

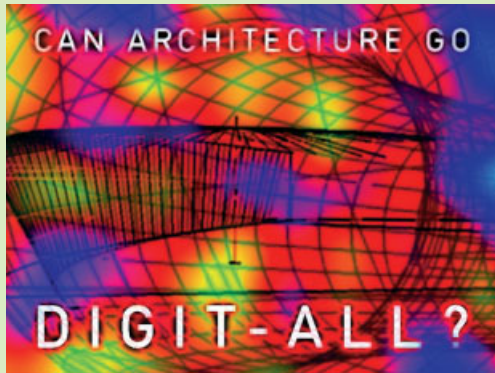


Architecture,

Wireless, embedded communication technologies with their emphasis on human connectivity rather than the networking of place to place, no longer require the interface of bricks and mortar. Ole Bouman discusses the implications of this for architecture in an age in which people rather than place become the interface. He also describes how his own curatorial work has, in recent years, engaged with time-based rather than location-based technologies.

Whereas time was once considered to be the fourth dimension, it is now the first. In understanding our place in this world, it has become increasingly important to answer the question of 'when' rather than the question of 'where'. In order to comprehend what our time might be, it is essential to reverse the angle. This places emphasis on knowing or choosing your moments rather than topocentrically reeling off an address. In this age of globalisation of mind and matter, body and soul, and you and me, culture is not about being a fixed identity, but about acting, intervening, deciding, relating and transacting. Whether we like it or not, if even our genes are being negotiated by genetics and our chemical elements being transformed in nanotechnology, why should we stick to the idea that we can define 'what' and 'where'? We had better concentrate on 'how' and 'when', and start all over again from there.

So if this is true, what does it mean to architecture? For quite some time now, architects and theorists have explored the new meaning of architecture beyond the classical world-view. They have been carefully examining the way architecture could represent another cosmic order (or disorder) beyond the humanist principles and the Modernist utopias. In their Postmodern work, they blew up the meaning of architecture. But this is now old news. We are currently entering an age in which architecture has to deal not with a blow to its world-view, but with a blow to the very stuff it is made of – matter, space and human relations.



Liquid, Gas

It is not enough for architecture to think about the temporalisation of space; it must face the spatialisation of time. Even moments need a setting – physical, digital – and this might be architecture. But to do this properly, one first needs to raise the level of time awareness among the architects. And this is exactly what this article is about.

One of the best modalities of time is connectivity. Through connectivity people synchronise, level and reassert their social relations. Still, if there is no urge, no reason, no necessity to relate to other people, there is no need for architecture. But today one could say that if there is not such an urge, there is not even humanity. In the wake of the paradigm shift described above, humanity is becoming a matrix rather than an ensemble of contingent communities. Architecture has to make the shift as well, beyond the enclosure of the sphere (to use the words of Peter Sloterdijk) and towards the spatialisation of moments in the matrix.

If you think about the way we relate to other people today; if you think about the revolution that has taken place in terms of connectivity; if you think about the dream of connectivity that underlies much of what the multimedia industries are doing these days – to connect to anybody, anywhere, any time through all the senses; and if you think about the basic agenda

of design and technology today – to enhance this quality of connectivity – no one can deny the effects on the discipline of architecture. In the traditional sense of enclosing, demarcating, particularising, isolating a certain programme, architecture even becomes a bit awkward. It is in a way a hindrance to this connectivity. Architecture in the old sense becomes an embarrassment; it slows things down and moves attention away from it. At the very least one could say it marginalises from it. Architecture, in this sense, is comparable to a tariff barrier, a protectionist policy or a relic of a lost civilisation.

