry to RFID systems. If RFID applications are presented not as hermetic machines and if access to the components is also provided to people other than the creators, then an RFID system becomes more of a platform offering space for different sorts of 'agency'. RFID then becomes a potential medium of communication.

Quite apart from what RFID can be used for, it allows the unique wireless digital identification of physical objects and places. 'Tagged' objects can enable computer-programmed actions to be executed. Everything that an RFID tag can carry can exist simultaneously in physical as well as in digital online reality.

What are the possibilities when access to the components of RFID infrastructures (tags, readers, databases) is not restricted to just the makers, when people themselves are able to 'tag' things and places, and/or when they themselves have readers enabling them to collect informa-

tion from databases, and/or when they can fill databases themselves? In the first place, it enables other forms of interaction with a computer than via a keyboard or mouse. Collections of self-tagged objects can begin to work as a computer interface. And if we consider networked computers, we can immediately see a relation between the possibilities of RFID and a number of major developments in online culture in recent years – social software, addition of value through social bookmarks, blogs and other forms of user-created and shared content. Besides photos, videos, play lists and URLs, physical locations and everyday or special objects can be bookmarked, tagged, assessed and shared.

The Internet of Things

Under the heading 'internet of things', a great deal of inspiring thought, talk and writing is being devoted to the significance of RFID by people like Bruce Sterling, Julian Bleecker and others.⁷ Only a few elements of the possibilities imaginable have so far been made visible in various projects. In 2005 Nokia, by way of an experiment, equipped one of its telephone models (the Nokia3220) with an RFID reader. On purchasing it, you get ten square stickers with RFID tags, which can be stuck anywhere you choose, at home or outdoors.⁸ The telephone can be used to both read and write the tags, as well as to execute

7. <http://www.purselip-squarejaw.org/2006/03/internet-of-things-working.php>

8. In Japan six million telephones are equipped with RFID chips enabling certain services to be automatically paid for, provided a RFID reader is installed.

researcher at the School for Architecture and Design in Oslo, experimented with this by attaching tagged Post-It notes in a grid on his desk and giving each one a special function: 'Phone Jack', or 'Phone Mama', or 'SMS the office that I'm at home'.⁹ He was thus able to transform what were previously thumb and screen actions into spatial gestures. Each friend or family member had its own place on the desk, so that a meaningful spatial relationship was created – who's at the centre? Telephone functions were also given a place of their own on the desk. RFID works here as a means of interacting with computers via embodied spatial forms of cognition.

Another RFID project organized around bodily cognition is the *Symbolic Table*, Mediamatic's interfaceless media player.¹⁰ Users are able tag objects of their own, such as plastic animals, postcards and little Delft Blue windmills. They could then connect their own image or sound files to these objects. The computer played the image or sound whenever the tagged object was placed on the *Symbolic Table*. Tagged objects can thus become physical carriers of memories, or the key to a favourite film, for example, or a piece of music.

An application that combines uniquely identified objects with blogging and social tagging has been developed by Ulla-Maaria Mutanen, a researcher at the University of Helsinki. She designed the *ThingLink*.¹¹ As soon as records or books, however obscure the editions might be, are mentioned

9. <http://www.elasticspace.com/2005/12/address-book-desk>

10. <http://www.mediamatic.net/article-11344-en.html>.

11. <http://www.thinglink.org>. The *ThingLink* does not work with RFID, but with the more general principle of unique identi-

online and are hence findable for Google, it turns out that there is interest in them somewhere on the planet and often even buyers as well.¹² The *ThingLink* is intended as a way of making unique, hand-made ('crafted') products, now practically invisible, findable online by providing them with a unique digital identification. These 'crafted' things can thus become the object of online discussion, appreciation and sales. The strong thing about the *ThingLink* idea is that it works completely bottom-up. Anyone can give his or her hand-knitted guitar cover a unique ID (an arbitrary number and letter combination) and add it to the ThingLink.org database.

Butterfly Works, an innovative Amsterdam-based NGO, is currently developing a project in which uniquely designed Third World products are combined with RFID or another form of digital identification, so that the product's origin can easily be traced online.¹³ A collection of stories can also be laid over the various production stages and the journey of the products. The whole thing can be deployed as a marketing instrument, but also as a means of gaining insight into the conditions of production or into the ways that products represent a burden on the environment.

Students at IVREA, the Interaction Design Institute in Milan, developed the scenario for *Sharer*, an ingenious system at neighbourhood level, whereby the things that people have little use for can be tagged and offered in online databases. Anyone can become a member and borrow things for a small rental fee.

fiction, for which other methods can also be devised.

12. Google query: The Long Tail.

13. <http://www.butterfly-works.org>.

Lockers in the post office function as physical transit points in this exchange network.¹⁴

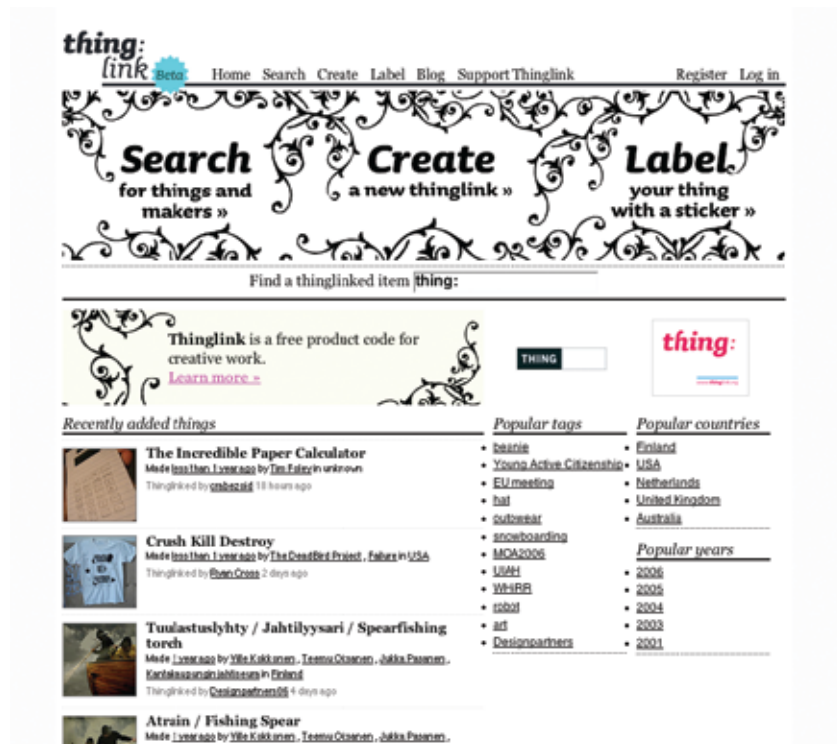
Mobile telephones would seem to be the designated apparatus for bearing a public RFID infrastructure; they are omnipresent and form the technical link between places, objects and worldwide data networks. If mobile telephones start being fitted with RFID readers on a large scale, it is inevitable that tagged objects and places will become new domains for an entire universe of digital subcultures. The most unsightly places can offer access to the most interesting online experiences – but only if you're there! Tagged clothing adds completely new virtual and digital dimensions to fashion design. Tattoos can be combined with a subcutaneous tag that opens up special experiences on physical contacts. RFID can help towards a re-evaluation of the physical here and now – a development going in the opposite direction to the online paradigm of 'anytime, anywhere'.

An 'internet of things' can also increase the experienced value of objects. Things that are tagged can start preserving their own history. During their existence, objects gather additional value online. With the aid of RFID, whole new categories of hybrid objects and experiences will be created. As for the distribution of agency, account will then have to be taken of a new type of player: the 'scripted' object. The sofa in my living room would be able to send greetings, independently and via SMS, from my previous guest to the present one if it appears from the address books in their telephones that they are acquainted with

14. <http://people.interaction-ivrea.it/v.venkatraman/projects/b2b/b2b.htm>.

Nokia with RFID reader in use.





each other. My worktable can decide at certain times not to allow me to use my laptop, each time switching it off. Well-meant perhaps – because the children have to be put to bed, for example – but it can also be petulance resulting from a lack of attention, because I'd been working the whole week sitting at the kitchen table.

The enormous interest in RFID from all those businesses for which tracking, tracing and uniquely identified objects play an important role means that the advance of RFID is not going to cease for the time being. Opposition to it from consumer organizations mainly has to do with the ease with which everyone can invent privacy-threatening scenarios in a world crawling with RFIDs. At the same time, the complete disregard by the major market parties of a possible say on the part of consumers and citizens concerning the introduction and applications of RFID is also an important factor.

One way out might be to think about other possible distributions of agency on the part of those using RFID applications. We can leave this to market forces, but it would be better to do it ourselves. Just as the Internet after the dotcom implosion has still managed to become the domain of democratic media production, so too can a large-scale implementation of RFID (after the stumbling of RFID 1.0 over privacy issues) become a terrain for a public sphere developing from bottom-up. Not all its content will be relevant, but what's more important is that RFID 2.0¹⁵ offers a network for new relations between people and things,

new ways to assign and recognize value, new hypes, new scarcities, new forms of play, which can be useful and make us curious.

With thanks to conversations with Rob van Kranenburg and Pawel Potutyci and to Patrick Plaggenborg and his RFID research at the Utrecht Highschool for the Arts.

15. Analogous to Web 2.0, the internet of social software and user created content. See O'Reilly - What is Web 2.0?

Once It's Gone, It's Gone'

Interview with Jef Cornelis about the television films Mens en agglomeratie ('Man and conurbation', 1966), Waarover men niet spreekt ('Things that aren't mentioned', 1968) and De straat ('The street', 1972)

Since the early 1960s the Flemish television producer Jef Cornelis has explored the conditions of television as a public medium. A number of his early films look at the changes that have occurred in urban public space. Reason for *Open* to publish an interview with him by Koen Brams and Dirk Pültau as part of a broader investigation of Cornelis' work.

Jef Cornelis (b. 1941) worked as a filmmaker at VRT, Belgium's Dutch-language public broadcasting company, from 1963 to 1998. In those 35 years he made more than 200 television films, mainly on architecture, the visual arts and literature, but also on social issues, cultural philosophy and cultural sociology. The shortest film, on the Belgian painter Raoul De Keyser (1971), lasts just 2 minutes and 52 seconds; the longest, which is aptly entitled *De langste dag* ('The longest day', 1986) and deals with the opening of the art events *Chambres d'amis* and *Initiatief 86* in Ghent, lasts 6 hours, 15 minutes and 48 seconds. One particular feature of Cornelis's work is its almost constant reflection on the medium of television. One example is the monthly programme *De IJsbreker* ('The Icebreaker', 1983-1984), in which people discussed cultural topics such as fashion, literary journals, tattoos and so on. However, the people were always in different locations, and their communication – or, in many cases, their lack of it – could only be shown with the help of a whole battery of cameras and tv monitors.

Jef Cornelis's work has earned a degree of recognition in Belgium and abroad. One of his first films, *Abdij van 't Park, Heverlee* ('Park Abbey, Heverlee', 1964), won the Grand Prix for Documentary Films at the Belgian Cinema Festival. In 1973 Cornelis received the Golden Prague Award at the 10th Prague Television Festival for his film *De straat* ('The street', 1972), which he made in collaboration with the architectural theorist Geert Bekaert. Following an exhibition and a series of screenings of Jef Cornelis's work by the Maison de la Culture et de la Communication de Saint-Etienne in 1991, his name became known in other European countries, including not only France but also Germany and Poland. A catalogue was published to mark the exhibition.

The Jan van Eyck Academie in Maastricht, a post-academic institute for research and production in the fields of fine art, design and theory, has been researching Jef Cornelis's work for some years now. The research focuses on three previously uninvestigated areas: (1) the unorthodox television idiom that Cornelis developed, the typical stylistic qualities of his work and the issues involved in presenting art and culture on television; (2) the documentary value of his television films, and (3) the unusual conditions of production in which the films were made. An essential part of the research is a public programme of lectures, interviews and debates.

The initial findings of the research have been published in nos. 117 and 118 of the Belgian journal *De Witte Raaf* (www.dewitteraaf.be). More information on Jef Cornelis and the research project can be found at www.janvaneyck.nl. Cornelis's films are preserved by Argos in Brussels (www.argosarts.org).

KOEN BRAMS/DIRK PÜLTAU The film *De straat*, which was first broadcast in 1972, wasn't your first project on public space and spatial planning, was it?

JEF CORNELIS No, it wasn't. The first film of mine to deal with those issues, called *Mens en agglomeratie* ('Man and conurbation'), dates from 1966. It isn't a title I would have chosen, but I suppose that's what they were getting at. Just the word *conurbation* sets my teeth on edge.

How did you get involved in that project?

I was thrown in headfirst! Ludo Bekkers, a producer in the Artistic and Educational Broadcasting section of the BRT (as the VRT was then known), put me in touch with an architect called Walter Bresseleers and asked us to make a film about the new ideal city, taking Dubrovnik and Stockholm as examples. In Stockholm they'd made the city centre completely traffic-free – no cars at all. It seemed the ideal solution for the problem of the city after the Second World War. . . . The internal combustion engine really was a disastrous invention.

Who was Walter Bresseleers?

He worked for Léon Stynen, one of the leading representatives of CIAM in Belgium. Bresseleers was Stynen's favourite, though he never became a partner in the firm. In any case, Bresseleers made extensive use of the CIAM repertoire in the film we made.

Why Dubrovnik and Stockholm?

Those cities served as models until the late 1960s. I made a reconnaissance in the winter, and shot the film in the summer. As I edited the film I began to realize I wasn't happy with what Bresseleers had written. What he was basically doing was harking back to a model that was already outdated. I was involved in a project I hardly knew anything about. Don't forget I never went to university.

How did you solve the problem?

I sought help from people such as Frans Van Bladel. I also asked Geert Bekaert to come and take a look at the second or third cut. At the time they were both writing for journals such as *Streven* and *De Linie*. Walter Bresseleers was very nice about it all and accepted the changes. Other-

wise he would never have given us permission to shoot sequences for *Waarover men niet spreekt* at his home.

Waarover men niet spreekt ('*Things that aren't mentioned*') was your second major project on architecture and urban planning, this time in collaboration with Geert Bekaert.

It was Geert who pointed me in the right direction. I'm really glad I met him. He taught me a lot, and there weren't that many people I was prepared to learn from. This was our first joint project.

Waarover men niet spreekt was made in 1968 and consisted of three parts, each about 35 minutes long.

The first part, *Home sweet home*, deals with illusions about individual housing, *Alice in Wonderland* is about the state of urban planning in Europe, and the third part, *Een hemel op aarde* ('Heaven on earth'), looks at a number of urban planning situations in Italy, Switzerland and Holland. *Waarover men niet spreekt* was the start of a whole sequence of tv programmes that can quite fairly be thought of as a series: *Bouwen in België* ('Building in Belgium', 1971), *De straat* ('The street', 1972), *M'Zab, stedelijk wonen in de woestijn* ('M'Zab, urban housing in the desert', 1974), *Een eeuw architectuur in België* ('A century of architecture in Belgium', 1976), *Ge kent de weg en de taal* ('You know your way around', 1976), *Vlaanderen in vogelvlucht* ('Bird's-eye view of Flanders', 1976), *Vlaanderen 77* ('Flanders 77', 1977) and *Rijksweg N°1* ('Highway One', 1978).

You could say De straat is stylistically very similar to Waarover men niet spreekt.

Certainly.

In fact, you could almost call it the fourth instalment of Waarover men niet spreekt.

Yes, that's right. What I was just trying to say was that the films were part of a series that effectively culminated in *Landschap van kerken* ('Landscape with churches', 1989), the last film I made that was based on a text by Geert Bekaert.

Although stylistically that's a very different film.

I was a bit older by then.

Propaganda

When did you first meet Geert Bekaert?

My father had a subscription to *Streven*, so I must have seen things Bekaert had written. I think I first spoke to him when my film about the abbey in Heverlee was shown in Antwerp in November 1964. Ludo Bekkers introduced us.

Do you think Bekaert and Bekkers were already planning to make films about architecture and urban planning?

I'm not sure. They may well have been. In any case, Bekaert made a number of TV programmes about architecture without me being involved.

When did the idea of working together with Geert Bekaert first arise?

I think that was Bekkers' doing. I was delighted to meet Geert, to discuss things with him – he was someone I could cling on to.

*How did *Waarover men niet spreekt* come to be made?*

I wanted to make short, compact films about architecture and urban planning, from 5 to 20 minutes in length – propaganda films to fill up the gaps in between bits of *Bonanza*, in place of the commercials that were broadcast in America. I wanted to reach the ordinary public – not so as to be popular, but to be quite literally in the middle of things. In those days everyone in Flanders watched *Bonanza*. I remember Bekaert, Bekkers and myself discussing the idea while on holiday on the Belgian coast.

*Ludo Bekkers tried to sell the idea to his superiors at the VRT. He wrote: 'We believe we can deal with the various aspects of this new concept of urban planning in 21 broadcasts. Some of them, lasting from 3 to 30 minutes, could be treated pretty much as "commercials". The basic idea is that we are trying to sell a product – in this case urbanization. As far as the subject matter is concerned, we have to assume that the audience is inert.' Did Bekkers know you were planning to broadcast the 'commercials' in the middle of *Bonanza*?*

I don't know. But we certainly agreed about the overall concept.

In the end the plan fell through. What went wrong?

There was a tremendous amount of discussion about it, including with the head of programming, Jozef Coolsaet. At the time I was quite highly regarded at the BRT, since films such as *Alden Biezen* (1964), *Abdij van 't Park, Heverlee* (1964) and *Plus d'honneur que d'honneurs* ('More honour than honours', 1965, a film about Westerlo Castle) had proved quite successful. But even so, the plan was turned down. It was naïve of us to think we could disrupt programming like that.

*So instead the two of you made *Waarover men niet spreekt*, three films lasting just over half an hour each. What the trilogy has in common with the original plan is its dogmatic, almost aggressive approach to the topic. The first two parts are particularly unsparing in their criticism of architecture and urban planning. To quote the opening lines of *Home sweet home*: 'What are these things that aren't mentioned? The dreams in which we want to make our homes, the dreams in which we can live and be ourselves. The homes in our heads, not the heads of architects or urban planners.'*

The first part, *Home sweet home*, is particularly blunt. I wanted to puncture people's illusions about individual housing. We wanted to talk about 'things that aren't mentioned', a reference to the first sex education films.

The film states in the most negativistic terms that housing has fallen into the clutches of spectacle and the market. The message is almost hysterically pessimistic: 'Housing's had it.'

It's fair to call it propaganda.

At the start of Part 1 the camera focuses on the door knocker. Someone knocks on the door, and the next thing you see is a series of pictures from an ice-skating spectacular – instead of entering the house, you are catapulted into the world of spectacle and television.

'The medium is the message.'

Why this emphasis on marketing and spectacularization?

What I was concerned about was the consumer culture and the death of authenticity. The first episode is a 'blind' one. It's about popular will, the

will of the people. Incidentally, you find the same thing in all social classes – I don't just mean the lace-curtain brigade.

The first two parts of Waarover men niet spreekt depend very much on the editing, rather than the voiceover or the soundtrack. The argument is provided by the sequence of images, as we indicated in connection with the door knocker. For instance, the pictures from the ice spectacular are followed by shots from a car stuck behind a brass band. Then suddenly we see pictures of the Shah of Iran 'in full regalia, re-enacting for television viewers those solemn moments in which he placed the imperial crown upon his own head and that of his lovely consort.'

As I said, it's about everyone. But I'm not really trying to educate people or explain things. I mean, I don't explain much, do I? If there was any disagreement between me and Bekaert, it had to do with my aversion to education. Bekaert was far more education-minded. He's is a man of conviction, not to say an idealist.

What was the mentality that led to films like these? Can you tell us something about that? What was the prevailing idea about housing and urban planning in 1966 and 1967?

There was no debate – there was no platform for a debate. But outwardly there was no sign that anything was the matter. Flanders was covered with buildings in next to no time.

No debate?

None. The only things you might call debate involved Bekaert, or Karel Elnó, only he was more concerned with design. We looked to Holland for inspiration.

Because a debate about urban planning was going on there?

Oh yes, most definitely. We wanted to break the silence in Flanders – and we succeeded. A great deal was written about *Waarover men niet spreekt* in the general as well as the specialized press. There's never been so much interest in my work as there was back then.



The Street

The film De straat partly deals with the same things as Waarover men niet spreekt.

