Digital Phantasmagoria: An Urban Space of Intensified Interaction

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ABSTRACT

This paper will investigate the relationship between public space and digital media and speculate about the possibility of using digital technology to reactivate public space. From the perspective of current trends in digital technology, the paper will relate Walter Benjamin's speculations about a transformation of public space into a space of heightened interaction as well as Gordon Pasks' installations in the 60s. "Flux Space", an exhibition by Gernot Riether, Ruth Ron, Renate Weissenböck and Atsunobu Maeda at the Arthur Ross Gallery in New York in 2000 will be used as an example to demonstrate how public space might be reactivated using digital technology to intensify the relationship between the spectator and physical space.

KEYWORDS: digital media, public space, communication, installation, multi-media.

Urban Space of Intensified Interaction

Pubic spaces are owned by the government and are accessible to everyone. Public spaces in cities were always associated with the functions of information and supply. In pre-internet times acquiring any goods required entering or crossing public space. In pre-radio and TV times the public realm was the main ground for information and politics. Through digital media, public space has lost the privilege of these two functions and therefore lost its essential meaning. A development that could not be imagined at a time when Walter Benjamin was suggesting a future in which mass media would extend public space into a space of illusion.

Mass media in the early 19th century started to reactivate and reshape public spaces. When newspapers were still a luxury item it activated public space in new ways. The cafe became a place for information exchange and public discussion and a ground for building community (Eiland, 2003, 13). With the rise of consumer culture and the entertainment industry storefronts and arcades expanded. When consumption became linked to urban space public space became the space of the spectacle. New media was clearly linked to public space. As illustrated by Benjamin in his short essay "The Newspaper" public space was not about the reading of stories it was about the shopping for facts and a "corruption of writing" that was maintained by the reader's impatience, which demanded renewed excitement every day. When private space was the space of illusion public space was the space of reality. The novel is written for the individual and read in a private space. The newspaper is written for the masses in a big city.

Entering a public space meant to participate in a constantly changing entertainment spectacle and to become incredibly linked to the urban space itself. "Dress well because you never know what will happen". Walter Benjamin identifies flanerie as a new behavior that is a consequence and a manifestation of public space at that time. "The flaneur is a creation of Paris, a landscape made of living people" (Eiland & Smith, 1999, 265); Franz Hessel describes this urban space of interaction in his comparison of Berlin and Paris in the book *Spazieren* in Berlin.

When newspapers introduced the "letter to the editor" each reader could at any time turn into a writer (Eiland & Smith, 1999, 505). The medium became a space of intensified interaction. Not only newspapers but also film, a medium that allowed the audience to take the position of the camera (Arendt, 1977, 228) had blurred the boundaries of observer and observed, authors and readers, producers and spectators, creators and interpreters. The public space of the future was described as a space of heightened interaction, a space of not only reality but also illusion.

Modernism changed Benjamin's vision of a city that would be inhabited "much more fully" (Eiland & Smith, 1999, 265). Modernism spatially separated and disconnected the individual from the masses. In the essay, "The Mediated Sensorium", Caroline A. Jones argues that the increasing technology of media contributed to the separation of space and segmentation of perception (Jones, 2006, 10). Movies were made in controlled environments and displayed in controlled environments of movie theaters. Music was recorded in recording studios for hi-fi listening in private spaces (Jones, 2006, 11). Stores were banned in privately owned shopping malls. When pre-modernism was about interaction, modernism was about segmentation.

Trends in the 60s tried to upset this separation and experimented with models of reintegration. Artists such as Gordon Pask designed interactive architectural installations for public spaces that allowed people to participate in the development of art.

Pask's Cybernetic Serendipity exhibition in 1968 was one of many exhibitions that dealt with the idea of using computation to generate environments that were the result of new forms of interaction between art and its environment. Pask saw the artistic form as an outcome of a digitized interaction between participants and their environment. Similar to Benjamin's speculation of new media that would change urban space to a space of intensified interaction, Pask speculated on an urban space of an eventful play and interaction. But this time the trigger of this development should be digital media.

Many of Pask's ideas and concepts have been realized within the internet. As described in Levy's analysis of cyber-democracy and information capitalism, the internet created the bodily collective, but lost its connection to the physical urban space. Having an i-phone, internet cafes are irrelevant. Laptops, i-phones and i-pods reinforce a separation from physical public space and are therefore very modern devices. They do not trigger interaction with or within an urban space. Early experiments by artists such as Pask that suggested alternative, much more formless and spatial interfaces have been almost forgotten.