An example of what I have been referring to, one that makes this all sound a bit less pathetic, can be found in the common discourse or everyday rhetoric of IT, in the ubiquitous phrase 'going the last mile'. It has been used in IT speak over the last 10 years to sum up the challenge of connectivity that technology was to take in order to make the leap from the network to the house, to the location. It might be said that architecture managed to survive that age of 'going the last mile'. Today, however, we are hearing in this field of IT discourse about 'going the last yard', which means that now it's no longer about reaching the house, reaching a place, but about reaching people directly. It's about wireless, embedded technologies. It's about latent technologies. You can no longer see them. You can no longer switch them off. They reach you directly. They no longer need this venue of the house. And they don't need the interface of bricks and mortar. In fact, it is

Opposite and above
Visuals by Ole Bouman and
Harold Houdijk for 'RealSpace
in QuickTimes', the official
Dutch exhibition at the XIX
Triennale di Milano, 1996
The exhibition was curated by
Bouman and designed by Ben
van Berkel, with art direction
by René van Raalte. The
visuals appeared in the
accompanying book *RealSpace
in QuickTimes: Architecture
and Digitization*, Netherlands
Architecture Institute (NAI),
(Rotterdam), 1996.

The real revolution is to come, when 'genetech' and 'nanotech' will merge with 'infotech'. At this point, it is not just the meaning of architecture that becomes arbitrary, but its function of shelter, occupation, enclosure and material consistency.

people who are now the interface. Furthermore, it wouldn't surprise me if, within 25 years or so, people will be talking about 'going the last inch', which would mean that connectivity had become all about reaching the brain directly, no longer needing any hardware and software, but depending instead on 'orgware' and 'wetware'. The real revolution is to come, when 'genetech' and 'nanotech' will merge with 'infotech'. At this point, it is not just the meaning of architecture that becomes arbitrary, but its function of shelter, occupation, enclosure and material consistency.

So, in the context of this, it is worthwhile elaborating on some curatorial and editorial projects I have been involved in over the last 10 years that underscore this trajectory and represent flashpoints of my autobiography.

Prior to my curatorship of the first project – the 'RealSpace in QuickTimes' exhibition (the Dutch entry to the XIX Milan Triennale staged in 1996) – I was working as a cultural historian and teacher. At this time I used to describe buildings as clocks, as machines that commemorate; they measure the time of history, and highlight specific events, moments or people, in history. In this sense they are about turning points in time. But these static objects of the past, of architecture as we have known it for such a long time, were also clocks in a more cyclical way. They organised our sleeping, our working, our cooking and our meal times. Ordinary buildings – potentially offices or houses – were all clocks in that respect. They had this special capacity to synchronise people and to get them together.

However, the presence within society of machines to synchronise people and, as such, the stories they tell about human culture, became problematic in the light of new emerging phenomena that raised the question of how architecture can deal with an asynchronic age

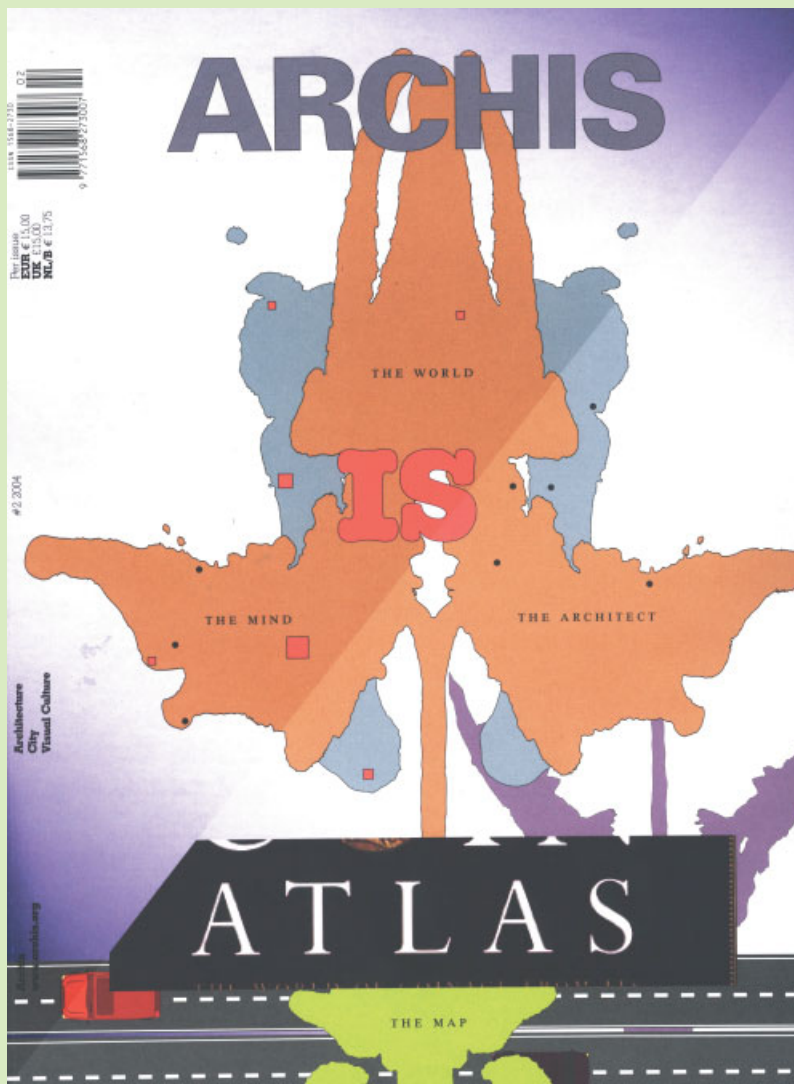
where people connect to each other in an asynchronic way, no longer being compelled to the adjacency and synchronicity imperative of human interaction, and connecting to each other just as they decide, very likely now by email for example, and using all kinds of visual interfaces that work asynchronously.