Bekaert felt we shouldn't be talking about what had been built, but about what hadn't – the empty tube formed by the street. We shouldn't be talking about the built-up sides – although pavements were a grey area – but about what was defined by the sides. The film should be about the non-physical public domain. I don't know if we succeeded.

Even so, De straat focuses on one aspect: the impact of motor traffic on urban planning. At one point we are told: 'Nothing but a road is left of the street, a "moving machine" as Le Corbusier would call it, with equipment like that of a factory to facilitate fast communication; a machine, like any other machine, that only knows its own rules and by no means considers what is beyond it.'

Once mobility becomes an individual affair, the street changes. The unbuilt space is gone. The street has become hazardous. Stations, shopping malls and so on have become places of refuge – but they are one-sided, mono-functional places. People don't live in malls – all you have is shops.

There are lots of contrasts in the film between places where the authentic street supposedly still exists, for instance in Alberobello and Locorotondo in Italy – a street linked to the community, where the houses and the street merge – and our cities, where the street has 'vanished'. The film is an indictment.

I don't feel 'indictment' is the right word, but anyway . . . let's say that *De straat* is a tendentious film, and successfully so, for instance in France when the Greens first began to emerge, especially in the south, in places such as Aix-en-Provence and Avignon. The film's also been shown at a number of festivals, by invitation, and an English version has even been made. It ran for a long time, including in Italy.

You won the main prize at the 10th Prague Television Festival. The television company also seems to have liked it, as you won the Bert Leysen prize, the BRT's top award for in-house productions – quite something for such a polemical film!

The Prague festival was the leading festival in the former Eastern Bloc. It was a greatly coveted prize.

What's striking is that the Eastern Bloc and the green movement were both interested in the film.

Presumably it fitted in with their ideologies – as though anything could ever be changed. But it can't! Geert Bekaert may have been a bit more optimistic, though.

If you really do think in such black-and-white terms – ideal housing versus cities wrecked by car traffic – why have you never been more closely involved in the protest movement? Filming the Conscienceplein in Antwerp was only an indirect form of protest. The Antwerp Free Action Group (VAGA), which was set up in June 1968, succeeded in getting the square closed to cars.

To me the Conscienceplein is a space that still has urban quality. The VAGA protests, with Panamarenko and the rest, were pretty unimpressive, judging by what I saw of them. The protesters hardly knew what they were doing there, quite frankly. Antwerp had already had it by the time they appeared on the scene.

If you listen to the voiceover in De straat, what you're basically hearing is a 1968 political pamphlet. So where are the pictures of 1968 demos?

I did use pictures from Paris, 28 seconds of film if I'm not mistaken. But I've never been such a fan of 1968. I was in Paris at the time. The street barricades struck me as a spectacular piece of play-acting. Not much actually happened. When the demonstrations were over, the communists went back to work and the students went back to college. I reckon the trade unions shot their bolt – they gave in too soon. 1968 didn't make much difference.

Why didn't you use photographs in the film?

I hate doing that – I really do. I'd rather use material that's already been on the television news, such as the revolt in Londonderry.

The same statements and pictures keep on recurring in De straat, but the text and the images differ in their impact. The pessimistic discourse is

almost unbearable, but the film material is different – the pictures can always be interpreted in more than one way

So much more depends on the viewer. That's the reason I'm so fond of cinema – pictures can be interpreted in more ways than texts can.

The end of the film is particularly complex and multifaceted.

You do know why I chose Chambord, don't you?

No.

I've had two really frustrating experiences in my life, two projects that I really wanted to carry out and wasn't able to: a film about the Palais Stoclet in Brussels, and one about the Château de Chambord in the Loire Valley. Robert Delpire, whose work included producing films for *Nouvelle Vague* directors, wanted me to make them.

Let's look at the final sequences of the film in more detail. A few minutes before the end, the camera is pointed at a street of town houses, and we hear the following voiceover: 'As we do not seem to be able to develop our own neighbourhood and new streets, let us at least keep the existing streets untouched, since they offer much wider and further living possibilities than those new residential areas and buildings which show no imagination whatsoever.' This is a call for the preservation of old buildings.

Yes, I'd sooner have the status quo than something even worse. . . . This is a slap in the face of modernity.

Before making De straat you made a number of shorter films for the cultural programme Zoeklicht, each about 5 to 10 minutes long, about the Cogels-Osylei in Antwerp, Art Nouveau in Brussels and the Patershol in Ghent. Each of these films is a call for the preservation of old buildings.

Nowadays that seems self-evident, but it certainly wasn't back then. After *Waarover men niet spreekt* we were more convinced than ever that preserving old, good-quality architecture and urban planning was the best option.

The last two-and-a-half minutes of De straat begin with a frontal view of Antwerp's main railway station. The camera then rotates 360°, away from

the station and finally returning to a frontal view of it. Once the camera has stopped moving and the station is in full view once more, we switch to a picture of the roof of the Château de Chambord. Antwerp's main station and the Château de Chambord speak the same architectural language – a visual rhyme.

Yes, it's the same with King Leopold II's buildings in Belgium. All nineteenth-century fantasies.

At the time you had to specify your reasons for wanting to go to Chambord. Let me quote: '... where the roof of the château reveals a utopian street ... as shown in many contemporary portrayals.'

Yes, the garrets. The people who lived in them could be summoned downstairs whenever needed. The women were completely at the disposal of the *seigneur* and everyone else. Very nasty.

The camera travels along the roof of the château, past the towers that surmount it and the ones with doors and windows, to the tower of the chapel. At the same time we hear the sound of a rocket being launched, and the first verses of Genesis are recited in English – American English.

The text is a reference to Stanley Kubrick's *2001: A Space Odyssey*, of course.

The soundtrack makes the pictures of the garrets more complicated – almost as though the myth of the community is being fired off into the depths of outer space.

It isn't a utopia, it's an unreal moment.

It's a negative utopia.

Heaven cannot be found in this world.

This is not the only film that ends on a spectacular as well as mysterious note. Take, for example, Landschap van kerken, which ends with the Basilica of the Sacred Heart in Brussels. The final sequence is an illusion of infinity, with the camera circling round the replica of the basilica on display inside the building.



The whole church is a replica! The problem with the end of the film is an interesting one. I think one of the finest works of art is a painting by Ruscha called *The End*. But you can't get away with a sign reading 'The End'. There was a time when you could end any film that way, but not any more. Now you have to find an ending . . . and I also think you need a proper beginning. I can't stand it when films start off with credits.

The end of De straat is not a conclusion. The film repeats the same message over and over again: the car has turned the street into a mere traffic route, rather than a place that belongs to and can be used by the community. The film is completely transparent, especially the voiceover, but basically also the pictures, whereas the end definitely isn't. It's enigmatic. You yourself refer to Kubrick's 2001, but in your files there's a document referring to David Lamelas. At the section on the main station and Chambord it says 'see Lamelas'. What did you mean by that?

The film's full of personal things like that. The Keyserlei, the Paardenmarkt and the Conscienceplein in Antwerp. Lamelas took stately pictures from various angles, indicating exactly when each one was taken, and that was probably in the back of my mind.

A Form of Living Together

Your files contain a short undated text, a sort of outline for the programme on the street, that reads as follows: 'For 1971-1972 the Van Abbemuseum in Eindhoven has scheduled an exhibition on the street as a form of visual environment. The exhibition is in line with an international trend of renewed interest in the street as a place where people can live.'

That was written by Geert Bekaert.

It may have been written after June 1970.

If it's undated, I've no idea. Was Harald Szeemann still involved in the exhibition project?

Yes, Harald Szeemann and Jean Leering are explicitly identified as the organizers. Bekaert also said that the exhibition was divided into four sections, and Jean Leering said the same thing in a 1970 text published in Museumjournaal.

So there must have been a good deal of discussion about it. That's interesting to know. But I don't remember all that much about the actual circumstances. Who influenced whom? I've always admired Geert for his ability to synthesize, which I didn't feel Leering had to the same degree. Leering was always very quick to pick things up from other people.

Bekaert also gives a number of reasons for getting the museum and public television to work on a joint project: 'The exhibition will not be confined to the museum building, but will be extended to the TV network. Conversely, television will be involved in a specific societal process, something that has hitherto only been done in the entertainment sector.' Instead of just doing features on exhibitions, you wanted a direct hook-up between TV and the museum.

Basically this pointed the way to *De IJsbreker*, the series of live programmes that I made in 1983 and 1984, in which different locations were hooked up to each other and to the TV studio.

A passage in one of Jean Leering's notebooks indicates that the television company was very taken with the idea: 'Spoke to Bekaert. He's persuaded Belgian TV to help us with De straat, for instance by shooting sequences which we may also be able to use in the exhibition.'

I seem to remember Jean Leering, Geert and myself discussing the idea several times.

You can see that from the minutes of the meetings of the working group that prepared the exhibition, which was called De straat, vorm van samenleven ('The street, a form of living together'). There's a pencilled reference to a proposal of yours, reading 'proposal by Cornelis: continuous live projection'.

I don't remember that, but it's certainly an idea that I put forward at various other times. For example, I made a similar proposal for the opening of Antwerp 93. I wanted to use all the CCTV cameras in the city. But the idea was turned down.

What exactly were you planning to do?

I wanted to take pictures from the CCTV cameras that were trained on parts of Antwerp and broadcast them live on TV for an hour. The cameras

had just been installed around the motorway and in the tunnels, and the pictures were fascinating. The police said we could go ahead, but BRT's lawyers turned it down flat. They said we'd need permission from all the people who would appear on the screen.

The joint project with the Van Abbemuseum was abandoned. You had a meeting in Breda on 29 September 1971. The minutes read: 'Joint exhibition – TV programme can no longer be made in originally suggested form. TV film must be recorded by end of this year.'

Yes, the idea was to get the film made in 1971. BRT's director of programming, Bert Janssens, gave the go-ahead on 22 October 1971. I wanted to shoot sequences in Italy from 19 November to 9 December 1971, but I had to cancel the trip because of riots in Milan and the unexpectedly early winter. Getting the film made was quite a performance, I can tell you.

The museum's minutes also indicate you had qualms about shooting a film in an exhibition. But that wasn't the reason the project fell through. The Van Abbemuseum archives contain an undated, unsigned letter to the chairman of the working group that prepared the exhibition, Tjeerd Deelstra: 'Jef Cornelis of BRT tells me their TV programme De straat has been postponed from January to June. They will be filming in Italy from 22 March to 14 April (see attached itinerary). That means we won't be able to use their material, which is a terrible pity.' The exhibition eventually opened on 2 June 1972 and, after being extended, ran until 24 September. The film was broadcast on 14 September 1972.

The exhibition and the film were completely different projects.

That's true. In fact, the film doesn't even mention the exhibition, or vice versa. And the emphasis is different – in the exhibition there's simply a statement somewhere that the street has been greatly transformed by traffic, whereas in the film that's the main theme.

Leering wanted to reclaim the street, whereas we felt 'Once it's gone, it's gone'.

You mean you can only preserve what's good?

For as long as it lasts.

column

NOORTJE MARRES

PUBLIC (IM)POTENCE

Phrases like ‘they finally gave in to public pressure’ or ‘public opinion responded unintelligently’ are pretty standard utterances. The normalcy of such expressions may easily obscure the fact that they evoke a mysterious entity. Indeed, the conjuring up of a public that is capable of performing acts, such as ‘exerting pressure’, inevitably involves a certain amount of wizardry. But this wizardry often goes unappreciated. Those who want to support a given public will want to affirm its reality. Accordingly, they have little interest in acknowledging the magic involved in its manifestation. And those who are critical of a particular public are likely to follow the strategy of showing that this public is not a real public. They will want to demonstrate that in fact we are dealing here with little more than a few actors with dubious interests: just business people, or leftists. That is, they will try to kill the magic. But an appreciation of the wizardry involved in the emergence of publics is crucial, it seems to me, for a good appreciation of what they may be capable of.

A first rough indication that publics that are capable of action represent a riddle is that, as long as we follow everyday logic, such entities appear to be a practical impossibility. The notion of a public endowed with agency brings together two contradictory demands. On the one hand, ‘action’ requires that there is an identifiable actor, and preferably an individual, that can be said to do the acting. This is clear from how we deal with questions of justice, for instance. To establish that a particular deed has been done, whether bad or good, we customarily require that there is a specific doer who can be associated with this doing. A bottom line of our everyday logics is that there is no deed without a doer. But, on the other hand, it is an important characteristic of a public that it *cannot* be reduced to an identifiable actor. As a rule, a public must consist of more than a known set of individuals. When it is revealed that behind a public there is merely a particular social grouping, its status as a public is challenged. When it can be said: these are only the environmentalists making a fuss, then we are only dealing with a special interest group. When it is revealed that ‘it was the political campaign team that directed

the crowd into the hall, to cheer during the candidate’s speech’ we speak of a scam. A public must thus satisfy two demands simultaneously: it must be capable of agency, but it must not be reducible to an identifiable agent.

How could such an impossible combination of demands nevertheless come to be accepted as normalcy in many contemporary cultures? Crucial in this respect is a particular commitment that is peculiar to advanced democracies: the commitment *not* to accept, as matter of course, that if a public is to act, then a representative must do the acting *for* the public. Indeed, one could say that radical democracies are defined by the requirement that it should be *impossible* to trace back a public’s actions to one (or a few) identifiable social actor(s). To sustain this demand, to perform a deepening of democracy beyond representative democracy, all sorts of formats have been developed that enable the public to express itself, and potentially, to acquire agency in the process. The mass demonstration is one solution, the opinion poll is another, and then there are the spectacular protest event and the media debate, and so on. These formats can be regarded as attempts to make the riddle of an acting public workable: to produce a capacity to act without producing an identifiable agent. That is, these formats are to enable the

emergence of agency in the absence of a specifiable actor behind the action.

To speak of the formats that are available for organizing the public, is also to say that media have a special role to play in all this. To begin with, the media are sometimes held responsible for bringing about the radicalization of democracy mentioned above. According to some political theories, it was an effect of the rise of print media that the public came to be understood as an audience endowed with a voice. Media must then be held responsible for a certain loss of respect for representative democracy, for instance for the idea that it is sufficient for a public to act through individual representatives. Thus, according to the philosopher Kierkegaard, ‘the Press’ was to blame for the fact that the public in his time had become an abstract entity. He observed that in ancient times, ‘men of excellence’ could stand in for the public, but after the rise of print media, the public had taken on the form of ‘a monstrous abstraction, an all-encompassing something that is nothing, a mirage – and this phantom is the *public*.’ Intriguingly, one of Kierkegaard’s main problems with this media-based phantom public was that it was incapable of action.

However, a few decades after Kierkegaard made his gloomy observations, the American public intellectual Walter Lippmann

developed the argument that media provide crucial instruments for the evocation of phantom publics, including phantom publics with a capacity to act. According to Lippmann, writing in the 1920s, media like the daily press, the radio and the telephone are indispensable for the organization of publics, that is, for the production of a non-actor that can nevertheless act in certain ways. For him, publicity media make it possible to produce the public as an *effect*. As they report conflicts, provide forums for debate, and poll audiences, Lippmann argued, media enable the expression of publics. In these ways, namely, media give direction to the indefinite and multiple concerns of an open-ended population. They channel these concerns into a current with a definite charge, that of being for or against a given position, decision, intervention.

By redefining the public as an effect of media circulation, Lippmann went some way towards solving the riddle of the public. The trouble with his solution, however, is that by reducing the public to an effect he made the public look quite weak. For Lippmann, to make a public emerge is to extract a definitive 'no' or 'yes' out of content and sentiment circulating in media. It is hard to see what could make a public that obeys this description strong enough to be able to exert force.

That is *can* exert such force, however, is clear from phrases like 'they were obliged to respond to public pressure'. Thus, the question that remains open after Lippmann is that of the forces that publics may unleash.

To appreciate this force, I would say that we should at the least recognize the following: the agency of the public derives in part from the fact that this entity is *not* fully traceable. That is, the force of the public has to do with the impossibility of knowing its exact potential. And this for the following reason: when a thing is publicized in the media, whether a person, an object or an event, this involves the radical multiplication of the potential relations that this entity can enter into with other things and people. Thus, when something starts circulating in public media, this brings along the possibility, and indeed the threat, of an open-ended set of actors stepping in to support this entity, and to make it strong. The fact that the public cannot be definitively traced back to a limited number of identifiable sources is thus crucial to the effectiveness of the public: this is what endows publics with a *dangerous* kind of agency.

This also makes it clear why the wish to concretize the public, to boil it down to the real actors that constitute it, involves a misunderstanding of the public. In

relating to publics, and in performing 'the public', the point should be to try and *work with* the threat of a partly untraceable potential of connections, and not to dissipate it.

Literature:
Søren Kierkegaard, 'Two Ages: The Age of Revolution and the Present Age. A Literary Review', in: *Kierkegaard's writings XIV*, edited and translated by Howard Vincent Hong and Edna Hatlestad Hong (Princeton: Princeton University Press, 1978)
Walter Lippmann, *The Phantom Public* (New Brunswick and London: Transaction Publishers, [1927] 2002)

Soft Urbanism

Neighbours Network City (NNC) in the Ruhr Region

Elizabeth Sikiaridi and Frans Vogelaar of invOFFICE for architecture, urbanism and design in Amsterdam are investigating the interaction between the physical and the digital public domain in contemporary urban networks. They are interested in the way that the built environment relates to the space of mass media and communication networks and how these influence each other. On the basis of the project *Neighbours Network City* for the city of Essen in the Ruhr region, they reveal how this design research is taking shape.

Situated in the west of Germany not far from the Dutch border, the Ruhr region is part of the West-European urban network. The urban structures of the Ruhr echo the industrial networks that shaped this cityscape: the hidden patterns of the underground mining galleries and the logistical systems of waterways, railways and roads that cut through the urban landscape. In pre-industrial times, this region was so sparsely populated that it was unaffected by the urban forces that led to the emergence of the historical compact city in other parts of Europe. Unlike the traditional European city, the Ruhr developed from the beginning of the nineteenth century, with the rise of industrialization, until the middle of the twentieth century, expanding into an urban network on a regional scale. In the post-industrial era, with the closure of the mines and the demise of heavy industry, this urbanized landscape became more and more fragmented as manufacturing sites were abandoned and city populations steadily dwindled. As a result, the cityscape of the Ruhr is today characterized by fragmentation and gaps in the urbanized suburban peripheries.

In order to understand the highly complex patterns in this cityscape, it needs to be read as a network of overlapping and interweaving traffic arteries, waterways and media connections. To get to grips with this dynamic urban fabric, to comprehend the forces at work within it, one has to appreciate the relations inherent in this fragmented networked landscape. It is a question of understanding the systems that give this splintered landscape its complex – and dynamic – open structure.

Communication Model/Circuitry

It is essential that we comprehend this networked cityscape as part of our contemporary urban condition. In the words of Vilém Flusser (1920-1991), philosopher of communication: ‘In order to understand such a city at all, one must give up geographical notions and categories in favour of topological concepts, an undertaking which is not to be underestimated. One should not think of the city as a geographically determined object (like a hill near a river, for example), but as a bend, twist or a curvature in the intersubjective field of relations.’¹ According to Flusser, this ‘topological thinking’, thinking in (spatial) relations and not in geometries, implies that ‘the architect no longer designs objects, but relationships. . . . Instead of thinking geometrically, the architect must design networks of equations.’²

1. Vilém Flusser, *Vom Subjekt zum Projekt. Menschwerdung* (Frankfurt/Main: Fischer Verlag, 1998), 53; first published in Mannheim: Bollmann Verlag, 1994.

2. Vilém Flusser, ‘Entwurf von Relationen’ (interview), *ARCH+*, no. 111, March 1992, 49.

In Flusser’s (ontological) vision, the new city would be ‘a place in which “we” reciprocally identify ourselves as “I” and “you”, a place in which “identity” and “difference” define each other. That is not only a question of distribution, but also of circuitry. Such a city presupposes an optimal distribution of interpersonal rela-

tionships in which “others” become fellow human beings, “neighbours”. It also presupposes multi-directional traffic through the cable of interpersonal relationships, not one-way as in the case of television transmissions, but responsive as in the telephone network. These are technical questions, which have to be resolved by urbanists and architects.³

Flusser describes the city in terms of this communicative model: ‘Geographically, the city will therefore take in the entire globe, but topologically, it will remain, for the time being, a barely noticeable curvature in the wider field of human relations. The majority of interpersonal relationships will lie outside it (in contemporary civilisations).’⁴ Hence, the plexus of interpersonal relationships lies in other communication systems outside the urban setting, such as the media networks. The physical cityscape is therefore only a particular instance of communication space. It has to be developed by an integrative approach, which addresses both urban and media spaces of social interaction.

