### In The Fields:

The Fun Palace, Co-creation, and the Digital City

by

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**Author's Declaration** 

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

In 1963, architect Cedric Price, theatre producer Joan Littlewood, and cybernetician Gordon Pask proposed a new kind of leisure centre called the Fun Palace. Though never built, the project continues to influence architecture and is the inspiration for this thesis.

Known also as the "Laboratory of Fun," the Fun Palace developed a compelling yet problematic narrative: people would have the freedom to design their own spatial experiences, but their behaviours would be monitored and probed. Innovations from the cybernetic committee had propelled the Fun Palace beyond mundane reality and into the virtual. In fact, the Fun Palace was more than a building; it was an information interface where architecture and humans were connected by cybernetic feedback.

Of particular importance to this thesis is the way the Fun Palace anticipated how digital technology would transform the world, and how it can be understood as an early prototype of the digital city. The model of space that the Fun Palace proposed shifted our understanding of architecture from autonomous and static to complex and dynamic; from an architecture of walls to an architecture of fields.

This thesis is organized along three lines of inquiry. Firstly, that architecture is participatory. Secondly, that architecture is multi-dimensional. Thirdly, that architecture is generated by real-time transactions. The thesis concludes with a speculation called In The Fields: a mobile laboratory for co-creation in the digital city.

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&

The Journey

Thank you.

**Dedication** 

For my Mother.

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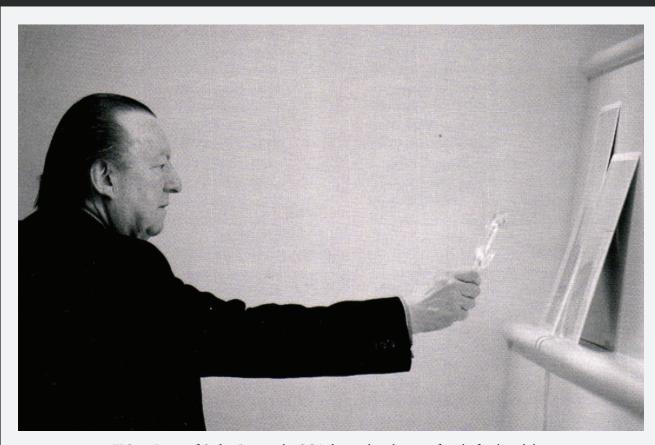


FIG 01 Image of Cedric Price at the CCA during the selection of works for the exhibition Mean Time. The Canadian Centre for Architecture has the Cedric Price Archive, which contains documents of his work that spans 50 years. The materials range in date from 1953 to 2000.

# Introduction

I was introduced to the Fun Palace by accident when I attended a scholar's seminar at the Canadian Centre for Architecture. The seminar was titled "Architecture 2.0?" and presented by Maaike Lauwaert. The seminar was focused on the Google Earth application as an example of the 21st century 'participatory culture.' After the seminar, I spoke with Maaike and she introduced me to the Fun Palace. Maaike had just written a book about the technolization of play, and she was going to take advantage of her time at the CCA to research the Fun Palace.

About one month later, I had my first meeting with my M1 thesis coordinator and one other master student at the Montreal Museum of Fine Arts. After viewing the temporary exhibit: Imagine, The Peace Ballad of John & Yoko, we talked about what we could investigate the following week. I expressed my interest in the Fun Palace, and luckily, my thesis coordinator was aware of an official program offered at the CCA, that allowed people to have access to the curatorial staff. Howard Shubert, who was the curator of prints and drawings at the CCA for 26 year, was kind enough to guide us through Cedric Price's original archival work. When we arrived to the library, Howard greeted us with a table full of drawings and with his help we studied them for about three hours.

The Canadian Centre for Architecture has the most comprehensive Cedric Price Archive and the complete records of the Fun Palace. The archive has more than 15,000 drawings & prints and over 50 models. The Cedric Price Archive is an important part of the CCA and has been exhibited many times. The work of Cedric Price has been curated in exhibitions such as "Mean Time" and "Out of the Box: Price, Rossi, Stirling, and Matta Clark.