The question raised by 'RealSpace in QuickTimes' was: How can architecture adopt a technology which is in itself time-based? I tried to single out two specific aspects of the way in which digital technologies had incredible implications for architecture. The first centred on the relationship between architectural design and computer-aided design, observing the strong divergence between designers who predominantly merely adopt new technologies to facilitate the old design process, trying to make it easier, and the very few architects who have applied these new design instruments to the task of renewing and innovating through design, trying to find new forms, new strategies, new processes and new techniques. But the same polarisation applies to another important implication of these new technologies – not simply to the design of space, but to the experience of space. Again, we see an incredible number of people trying to adopt these new technologies to make environments smarter, smoother, more neutral, and capable of being monitored. However, in contrast, there are relatively few trying to use technologies facilitating smart environments to enhance people's experience, to make it more complicated but also more challenging.

So there is an opposition between this technology-driven attitude in the adoption of new media in architecture and a more user- or artist-driven attitude. In other words, there is a new technology that only produces more of the same, yet also contains the vital potential to produce a new practice, for making as well as experiencing architecture. The prediction was that this divergence of ambitions in the use of new media would be a constant pattern in the future.

The next project reversed the title of the previous one to produce 'QuickTimes in RealSpace'. Here, I tried to deal with the way in which spaces have become speeded up, quickened, and now tend towards a more liquid condition. This project was widely featured in *Archis* magazine in 1998 and became the topic of various of my public lectures. I attempted to single out four different design modes to see how each worked: thinking about how one could design with new media in terms of trying to make space more liquid, trying to enhance the experience, and trying to merge the different dimensions of the experience.

The first, most basic yet still very popular way of achieving these aims is simply to animate space. If architecture can no longer be just a dumb object or a static shelter alone, and if you want to do more, you can at least animate the surface by means of



Top
Cover of *Archis* magazine, No 2, 2004: editor-in-chief Ole Bouman, designers Maureen Mooren and Daniel van der Velden.



Bottom
Cover of *Archis* magazine, No 2, 2002.