Placing the issue in a general model of communication, as Flusser does, allows the urban discourse to be shifted from the morphological level of a formal (‘geographical’) description of the fragmented cityscape to a ‘topological’ understanding of the relations and networks that pervade it. Here the term ‘urban’ describes an overlapping and superimposing of communication spaces and networks, a superimposing of interpersonal relationships and dialogue.

Hybrid Space/Soft Urbanism

Today, media networks (Internet, telephone, television) are influencing and interacting with ‘real’ places. The emerging space of digital information-communication flows is modifying not only our physical environment but the social, economic and cultural organization of our societies in general. Examples of this hybrid space can be found everywhere in our daily lives. Take, for instance, the private (communication) space of mobile telephony, creating islands of private space within public urban space. Or monitored environments where cameras keep watch over open urban areas. More examples can be found in our private environments, as our homes become ‘smart’ and our cars become networked spaces with, among other things, GPS navigation. Physical space and objects should not therefore be looked at in isolation. Instead, they should be considered in the context of and in relation to the networked systems to which they belong and with which they interact. These hybrid, ambivalent spaces are simultaneously analogue and digital, virtual and material, local and global, tactile and abstract.

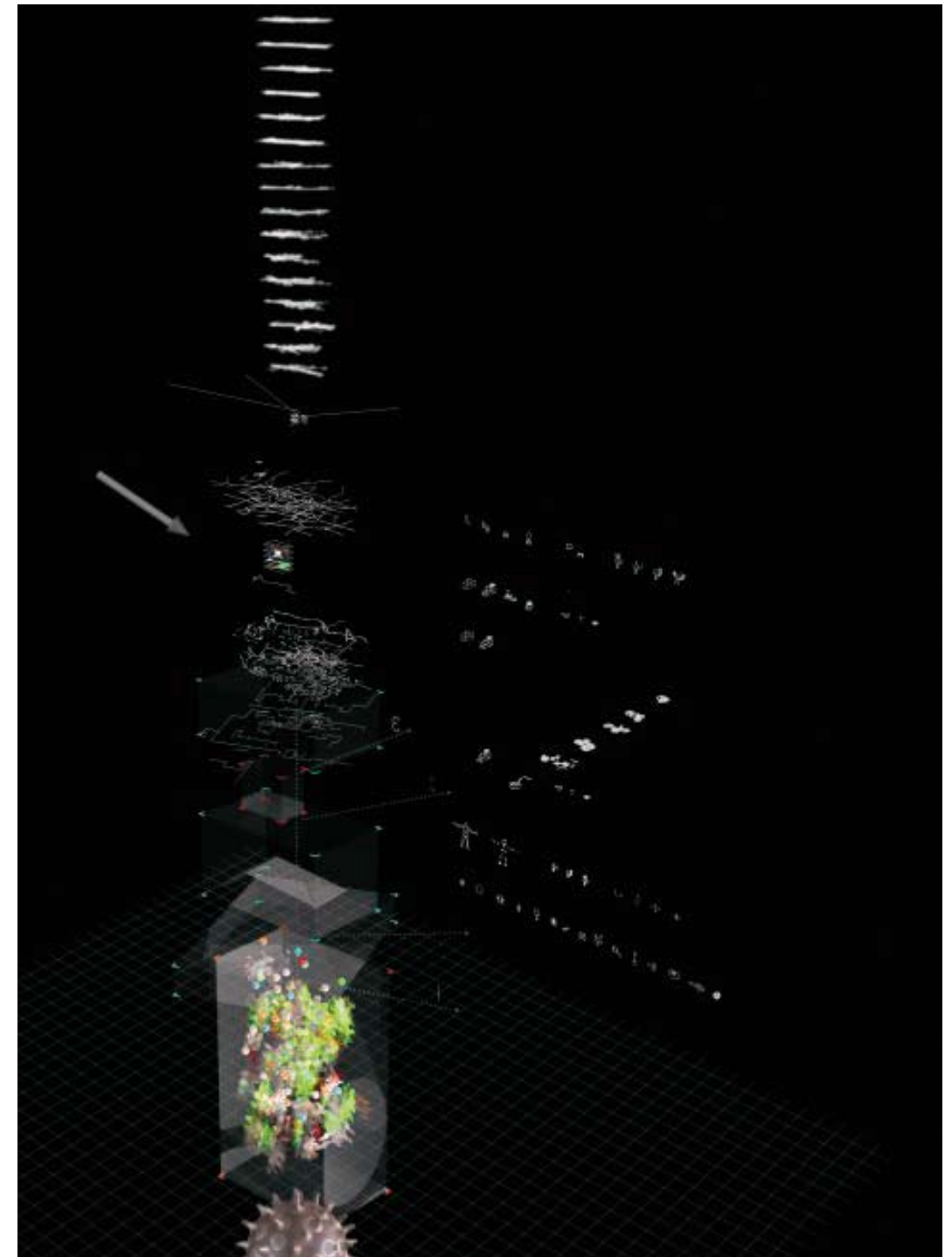
The relationship between the physical and digital public domain is becoming more and more of a design challenge for architects and urban designers who are

3. Vilém Flusser, ‘Die Stadt als Wellental in der Bilderflut’, in: idem, *Nachgeschichten. Essays, Vorträge, Glossen* (Düsseldorf, 1990).

4. Flusser, *Vom Subjekt zum Projekt*, op. cit. (note 1), 57.

The layered, networked space of *Neighbours Network City* for the Ruhr region.

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assigned the job of defining and realizing space for social interaction. They have to explore how the 'soft' city relates to and interconnects with its finite material counterpart, the living environment. They have to develop interfaces between the 'virtual' and the material (urban) world and devise hybrid (analogue-digital) communicational spaces. The new interdisciplinary field of Soft Urbanism researches these transformations in the architectural-urban space of the emerging 'information-communication age' and explores the dynamic interaction between urbanism and the space of mass media and communication networks. Soft Urbanism deals with information-communication processes in public space, the soft aspects overlying and modifying the urban sprawl: the invisible networks that act as attractors, transforming the traditional urban structure, interweaving, ripping open and cutting through the urban tissue, demanding interfaces.

Soft Urbanism is not therefore about determining places, but about creating frameworks for processes of self-organization. Soft Urbanism not only intervenes in the realm of infrastructure, it adopts its concept and follows its paradigm. It represents an inherently flexible approach by expanding the possibilities of social interaction and opening new paths of urban development. inOFFICE first formulated these themes when working on the Public Media Urban Interfaces project.⁵ The theme was further developed during a series of projects geared to developing 'soft urbanism' strategies which can steer and support the ongoing growth, transformation and recycling processes in the urban landscape. Such strategic intervention is achieved by exploiting the forces at work in the urban networks.

5. See, for example, a publication in Dutch in the architectural journal *de Architect*, June 1997, cover page and pages 42-47 or a web publication in English: <http://mailman.mit.edu/pipermail/leaauthors/2005-July/000038.html>.

Neighbours Network City

The *Neighbours Network City*, a project developed by inOFFICE in 2004 for the city of Essen and the Ruhr region in Germany as the Cultural Capital of Europe 2010, is based on and addresses the networked structure of the Ruhr Valley. The nnc project operates on the scale of the agglomeration comprising 4,435 km² and over 5 million inhabitants; for, in 2010, the Cultural Capital of Europe will not be a city but a region: the Ruhr Valley.

The nnc proposes an infrastructure that can be decentrally deployed and is open for bottom-up development. This infrastructure will help to create openings to initiate and support urban cultural self-organizational processes. As the inverse of cnn, the nnc project develops synergies in the many local forces in the urban network to create an open Gesamtkunstwerk, the Cultural Capital Ruhr.

The goal of the nnc is to strengthen the public space of the network city of the Ruhr, which is in danger of steadily disintegrating into socially and ethnically segregated areas. Nowadays, when addressing public space, one has to consider not only urban public space, but the media public space as well. In fact, the tradi-

tional functions of public urban space are being taken over by telecommunication networks, where topical issues are disseminated and discussed and merchandise is showcased and sold. Whereas, in the past, the settings for recreation and festivities were provided by public space, they are now being increasingly provided by radio, tv, telephone or Internet. The nnc focuses on both media and urban public space, creating interfaces between the physical space of the city and the spaces of media communication. It activates both urban and media public space and develops scenarios to reinforce the public space of the fragmented urban landscape of the Ruhr. A true inverse of cnn, it uses the potential of communication technology to embed the global media space in the local public space of the city.

The nnc proposal consists of a series of interconnected subprojects, each of which addresses a different layer of the urban network and thus follows a different 'network logic'. However, these subprojects are also interwoven, in the sense that they activate and strengthen the 'knitted networks' of the cityscape.

Urban Dinners

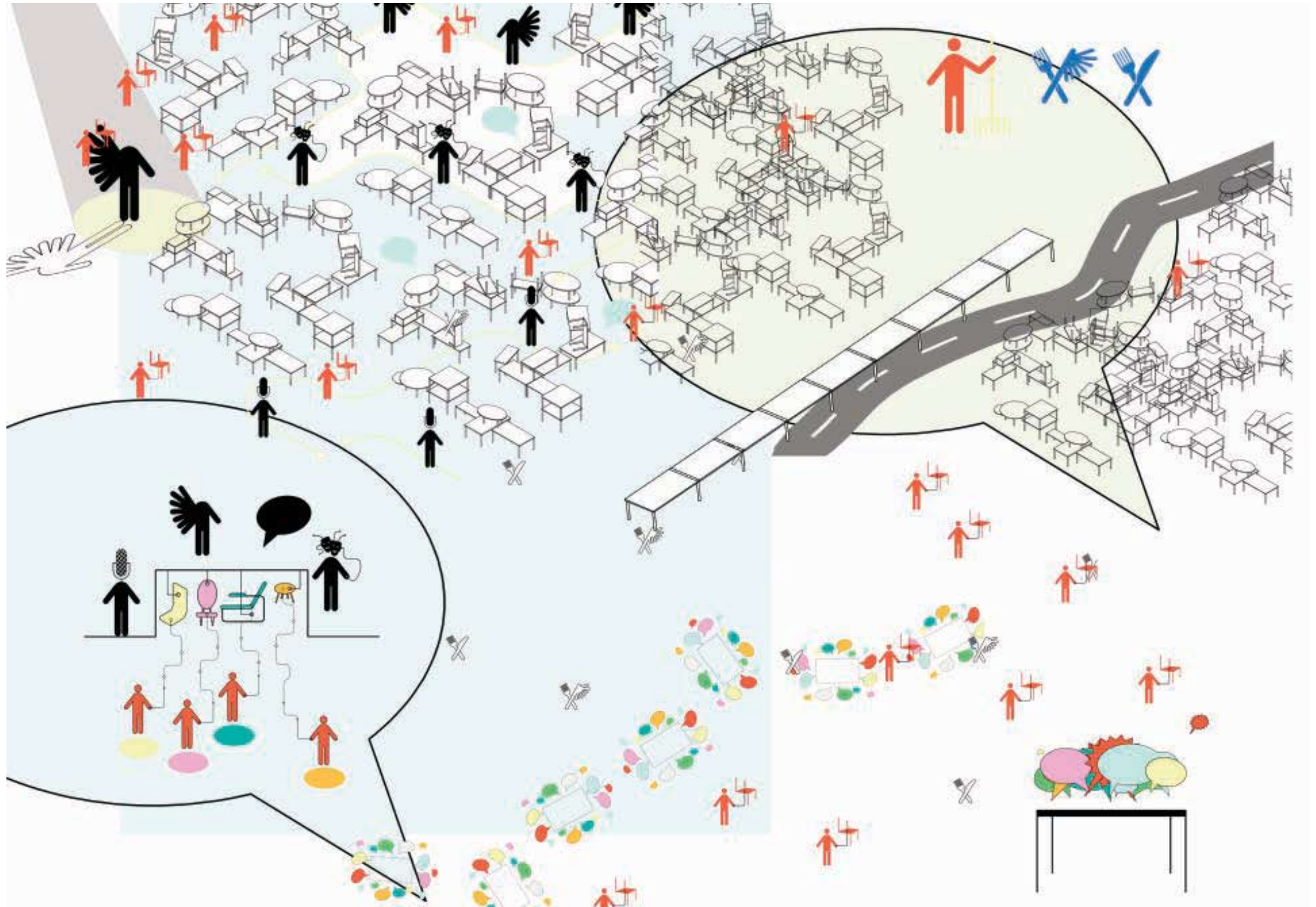
'wir ESSEN FÜR DAS RUHRGEBIET' (We're eating for the Ruhr region) is a German play of words on the slogan of the Cultural Capital project 'ESSEN FÜR DAS RUHRGEBIET' ([the city of] Essen for the Ruhr region). The 'wir ESSEN FÜR DAS RUHRGEBIET' project proposes that urban dinners be held simultaneously in neighbourhoods throughout the Ruhr Valley on the longest day of the year. The urban dinners are organized decentrally by and for the neighbourhood residents and the users of the city. Travellers, tourists, down-and-outs, commuters and business travellers are also welcome to participate and dine. The many different cooking cultures, reflecting the multicultural character of the region, fuse and combine to create a new hybrid cuisine.

The tables are laid in derelict spaces throughout the region, the wasteland of the cityscape. Temporary occupation and habitation of this no man's land reintegrates this space in the regional mental maps and turns the borders of the urban landscape into communicative seams of the cityscape. Theatrical and musical ensembles and other cultural groups from the region roam around on that evening, going from table to table and performing small artistic intermezzos. At exactly the same moment, throughout the whole of the Ruhr Valley, a million voices join in a toast: 'wir ESSEN FÜR DAS RUHRGEBIET'!

The urban dinner event is organized with the aid of an Internet platform and local media, integrating a diversity of local institutions and activity groups, from ethnic associations to parishes and small cultural communities. Its success as an integrative project is measured by the multiplicity of the forces and networks it manages to bring together. It is a process-oriented project with a bottom-up approach, whereby many local forces within the cityscape are activated. The locally embedded Internet communication platform grows and mutates during

wir ESSEN FÜR DAS RUHRGEBIET, or urban dinners.

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this process. The urban dinner, as an ‘inverted event’, is above all an impulse for developing the *Neighbours Network City* of the Ruhr.

A second urban dinner will be held along the A40/B1 motorway, the basis of an important network in the Ruhr region and the backbone of the cityscape.

Water Mobili

The post-industrial landscape of the Ruhr is crisscrossed by a complex system of partly derelict waterways. The regional initiative *Fluss Stadt Land* (River City Land) was set up by 17 cities in the north-east of the Ruhr to upgrade this dense system of rivers and canals, left over from industrial times, into a leisure landscape. The *Water Mobili* project that we developed for this regional initiative addresses this waterway network. It envisages an array of leisure elements to stimulate the ‘acupuncture points’ on this networked landscape and open it up for leisure society. Given the high unemployment rates, ‘leisure society’ in the Ruhr is primarily a society of involuntary leisure.

The project provides simple modular building components that fit easily into containers which can be moored at specific spots in the water landscape. The modular components can be assembled in all sorts of ways to make camping rafts, floating bars, fishing points, kiosks, exhibition decks, picnic places, floating water theatres, storage or toilet units, cabins, relaxation decks, roofs, swimming pools or other imaginative compositions yet to be discovered.

These pieces of mobile water furniture serve as places for recreation. They are small, floating constructions that add recreational possibilities to the abandoned industrial network of the waterways, thus activating the post-industrial water landscape of the Ruhr.

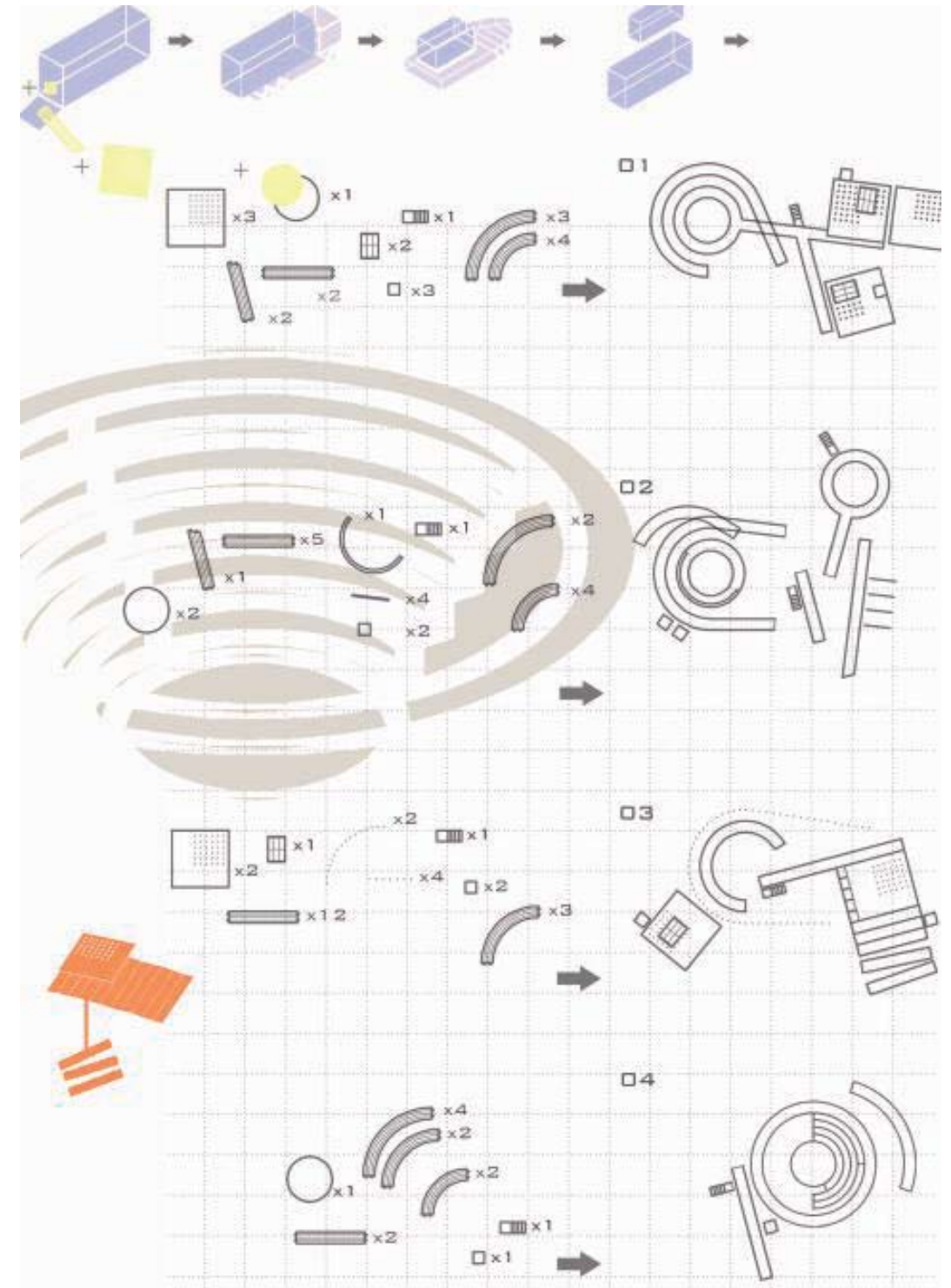
Hybrid Emscher Landscape

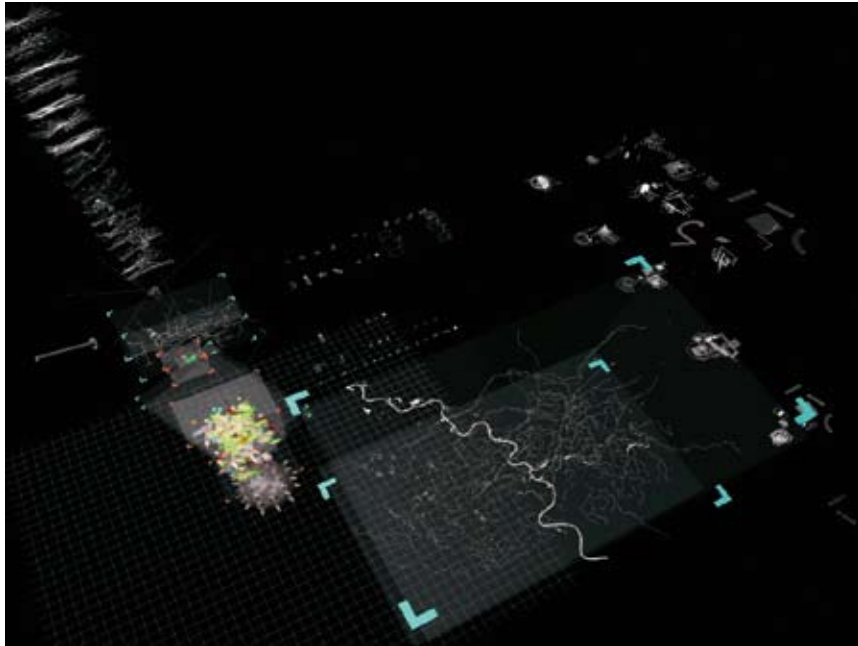
Another important player in the network city of the Ruhr is the Emschergenossenschaft (Emscher Association), founded in 1899 and responsible for water management. It owes its name to the Emscher River, which was used as an industrial sewer. Running through the north of the cityscape, the Emscher sent a stench across the entire industrial hinterland of the Ruhr region.