FIG 02 Canadian Centre of Architecture during the exhibition: Out of the box: Price, Rossi, Stirling, and Matta Clark, 2003-2004.

The Fun Palace was the first time in my architectural education that I began to think of architecture as more than just the practice of designing physical buildings. I became fascinated by thinking of architecture as a medium of communications that is complex and dynamic. This thesis is also my attempt to come to terms with architecture in the context of a hyper-technological world. My research question became: what is the contemporary relevance of the Fun Palace?

As I studied the project further I noticed how the narrative and architecture of the Fun Palace described a condition of contemporary digital life: The Fun Palace was a place where you were free to design your own spatial experiences, with the condition that your behaviours be monitored, indexed, and even probed. The Fun Palace was never built but the influence it has had on architecture is significant. This thesis is particularly interested in the model of architecture that the Fun Palace proposed and uses the project as a lens for discussing the digital city.

The Fun Palace is relevant today because it marks a shift in a fundamental understanding of architecture. Instead of thinking of architecture as autonomous and static, we can think of it as complex and dynamic. From an architecture that is defined by walls to an architecture of fields. The word 'field' can be quite elusive because it can have various meanings. This thesis will develop a definition of the word field as an informational space that each participant of the city inhabits.

The Fun Palace was a prophetic project that foresaw how technology would change the world; it is also en early prototype of the digital city. This thesis uses Benjamin Bratton's definition of the digital city, from his paper "iPhone City." The digital city is the shared nervous system where bodies are infused and intersected by technology and networks. This thesis will use the term "digital city" to describe how communication technology is changing the ways we interact with cities.

The thesis will show how the innovations from the Fun Palace anticipated the digital city by several decades. The connectivity of the internet and how it influences our spatial culture is important to architecture. The narrative of the Fun Palace sheds light on some of the opportunities, contradictions and problems of life in the digital city.

This thesis aims to develop an understanding of the Fun Palace and to explain how it anticipated the digital city; it also aims to define what the digital city is. Finally, the purpose of the research is to develop a speculative proposal for a Mobile Laboratory.

Because real-time communications were integral to the Fun Palace, the thesis takes the form a 'feed'. Feeds broadcast real-time content by aggregating multiple fields of information. Feeds are typically curated by the personal preferences of their readers.. The 'thesis feed' comprises of three fields, which are different scales of text. The first field is composed of the main topics and arguments of the thesis. The second field comprises of literature reviews and case studies. Micro-texts, located in the margins, make up the third field which act as small provocations and add texture to the investigation.

The investigation follows three lines of inquiry and proposes a conceptual design. Firstly, architecture is participatory, which limits the authorship of the architect. Secondly, architecture is multi-dimensional and operates between virtual and spatial events. Thirdly, architecture is generated by real-time transactions.

This thesis imagines the speculative project In The Fields: a Mobile Laboratory for co-creation in the digital city. The Mobile Laboratory is represented by two models, one physical and one virtual. The first model investigates an interactive and flexible structure that can be assembled, un-assembled, and re-assembled. The second model illustrates a virtual environment where participants of the Mobile Laboratory co-create spaces called 'fields.'

# Joan Littlewood presents the NT GIANT GIANT GIANT SPACE WORLD SPACE WORLD IN THE WORLD it moves in light turns winter into turns winter into summer ... toy... toy... summer ... toy... EVERYBODY'S what is it?

FIG 03 Promotional Material for the Fun Palace, Canadian Centre for Architecture.



FIG 04 In 1951, the government organized the Festival of Britain, in an effort to cheer up Britain. This image illustrates people watching the Royal family parade through the festival grounds. Instead of a transiet festival, the Fun Palace aimed to be a new kind of facility for a new leisure society.