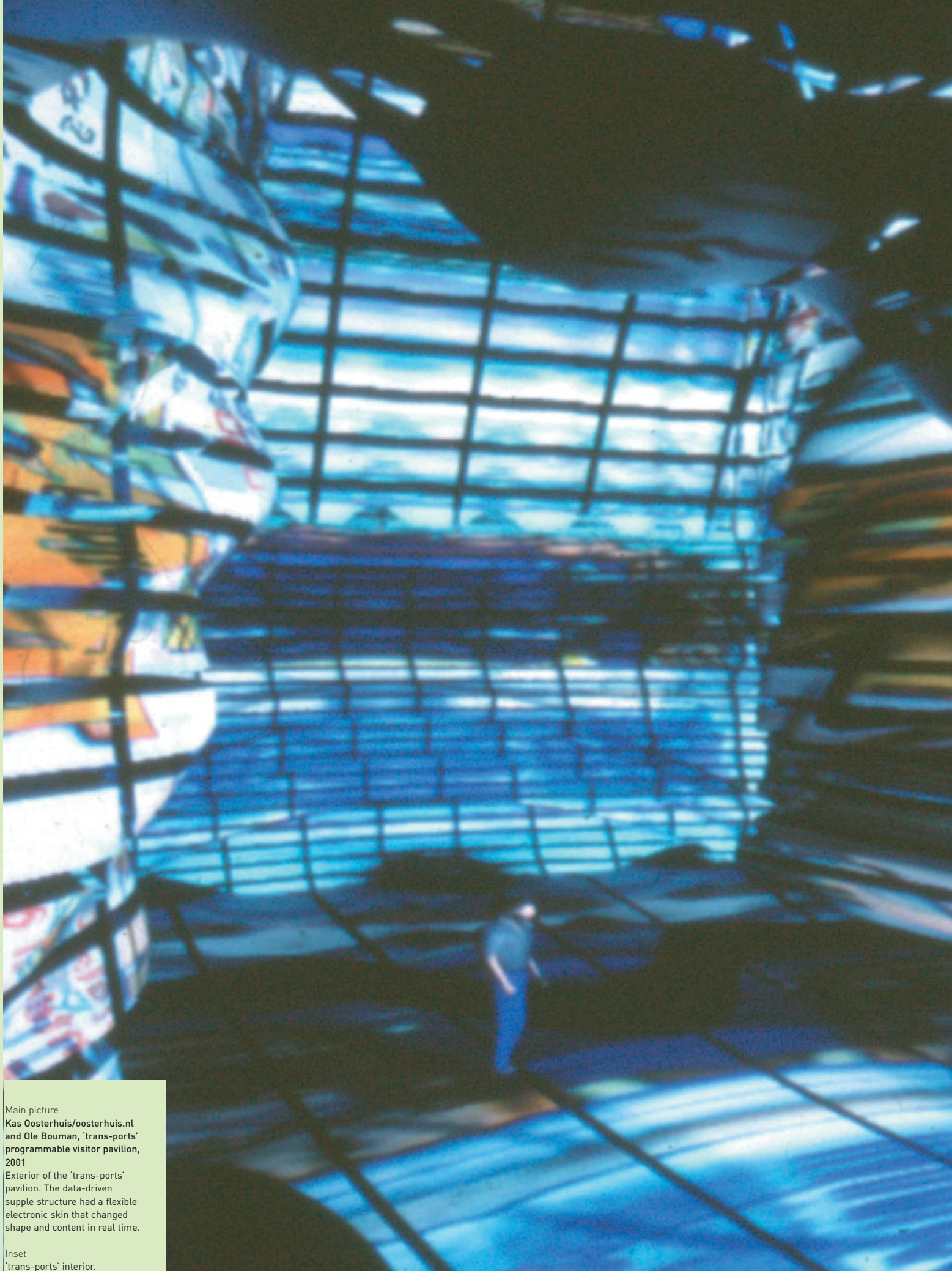
projection technology. The next stage could be to also make it interactive – and moreover make interactive spaces. Surfaces are made interactive through touchscreens, through joysticks, but also through invisible sensor technology. The third step would be to bring your environment alive, to merge different environments remotely from each other by using and inventing interfaces and overlapping the environments, for example by using the projections of one space to animate the space in the other place. The fourth stage would be to go online in order to connect remote environments, merging digital and physical environments in a single interface, accessible both in the analogue world and on the Internet.

So in this largely theoretical project, I gave a prospective overview of the consecutive steps architects make in merging physical spaces and virtual ones, overcoming the sterile dichotomy between the analogue and the digital world. On a practical level, between 2000 and 2002 I worked with architect Kas Oosterhuis on a prototype for 'trans-ports', an interactive visitor pavilion that aimed to integrate all of the aforementioned stages. Four years later, we now see a lot of surface animation, quite a few interactive environments, some interesting examples of interconnected spaces, and a small number of well-conceived fused spaces with both a real and a virtual interface. It is not difficult to predict that we will see a lot more of these kinds of projects in the near future.