At present the Emscher Association is working on a project to clean and transform the Emscher into a ‘blue river’ that will flow through the cities and neighbourhoods and be enjoyed by the local inhabitants. The sewage and industrial waste will be diverted underground. Nearly all the sewage from the Ruhr region will then pass through a 51-km concrete pipe which is currently being laid 40 m underground, parallel to the Emscher River. A swimming robot will function as an ‘automatic inspector’, monitoring, cleaning and carrying out repairs inside this underground sewage pipe. The pipe will be accessible via entry points distributed

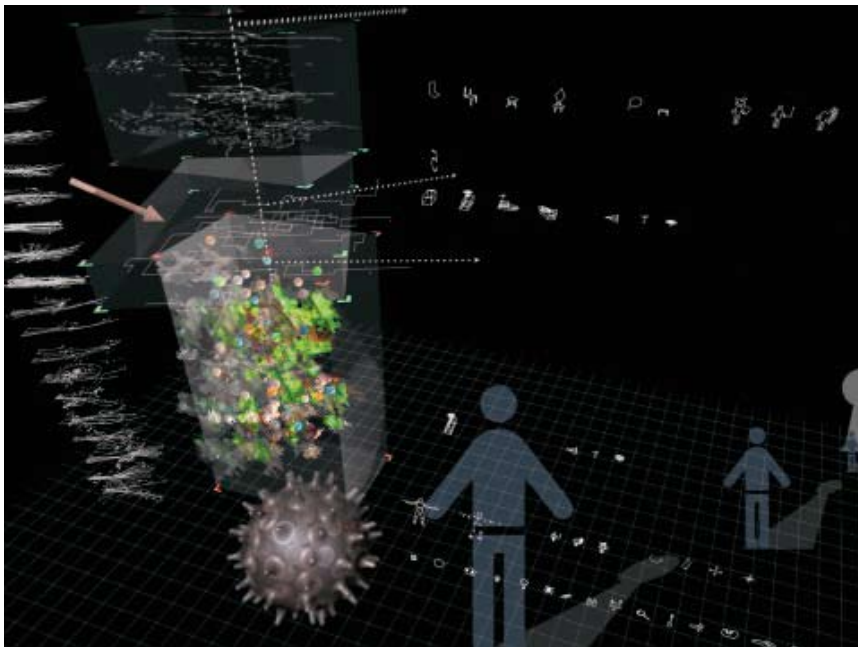
Modular components of the *Water Mobili* project.

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The space of *SubCity*: communal urban substrate.



at regular intervals along its length.

Our proposal is to upgrade the entrances, which are located at points in the cityscape frequented by many people, into public facilities and exhibition spaces. Together these will form the Emscher Access Pavilions Project. With the aid of these access facilities, the two linear systems – the open stretches of the newly ‘blue’ Emscher and its counterpart, the underground tube – will be connected with the public places and the open spaces of the surrounding cityscape.

These Access Pavilions, designed as special architectural follies, represent the engineering achievements of the Emscher Association and concentrate on exhibitions around the theme of water in general. The Access Pavilions are hybrid spaces, combining architecture and media, and also function as interfaces to a virtual Emscher landscape: one can pay a virtual visit to the amazing underground artefact of the endless concrete tube or fly over and grasp the urban landscape of the Ruhr in a bird’s-eye dynamic simulation. Water stories, urban management news and other local water news also feature in the pavilions programme.

The Pavilions connect the physical linear space of the Emscher River with the Emscher information space. This hybrid environment can also be entered by remote access. Urban, physical and media systems are thus interwoven into a single, large urban network.

SubCity, the Big Urban Game

Like no other region, the Ruhr region has been defined by its ‘underground’, its sub-city. The coal seams were the determining factor for industrialization and hence urbanization. The patterns of the cityscape were based on and shaped by the complex underground networks of mine galleries and shafts. The region is highly conscious of its sub-layers as the foundation and the driver of its cityscape. The memories of this, however, are ambivalent. The deeper layers contain forgotten mining galleries, inaccessible shafts and groundwater lakes, and these are regarded as a threat, reminding people of the many disasters that took place in the past.

The *SubCity* game, which we proposed as part of the NNC project, deals with the sub-layers of the city. Using mobile devices, *SubCity* can be played individually, in groups or even by large communities. The Zollverein colliery in Essen, a World Cultural Heritage site, offers access to the virtual reality of *SubCity*. Here, in the only remaining functioning entrance to the underground network, one can enter a three-dimensional, interactive media simulation, take part in the networked space of *SubCity*’s urban dreams and interact with the communal urban substrate.

The game reinterprets and recodes this communal urban substrate. Via a simulation the inhabitants and the visitors of the Ruhr can recreate the deep

layers of the cityscape. They can dig virtual shafts and galleries, develop and revitalize an urban underground and live there with their revelations and dreams.

---> roaming the urban network, searching for connections to the *SubCity* ---> the keyholes to the *SubCity* are spread around the cityscape: you have to find them ---> the moment you pass through a keyhole you become an actor in *SubCity* ---> you communicate with your fellow actors and their dreams ---> you exchange and interact using the *SubCity* tools ---> while interacting you define your avatar, the actor of your dreams ---> you search for new keyholes ---> the moment you pass through another keyhole you become a new actor ---> you redefine your character by interacting with the help of the *SubCity* tools ---> you pass through the next keyhole ---> you exchange information ---> in search of your docking elements ---> in search of your home

Physical, technical, urban, socio-cultural, virtual and imaginary networks knit the tissue of the Ruhr region. The network city as an open *Gesamtkunstwerk*.

Neighbours Network City: a project proposal for the city of Essen and the Ruhr region in Germany as the Cultural Capital of Europe 2010 by invOFFICE for architecture, urbanism and design, Amsterdam, 2004.
Project leaders: Elizabeth Sikiaridi and Frans Vogelaar
Collaborators: Chloe Vareliidi, Nina-Oanna Constantinescu and Katy van Overzee.

SubCity, the big urban game.

© invOFFICE for architecture, urbanism and design, Amsterdam, 2004



Reclaiming Virtual and Physical Spaces

Indymedia London at the Halloween

Critical Mass

Using the Halloween Critical Mass bike ride as an example, Marion Hamm analyses how cyberspace overlaps the physical space of a protest demonstration on the street and how a construction of what she calls ‘geographies of protest’ is developing. Marion Hamm is affiliated with Indymedia, a worldwide network of independent media centres.

London, Halloween night 2005. The Embankment under Waterloo Bridge is packed with devils, wizards, vampires, witches, ghosts, pumpkins, clowns and fairies on bicycles. To the sounds of drumming, whistling and deafening sound systems the ride takes off over Waterloo Bridge, along the Strand and into Trafalgar Square, then down to Parliament Square, where the festive mood reaches its peak. As the first riders complete a lap to big cheers and the sound of ringing bike-bells, hundreds are still pouring in. The sheer number of cyclists brings it to a halt. Most sit down in the roads, many lift their bikes into the air, some dance to the sounds set up outside Big Ben.

Meanwhile, the chat room of Indymedia UK is buzzing. A dozen people are glued to keyboards, screens and telephones. They receive a steady stream of text messages and phone calls from the streets, which are added to a website. The excitement from Parliament Square spills over into the chat room:

[10/28/2005 08:19 PM] <phunkee> parliament sq!!!!!!!!!!!!!!

[10/28/2005 08:19 PM] <ionnek_326610> they are there?

[10/28/2005 08:20 PM] <phunkee> YES!!!!

A participant from Birmingham sums it up: ‘It’s a friday night, it’s like a fucking party, it’s like an RTS on bikes!’¹

1. Indymedia UK: Massive Critical Mass Defies socPA Exclusion Zone, 28 Oct 2005. <http://www.indymedia.org.uk/en/2005/10/326614.html>, accessed 24 April 2006. RTS stands for ‘Reclaim The Streets’.

This montage was taken from reports about the Critical Mass bike ride in London during Halloween Night 2005. With 1200 participants estimated by the police, it was the biggest ever Critical Mass in London since the monthly bike rides started in 1994. Bike couriers and anarchists, environmentalists and MPs, cycling Londoners, party crowds, skateboarders and alternative newsmakers staged a public, popular and non-commercial event in central London, without central organization and without a budget for PR.

A ‘Critical Mass’ occurs when a group of cyclists moves slowly through busy urban streets, taking over from motorized traffic, thus appropriating public space in a way that sits between ‘being traffic’ and ‘being a demonstration’. These bike rides have become part of the repertoire of political articulation used by the transnational movements against neoliberal globalization. In 2000, Naomi Klein described how they relate to the Internet: ‘The movement, with its hubs and spokes and hotlinks, its emphasis on information rather than ideology, reflects the tool it uses – it is the Internet come to life’.

With the worldwide network of Independent Media Centers (also known as ‘Indymedia’), these movements have created their own platform on the Internet. They are using it for more than exchange of information or production of counter-information. Through a constant process of using and developing web-based tools, they are creating parts of the Internet as socially constructed spaces.

The montage above illustrates how appropriations of physical and virtual spaces can occur in close interaction especially during big or locally meaningful mobilizations – not only at the same time, but mutually influencing each other to the extent that the boundaries between the virtual and physical worlds are dissolving.²

This is different from earlier conceptualizations of the Internet. In the 1990s, it was widely seen as a kind of parallel universe, complete with virtual cities and shopping malls. Social movements started to experiment with the Internet as an additional space to articulate political dissent. The Critical Art Ensemble (CAE) declared in 1994: ‘The new geography is a virtual geography, and the core of political and cultural resistance must assert itself in this electronic space.’³ Consequently, they called for a strategic move away from the streets: ‘Resistance – like power – must withdraw from the street. Cyberspace as a location and apparatus for resistance has yet to be realized. Now it is time to bring a new model of resistant practice into action.’⁴ This type of analysis was widely discussed and put into practice. Hackers, artists and activists started to experiment with electronic civil disobedience.⁵ Websites were hijacked, blocked or flooded with DoS-attacks in online-demonstrations and virtual sit-ins, online petitions started to appear, banners campaigning for a wide range of issues spread around the web.

By the late 1990s however, the streets were far from being abandoned as a site of political protest. The practices of an informal network of transnational movements against neoliberal globalization with its globally synchronized days of action and carnival-inspired direct actions, suggested a ‘renaissance of street protests’ (Schönberger).

At the same time, web-based tools from mailing lists and forums to websites and chat rooms and later collaborative content management systems (Wikis) and media streams were appropriated with breathtaking speed. Indymedia as a worldwide network of roughly 160 mutually linked alternative open publishing news websites uses a back office that includes a wide range of these tools. Combined with more traditional communication channels like printed media, FM-radio shows or film screenings, and in convergence with various forms of street protest, this extensive use of information and communication technologies creates temporary geographies of protest that are changing spatial and temporal perceptions.

But how exactly does this twofold appropriation of virtual and physical spaces work? How are they put into interaction, which practices are involved? A closer look

2. Some examples in: Marion Hamm, ‘A r/c tivism in Physical and Virtual Spaces’, on the webjournal: republicart.net 09/2003. http://www.republicart.net/disc/realpublicspaces/hammo2_en.htm, accessed 10 April 2006. Published in German in: Gerald Raunig (ed.), *Bildräume und Raumbilder. Repräsentationskritik in Film und Aktivismus* (Vienna: Turia & Kant, 2004), 34-44.

3. Critical Art Ensemble, *The Electronic Disturbance* (New York: Autonomedia, 1994). <http://www.critical-art.net/books/ted/ted1.pdf>, p3, accessed 24 April 2006.

4. Critical Art Ensemble, *Electronic Civil Disobedience & Other Unpopular Ideas* (New York: Autonomedia, 1996), 20. <http://www.critical-art.net/books/ecd/ecd2.pdf>, accessed 24 April 2006. Also see Geert Lovink, ‘Radical Media Pragmatism Strategies for Techno-Social Movements’, in: *Infowar* (Ars Electronica catalogue, Linz, 1998). http://www.aec.at/en/archives/festival_archive/festival_catalogs/festival_artikel.asp?iProjectID=8436, accessed 24 April 2006.

5. For examples and a critique see: autonome a.f.r.i.k.a gruppe, ‘Stolpersteine auf der Datenautobahn’, in: Marc Amman (ed.): *go.stop.act. Die Kunst des kreativen Straßenprotests. Geschichten - Aktionen - Ideen* (Frankfurt: Trotzdem Verlag, 2005), 194-209. ak 490 (2004) http://www.akweb.de/ak_s/ak490/06.htm, accessed 24 April 2006.

at the Halloween Critical Mass bike ride in London can give us an idea about the construction of these evolving geographies of protest through discourses and practices both online and offline. To understand this process, it is necessary to explore both online and offline practices. Reflecting on a sociological interpretation of information technologies, Saskia Sassen argues that ‘a purely technological reading of technical capabilities inevitably neutralizes or renders invisible the material conditions and practices, place-boundedness, and thick social environments within and through which these technologies operate.’⁶

The Halloween Critical Mass bike ride allows the exploration of both online and offline practices, as embedded in a thick social environment. It was fuelled by local knowledge as well as popular, political and subcultural practices. Volunteers from Indymedia London produced an extensive report on the alternative news website Indymedia UK in a chat room, parallel to and in interaction with the event in the streets.

Based on alternative media online publications as well as my participation in the Indymedia reporting effort, I will first outline a broad debate in webforums, blogs, chat rooms and alternative news websites which preceded the event. I will then explore how the stage was set for this performance of dissent through choices of place, time and action, and how media technologies were used in the streets. From there, we move to the practices in Indymedia UK chat rooms. Finally, I am trying to describe the temporary geographies of protest using the theoretical concept of deterritorialization.

Civil Liberties, Critical Mass and SOCPA Legislation: Negotiating the Demonstration Exclusion Zone

In April 2005, the UK government passed a new legislation as part of the Serious Organised Crime and Police Act (SOCPA). In London, a central area up to 1 km around Parliament Square was declared as a demonstration exclusion zone. This includes many London landmarks where protests traditionally take place, for instance Whitehall, Downing Street, Trafalgar Square and Parliament Square. For any demonstration in this area, notice must now be given six days in advance. This legislation first affected activist Brian Haw, who in 2001 started a permanent protest against the sanctions against Iraq and later the Iraq war in London’s Parliament Square, where he has been camping ever since. Paradoxically, he is now (after a court case) the only person legally entitled to protest in Parliament Square, while other people can be arrested for activities as innocent as a Sunday afternoon picnic.

The legislation was widely discussed within civil society. It was criticized by civil liberties organizations and Members of Parliament. Alternative as well as corporate media, campaign websites and bloggers reported debates, actions and court cases. According to journalist George Monbiot, the new measures ‘have the effect of

banning any spontaneous protest outside Parliament or in Trafalgar Square, and of permitting the Secretary of State to ban demonstrations in places “designated” by him “in the interests of national security”.⁷

Among the events affected was the monthly Critical Mass bike ride. Often described as ‘unorganized coincidence’ rather than a demonstration, Critical Mass (CM) takes place ‘when a lot of cyclists happen to be in the same place at the same time and decide to cycle the same way together for a while’.

Quoting from a report from indymedia.org.uk: ‘On Friday 30th September, those who joined London’s monthly Critical Mass ride, found themselves being issued with letters from the Metropolitan Police, threatening arrests at future Critical Mass rides, unless the ‘organizers’ give notice of the route at least six days in advance, and warning that the police can impose restrictions on the rides once the advance notice has been given.’⁸

Giving notice of a Critical Mass route in advance would be difficult, as one of the foundations of this cheerful tradition is that the route develops spontaneously. The (now defunct) London CM website stated: ‘Nobody organizes CM in the sense that they control the event – what happens at the ride is up to all the individuals. However, as with any project, some individuals are usually more involved than others, for example in printing and distributing leaflets and other publicity, or maintaining this website. However, they only do the work, and don’t have any authority over anybody else – their only power is to make suggestions.’

In response to this incident, cyclists announced ‘London’s biggest ever Critical Mass bike ride’ for the Friday before Halloween. The leaflet stated: ‘Critical Mass in London has rolled on since 1994 without police threatening to use the POA to impose conditions. Why invoke it now when there’s been no need up to now? Why are they wasting time threatening innocent cyclists? Car drivers flock together to block the roads on a daily basis commuting to and from work. We don’t block the traffic – we ARE the traffic!!!’⁹

Jenny Jones, an MP and member of the Green Party, informed the Metropolitan Police Commissioner in a public letter that she intended to participate in the next CM, and explained that ‘many people do not see Critical Mass as a demonstration, but more like a hundred people getting on the same train at London Bridge.’¹⁰

The campaign against CCTV surveillance in the UK looks at the wider implications of the SOCPA legislation: What applies to the Critical Mass bike riders, will also apply to anybody thinking of, for example, driving down Whitehall past Downing Street, to protest about Fuel Tax or Prices, or the London Congestion Charge.¹¹

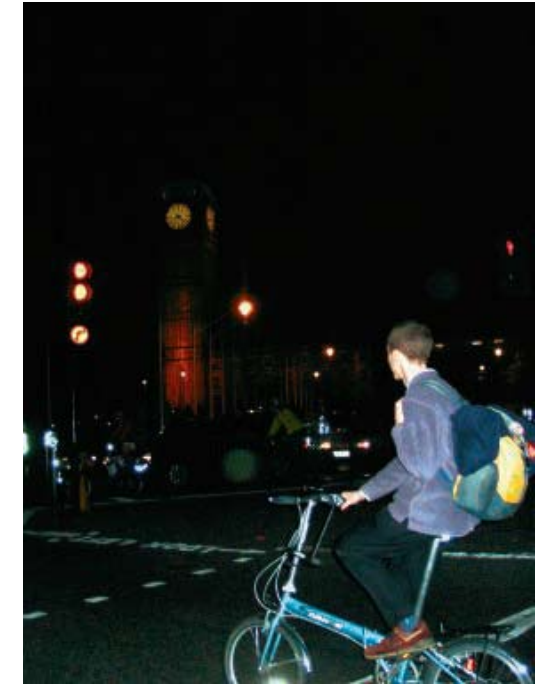
7. George Monbiot, ‘Protest as Harrassment’, *The Guardian*, 22 February 2005. <http://www.monbiot.com/archives/2005/02/22/protest-as-harassment-/>, accessed 24 April 2006.

8. Indymedia UK, London Critical Mass under threat. 4 Oct 2005. <http://www.indymedia.org.uk/en/2005/10/324919.html>, accessed 24 April 2006.

9. Ibid.

10. Indymedia UK, Letter from Green Party to Met. police, 6 October 2005. <http://www.indymedia.org.uk/en/2005/10/325044.html>, accessed 24 April 2006.

Critical Mass bike ride, London 2005.



These negotiations were embodied in a more practical manner in the 'networks of alternative communication'. Leaflets

11. http://www.spy.org.uk/parliamentprotest/2005/10/critical_mass_monthly_cycle_ri.htm, accessed 24 April 2006. This campaign website also gives a roundup of other protests against the SOCPA legislation.

appeared in bike shops, health food shops, or social centres. The editors of the long-standing alternative newsheet 'Schnews' invited readers to 'get on yer bike'. People reported on Indymedia UK about the threat against Critical Mass. Several threads on Brixton based urban 75 community webforum¹² discussed the politics of cycling as well as practical issues about Critical Mass in general. Starting in early October, synchronized local solidarity rides were planned from Bristol to Glasgow. Levels of excitement rose 'on the day', when people shared their preparations for the Halloween bike ride on the forum: a cold gets in the way, arrangements are being made to leave work early or to meet up in town, a broken bike needs fixing, last minute information about the location is being exchanged.