# The Fun Palace

To understand what motivated the design of the Fun Palace it is helpful to review the social conditions of post-war Britain. In 1945, the Welfare State, or a series of social reforms, was established to reduce poverty and improve social conditions. On one hand, modern work conditions needed healthy and educated workers. On the other hand, governments wanted to prevent social unrest by introducing deep reforms.

Critics of the Welfare State claimed that it leveled social experience and anesthetized society.<sup>1</sup> The life of a worker, for example, was regimented and divided into work-time and leisure-time. The Welfare State was also criticized because it created passive and compliant subjects. The radio and the media were seen to be complicit in creating this new kind of labourer.

The airwaves did not fulfill their promise of democracy and liberation. The BBC had adopted paternalistic educational policies in their radio programming. Furthermore, the interests of the commercial market did not make for a truly democratic society<sup>2</sup>. The issue had become: who controlled the proliferation of mass media?

Another change in British society was in the way technology and automation transformed the operations of industrial complexes. It was anticipated that increased productivity would increase leisure time and that many jobs would become obsolete due to automation. A leisure based economy seemed imminent.

Out of these conditions of a transforming British society, emerged the desire for new kinds of facilities where ordinary people could exercise choice and participate. The aspirations for the Fun Palace were based on the desire to liberate people from the stifling repetitions of everyday convention<sup>3</sup>. The design of the Fun Palace was shaped by three mavericks: Joan Littlewood, Cedric Price, and Gordon Pask.

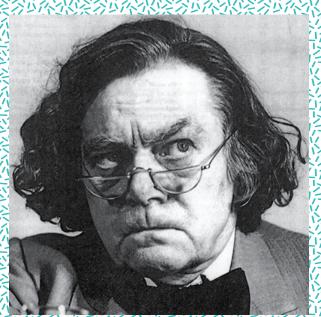
Cedric Price
Architects ought
to create gaps of
uncertainty where
the individual can
participate<sup>4</sup>

FIG 05 Overleaf: Collage, Portraits of Cedric Price, Joan Littlewood and Gordon Pask



Joan Littlewood





Gordon Pask

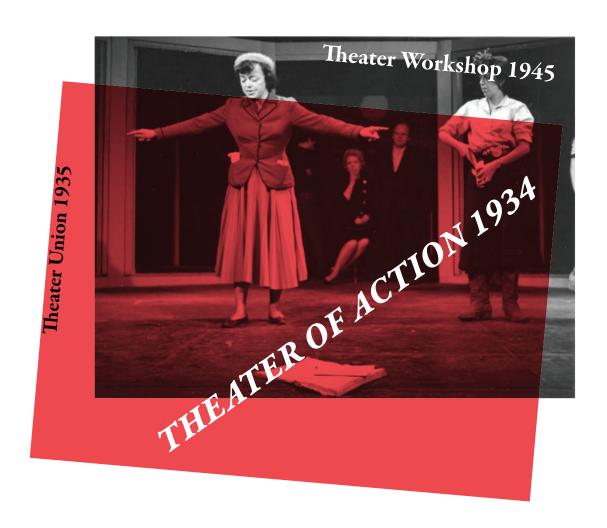


FIG 06 Littlewood directing Fanny Carby in a rehearsal of They Might Be Giants by James Goldman (1961)

### 1.01 Joan Littlewood

Joan Littlewood was a theatre producer whose alternative approach to theatre and personal imagination set the groundwork for the Fun Palace. Littlewood was born out of wedlock in Stockwell, south London in 1914 and raised by her grandmother. She is credited with introducing community and political theatre, improvisation, and working-class language into mainstream drama<sup>5</sup>.

Joan Littlewood was a rebel and a member of the Communist Party of Great Britain in the 1930's. Littlewood wanted to use the theatre as a means of promoting revolution and raise consciousness of class struggle. The Theatre of Action was established in 1934 and had affiliations with the Communist Party. Eventually, the Theatre was expelled by the party, when it refused to hand over control. Shortly thereafter, Littlewood and her husband Ewan MacColl established the Theatre Union, in 1935.