The third project, 'Freeze', was an exhibition staged at the Arti et Amicitiae gallery in Amsterdam in 2000, and was more about feeling than about seeing. The main exhibit was a huge fridge: the visitor was invited to step inside its ice-lined interior, which immediately felt extremely cold yet also had the contrasting stimulus of projections on all four walls of its icy surface. Through the duration of the exhibition, the crystallisation process of the ice led to the projections gradually becoming blurred. At the beginning of the exhibition visitors could clearly see films about all kinds of digital lifestyles, but by the end, a few weeks later, there were no such projected films left, and all that remained was light play.

Inside the fridge with the door closed, you simply couldn't stay there for longer than five minutes before you were completely frozen and had to leave. This was about trying to create the sense of a 'freeze frame', a specific time span, or a personal attention span, which most of the time is extremely short. It was an attempt to enhance individual awareness of the very shortness of attention span, making the installation a medium to get rid of people as soon as possible.

More recently I have been examining the possibility of going beyond architecture as a physically structural discipline, in order to see how its very basic urge to relate people to one another can also be achieved



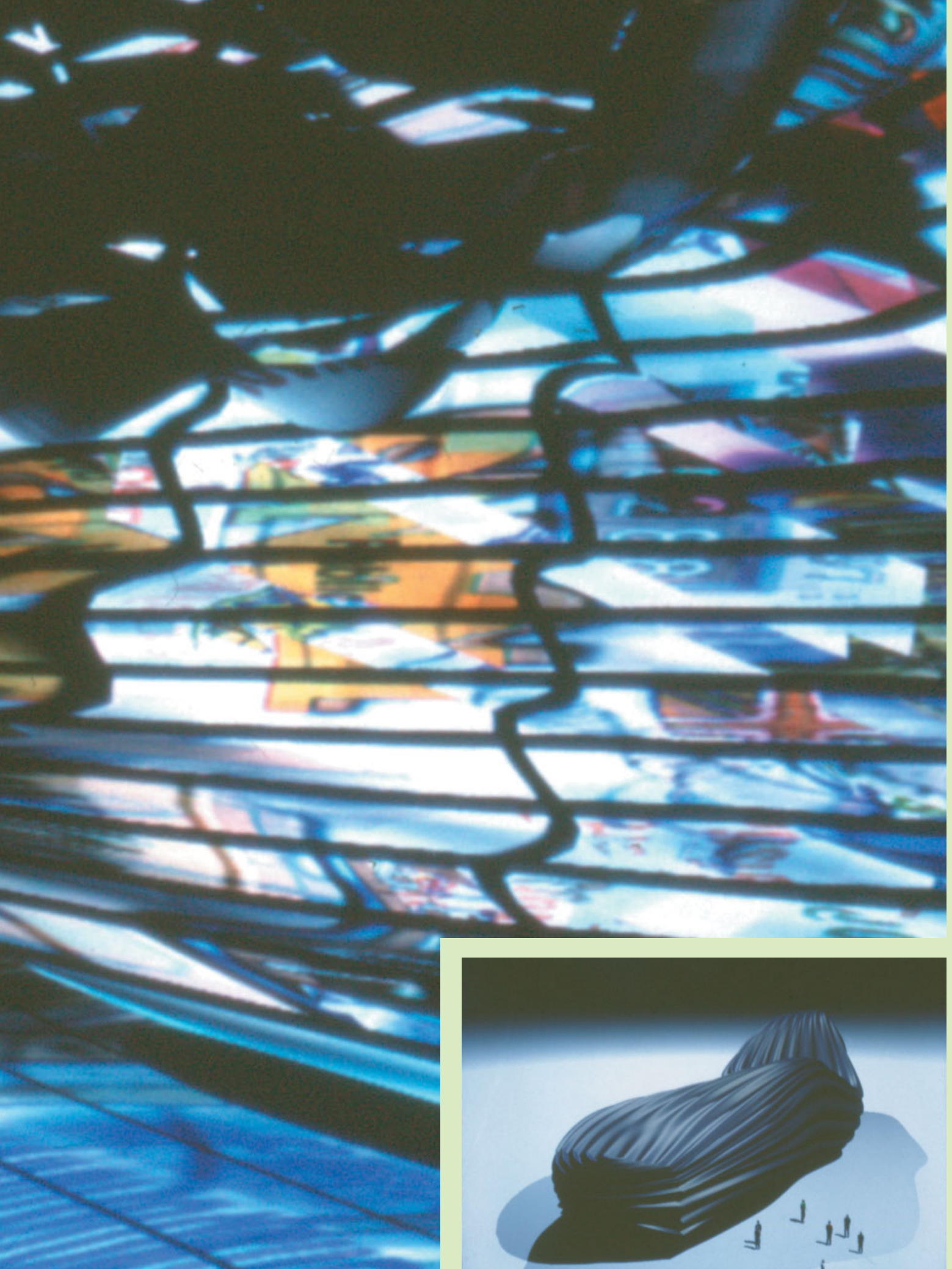
Main picture

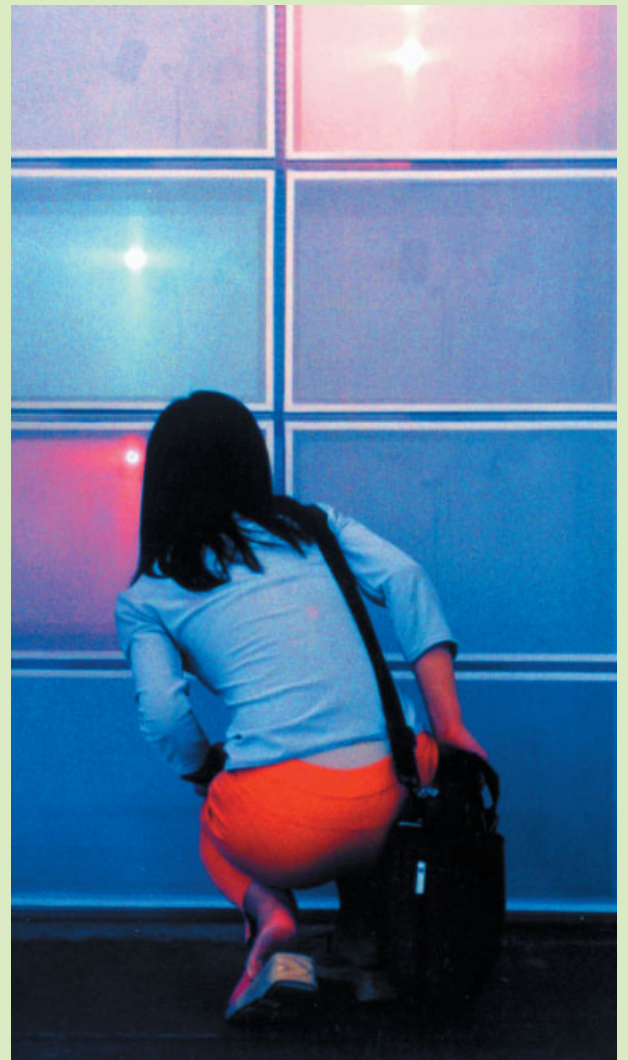
Kas Oosterhuis/oosterhuis.nl
and Ole Bouman, 'trans-ports'
programmable visitor pavilion,
2001

Exterior of the 'trans-ports'
pavilion. The data-driven
supple structure had a flexible
electronic skin that changed
shape and content in real time.