12. Several threads on <http://urban75.org/bulletins> are dedicated to the October Critical Mass.

The London Halloween Critical Mass was a culmination of complex negotiations about the right to protest involving parliament, the courts, civil liberties groups, media and grassroots movements. A vibrant public sphere opened up, made up of interventionist practices, discourses and competent use of communication channels. Critical Mass with its hybrid meaning between legitimate transport, use of urban public space and demonstration is predestined to push the boundaries of legislations like the newly introduced exclusion zone. While being in a legal grey zone, it constitutes a statement of dissent first of all against the priority given to cars, but also against the privatization and commercialization of urban space.

Setting the Stage: British Empire, Carnival and Halloween

On the day, the Critical Mass by far exceeded the 100 participants expected by Scotland Yard.¹³ Ignoring the SOCPA legislation and unhindered by police, an estimate of 2000 cyclists moved slowly through the Central London exclusion zone.

13. 'Cyclists to defy police in pedal power revolt', *The Guardian*, 7 October 2005. http://www.guardian.co.uk/uk_news/story/0,3604,1586675,00.html, accessed 24 April 2006.

The stage for this performance of dissent was not only set by a debate in the public sphere in a traditional sense. Crucially, the debate was embodied through the choice of symbolic place, time and action.

It is no coincidence that the Critical Mass reached its climax at Parliament Square, with no need for any prior agreement. This highly symbolic space was loaded with meaning about the relationship between government and citizens long before it was put in a demonstration exclusion zone. Situated in the vicinity of Westminster Abbey, the houses of Parliament, Whitehall, Buckingham Palace and Big Ben, it denotes the heart of the British Empire: Government, Parliament, Anglican Church and Monarchy. The right to stage protests in this green square directly in front of Parliament stands for the right to free speech.

Those meanings of Parliament Square are inscribed in a collective popular memory

in London. London's grassroots movements are well aware of the symbolic meanings of Parliament Square: When 'Reclaim the Streets' faced criminalization and a vicious campaign in corporate media after the 'Carnival against Capitalism' on 18 June 1999 (another early globally synchronized protest), they chose Parliament Square to stage a peaceful 'Guerilla Gardening' complete with saplings and maypole dancing on Mayday 2000. On this occasion, the first independent media centre was set up in the UK with a public access point right in the middle of the action.

The Critical Mass in the SOCPA zone coincided with Halloween. This was taken up as a welcome link to the relatively recent popular (and commercial) practice to celebrate Halloween with decorations, 'trick or treats' and fancy dress parties. Combined with the carnival spirit that has become so crucial for direct action movements in the UK and beyond,¹⁴ the connection to Halloween allowed for an extra festive atmosphere, as many cyclists turned up in fancy dress.

14. See Sonja Brünzels, 'Reclaim the Streets: Karneval und Konfrontation', *Derive 2* (2000). http://www.derive.at/index.php?p_case=2&cid_cont=291&issue_No=2, accessed 24 April 2006.

Media Technology Goes to the Streets

Apart from symbolically meaningful timing and choice of space, and the use of a tactic situated in a legal grey zone, oscillating between legitimate use of public space and direct action, technically mediated practices were involved in setting the stage. This included the creation of a soundscape made up from bicycle bells, singing, the rhythms of resistance Samba band and several sound systems. On Indymedia UK, Bazmo reports: 'I was Djing on the "Pedals" sound system – a 180 litre volume high-tech wooden loudspeaker cabinet towed behind a metallic green tandem. We towed pedals from London to Scotland in June 2005, part of the G8bikeride, a 60 strong cycle protest. The pilot sits at the front, the DJ at the back. I play tracks off my MP3 player, hyping the crowd with a microphone. Its an open mic giving us an interesting mix of protest & party announcements, points of view, rallying cries, songs & confused burbles. I play a mix of music – Drumbass, Breakbeat, Breakcore, Blues, Jazz, Protest Tunes, RocknRoll, Heavy Metal, Funk, Reggae, Ragga, Dub, Hip-hop, Folk, Psychadelic Trance, BreakCore. I try to ensure there's something for everyone. Judging by yesterday's smiling faces & bouncing front wheels, it went well.'

This account shows first the combination of almost archaic technologies – a wooden loudspeaker cabinet on a tandem – and the latest mp3 technology. Second, the reference to the G8 bike ride shows that the practice of disseminating tunes via mobile sound systems is an established practice within social movements, at least for this particular reporter.

Looking at the amount of pictures and reports on Indymedia UK, several blogs and the free image website flickr, it can be assumed that large numbers of people brought their cameras to take pictures. This should not be taken for granted: Early camcorder activists in the 1990s, like for example the UK-based group Undercurrents, were often faced with plain hostility when filming during actions and demonstrati-

ons. Today, producing and uploading protest reports has almost become a routine for many of those who participate in demonstrations.

The emergence of the worldwide network of alternative news websites Indymedia marks a change of attitude towards media technologies within social movements since the late 1990s. The first 'Independent Media Center' (IMC) was set up 1999 to report about the protests against the World Bank meeting in Seattle. It consisted of a physical space and a virtual space. In a shop front packed with old computers, Internet access was provided for hundreds of instant journalists. Photos, videos, audio- and text files could be uploaded to a specially designed open publishing website, www.indymedia.org.¹⁵ No registration was required for the website. Equally, everybody was free to use the physical space. Being both a web-based and an urban hub, this model provided more than a news resource: Indymedia became an interface between the events in the streets and the Internet.

15. For a report about the IMC in Seattle 1999, see Indymedia, 'precursors and birth', in: *Notes from nowhere: We are everywhere* (London/New York: Verso, 2003), 230 - 243.

The commitment to openness and a participatory, consensus-based style of collaboration resonates both with the free software movement and the 1990s grassroots movements. The Indymedia model was reproduced all over the world. Today, there are roughly 160 Indymedia websites, each run by a local collective. Technical resources, knowledge and media-making skills are being shared both locally and globally. The Indymedia collective in London, for instance, has been sharing minidisk recorders, microphones, network cables, a video projector and laptops. It has often used these appliances to bring media technologies to the streets, as public access points or physical media centres. The website indymedia.org.uk is hosted on a server in the USA. The software is maintained by an international working group.

Communication among and between the Indymedia collectives takes place in a 'back office' consisting of roughly 900 mailing lists, an ever growing wiki, and at least 80 chat rooms. This back office is a crucial infrastructure when media technology goes to the street in events like the Halloween Critical Mass bike ride.

Along with many other activist online projects, Indymedia is building an infrastructure for electronic communication among and beyond social movements. Servers need setting up, software needs to be developed and tweaked, wikis, chat rooms, mailing lists and websites need to be hosted, content needs to be produced. Cyberspace has become something that needs to be 'made' as well as a space where political interventions can be effectively staged. The practices involved have become part of a culture of protest, and they are playing an important role in the emerging geographies of protest. Like any technology, information technology is socially constructed. Taking a mailing list as an example: What is it for – extensive discussions, short announcements? Is it public or private? Who can subscribe to it, who has admin rights? Or the use of indymedia irc-chat rooms: Can they be used for decision making, or does this exclude too many people who don't have powerful web-access? Use of technological tools is constantly under negotiation, raising questions of hier-

archies, collaboration style and transparency.

Participating by Reporting: Indymedia UK

On the day of the Critical Mass bike ride, Indymedia UK produced up-to-the-minute reports. The featured report on the Halloween Critical Mass on the indymedia.org.uk website was produced in the course of four hours of intensive collaboration. As people returned from the bike ride, they filled the open publishing newswire with additional reports including many photos and two video clips as well as dozens of mostly euphoric comments. All these were linked to the feature.

More than two dozen people with various degrees of involvement in Indymedia participated directly in the electronic arm of this local action. Indymedia volunteers located in bedrooms or social centres in London, Birmingham and Germany converged in a dedicated irc chat room to 'do dispatch' online. This means to process incoming news that arrives via phone, SMS, chat, the Indymedia open publishing newswires, or by messengers, and to upload it onto the Indymedia website. Live reporting has become a crucial part of many mobilizations and events. Indymedia volunteers tend to regard it as 'participating in' rather than 'reporting about'.

By 7pm, the reporting machine was in full swing. Breathless chitchat in the chat room produced background information about the SOCPA legislation and Critical Mass in other cities as well as information about solidarity bike rides in the UK. Every few minutes, people called in from the streets. The messages were typed into the chat room and added every few minutes to a timeline. When the Critical Mass reached Parliament Square, the excitement from the streets spilled over into the chat room, when anap, phunkee and ionnek each received phone calls within four minutes:

