

**Notes for artist's presentation at the Prix Ars Electronica Forum,
August 12, 2007.**

(actual presentation was improvised around this text, links added later).

Hello. I want to begin by talking about some specific conditions under which this work took place, because Park View Hotel is a peculiar project that is not at first glance (even to myself) something I would do. I am still thinking about it, and here I do this aloud. Perhaps we could call it a product or even a byproduct, of its own context, crashing into my own broader ideas at the time.

This is only interesting to share because it was made in the context of an artist residency in a large technology company, which is both a tradition and artistic “location” that must be interrogated, and perhaps this information will be useful to others.

Most of you have seen video of the work, or seen the small version at the OK centre.

Original is at <http://Out.in/parkviewhotel>

Here I want to describe some of the conditions of working, or the triggers for the work.

The Sun Microsystems artist-in-residence brief stated that I would be working with SunSPOTs, a product similar to other wireless transducer network platforms such as the Berkeley MOTES, and perhaps in a direction that many other “embedded” development platforms, including community-supported ones such as Arduino, are moving. I was interested in this because I have been working with various models and questions of the “digitisation” of the physical world. The question here should be, I am thinking... what do these technologies actually enable?

Now despite the many wide-ranging and overlapping visions of so-called ubiquitous computing, or the Internet of Things, when I got to Sun Labs I found that the possible use-cases being developed, or even how they were being imagined, were to me constrained in fundamental ways. This also appears to be related to how such networks have been deployed in the past.

It appears that the history of transducer networks is rather thin, despite the technologies themselves being around for several decades. Well-known and successful examples are few, and they include various forms of environmental monitoring, robot telemetry, closed-loop package tracking, sundry battlefield applications, and the “great duck island experiment” (in which a remote population of ducks was monitored for a year), for example. The thing is, that many of these experiments have been conducted in conditions of extreme or one-sided power: state-controlled borders, war-zones, unsuspecting ducks and pigeons... in other words, places where *permission to embed* is often assumed. (A related technology, RFID, is being embedded in real-world Oyster cards and commodities, whose mobility of course does not imply any particular “freedoms” other than those of the free market.)

As a group of very talented Silicon Valley engineers worked on the SPOTs project, the lab spirit was: “build it well, and the uses will come”. I respected that, but my own reading of the situation was that such embedded technologies are *unable to free*

themselves from existing patterns of ownership, commodity, closed supply chains, or battlefield-like control scenarios. I was personally, on the other hand, interested in leakage, exposure, and vulnerabilities that could be productive.

The process of instrumenting the world has generally proved to be harder than imagined, history appears to tell us. Embedded agents such as RFID have had to negotiate with numerous pre-existing conditions and cultures of use. These negotiations have been harder than expected, or have not yet taken place, due to other reasons such as cost. When the host is a sovereign person, or a “personal” product, the negotiation is relatively straightforward, which is also why cellphones for example have smoothly proliferated. But when the “host” is an environment or shared-use commodity, things can become quite complicated. Questions of permissions, transfer and multiple claims to use arise, which cannot be solved as cleanly as within an idealized environment of solo “users”, or even a pure code environment such as the internet. The successful applications, as I said earlier, are conducted in top-heavy conditions, and often implement a closed loop of access.

So, important questions arise, (which may be familiar to people setting up wireless mesh networks or other peer-based spatial infrastructures.)

Questions for the Internet of Things:

- 1. Who may place a node?**
- 2. Where may the node be placed?**
- 3. Once a node is placed, who may find/ recognize it as one, and how?**

Several of these questions, around ideas of placement and permissions, eventually showed up in the work Park View Hotel.
(show 2 min.video)

Park View Hotel:

- 1. Exposed hotel rooms to the outside. Allowing park people to ping the rooms.**
- 2. Exposed nodes of a wi-fi network to optical signals.**
- 3. Allowed some interior “properties” to propagate outward, to spread out into elements in the public park.**

Who allowed this to happen? (Is there anyone in the rooms, does the hotel know, what does it know.) Did the city or the police permit this “interaction” across different properties? (using this technology, at this wavelength, this power?)

For interactive art, (and such outdoor art in general) one question can be put as: Who/ what has allowed us to interact in this way?

There could be several possible interpretations of the situation here, from the audience point of view (and these were questions asked often in the park): that

exhibitionist/permissive hotel residents knowingly placed receivers in their rooms, or that the artist just dropped a few receivers in the rooms as he went by, or that the hotel and the artists and Sun and ZeroOne collaborated to instrument the rooms, and forgot to tell potential residents (which actually happened, once).