Inset

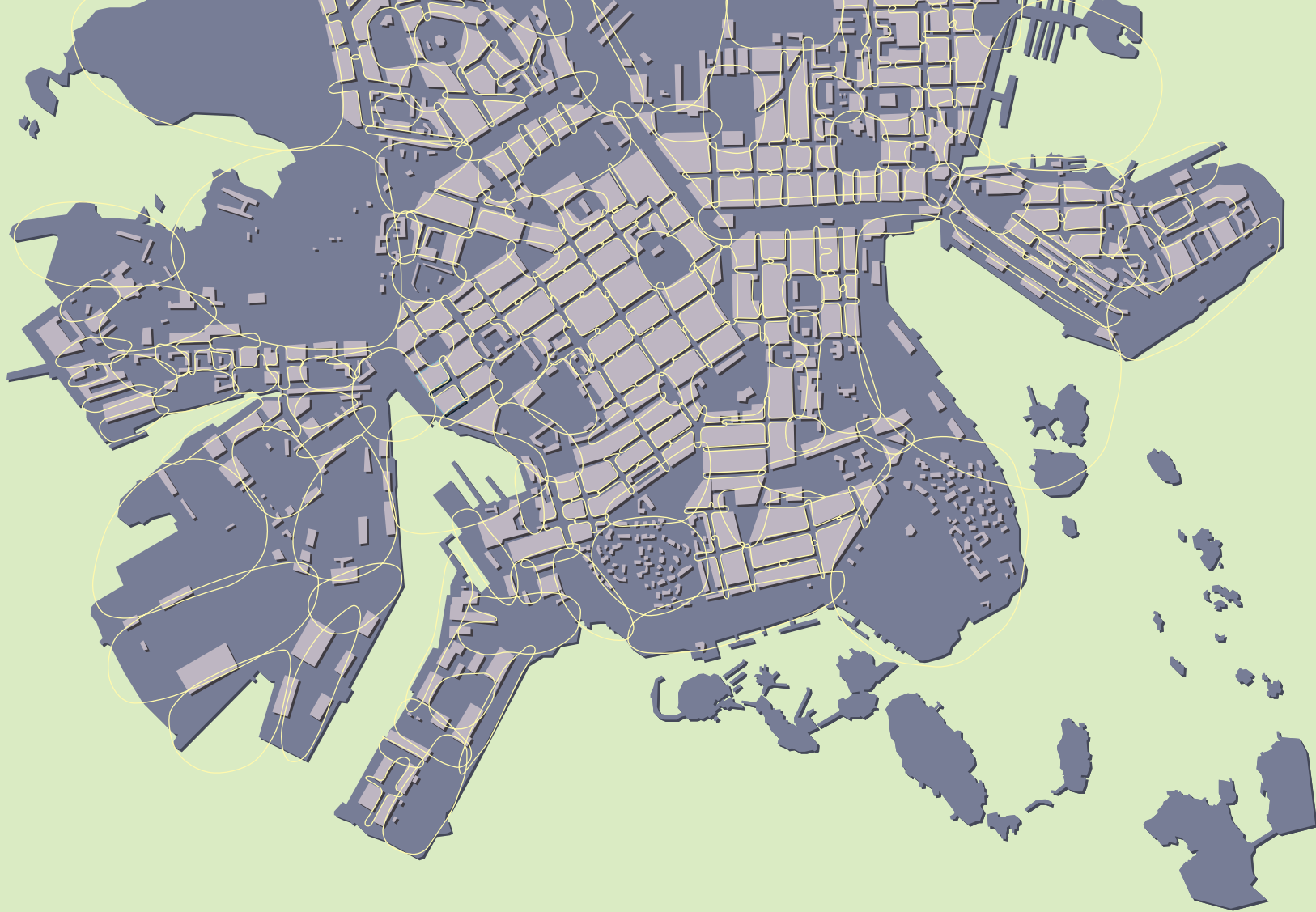
'trans-ports' interior.





Above and right
Usman Haque, Josephine Pletts and Dr L Turin, Scents of Space, Slade School of Art, 2002

Funded by a Wellcome Trust Sciart Award, the Scents of Space interactive project demonstrated that smell can be used spatially to create fragrance collages that form soft zones and boundaries that are configurable.



Above

Dunne & Raby, FLIRT (Flexible Information and Recreation for mobile users), 1998, published by the RCA, 2000
The development of digital cellular structures by the mobile communications industry has generated a fusion between information space and urban territory. City location, the time, day and date can all begin to shape relationships to information sources. The FLIRT project, a European Commission research project under the 'IT for Mobility' theme, re-evaluated how, given the tight constraints of mobile displays and the unpredictability and transience of everyday mobility, they could work in future. It looked at the potential of location-specific information as a resource, but also as a means of social interaction and play. Dunne & Raby tailored their map, a cellular city model deemed by Helsinki Telephone Corporation to be a realistic representation of the mobile network in the city, to reflect the experiences of cellular space in public space and to serve as a tool to work through, and test out, ideas about location-based services.