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[10/28/2005 08:19 PM] <phunkee> parliament sq!!!!!!!!!!!!!!
[10/28/2005 08:19 PM] <ionnek_326610> they are there?
[10/28/2005 08:20 PM] <phunkee> YES!!!!
[10/28/2005 08:20 PM] <un> 8-)
[10/28/2005 08:20 PM] <ionnek_326610> <b>8:20</b> mass has arrived IN parliament
. . .
[10/28/2005 08:23 PM] <ionnek_326610> wow
[10/28/2005 08:23 PM] <ionnek_326610> just had a call.
[10/28/2005 08:23 PM] <ionnek_326610> cycling round and round parliament square
[10/28/2005 08:23 PM] <ionnek_326610> cheers so loud i could hardly understand!
. . .
[10/28/2005 08:25 PM] <anap> 2000 people rising their bikes
[10/28/2005 08:25 PM] <<phunkee>> people are lifting their bikes in the
```


air
 [10/28/2005 08:25 PM] <anap> yes that's what i meant
 [10/28/2005 08:25 PM] <anap> meant
 [10/28/2005 08:25 PM] <anap> i could hardly hear anything!
 [10/28/2005 08:25 PM] <anap> wow
 . . .
 [10/28/2005 09:11 PM] <phunkee> looks like the movement has finally found a medium that's effective again :)

As one of the participants in the chat room, checking and updating the website and receiving phone calls, I experienced an immediacy, urgency and intensity not unlike the atmosphere reported from the streets. In the sequence quoted above, my heart-beat accelerated, my face was smiling while my fingers were typing. Participation in such events triggers emotional and physical responses, whether they are transmitted through keyboards, wires, software and boxes or the sounds of a samba band or the physical experience of cycling in a Critical Mass. Social interactions in chat rooms, sometimes called co-present interactions, like greeting each other, toasting, even dancing are more than a simulation of their face-to-face equivalents: Sometimes they are even transferred from the chat room back to real space.¹⁶

A translated version of the English language reports on the Halloween Critical Mass appeared on the German Indymedia website almost at the same time as the original.¹⁷ For Indymedia volunteers in Germany, the Indymedia UK chat rooms are only one click and a language away. Being part of the same project, with its own communication codes and rules of conduct, many imc volunteers are moving with great ease between chat rooms of various countries. Especially when 'geographies of protest' are emerging at times of large mobilizations, news and information are travelling fast over long distances.

Is 'doing dispatch' reserved for technically savvy people? And if not, how do people learn the basic technical skills needed to participate? Here is an example.

During the Critical Mass dispatch, there was time to share some basic html knowledge on the side. Ionnek, who is editing the feature article for the website, wants to know how to make a word appear in green colour. Skep replies.

[10/28/2005 08:44 PM] <phunkee> there are a few hundred people on roller skates travelling the opposite direction to parliament sq!!!!
 [10/28/2005 08:44 PM] *phunkee this is fucking nuts
 [10/28/2005 08:50 PM] <ionnek_326610> how do i html something green?
 [10/28/2005 08:50 PM] <phunkee> 4 people phoning me sound deliriously happy

. . .
 [10/28/2005 08:51 PM] <skep> ionnek_326610, I don't know if uk imc blocks certain html-tags, but normally you could do it via 'test . . . but I think the software blocks that.

While we are using the electronic networks for communication and reporting, we produce more than counter information. We are also involved in the very process of building the technical base by further developing the software, supporting each other in the improvement of hardware, and building a network where knowledge is being produced and shared in everyday practice. An example for the innovative potential of the Indymedia model is the code base used for the websites themselves: It was developed within the local Sydney activist community in 1999, at a time when the ability to update websites via a browser with only basic knowledge of the html programming language was very rare. With their chronologically displayed newswire entries, each with its own URL, Indymedia sites are basically forerunners of the now widespread weblogs.

Geographies of Protest: Emerging Hybrid Spaces

Social scientists and web-theorists have been tackling the complex interactions between the digital and material worlds for over a decade. When looking at the implications of new technology use, they have identified a process of social, temporal and spatial reorganization, a 'hybridization' of physical and virtual spaces. The blurring of traditional boundaries has been described as 'deterritorialization', while emerging new boundaries are pointing to a process of 'reterritorialization'. For the social construction of geographies of protest, deterritorialization means that notions of proximity and distance are not solely defined by miles and kilometres, accessibility of transport or the borders between states. Traditional temporal definitions where a protest is followed by reports are collapsing into each other, when events are reported by activists live on the Internet through websites, blogs and streams in a collaborative social process. This does not only change the subjective experience of those who participate online. It can also provide a navigation system for those in the streets. Deterritorialization through geographies of protest also affects notions of identity. Markers like gender, age, class or ethnicity are less obvious in cyberspace, although they are by no means irrelevant. Online communication channels allow office workers to participate in protests even when they are confined to their workplace – the boundaries between work time and 'own' time can dissolve.

At the same time, new boundaries are reterritorializing the emerging hybrid space: Access to and familiarity with technological tools and online communities are becoming important for a person's social positioning both online and offline. The speediness of real-time online tools creates a sense of immediacy and urgency. Online behaviour becomes an identity marker in addition to traditional signifiers.



Emotional and embodied responses adjust to the online environment, while typical online behaviour can be found in material encounters.

Within the Indymedia network, the process whereby virtual and physical spaces are merging into ‘networks of alternative communication’ is taking place every day. But the geographies of protest are most tangible during big mobilizations like the G8 in Scotland in 2005, or locally significant actions like the Halloween Critical Mass.

The story about the Halloween Critical Mass shows that such interactions are not restricted to technologically advanced settings like, for instance, corporate video conferences. Social movements with their do-it-yourself approach to information and communication technologies are competently mixing old and new technologies, thus integrating virtual and physical spaces.

The 1996 Zapatista call for ‘networks of alternative communication’ is a poetic expression of a concept that imagines the Internet neither as restricted to a site of protest nor as an additional journalistic outlet. Spatial metaphors are used to evoke a vision of future communication practices: ‘Let’s make a network of communication among all our struggles and resistances. An intercontinental network of alternative communication against neoliberalism . . . (and) for humanity. This intercontinental network of alternative communication will search to weave the channels so that words may travel all the roads that resist . . . [it] will be the medium by which distinct resistances communicate with one another. This intercontinental network of alternative communication is not an organizing structure, nor has a central head or decision maker, nor does it have a central command or hierarchies. We are the network, all of us who speak and listen.’¹⁸

This call doesn’t even mention the technological tools. They are embedded in daily practices of resistance. Day-to-day use of online technologies – predominantly in, but not confined to industrialized countries – includes regular email checking, chatting, and contributing to forums, blogs, and websites. During events like the London Critical Mass bike ride, cyberspace can merge with the physical space of street protests, thereby creating socially constructed, temporary geographies of protest that add a layer of meaning to both physical and virtual spaces.

18. Quoted in: Greg Ruggiero, *Microradio and Democracy: (Low) Power to the People* (New York: Seven Stories Press, 1999), 43.

Protecting Virtual Spaces?

The London Halloween Critical Mass as a classic intervention in urban public space, connected to digital channels of alternative communication, illustrates how physical and virtual spaces are intersecting to form a hybrid communication space.

‘Weaving channels, so that the words may travel all the streets of resistance’ means opening up spaces of resistance, temporary autonomous zones as well as ongoing technical infrastructure. Examples from the Indymedia project show that both are within the reach of state authorities: The physical independent media centre for the protests against the G8 in 2001 was brutally raided by the Italian police. A



court case against the police is as yet ongoing. Two Indymedia servers in London were seized on request of the FBI in 2004, only a few days before the European Social Forum started in London.¹⁹ These servers were hosted by a subsidiary of a US-based Internet Service Provider. The request for data on them was initiated by Italian authorities, who requested 'mutual legal aid' from the FBI, which then bypassed the British authorities and seized the hard drives in London via the US-based headquarters. The legality of this operation, requested by US-based authorities and carried out on UK territory, is still in doubt. Deterritorialization here as well: Traditional legal structures, bound within the confines of national boundaries, are becoming dysfunctional. Jebba, a tech-activist in the Indymedia network, comments: 'The Empire stole our harddrives.'²⁰

19. See 'Ahimsa Gone and Returned: Responses to the Seizure of Indymedia Harddrives', Indymedia UK, 9 November 2004. <http://www.indymedia.org.uk/en/2004/11/300886.html>, accessed 24 April 2006.

These are only two examples of real power structures that are catching up with cyberspace. Sometimes such attacks have even strengthened the networks of alternative communication: The London server seizure, for example, has led not only to technical improvements, but also to numerous new connections between Indymedia and trade unions, advocacy groups and civil liberty organizations.

20. See also his blog: <http://jebba.blagblagblag.org/index.php?p=107>, accessed 24 April 2006.

In a speech titled 'Freedom and the Future of the Net: Why We Win',²¹ Eben Moglen, lawyer of the Free Software Foundation, stated that there is no such thing as cyberspace. He uses the telephone as an example: if someone makes a fraudulent phone call, nobody would say it is a crime committed in phonespace. It is a crime committed in the real world and someone used a phone. Similarly, the Internet exists in real space, where there are laws and land and switches and societies. It is in this real space that we are using, developing and defending our intercontinental networks of alternative communication.

21. Eben Moglen, 'Freedom and the Future of the Net: Why We Win'. Speech held at New York University, 2002. http://punkcast.com/156/moglen1_24k.mp3, accessed 24 April 2006.

Daniel van der Velden, Katja Gretzinger,
Matthijs van Leeuwen, Matteo Poli,
Gon Zifroni

Hybridity of the Post-Public Space

Logo Parc and the Zuidas in Amsterdam

At the Jan van Eyck Academy in Maastricht, a research project is underway, on the public space of the Zuidas business district in Amsterdam. This project, entitled *Logo Parc*, looks into the value of the Zuidas as a 'symbol'. In addition, proposals are being developed for a conception of the public space as a new type of space. The present essay, along with its accompanying pictorial material, is one of the results of the project.

The Zuidas ('South Axis') in Amsterdam is the new economic heart of the Netherlands: no other district has such a high concentration of bankers, accountants, business consultants and attorneys. In the main, two sorts of information are available about what has been built there thus far: promotion and cynical commentary. As regards future developments, castles-in-the-air scenarios and prophecies of doom are making the rounds. Bank skyscrapers have been erected, like the ING House and the headquarters of ABN Amro, and business conglomerate buildings, like 'Vinoly' – more often dubbed 'the corporate crack' because of the painstakingly stylized and lighted fault line that bisects the building's façade – and the 'Ito Tower'. These two buildings, by architects Rafael Vinoly and Toyo Ito, respectively, are part of an urban development called 'Mahler4'. According to the City of Amsterdam's Physical Planning Department, the Zuidas is the ultimate implementation of Berlage's Plan Zuid ('South Plan'), which included a 'highly situated, imposing South Station' with a 'Minerva axis' leading to it.¹

1. See City of Amsterdam Physical Planning Department, *Plan Amsterdam* brochure no. 4, 2004.

At the end of 2004, almost 1.5 million square metres of office space in Amsterdam stood empty.² There is therefore no need for the Zuidas, as supply is amply sufficient. Comparable space with the same modular ceilings, along the same ring motorway, can also be rented elsewhere. As a financial, economic and legal business centre, the Zuidas violates one of the fundamental rules of economics. Yet the Zuidas is managing to attract businesses that used to operate in the old Amsterdam-Zuid area or in the historic city centre (for instance on the Leidseplein or along the canals). This would be impossible without symbolic compensation in the Zuidas for the absence of city-centre attractions, provided by trendy lifestyle chains such as Wagamama (restaurants) and Club Sportive (fitness), for example.

2. *Het Financieele Dagblad*, 19 October 2004.

This compensation is symbolic precisely because it is not complete. It doesn't quite succeed – and any visitors to the Zuidas can see this with their own eyes – in bridging the gap between a gigantic business estate and a lively new urban district. The Zuidas has no traditional urban fabric, nor a strong interweaving of housing and employment, nor any informal quality that would make it possible for one to feel at home there. Much of the intended 'dynamism' of the Zuidas relies on conventions and codes.

Conventions

The Zuidas houses many banks and law firms. Both professions value the absence of surprises. When a bank takes financial risks on the stock market, the external system within which such risks are taken is suffused with confirmation. Professionals recognize one another not only by their knowledge and experience, but also by their company cars, suits and footwear. These conventions centre not so much on 'lifestyle' factors (fashion sense or hipness), as on quality, although

the two concepts are probably increasingly intertwined.³ The practice of law also exists by the grace of conventions on representation, which must be perpetuated by the appearance of every legal professional.

3. See also Camiel van Winkel, 'Koning Midas in Wonderland', *de Witte Raaf*, January 2001.

Thus there are many of the same kind of people at the Zuidas. And why would they bother one another? Whereas the traditional street is the place where they disagree, where they run into one another, the Zuidas is the place where they agree and yet don't run into one another. After all, if at all possible, the public space is avoided. The representatives of banking and legal service providers come out onto the street mainly to make phone calls and to smoke: both activities fall outside the conventions agreed upon in the office. If they're phoning in the street, it's not 'for business', but 'personal', and if they're smoking outside, it's because smoking 'on the job' is not permitted.

In the meantime the Zuidas is trying to show that it is possible to do more here than just work. On the one hand, food courts – an analogy to the airport and the shopping centre, but also a (subconscious) reference to the law ('see you in court'). On the other hand, the noodle bars, the health clubs, a bookshop with cookery and design books, and a range of ambitions including a design museum, hotels and apartments. These ambitions are translated into the presence of 'hip' spots that – in the Zuidas vision – stand for cosmopolitan dynamism. In an artist's impression, an anonymous digital artist has plastered, in a newspaper-style typeface, the word 'Traiteur' on a building on the Mahler4-plein.

Creative Zuidas

The dynamism the Zuidas is hoping for is reminiscent of the 'creative city'. The American economist Richard Florida has become the centre of a debate about the 'creative class', which seeks out and produces style-conscious, information- and culture-intensive, but also open and informal urban environments in major Western cities. The 'creative class', as it has been embraced by politicians and business, is the social embodiment of a synergy between creativity and economics. The 'creative class' designs or produces goods and services both material and immaterial, the added value of which consists of their injected creativity. In an extension of this, politicians make no secret of the fact that they see in the 'creative class' the post-industrial successor to the 'working class'.

This is not the venue for reflection on the 'creative class' and the disappearing act it implies. The working class was represented by collective bargaining agreements and trade unions, and the right to strike afforded it a political instrument to champion its own position. The 'creative class', on the contrary, is scarcely represented,⁴ cannot make collective bargaining agreements about minimum compensations and rates (this would violate the right of competition), cannot strike

4. This problem is also being seen in a broader context. Recently, the organization 'Alternatief voor Vakbond' ('Alternative to Trade Union') began in Amsterdam, at the

effectively, has no protected titles, builds up little or no pension fund, and so forth. Viewed from this reality it is not difficult to understand why the centre-right of the political spectrum is welcoming the 'creative class' with open arms.

initiative of Mei Li Vos, specializing in representing freelancers and the self-employed. In the profile of this new-style trade union, no specific emphasis is being placed on the creative industry. See <http://www.avv.nl>.

It suffices here to posit that the Zuidas, for several reasons, is not this 'creative city', and that therefore the concepts of urban dynamism and trendy nightlife and entertainment venues derived from the 'creative city' do not apply here either. The main reason is that renting workspace at the Zuidas is too expensive for the 'creative class'. The rental prices are so high that 'creativity' is too insubstantial a financial footing. The second reason, related to this, is that in Florida's vision the 'creative class' produces the trendy urban areas on its own, by reanimating former 'no-go areas' and making them socially acceptable: all the hip districts in New York, London and Paris started out as places where artists and intellectuals would settle until they became truly popular and unaffordable. At the Zuidas the exact opposite is taking place: a hugely expensive business centre is installed first, in the hope that the 'creative class' will call it home of its own volition.

At the same time, the Zuidas, its ambitions notwithstanding, isn't even urban. The Zuidas will rebut this with an appeal to a characteristic typically understood as urban: 'accessibility'. The Zuidas is hoping to become a city by the mere fact of its position straddling the A10 motorway. Yet good accessibility is, in fact, the predicate of the periphery, the Vinex suburb and the industrial estate.

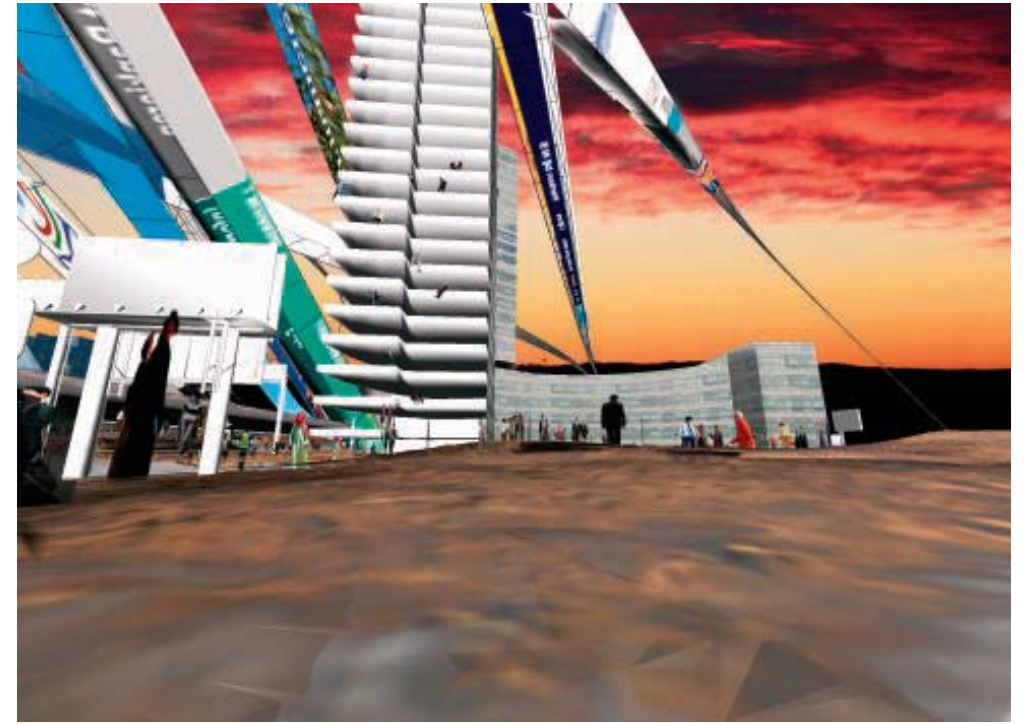
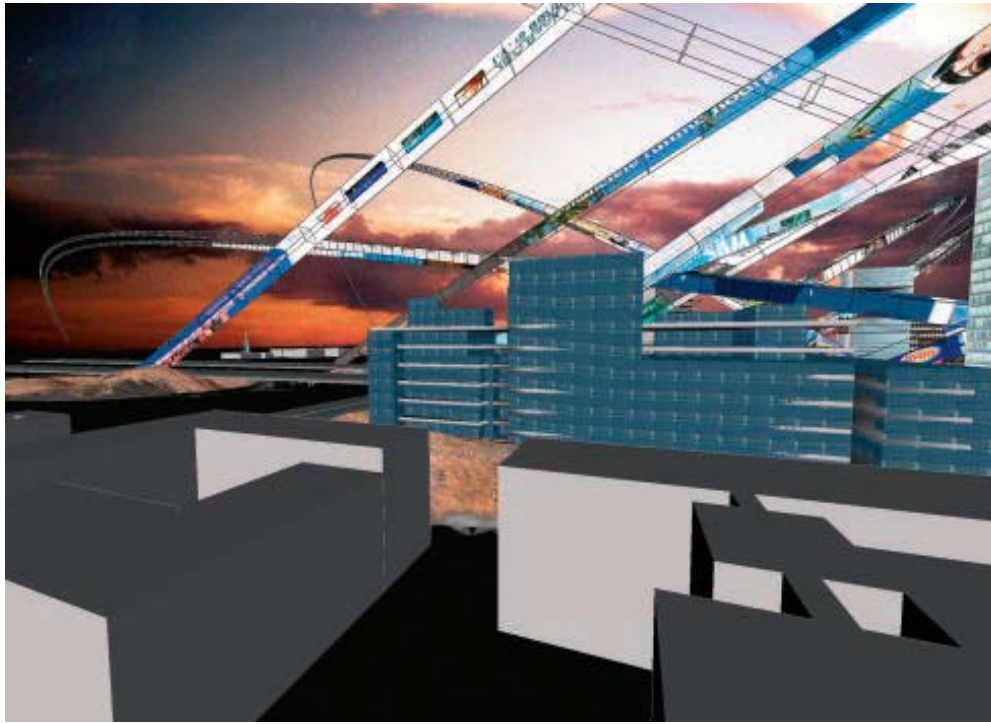
The Amsterdam Zuid/wtc station is the future Amsterdam stop for the high-speed rail line. This is a place that is already a mere six minutes from Schiphol Airport. Here too, what is in fact not in evidence – urban quality – is symbolically compensated by short lines and having everything close by. But here, 'close by' means the proximity of far-away places, reached by high-speed train, by motorway with a car, and from Schiphol by plane. This proximity is primarily a business and professional asset, which has nothing to do with the needs of ordinary city residents. The Zuidas is superbly accessible from Dubai, but it is miles away from Amsterdam.

We observe that while in a formal sense two crucial urban criteria seem to have been met – functional mix and accessibility – in fact something else is unfolding before our eyes. We can speak of a *new* sort of space, which through a lack of courage and vision is not being labelled as such.

Pi de Bruyn – the architect and urban designer who developed the first master plan for the Zuidas – argues that someday homeless people will be roaming the Zuidas.⁵ This, in his view, represents an urban adaptation scenario, in which the dynamics of housing, work and leisure will evolve into manifestations of the 'undesirable'. The irony is that the post-war apartment blocks of Buitenveldert start fewer than a

5. Pi de Bruyn, 'Stedelijkheid maken' in *Creativity and the City: How the Creative Economy is Changing the City, Reflect #5* (Rotterdam: NAI Publishers, 2005).

Logo Parc, visualization of the Zuidas research, 2006.



hundred metres away – housing built as part of an ideal that everyone should have a roof over his or her head.

A lot of criticism, such as that fired at the Zuidas by the activist collective ‘Loesje’ through posters, is directed at the reflective high-rises. However charming it may be, this criticism is too light, and it also ignores the as yet unnamed essential characteristics of the Zuidas as a new type of space. In the context of globalization, this could be a space in which the old patterns of the city do not apply. In other words, a space with *new* features rather than bad features. We attempt to outline a few of these features below. Inevitably these are linked to the unfulfilled hope that the Zuidas will become a real public space – read: a real city.

Extra-Societal, A-Social, Post-Public

The law, financial and administrative services and banks are socially visible sectors. In parallel to a broadly shared societal interest in money matters (measured for example by the popularity of such periodicals as *Quote* and *Miljonair Magazine*) top attorneys and top bankers have become public figures. As a business centre, the Zuidas has primarily attracted banks and law firms – to a place, or space, actually situated at a distance from the society in which the law and capital exercise their influence.

The quality of a city like Amsterdam was always that the top banker would enjoy the sandwich s/he’d bought from the local baker ‘on the canal’, alongside the squatter, the Rastafarian and the artist. Now entire professional groups are being transplanted to a place where such confrontations no longer take place. In fact lawyers, bankers and accountants are being shipped to a reservation, where, among their peers, they are no longer bothered by society.

One could argue that at the Zuidas it is not so much the city as the society in all its diversity that is dispensed with. Not only is there no one walking around there without a professional interest or objective, but even the future ‘housing functions’ of the Zuidas are being laid out in a direct extension of the spending patterns of bankers and lawyers. Work will be done under the concept of ‘living as in a hotel’, in which completely self-sufficient apartment complexes (comparable to Detroit and Boston on the recently redeveloped Oostelijke Handelskade in Amsterdam’s Eastern Harbour District) are open for tenancy, with built-in parking, laundry facilities, swimming pools, health clubs and grocery delivery and other shopping services.

People are working and living in an enclave that has become far more than a city in itself – an extra-societal service centre. An ABN-Ville. You can lounge and drink cocktails far removed from everyone, surrounded by top design.

Meanwhile the urban quality produced by this vision is in fact a-social, in the sense that when users of the space choose the public domain, it is their second

choice. People spend time on the street in order to smoke, or to make a personal phone call.