Digital media has changed the space that we occupy daily. It has over the last two decades completely changed our social space and other spaces that we operate in, such as the market space, the space of education or the space of science. The physical space of architecture in contrast still resists the dialogue with the space that is defined by digital media. Also architecture tends to suggest a more dynamic physical space it is still stable and not modifiable or flexible or open as suggested by digital media.

Recent developments in tracking software, programming environments such as Processing or Max/MSP support an extension of new routines or external objects that deal with recognition, analysis and generation of new events. Computing has progressively moved beyond today's typical desktop interface into new physical and social contexts. Current research trends such as tangible interfaces, physical computing, ubiquitous computing, embedded computing, ambient technologies, to mention a few, are evidence of this paradigm shift. Today's revival of digital installations and artists that reject the separation of art categorized for individual senses might make Pask's thoughts more relevant then ever before. The future project for public space that is suggested here is re-networking what was separated in modernism. Interactive billboards that recognize and communicate different information to individual Mini Cooper drivers and i-pods that tell you that the person next to you has a similar taste in music and large digital media events that temporarily transform parts of entire cities such as the *Fête des Lumières* in Lyon, France in a dynamic space of illusion might be just a preview of this project.

"Flux Space" was an installation that was realized in New York; it suggests an intensified spatial interaction between a physical and a digital/virtual space. The concept of this installation was proposed as a design for a riverfront to demonstrate how digital media might be used to re-activate public spaces by providing new possibilities of interaction.

Flux Space

A gallery space in New York was reconstructed as a virtual model in Maya, a 3D modeling software. Four high-resolution video projectors were used to project the virtual model back into the real space. 80% of the entire wall, floor and ceiling surface was covered by the projection; after overlaying the real space with the virtual model of the same space the movement of the visitor was used to transform the virtual model. An algorithm was designed that linked information from motion sensors with the transformation of the virtual model of the gallery space which enabled the visitor to control the relationship of the virtual and real space through his movement within the virtual and real space that he simultaneously occupied.

Rather than exhibiting an object in a gallery space or displaying a virtual space on a screen the exhibition was heightening the perception of the gallery space itself—using digital media to suggest a more intense correlation with our physical build environment.

A project for a public space in Austria allowed for an application of "Flux Space" at a larger scale. The idea of the "Flux Space" installation has been appropriated and suggested as part of a master plan for a riverfront of the Danube river in the Wachau valley, close to Vienna. The project will integrate a infrastructure for digital media installations in the public space of the promenade and will occupy a 650 meter section of an entire 1.6 km long riverfront that will be reconstructed.

The proposed infrastructure is a network of motion sensors, microphones and nodes that can display sound and create different lighting effects. The infrastructure can be utilized and programmed by artists to generate temporary projects, each

of them challenging the interaction between the visitor, the virtual construct and the physical space. This will allow the occupants to interact and communicate with the site of the riverfront in continuously new ways.

Raising the floor surface of the promenade will create an interstitial space that will house nodes containing recording and displaying devices that can be accessed and exchanged by the artist. All nodes are networked and connected to a computer. This infrastructure or "digital blanket" will cover the surface of the promenade and at the same time preserve the existing appearance of public space, which was an important aspect at this specific project. Similar to the Flux Space installation, the real space will be superimposed by a virtual layer. The visitor that will interact with this spatial construct will always occupy the real and virtual space at the same time. The digital blanket will allow for a physical–virtual–occupant feedback loop that might trigger a new form of interaction, a new understanding, reading and new interpretations of an existing space.

The movement of the occupants might be recorded and abstracted, and at the same time or delayed by lighting and sound effects. New soundscapes might be generated by recording fragments of sounds at one place of the promenade, rearranging and replaying them at another location.

The integration of this communication infrastructure of recording and displaying devices might become a communication space, a space that will be characterized by anonymity and blurred boundaries of pubic and private spaces. In that way a space similar to virtual spaces of the internet will be created but connected to a physical space. Different nodes of the promenade might also be accessible from outside. Messages can be sent to specific nodes by e-mail. The promenade would be tied into the larger communication space of the World Wide Web and might become a new platform for social networking.

Conclusion

This project describes how digital media might be connected with a physical public space in order to reactivate it and transform it into highly interactive environment. The spectator will be a participant in the digital processing of information that is collected from the physical space, the World Wide Web, and the occupants themselves.