We are partly “occupying” this space (that is normally a rented commodity) by our ability to access it, from a distance. This can be a non-rivalrous use, for example when an exhausted producer once slept in a room, unaffected by the lights going on and off until midnight. But there is also the idea that we are extracting something from the selected room that is perceived as material, not just informational. We will return to this notion later.

(more images)

There is a historical condition around modernist architecture that this work also “enters”. This is the status of glass as a “democratizing” interface. Modernist architecture made various sociological claims about its structures and materials, including the one that glass would lead to empathy with the surroundings, and greater “transparency” of the interior. Ofcourse, the reverse has proved to be true, and we are surrounded by impenetrable glass buildings. (The artist Dan Graham, for example has explored these notions in much of his work.)

Our focused IR beam, like a human voyeur, enters through the window. Focusing is a tuning of energy vs. distance, as any torchlight-focuser or antenna-builder will tell you. But in this case, because the viewers have to “search” for the embedded rooms, the focused optics has the seemingly contradictory effect of drawing attention to the “neighbourhood”, to an equivalent potential across instrumented and non-instrumented rooms. Because you can only “look” at one room at a time, you have to look across them all... any of them could be “loaded”, anyone could be the right one. This “spotting the SPOTs” exercise, combined with the act of looking into private territory, raises various questions around notions of address and identification, also historically as related to voyeurism or spying. But it also inverts the usual hierarchy of looking, as embedded in the generic hotel name Park View Hotel.

The placement of this work, and others like it, in architectural-scale spaces brings in various possibilities or vulnerabilities that are hard to think about in lab spaces. Some are about the sudden visibility of physical boundaries, but also there are more “invisible” boundaries, of other environmental conditions, regulation, money, and social class.

(photo of only black delegate at ISEA holding scope, who was from ENGLAND!
There are no black people in this room.)

The other dimension of such scale is **Distance**. Physical distance (as readable range) is a particular concern in RFID and related wireless technologies. But I wanted to discuss this is also relation to the specific notion of interactivity as a proximate gesture... a touch. This thought is then an addendum to Erkki Huhtamo’s wonderful text on the hand...

<http://neme.org/main/662/shaken-hands-with-statues>

and perhaps he can comment on this later.

Perhaps we can think of haptic interaction also as “**keeping at arms length**”? Placing the hand before the body, insulating it from the effects of the computer. Perhaps interaction with a machine is partly a question keeping a “safe distance”, or operating at an ideal distance. This could relate then to notions of the simultaneous protection and expansion of personal sovereignty, territory, and in some senses, of privacy. And the actions of the “shooting viewer” are perhaps a provocation, in this regard.

I want to share with you a video from a “work” that in another way makes such distance explicit, by exceeding its given permissions, to occupy two discrete neighbourhoods. This is part of an ongoing series of prototypical events, dealing in its first phase with the redistribution of electrical “material”, in the city.

The video and description of this project is here:

<http://www.recurrencies.com/test/project.php?pid=2>

A main question then is: **what are we interacting across?** Clearly we need to pay attention to what lies between nodes, what is the nature of the terrain we are embedded in?

Here I will borrow a term from Ulises Mejias, a network scholar who is interested in the idea of neighbouring in networks. The term is “paranodality”. Paranodality “is the space between nodes that is not mapped [not considered by the system] but just because it is not mapped does not mean it is not there...

...this is a way to resist a nodocentric view of the world”.

You can see Mejias' presentation at:

<http://ideant.typepad.com/shows/netherlands2007/netherlands2007.htm>

Of course paranodality is also paralegality (nodes attract the law), and I want to show here a video from another “work” that is spatially similar to Park View Hotel, but has a completely different set of operations in play. (also at 1/50th the budget).

(Video of “contractual” wireless electrical sharing between apartment owner and sandwich vendor, Bombay).

<http://www.recurrencies.com/test/project.php?pid=3>

This ongoing set of “prototype” projects uses electricity both as metaphor and material. Electricity is a signaling medium, but also energy, a consumable good. This dual status means that we can combine the question of the distribution of information and the distribution of infrastructural goods. In other words, this is not only about the transmission of information across physical boundaries, but also about the distribution of material, energy, and agency across digital and other virtual bounds, including the notion of ownership.

Shaina Anand is my collaborator on several on these projects, and to end I would like to show one of her works, which actually got a Honorary Mention here but is unfortunately hard to find because of the way it is displayed. This is an example of how such ideas of the distribution of things and actions may expand... into collaborative spaces and into other, spatial or network practices.

Such networks pay attention to their paranodal condition, to the question of what is being breached, bridged, left outside, or made (in)visible, beyond the nodes themselves. Khirkeeyaan is also the most wonderful inversion of surveillance and television technology that I have seen recently.

(Show video)

<http://www.chitrakarkhana.net/khirkeeyaan.htm>

Thank you.