According to Maarten Hajer and Arnold Reijndorp, the public domain is created by confrontation: ‘Different groups are attached to a particular place, and one way or another they have to come to an accommodation.’⁶ By this definition, the Zuidas is not public domain, because no negotiation takes place

6. M. Hajer and A. Reijndorp, *In Search of New Public Domain* (Rotterdam: NAI Publishers, 2001).

about the use of space. One cannot consider the lawyers and bankers as different groups, because by ‘difference’ Hajer and Reijndorp meant social classes, ethnicities and age groups.

Because the Zuidas is not private domain either, we shall have to accept the area as a new form of space, which we will provisionally call *post-public*. As in post-punk, there are all sorts of elements that are reminiscent of the previous, obsolete stage, and it is precisely these elements that continually obscure perspectives onto new opportunities the Zuidas entails as a hybrid space. The Zuidas is first and foremost a policy city, and the policy ambition of creating public space may conflict with the most important function of the Zuidas: keeping Amsterdam on the map for the international business world.

Investors and others with interests tied into the Zuidas will violently disagree with this. In fact every discussion about the Zuidas bogs down the moment we – or others – draw any sort of conclusion from the current state of affairs at the Zuidas. According to the partners and investors of this mega-project, any such conclusion is by definition premature: even though the Zuidas has been operational for years, it is still, they say, a *work in progress*.

In their study, Hajer and Reijndorp cite Marc Augé, who coined the influential term *non-place* for the featureless, relationship-free, ahistorical spaces of mobility and consumerism. ‘The space of non-place creates neither singular identity nor relations; only solitude, and similitude.’⁷ 7. Ibid.

A crucial point is that Augé presents the absence of ‘relations’, connections, as a criterion for a non-place. This of course begs the question of whether the Zuidas meets all the criteria for a non-place, the way industrial estates and shopping centres do. The answer is that the Zuidas may not have a history, but it *does* have connections. The Zuidas is permanently linked to the global flows of money and information, for example. It is a place that is alienating for Amsterdam, but very familiar when seen from New York, London and Singapore. This place is anchored within a network.

Characteristics of the Post-Public Space

Architect and researcher Lara Schrijver poses the question of whether public space is an ‘active’ or ‘passive’ concept: ‘Ultimately the street itself is not always considered a vital part of the public space – this simply begins where the private

space ends . . . whereas actual public-ness, or the public domain, traditionally begins where we engage in formal contact with others.⁸

8. Lara Schrijver, 'From Public City to Publicity . . . and Back Again? Collectivity in the Twentieth Century', *Oase 59* (Amsterdam: SUN, 2002).

Post-public space 'appears' when an urban inventory stands at the ready – rubbish bins, bicycle racks, public greenery, public art, street lighting and even shops – yet is hardly, if at all, used in the presumed or prescribed manner, or when the use of it produces no more than the sum of its parts. Such space is only public in a *passive* sense: all the conditions are met, except actual use – contact and therefore confrontation with others.

Now that we have defined the post-public space as a space 'in a certain state', we can ask ourselves whether the Zuidas is not in fact *pre-public*. Isn't it after all *a work in progress*?

This is certainly its ambition. But this ambition is not always propagated with equal enthusiasm by all parties involved. Even in the promotional material, differences in emphasis can be found. All the parties want the Zuidas to be fantastic. But the emphasis on the public space – including photomontages of busy plazas – is only present in advertising material signed 'Zuidas' and on the website Zuidas.nl. These make references to terraces, future festivals, the street lighting and the high-quality materials used to pave the streets: Belgian bluestone cobblestones and veined granite, tested for durability: 'Test subjects included women wearing various types of shoes and a wheelchair user.'⁹

The project developers of the buildings – including Fortis and ING Vastgoed – place the emphasis on entirely different things. Lifestyle and individualism strike the predominant note here. Notwithstanding such hopeful terms as 'shopping', 'strolling', 'lounging' and 'dining', no promises are made with regard to a public domain. These are the same words the in-flight magazine *Holland Herald* uses to lure a tourist to Barcelona.

ING Vastgoed, according to Renée Hoogendoorn, is mainly interested in the value of the real estate, and 'culture' is employed to calculate this value: 'From the start we were conscious of the fact that culture was crucial for the image of the project area. Since we know that real estate in the vicinity of cultural institutions such as museums usually represents a somewhat higher value, we declared ourselves ready to contribute this future surplus value in advance, as part of the foundation costs for the development of a museum . . . and the result is that we are now getting Platform 21.'¹⁰

10. In B. van Ratingen, 'Ik zie ik zie wat jij niet ziet', *Real Estate Magazine*, May 2006.

Quality of Buildings and Public Space

The *non-use* of the public space is in itself the result of relationships and connections becoming virtual, whereas in a more traditional concept of the city they

were still tangible. The hybridity and computerization of the post-public space is thus expressed in desolation.

In the *Amsterdam Creative Index* Maarten Hajer is quoted as calling the Zuidas a 'blank zone', 'with no identity, and therefore a place no one wants to visit'.¹¹

The author, Jaap Huisman, notes that everyone agrees that the 'quality' of the

11. J. Huisman, 'Harmony and dissonance', in: *Amsterdam Creative Index 2006* (Amsterdam: BIS Publishers, 2005).

public space and the architecture of the Zuidas will be a decisive factor in its success. The Amsterdam professor Robert Kloosterman says: 'Have Koolhaas design a museum, or MVRDV. The masses will flock to it.'¹² 'Quality' in architecture thus seems to be measured by the

12. *ibid.*

name recognition of an architect. This has already been exploited by naming the eye-catching buildings of the Zuidas after their architects. 'Quality' coincides with the most dominant convention of this district: the status of the builder.

But how do we measure the 'quality' of public space? Ruwan Aluvihare, of the Physical Planning Department of the City of Amsterdam, is the landscape architect who designed the public space of the Zuidas, and in his case neither his first name (as in 'Rem') nor his last name (as in 'Koolhaas') suffices as proof of 'quality'. 'The streets running north to south will be tree-lined; those going east to west will be narrower, with trees on the north side only. All will be green lanes that serve to relieve the glass and steel mass of the office blocks.'¹³ The greenery is intended to 'undo' the buildings!

13. J. Huisman, 'The art of compromise', in: *Amsterdam Creative Index 2006* (Amsterdam: BIS, 2005).

Ruwan Aluvihare has 109 Google hits. He is, among other things, the designer of the Zuidplein – the first public work to be completed in the context of the Zuidas. A brochure published by the City of Amsterdam on the occasion of the Zuidplein's completion contains several noteworthy remarks. Such as: 'In the plans for the Zuidas, the Zuidplein will become a lively abode . . . where people spend time, meet one another, and where strangers get acquainted.'¹⁴

The planners know that only then will the Zuidas become public domain. And:

14. See City of Amsterdam Physical Planning Department, *Plan Amsterdam*, op. cit. (note 1).

'There is room for market stalls and other ambulatory trade.'¹⁵ Yet whatever 'ambulatory trade' might be, you find no market stalls on the Zuidplein. 'Cafés, a supermarket, a hairdresser's, a dry-cleaner's, a bookshop and a wide array of smaller shops make for a lively atmosphere.'¹⁶ The liveliness of the dry-cleaners has yet to be proven. 'The newly constructed buildings on the west side of the plaza, with a height of 104 metres, provide a metropolitan atmosphere, one of the characteristics of the new Zuidas city district.'¹⁷ The metropolitan atmosphere as an *a priori* characteristic of the Zuidas is pure suggestion. But: 'The role of the greenery in the densely built-up Zuidas is crucial, as the district will include many high-rises. Therefore it has been decided to give the greenery a vital role as a counterpoint to the built environment.'¹⁸ And: 'The Zuidas will . . . become a landscape.'¹⁹ But: 'The trees

15, 16, 17, 18, 19. *ibid.*

will be replaced once they get too tall, and a warranty period of 10 years has been agreed. The growing conditions selected stipulate that the larger species of trees never reach full size.’²⁰

20. *ibid.*

Logo Parc: A Design Challenge for the Post-Public Space of the Zuidas

The ‘quality’ of the architecture of buildings proves entirely incomparable to the ‘quality’ of the public space. That of architecture begins with the contribution of an architect to the image of the Zuidas – whereby a less tangible quality like a ‘brand’ is meant as well (see Koolhaas, MVRDV) – which in and of itself generates streams of visitors. The quality of the design of the public space is based on concrete objects with intrinsic qualities, such as market stalls, greenery and durable street paving. Aside from the irony in the designers wanting to create a market square across from the World Trade Center, we have already noted that the post-public space emerges when an inventory of the classic public space is made ready as a matter of policy, and this is then not used, or not used with the expected consequences. The question is: doesn’t the post-public space entail a *new* design challenge?

The project *Logo Parc* is an attempt to give shape to this challenge. The project began with a critique of the Zuidas as a symbol, in a historical comparison with the architectural representation of political ideas, as seen in the parks of Versailles and La Villette. At Versailles, the territorial power of France and Louis XIV;²¹ at La Villette, the intended ‘confrontation’ in deliberately uncomfortable pavilions of revolutionary aspect.²² At the Zuidas – which embodies the power of the economy – a designed representation of an idea is missing. The analysis of the Zuidas along these lines continues, but the project is now concentrating on an overall, critical look at the public spaces of the Zuidas.

21. C. Mukerji, *Territorial Ambitions and the Gardens of Versailles* (Cambridge, Mass.: Cambridge University Press, 1997).

22. See Y. Futagawa, *GA Document Extra 10: Bernard Tschumi* (Tokyo: A.D.A. EDITA Tokyo Co., Ltd., year).

As we have seen, this space is complex because public life is uncommon there. The present public space of the Zuidas has been developed based on conceptions of as well as calculated in the direction of forms of ‘desirable’, and therefore traditional, city life. It seems this choice was made in order to forestall a potential doom scenario: that the Zuidas should become a costly but moribund office park, deserted after five o’clock in the afternoon. In contrast with a more traditional critical outlook toward the Zuidas, *Logo Parc* is not concerned with softening or turning back the Zuidas into a traditional city.

Our research shows that ‘quality’ for architecture and public space is interpreted in highly divergent ways. The architecture at the Zuidas is overloaded with authorship – important buildings are named after their architects – while the identity of the public space emerges anonymously. Various architects proposed public works for the Zuidas in its planning stages, but none of these were imple-

mented. In at least one case, that of the Zuidplein, a simpler plan was inserted into the process by municipal architects and implemented.

Challenging new ideas are therefore badly needed at the Zuidas. Certainly if the intended use of public space and the urban expectations for the district do not go according to plan. This has led to the introduction of the term ‘post-public space’, where a clear lack of urban street life is not interpreted as regressive or ‘under construction’, but as a departure point for new urban strategies.

Logo Parc views its own proposals as derived from four programmatic layers that have been given little chance in the current design yet are essential ‘public domain’: landscape, communication, social life and virtuality. These elements, which range from the concrete to the intangible, are essential ingredients for a twenty-first-century post-public space, in which an overabundance of digital technologies and networks develops in parallel with an increasing physical distance from the historical city centres. This creates different forms of public behaviour. The public space represents, in potency, the symbolic dimension of this behaviour.

Play with Time and Space

Optionaltime by Susann Lekås and Joes Koppers

In Almere's new city centre, Susann Lekås and Joes Koppers are creating a work of art entitled *Optionaltime*, which plays a fascinating game with time. The screen is literally a hybrid space and mirrors both the real and the virtual surroundings. On screen, they are mixed together.

'Time is a measurement generally considered to be linear and we believe that this perception is limiting.' Susann Lekås and Joes Koppers open the introduction to their collaborative project *Optionaltime* (2002-2006) with a slightly bold statement. The project aims at creating 'a non-linear and therefore less limited experience of one of our most influential navigation systems: time', using new media in public space. At stake is nothing less than neutralizing the absolute difference between past, present and future in the experience of time in public space. Thereby, a characteristic aspect of virtual space (computer, film, narration) in which, as we know, time can be stopped, slowed down, rewound and fast-forwarded, is introduced into 'real' reality. Can this be done? For that we need, according to Koppers and Lekås, new tools and a new, hitherto undefined, medium: 'interactive film'.

The first 'installment' of *Optionaltime* (2002) was an installation in a small confined space in De Paviljoens, Almere. On one wall, an image was projected of people apparently standing in an elevator, waiting to arrive at their floor. Visitors saw themselves as in a mirror, entering the 'elevator' and waiting alongside others. Without knowing it, the viewers' movements controlled the speed and direction of the digital video (the 'mirror'), as a result of which, as one visitor remarked, 'we (the visitor and his "mirror image") did not move at the same pace. That is impossible, I said to myself and looked again. Now we were synchronous.' That, most probably, was because the visitor stood still with amazement, triggering the video to play at 'normal' speed.

In *Optionaltime 2* (2004), visitors of Nemo in Amsterdam positioned themselves before a large screen on which a scene was projected which was recorded in the same space. Various people enter the image, exit again, talk with each other or do something. But when walking in front of the screen, or moving more than normally, the viewer sees some actors walk backward or faster forward, while others move on in 'normal time'. Three timelines, in fact three separate digital video tracks, are seamlessly mixed and can be separately speeded up, slowed down or played backward, dependent on the movements and position of the viewer in front of the screen. Those who figured it out unconsciously started to dance in front of the image to try and see which movement would influence which part of the video in which manner.

In their proposal for *Optionaltime – Public Expanse*, the audience sees itself reflected in a large mirror in a public space – a station, a waiting room, a lobby, a public square. The 'mirror' allows who's in front of it to interact by moving, to manipulate one's own image and that of others, now, a while ago, to change the pace of people who have actually left the space, or who are just passing by while one's own image of a minute ago is standing alongside them. Beneath all of this – but visually seamlessly merged within the same space and undistinguishable from the other image layers – is a layer prepared by the makers of the installation, a fictional story which is mixed in with the feeds from reality and also reacts to the movements of the audience before the screen.

In all cases, the image does not comply with the laws of linear time. Koppers and

Lekås want to make this virtual experience conceivable in the ‘real’ world. The proposal for *Optionaltime – Public Expanse* won a second prize in the international FusedSpace competition for ‘new technology in/as public space’ in 2004.

Manipulation

Since then Susann Lekås has developed the concept further on her own. Meanwhile, the City of Almere, via art space De Paviljoens and supported by SKOR, has commissioned a version of the project to be realized in the public space of the to-be-built new town centre, on a public square in front of the projected Urban Entertainment Centre. A large screen, designed by NPK, looks like a windscreen in front of the centre, but will partially serve as projection surface on which *Optionaltime* will show a manipulated reflection of the backdrop: passers-by, people who have just sat down on one of the benches in front of it, kids skating on the square, combined with previously made footage of actors in the same space . . .

The project will most probably be finished by the end of this year or the beginning of next year. But what can already be said is that it ‘makes the temporal character of (public) space visible and fosters the questioning of our naive understanding of the linearity of time and space in a meaningful way.’ That was media-artist and -designer Joachim Sauter’s comment, one of FusedSpace’s jurors. The project shows what is going on in the mind of a ‘passer-by’, or Baudelaire’s *flâneur*: A non-linear to and fro of actual experience, marginal musings connected to it and recurring images from our not yet organized short-term memory occasionally linked to associations with older memories or fantasies. The *déjà-vu* ratio of such mixed and undirected reveries is quite high (have I seen this person before, or did he just step into my field of vision?), and makes one constantly shift between actual observation and a kind of mental replay. The design of *Optionaltime* complicates that internal mix-up of seeing/being seen by adding an external version of it – a public expanse of an intimately private space. The design is interactive in that it challenges passers-by to both mentally and physically take part in it, even if they don’t master all the controls.

This participation makes the viewer aware of another aspect of today’s public space: that he is constantly watched and recorded by surveillance cameras. *Optionaltime*’s makers want to be ‘transparent’ about that: ‘what is recorded is shown and nothing is archived. All images are being processed in real-time by a computer.’ And manipulated real-time by the viewer/*flâneur*. Lekås wants to overcome the feeling that quite a few public spaces are non-places, with little or no spontaneous interaction; ‘The moment a person realizes that his movements have a visual impact on the mirror image of a stranger and decides to play with it, that stranger might be looking in the mirror too. A moment of contact that may be continued . . .’

Optionaltime 3 is a hybrid space in the most literal sense, a spatial object, which not only reflects the flow of its surrounding reality, but also that of a virtual world and of interaction. The windscreen – that is the main recognizable form of the mate-

rial object, which only on closer look becomes a projection screen – is an apt metaphor for this hybrid space: it literally screens off (the space behind it remains visible, but is not directly accessible anymore), but at the same time, it allows you to experience the flow behind it without actually getting sucked into it. That condition, again, is characteristic of that of the *flâneur*, the disengaged pedestrian who mirrors himself in anything he sees around him – participant, and not. In spite of the general push towards immersion, this is an aspect of any mediation: a form of detachment, which makes participants of even the most interactive of environments *at least also* observers.

It is this reflective potential that *Optionaltime 3* uses in part explicitly and in part implicitly. In the form in which it will be realized now – announced as an ‘interactive movie’ – only part of *Optionaltime*’s medial quality is expressed: the awareness of ‘seeing/being seen’ mentioned earlier, and the interactive manipulation of time in various layers of images. But it doesn’t take much imagination to see that, as a *medium*, the hard- and software used for the project has a lot of potential for changing the small public space in front of Almere’s Urban Entertainment Centre into a veritable hybrid space. In principle, it can offer an interface with similar spaces elsewhere and it is capable of mixing a great variety of combinations of information and visual entertainment. I therefore see *Optionaltime 3* mainly as a first version – test case and promo at once – of a merging of medium, content and hybrid space. I’d be happy to see a good curatorial strategy being developed for this medium on this spot, that over the next few years will use the full potential of this hybrid space.

links: <http://optionaltime.com>, <http://fusedspace.org>

Optionaltime 1, Joes Koppers and Susann Lekås.

Joes Koppers and Arijen Keesmaat (programming), with the cooperation of Therese Nylén; Yafit Taranto (styling); Kirsten Hermans (costume); Hadar Kadman (make-up/stills); Jonas Olsson (sound); Tobias Hirdes (set); Kirsten Hermans (image material).

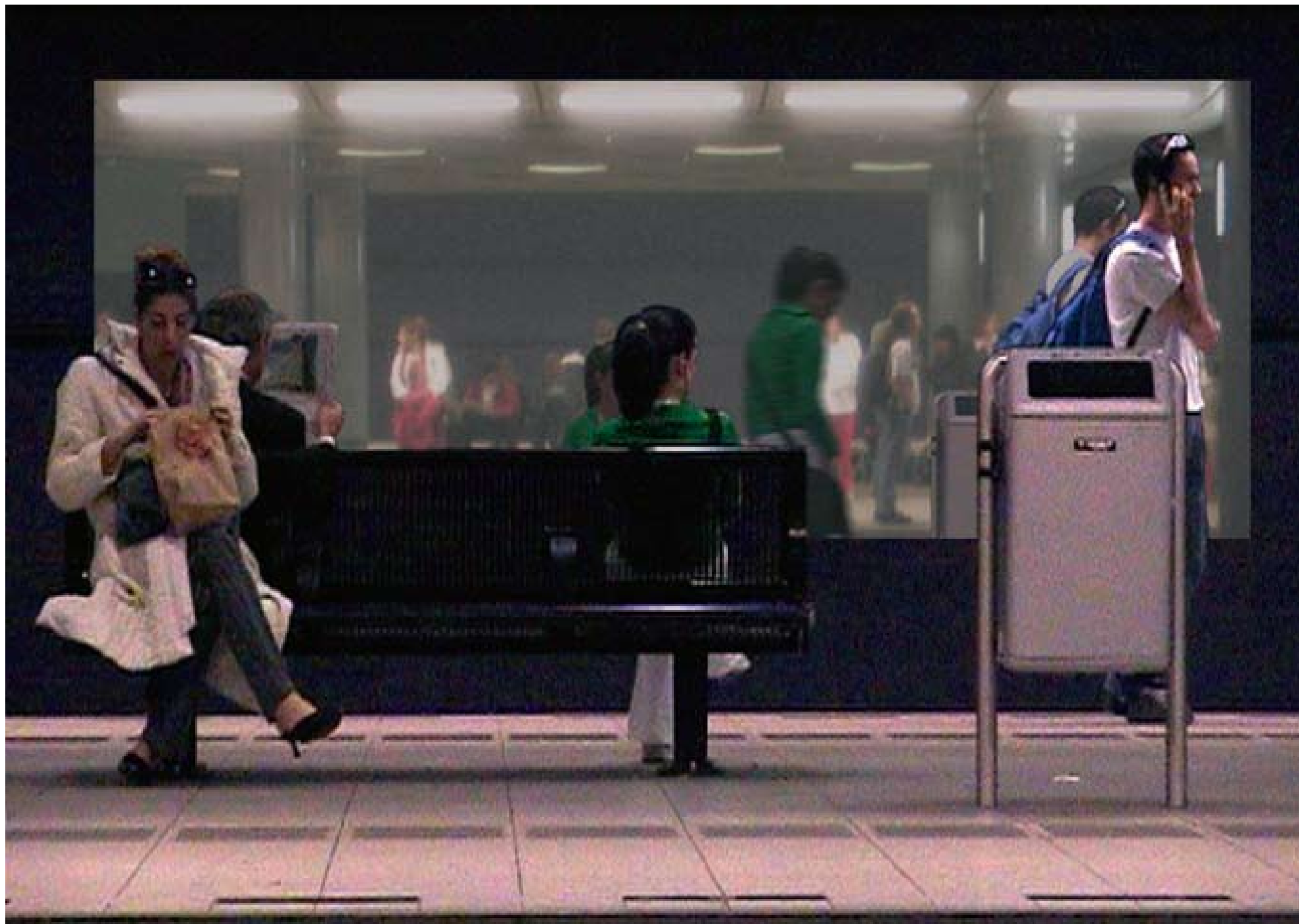


Optionaltime 2, Joes Koppers and Susann Lekås.

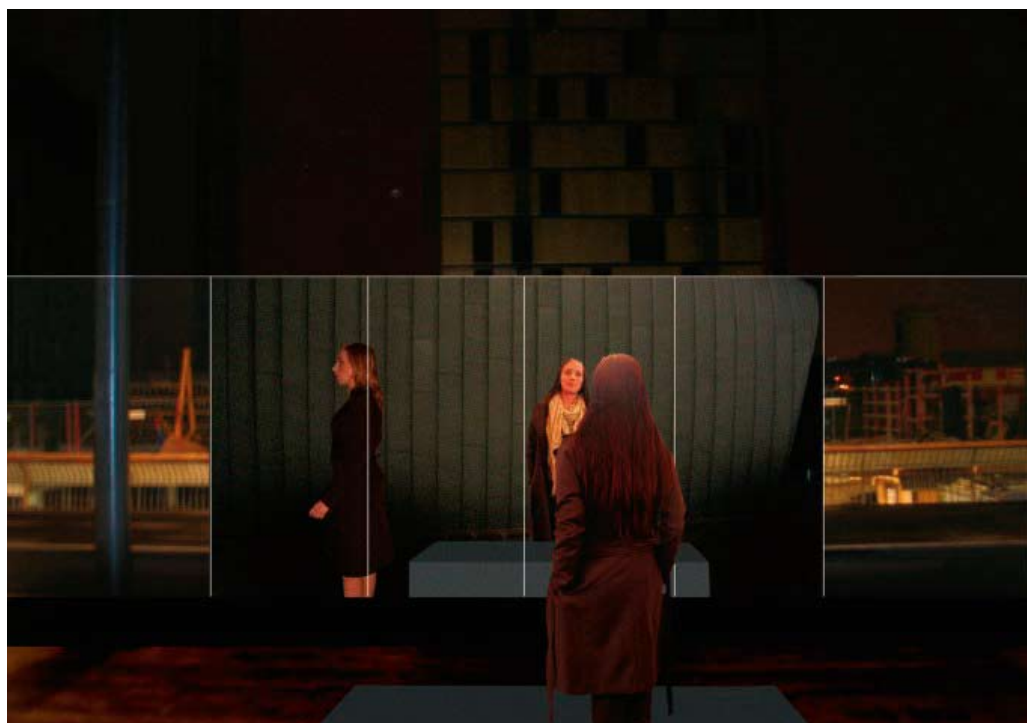
Susann Lekås (concept); Joes Koppers (technical concept); Arjen Keesmaat and Joes Koppers (programming) with the cooperation of Zara Dwinger, Esgo & Jori Groenendijk, Jeroen Koop, Niki Mens, Angelique Piovillio, Rutger Prommenschenkel, Marianne Stevens; Brigitte Hendrix, Maaïke van Spanje (styling); Katerina Brans (makeup); Tobias Hirdes, Daan Swart (set); Loek Geradtst (light) Kirsten Hermans (image material).



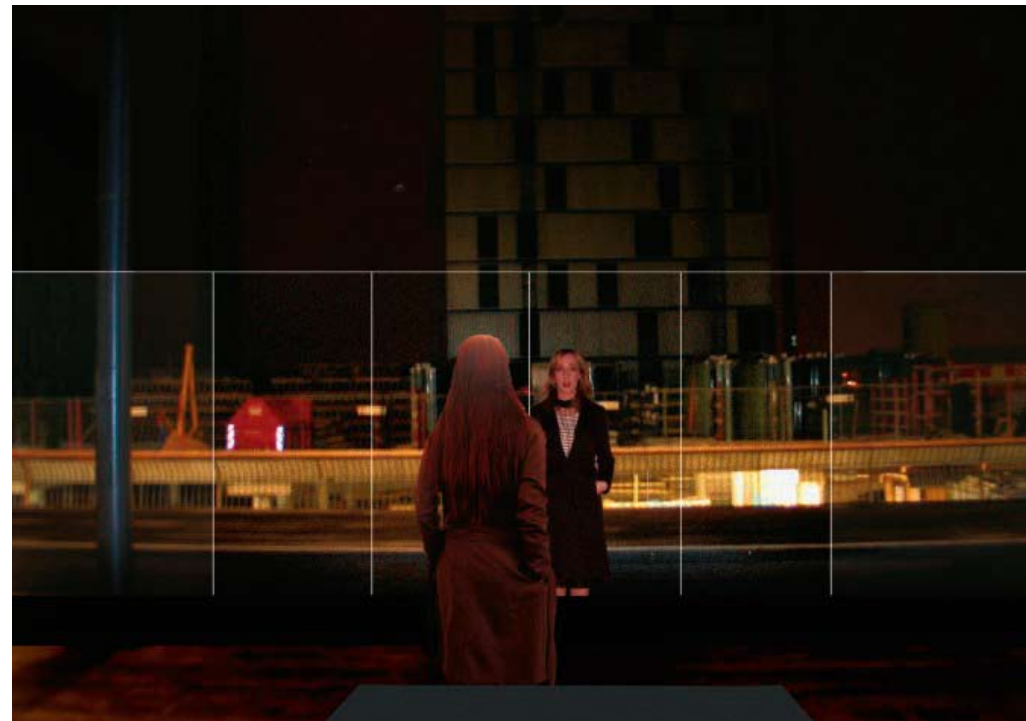
FusedSpace submission by Joes Koppers and Susann Lekås.
Joes Koppers and Susann Lekås (text); Susann Lekås (concept); Joes
Koppers (image material, technical concept).



Design for *Optionaltime 3*, Susann Lekås (concept); Thomas Gresch and Arijen Keesmaat (technical concept); Joes Koppers (original technical



concept); Thomas Gresch, Arjen Keesmaat and Patrick Machielse (programming); Kirsten Hermans (image material).



Publishing, Everywhere and Anywhere

Droombeek in Enschede

In 2000, an explosion in a fireworks factory wiped out the entire Roombeek district in the city of Enschede. Stichting Droombeek [Droombeek Foundation] responded with a digital project that enables individuals to call up memories of the area with the click of a mouse. Using digital technology, residents add their own images and stories to the website, which can then be accessed by visitors to the digital district, who may in turn add their own experiences to the mix. By linking the present to the past in this way, the website becomes a 'lived' space.

Events and places are inextricably linked to one another. Something happened here, or there. Sometimes we erect monuments, cement a memorial stone into a wall ('On this spot Wim van Est fell into the ravine'), or carve names into a bench or a tree. Places have memories. Nearly everyone has at one time or another wondered what a place looked like in the past and wanted to see and hear how it was in days gone by. The *Droombeek* project aims to record and make accessible the past and the future of Roombeek, the Enschede residential development that has been built on (part of) the site of the fireworks disaster of 13 May 2000.

On the website we read: 'Each place has its own memory. The physical space of the city provides us with a peg on which to hang our recollections. But what if the place is no longer there? What happens then to the memory of that place?' In Enschede the place – Roombeek – was violently obliterated, not gradually transformed in the usual way of inner-city locations. The fireworks disaster struck a deep wound in the soul of Enschede, which makes the question, 'what was it like here?' all the more poignant. As such, Roombeek differs from all those other new housing developments being built on virgin polder land.