This intense interaction will generate a new public space that is characterized by a dynamic interplay between virtual and real spaces. Similar to Baroque frescos digital media is seen here as an extension of physical space. It is a spatial construct that will influence the way we use a space, move through it and interact with it. Thinking about the possibilities of digital media, Benjamin's thinking of public space that might be transformed by new media and be found more applicable today than before. Walter Benjamin's phantasmagoria of the interior might be soon everted into the exterior. Clearly the technol-
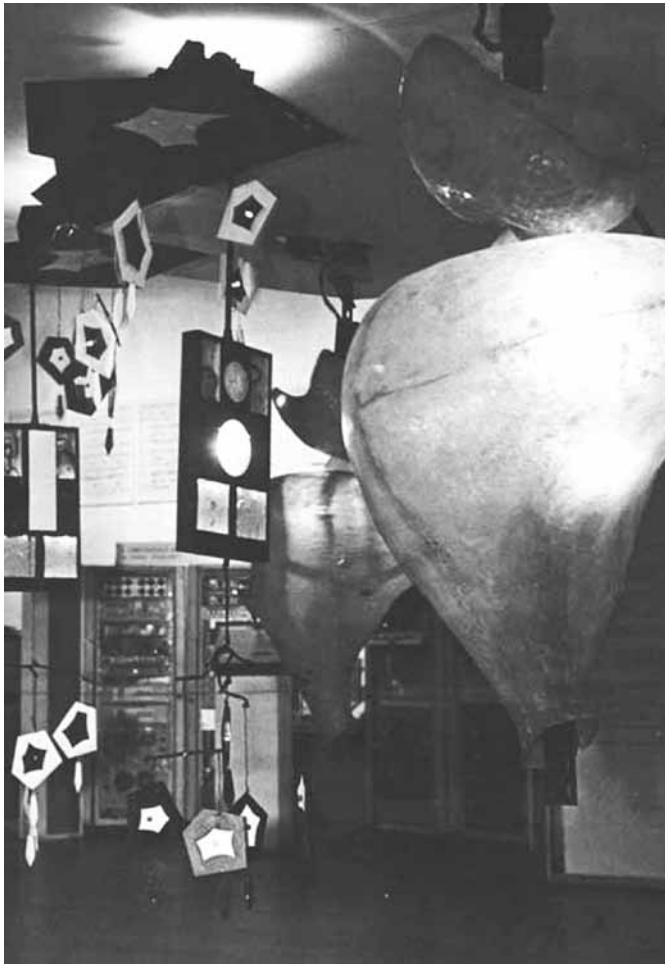

Figure 1. Colloquy of mobiles, installation, Gordon Pask,
Source: Cybernetic Serendipity, ICA, London, 1968

ogy is there and soon we will experience an urban space that will recognize and adjust to the individual person, challenging new forms of interaction within a real + virtual urban spatial condition.

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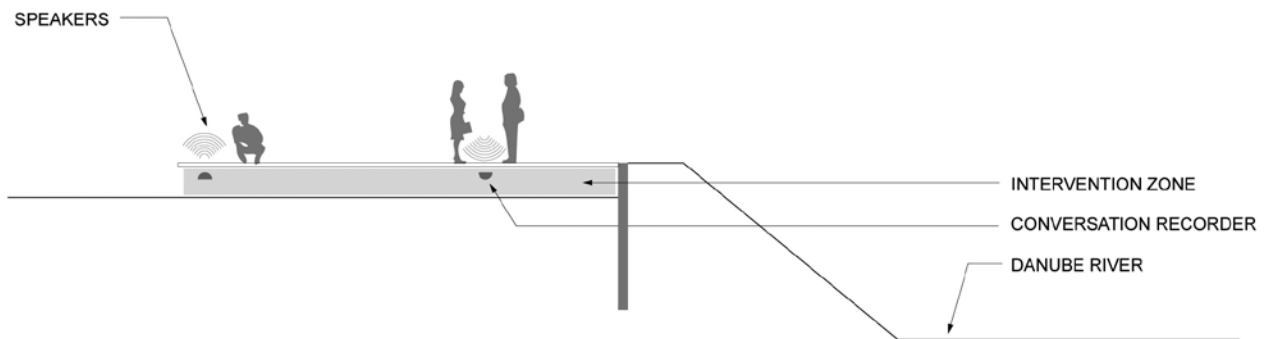*Figure 2. "Flux Space", installation, Arthur Ross Gallery, New York, 2000*

Figure 3. "Digital Wachau", proposal section suggesting integration of sensors and display nodes in the promenade,
Source: Gernot Riether, Vienna, Austria, 2008