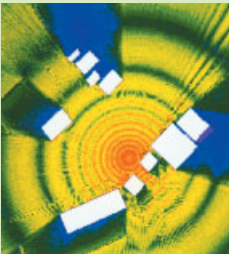
through means other than constructing. Here, architecture becomes even more unstable than liquid – perhaps more like a gas. If human behaviour and interaction is no longer framed by place, but is a matter of making strategic decisions and experiencing moments at remote and asynchronously related sites, and if this very remoteness and asynchronic character of our lives can be designed as an interface, then architecture will lose its character as a consistent and integrated form of cultural communication, and will become more like a chemical process of loose particles. For some, this might be a kind of sacrilege, because if you think about 10,000 years of architectural history, and 10,000 years spent creating objects and assembling constructional parts, how could you ever believe that we are entering an era where this is merely a side effect of the way people relate to each other in a new way?

What I'm talking about represents the very early beginning of a new practice. There are a number of examples of this in this publication. In the work of Pletts Haque, such a new way of thinking operates through the dimension of smell, and the way we can relate to each other

not just through vision, but also through aromatic responses. In the work of Anthony Dunne and Fiona Raby, relations are established within the electromagnetic dimension. Theirs are projects that rely on pervasive computing, that no longer need buildings to mediate between people, but which rely on a much more ephemeral, much more subtle interface design. These architects and designers are the pioneers, though I sometimes wonder whether they fully realise which of civilisation's new thresholds they are the pioneers of, and if they really want this identity, because if this development unfolds to its logical conclusion and architecture really becomes a gas, then there is little chance that the early adopters and initial contributors will be acknowledged for this. Entropy has no authors. But that's another story.

Since 1996 I have been directing *Archis*, a magazine that has chosen to deal with the kinds of new realities described above. How do you cover such a new world that is more about time than space? How can you invent a form of journalism, a critical discourse or a reflexivity that is no longer about buildings that are used as clocks, but is about time, which of course we are spatialising all the time. I believe that we can no longer rely on a print medium that takes the physical form of a horizontal landscape, as so much of our

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Above
Dunne & Raby, FLIRT (Flexible Information and Recreation for mobile users), 1998
Computer-generated model showing radio propagation in relation to an urban environment. In researching FLIRT, Dunne & Raby determined that although radio signals are invisible, they have a physical relationship to mass. In a similar way to light, the mass of a building reduces signal strength and creates radio 'shadows'. The more dense the built-up area, the more antennae are needed to ensure good coverage.

Right
 'Freeze' exhibition, Arti et
 Amicitiae gallery, Amsterdam,
 April 2000
 Curated by Ole Bouman, the
 exhibition included a huge fridge
 as its main exhibit. Inside,
 videos of digital lifestyle
 activities and body scans were
 projected onto the icy walls.
 Exhibition design by Eden
 (René van Raalte and Ronald
 van der Meijs), audiovisuals
 by Harold Houdijk.

architectural media still do. Travelling through the pages of the magazine, one encounters different contributions, pictures, topics, just like scanning a landscape. There are pictures of interesting projects, boring projects. The process is not just a vertical one – going through a discourse or trying to see how the vertical layout is done in 1-D or 2-D. It's also about 3-D, about creating a space itself, and I believe that you can no longer reflect upon this new practice of architecture by using the old media. You need to spatialise the medium, which to begin with can be achieved via the creation of action pages, event spaces within the magazine that trigger learning by acting and doing – it is full of these moments. To facilitate these, all the pages are perforated, ready for action. So this is 4-D publishing, hopefully anticipating a whole new chapter of further intellectual research and development.

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Ole Bouman is an internationally known critic, author, designer and curator based in Amsterdam. He is editor-in-chief of *Archis* magazine and director of the Archis RSPV Events, as well as the author of several books including *The Invisible in Architecture* (1994), *RealSpace in QuickTimes: Architecture and Digitization* (also the title of the exhibition he curated for the XIX Triennale di Milano at the NAI, 1996), and *The Battle for Time* (2003). Other exhibitions he has curated include 'Egotecture' (Boijmans van Beuningen Museum, Rotterdam, 1997) and 'Freeze' (Arti et Amicitiae, Amsterdam, 2000). He also lectures internationally.