How many legible memories are stored in a place that has evolved 'normally'? The age of the vegetation (tree rings), the weathering of a wall, fading graffiti. These are physical traces. But isn't it more a question of feeling than of a readily legible memory? The memory of a place is also stored in stories – for which we have language. Or in images – photos, for example. It is the task of historiography to make that past accessible and to allow it to live on and be revived. Which is why *Droombeek* collects stories about the Roombeek district. Or, as the site puts it: 'Together the residents have a story to tell about the district: from the shoe box in the attic and their own memory. Here these stories are unlocked and shared, in a joint venture for writing history and planning for the future.'

Embedding

At first glance, digital *Droombeek* is reminiscent of the neighbourhood websites set up in parallel with a particular housing development in order to get future residents involved with their new neighbourhood at an early stage. The other association that springs to mind is with story networks like Geheugen van Oost, in which the stories of residents of Amsterdam East are linked on the basis of meta-information. Neighbourhood websites and story networks both rely on the contributions and involvement of residents; they are out-and-out community projects. Their success depends on a number of factors, like design, the balance between the freedom to make individual contributions and editorial control, and embedding in existing structures. This last is one of the

reasons why they often collaborate with schools, local associations and old people's homes. *Droombeek*, too, is firmly anchored in the local community. It collaborates with, among others, local museums and the Enschede 'House of Stories', a pastoral care project established by Enschede churches in the wake of the fireworks disaster.

Droombeek is trying, as it were, to encapsulate the virtual 'genius loci' of Roombeek. And, like many other neighbourhood websites, it is also attempting, as Michel de Certeau would have it, to turn the empty place ('lieu') into an inhabited social space ('espace').¹ Its ambition is to transform the barely inhabited new-build district into 'social space' by the act of sharing stories.

1. Michel de Certeau, 'Spatial Stories', in: *The Practice of Everyday Life* (Berkeley: University of California Press, 1984), 117.

Droombeek is pursuing a dual strategy;

even a triple strategy, in that it can also be an instrument for helping former residents to cope with the traumatic history of their district.

Private stories become public and part of a political act. After all, in the classic view of things, making something public is a condition for political action. Because of the way the various collaborating bodies operate (the museum and the school 'ask' whether you would like to contribute) it looks like a top-down political action. Yet this is not the case. Rather, it should be seen as a first phase, a sort of 'kick-start', which will eventually result in residents contributing of their own accord. Moreover, residents don't have to write (or take photos or make videos) specifically for *Droombeek*; just linking content, which may well already be available elsewhere, to *Droombeek* is sufficient.

Once all this has been achieved, *Droombeek* will be a meeting place for the history of a place and a wellspring for the future filling-in of that place. The voices that will speak there will be the voices of the residents, voices from within the district; not voices sanctioned by a historian, not the voice of the mass media. *Droombeek* is 'common history', a place for the collective memory. Or, to cite de Certeau again: '[S]tories are becoming private and sink into the secluded places in neighborhoods, families or individuals, while the rumors propagated by the media cover everything.'²

2. Michel de Certeau, 'Walking in the City', in: *ibid.*, 108.

Well-Thought-Out

As a story network on the web, *Droombeek* still has some way to go, however. There are not enough stories and the content categorization needs a bit more fine-tuning. But the latter only makes sense with a greater quantity of content. Nonetheless, it would be a grave mistake to dismiss the project as 'an excellent concept, reasonably well executed, but . . .'. The real significance of *Droombeek* lies in the technical execution and its consequences. These are extremely interesting. *Droombeek* is above all a well-thought-out 'locative

Photo Edward Mac Gillavry



media project'. Each story in the *Droombeek* database is supplied with geographical coordinates; it is localized information. Those submitting a story can 'pinpoint' it to a specific location. Anyone who has a laptop with wireless Internet connection and a GPS receiver will in future be able to enter Roombeek and call up stories, images and sounds associated with the particular spot on which they find themselves – and even add to them.

Not all that difficult, you might think. Most of the technical infrastructure is already present. Assigning coordinates to objects in a database is easy, it is meta data, just like 'date and time', 'permalink' (the permanent Internet address of, say, a text), 'author' and 'title'. You could, for argument's sake, use GoogleEarth for the purpose. As long as you have wireless Internet access, of course. This is something of a stumbling block at present because, unlike the mobile phone network, it is not universally available. Many of us carry devices around with us that can register our location, and increasing numbers of enthusiastic walkers, long-distance cyclists and gadget junkies own GPS receivers. The integration of the various technologies into one handy device is still a problem, however. And that limits the scope of projects like *Droombeek* for the time being.

Framework

At this point in time (2006) *Droombeek* consists primarily of a website that was developed as a pilot project. Efforts are now under way to ensure that from the beginning of 2007, visitors to the various museums in the area will be able to borrow a handheld computer (PDA) with inbuilt GPS receiver which they can then take along with them on a 'digital' stroll through the district. The PDA would contain some thirty stories and five videos made by students of the local Academy of Art and Industry (AKI). That is in itself enough material for an attractive digital walk. But to generate the links that are needed for personalized walks, the content will have to grow considerably. And that may take years. The fact is that *Droombeek* was not created as a finished project but rather as a framework to be filled in by users. When the database contains thousands of stories, comments, videos and sounds, navigating or clicking through the stories will be a bit like logging on to the spirit of the place. Right now, however, there is little difference between that localized information and a virtual, on-the-spot information board.

Within a few years that will change and information will also be location-sensitive as a result of 'Geo Tagging' (adding geographical coordinates to information). That location-sensitive information will be supplied by anyone and everyone, so it is to be hoped that it will not take the form of unsolicited content (turn on the spam filters, please!) but of information that you have asked for – for example, by indicating during a walk through Roombeek that

you would like to read or hear the *Droombeek* stories. *Droombeek* would then be a filter, or meta tag. You would give permission for content with those characteristics to appear on your computer pod while you are walking through the neighbourhood. If an Internet connection is not available everywhere, the content you download might take the form of an annotated GPS walk, a collection of 'waypoints' with related information.

Possible Future

For the time being, *Droombeek* is just a website and a digital walk. But it also affords a glimpse of a possible future in which we will all be linking our stories, comments and 'tags' to places, quite literally laying a network of text, image and sound over the entire globe in what could be called a form of 'ubiquitous localized publishing'. It is vital to start developing projects and applications capable of conveying a meaningful experience in such a situation and in so doing become a form a public action, as virtual graffiti (carving your name virtually on a place the way people now do on information boards) already is and as story projects like *Droombeek* have the potential to become because – in theory at least – they turn a place into a lived space. It is possible that we have always done this: we tell stories in order to create space – the aborigines used 'songlines'. The difference is that in future we will be able to 'tune in' on any street corner to the murmurings and sounds of the place we are in, to its history, associated desires, irritations, traumas. Whether you want to hear that 'ubiquitous localized history' will – hopefully – be up to you.

Droombeek was developed by Map&Movie (cartographer Edward Mac Gillavry and documentary maker Peter Dubois) in collaboration with the Telematica Institute. The pilot project in the spring of 2005 was partly financed by Digitale Pioniers. The project proper commenced in May 2006 and will run until 2007. It is jointly financed by VSB Fonds, Prins Bernhard Cultuur Fonds, the City of Enschede, the Domijn and de Woonplaats housing corporations, Rijksmuseum Twenthe and Stichting Enschedese Aannemers.

<http://www.droombeek.nl>

Worn Technology

The Alteration of Social Space

Clothing and accessories have always served as a membrane between the outside public world and the inside private world of our body. But what happens when you put the mediated outside world on your skin and so largely do away with the boundary between public and private? Kristina Andersen and Joanna Berzowska, two artists and research workers, use their wide experience of working with wearable technologies – ‘wearables’ – to speculate on the nature of the experiences created by this increasingly permeable membrane.

Yesterday night, at the Depeche Mode concert, I was wearing silver stiletto heels and black slacks with lots of zips. My friend Vanessa was also in black, with copper-coloured heels, and both of us were wearing old-fashioned leather jackets with lots of metal trim. I don't normally dress like that. This was a personal fashion show, a bit of performance art that I thought appropriate for this kind of nostalgic event. My outfit let me get into the spirit of the performance, take an active part, have fun, cross boundaries and generally behave quite unlike a professor.

My baby likes to sleep in public places, safe in her pushchair. The movement of walking has a calming effect on her. I do my work on park benches, at bus stops, in alleyways, always on the lookout for a quiet spot; looking for shelter when

Wearable technology can be defined to include everything from the newest mobile computing devices, like the Blackberry, to the oldest man-made textiles, like Chinese silk, produced by spinning and weaving the secretions of silkworms. Midway between those two extremes come electronic textiles, whose close relationship with the field of consumer electronics suggests all kinds of different applications and lines of research.

By ‘electronic textile’ we mean a knitted or woven substrate that combines capacities for sensation, communication and power transmission, and also embodies the technology required for ‘interconnectivity’, allowing sensors and processors to form a network within a fabric. This usually involves the use of conductive yarns or threads incorporating a small amount of conductive material (such as strands of silver or stainless steel) through which electricity can flow. In this way electronic fabrics are able to allow low-level computer processes to take place on the body.

Electronic textiles have many applications, such as military-funded research into dynamic and interactive camouflage clothing, biometric sensors made of conductive yarns woven directly into training suits, and soft control keys for iPods, built into the sleeves of Burton jackets. Artists and designers are also working on reactive clothing, ‘second skins’ that adjust to the environment and the individual, as for example dresses that change shape or colour to conceal or emphasise, to reinforce and reshape one’s clothing.

The clothes we wear enable us to build microstructures that function on many levels, social, cultural, and psychological. Clothing is an artefact for disguise and performance, allowing us to create short-term scenarios and capable of giving rise to deep-rooted subcultures. The fact that it is such a powerful medium is hardly surprising. Designers and users of fashion have become expert in employing these different levels of communication by using shape, colour, structure, texture, and patterns to manipulate.

Digital technology and electronic fabrics give us more ways to design and process this communication to reflect the more subtle – or more poetic – aspects of our identity and background. Thus our gestures and life stories can be manipulated, reproduced on flexible displays built into fabrics, and so be made observable. A piece of fabric turns into a site for data processing: digitally enhanced garments can change and influence the possibilities of social interaction.

Mobile technology creates invisible communities which ignore spatial and geographical limitations. The Italian sociologist Fortunati sees the use of devices like the mobile phone as part of the ongoing destruction of the separation between intimacy and outward behaviour, between public space and private space.¹ We allow bubbles of intimacy to erupt in the street and on the train. The need for intimate communication overrides any concerns we might have about where we are or the people around us. The mobile phone, even when it is not in use, is a constant symbol of our connectedness with a select community, indicating by its presence that we and that community are constantly available to one another. This makes the act of giving someone your number an intimate gesture of acceptance and friendship.

1. L. Fortunati, 'Stereotypes, true and false', in: J.E. Katz and M. Aakhus (eds.), *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Cambridge, Mass.: Cambridge University Press, 2002).

Electronic fabrics make it possible for us to enhance our garments with technology derived from current research into human-computer interaction in the field of

midday exhaustion, beyond the power of coffee to fix, strikes again. Walking through the city with my voicemail/Internet device set to mute/vibrate in my back pocket, I can use my touch screen and keyboard; I can write, email and look things up . . . but what I really want to know is where are you (you, who are not present)? Are you awake? Are you all right? Are you hungry? Do you still remember?

These days I can think of nothing but my new lover. When we are apart I think of him and know he is thinking of me; if only we could be together, with our arms around each other. I miss him so badly that a text message is completely inadequate to express what I need to say to him. The smell of his skin drives me crazy. I need to feel him next to me.

Under my black slacks and leather jacket I am wearing frilly black lace

underwear. Earlier today, at the gym, I was wearing a comfortable stretch bra. Both of them made me feel good, but in different ways. Each one suited my body for the particular occasion. They smelled different too. One smelled of perfume, the other of sweat.

A small group of children are playing with an installation consisting of electronic textiles. A small boy, about four years old, is carefully examining a man's hat. The hat makes a singing sound that changes pitch when the hat is moved. He plays on his own for a while, slowly turning the hat and shaking it, and listening to the different

telematic availability and cooperation, research that has as its aim the promotion of communication and social relationships. Projects such as inTouch, undertaken by Hiroshi Ishii's Tangible Media Group at the MIT Media Laboratory, can give people at two separate locations the impression of touching one another (force and feedback).² The LumiTouch project allows individuals to use ambient light to sense one another's presence.³ All over the world, students in new media courses are busy creating innumerable remote communication devices to indicate someone's presence or emotional state. Vibrating cushions, pebbles that emit light, key rings that heat up and globes that change colour may indeed sometimes be frivolous, but have the merit of flirting with the boundaries imposed by physical space and breaking through the boundaries created by space and time. It will not be long before these kinds of communication devices become an integral part of our technology and so eventually are built into our clothes, making it possible for us to create private sensual structures containing tactile channels for physical communication.

Because it is so close to our body, clothing witnesses our most intimate behaviour. It registers our fear, excitement, stress and tension, by collecting sweat, skin cells, stains, and tears. It becomes worn and bears signs of our identity and our history.⁴ The body itself mediates between our internal and external experiences, and everything we wear is part of that mediation. The first five centimetres around our body is where we wear fabrics and leather, jewellery and finery. It is the space closest to us, a space in which we allow very few others, and at the same time a practical space for utilitarian things like

2. S. Brave and A. Dahley, 'inTouch: A Medium for Haptic Interpersonal Communication', in: *Extended Abstracts of CHI '97* (New York: ACM Press, 1997).

3. A. Chang, B. Resner, B. Koenner, X. Wang and H. Ishii, 'LumiTouch: an Emotional Communication Device', in: *Extended Abstracts of CHI '01* (New York: ACM Press, 2001).

4. J. Berzowska, *Memory Rich Clothing: Second Skins that Communicate Physical Memory, Proceedings of the 5th conference on Creativity and Cognition* (New York: ACM Press, 2005).

Joanna Berzowska, Hanna Soder, Marcelo Coelho, *Kukkia*, 2005.



Joanna Berzowska, Shirley Kwok-Choon, Marcelo Coelho, *Intimate memory shirt and skirt*, 2005.



mobile phones, watches and earphones. Everything that 'decorates' can be ranked on a scale of closeness to the body, from tattoos to clothes, from jewellery to gadgets.⁵ Clothes come somewhere in between. The same can not be said of tattoos. Stewart, a professor of English language and literature, describes tattoos as an extra surface of the body; the message, expressed in generally understood symbols, is fully incorporated into the skin.⁶ A pendant or gadget, a closed object standing out from the body, always runs the risk of being lost.

The addition of folds and pockets to clothing adds depth to the space immediately around us, rather than surface area, forming a kind of intermediate zone, not clearly belonging to the body, the intimate self, or to the public, communal self. This transitional area, with its hidden recesses, symbolizes, as it were, our power to direct our gaze inwards, at our personal thoughts and reflections, but also outwards. We could merge the layers and folds in the material with our personal technology, so creating a hybrid fabric which could both protect and expose us, helping us to concentrate on our inner being and at the same time to communicate with others.

It is important to think carefully about magic and enchantment. The surfaces and materials we weave give us magical powers which we previously lacked. How will we use them, for good or for evil? Wallace and Press, two British research workers at Sheffield University's Art and Design Centre, have pointed out that in principle magical properties and properties of enchantment can also create doubt, frustration, distrust and fear.⁸ We are enchanted when our possessions not only respond to us but do so in the voice of someone we love. But what if the voice is that of a stranger? Bennett, a po-

5. G. Simmel, *The Sociology of Georg Simmel* (New York: Free Press of Glencoe, 1950).

6. S. Stewart, *On Longing, Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham: Duke University Press, 1993).

8. J. Wallace and M. Press, *All This Useless Beauty. Finding Beauty through Craft and Digital Technology*, *Proceedings of Pixel Raiders conference 2*, Aberdeen, 2004, w.shu.ac.uk/schools/cs/cr/adr/research2/Pixelraiders2.pdf

*sounds it makes. Then he goes back to where he left his shoes, picking up first one shoe, then the other, turning them over slowly and shaking them, to see whether he really has a new magical power to make sounds.*⁷

7. K. Andersen, 'It felt like clown sparkles', *interactions* vol. 11, no. 5 (New York: ACM Press, 2004).

My favourite coat is coming apart at the seams. I can't bring myself to throw it out. I can't stop wearing it. It belonged to my mother when she was very young and now it is mine. Its value increases with every experience it shares. By now I have remade every seam; soon it will be the turn of the buttonholes. When I can find the right thread. I

remember repairing it when I was still a student, and here I am again, searching for thread of the right colour.

The edges of my scarf glow slightly as I walk out into the darkness and try to remember where I left my bike. It makes me smile; I know you are waiting for me and everything is fine. It makes me feel safe. It leads me home. The noise of the concert lingers in the fabric, completely in tune with the slight ringing in my ears; soon, when I dump it on the kitchen

litical scientist, describes the experience of enchantment as one of being 'both moved and swept along'.⁹ McCarthy et al., British researchers in the field of applied psychology, cultural studies and computer science, have written that 'enchantment does not necessarily imply that the object that enchants us must be novel or extraordinary, rather that we see how rich and extraordinary the everyday and familiar can be. In the prosaic world in which we live, all encounters contain the possibility of something unexpected.'¹⁰

It is precisely these unexpected and poetic possibilities that we want to explore. Starting from the definitions given by McCarthy et al., we will first try to understand the specific sensory potential of active materials, physical materials that have the power to change with time and be controlled electronically, to recognize and address the whole person with its desires, feelings, and anxieties, to create a sense of playful involvement, to provide scope for paradox, openness, and ambiguity, and to recognize the transformational character of experience.

Stewart has defined memory as both impoverished and enriched, something that presents itself as a measuring device, a 'ruler' to set against stories. We make special use of this tool in connection with the history of costume, to determine the extent of adjustments, repairs, alterations and changes of ownership. Mutanen, a research worker at the University of Helsinki, writes: 'Things that people make themselves have magical powers. They have hidden meanings that others can not see.'¹¹ Each hour spent on a garment adds value and associations and, more important still, lasting and tangible aids to memory.

A question that arises in connection with electronic materials and the continuing advances in potential memory

9. J. Bennett, *The Enchantment of Modern Life: Attachments, Crossings, and Ethics* (Princeton: Princeton University Press, 2001).

10. J. McCarthy, P. Wright, J. Wallace and A. Dearden, 'The Experience of Enchantment in Human-Computer Interaction', in: *Personal Ubiquitous Computing* (London: Springer Verlag, 2005).

11. U. Mutanen, 'Crafter Manifesto', *Make04*, www.makezine.com/04/manifesto, 2004.

capacity, is what is happening to the design of memory-rich materials and forms. How can we show their potential? What memories will be used in the design of a technology whose purpose is to remember? With traditional materials, coffee stains and the smell of smoke are short lived and so quickly erased from memory. How long is the short-term memory of active materials? Will they buzz with feedback or whisper repeated scraps of conversation? How can we build memories with the current generation of electronic fabric and wearable computing technology? And above all, how can we build in the need, capacity and desire to forget?

counter, it will go on buzzing for a while, reminding me of where and how.

Kristina Andersen, *Ensemble*. Photo Chris Rogers



Joanna Berzowska, Hanna Soder, Marcelo Coelho, detail *Kukkia*, 2005.