The Theatre Union was based on similar ideas as the Theatre of Action, namely to develop new theatrical forms for political expression. Brecht's idea of the 'fun' theatre became a major influence. The 'fun' theatre, as opposed to the serious theatre, was a means to critically engage the audience. It was important to activate the consciousness of the spectator because Littlewood's theatre aimed to empower the working class. The theatre's subversive political content eventually caused Littlewood and MacCool to be briefly jailed and blacklisted from the BBC. The Theatre Union came to an end in 1942, during the Second World War.

Joan Littlewood found inspiration from the traveling troupes of radical players, such as the Italian Commedia dell'Arte. Between 1945 and 1953 Littlewood operated the Theatre Workshop: a traveling theatre that wandered around Britain in a lorry. The Theatre Workshop was joined by teenage communists Howard Goorney and Gerry Raffles. The endeavour was energized by post-war optimism and aimed to involve artistes and audiences in drama as a living event.

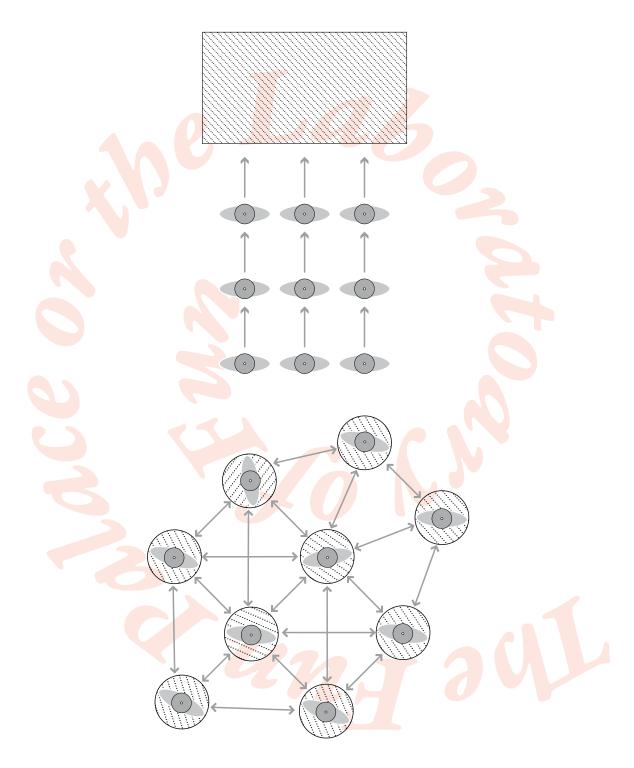


FIG 07 Top: Joan Littlewood wanted to turn spectators into actors. This diagram contrasts the hierarchy of a single stage (above) with multiple stages (below).

Exhausted from the toil of traveling, Littlewood returned to London and rented a permanent venue, the Theatre Royal. Over the years the productions of the Theatre Workshop became less about emancipating the working class, and a number of productions were transferred to the more commercial West End. By the time Littlewood was able to buy the theatre she had become disillusioned with theatre and moved to Nigeria to pursue other ventures. When she returned she finally began to pursue her dream for the Fun Palace.

It was Joan Littlewood's childhood dream to create a university of the streets that gave a foretaste of the pleasures of the future.<sup>6</sup> The Fun Palace aimed to re-invent Vauxhall Gardens, the 18th century Thames-side entertainment promenade, with music, lectures, plays, restaurants under an all-weather dome.<sup>7</sup> Her version of the pleasure garden would give agency to people and allow them to create their own entertainment.

# 1.02 Review: Joan Littlewood, A Laboratory of Fun. New Scientist, May 14 1964.

Responding to projections of increased leisure time in British society, Joan Littlewood imagines that in the future people will be able to make their own work based on their own preferences and pleasures. In this article, Littlewood describes the rooms for action that constitute the "university of the streets."

The rooms for action include an agora for philosophical discourse, a theatre that provides therapy to bored workers, and a "plastic area" for rediscovering childhood. Temporality, flexibility, and openness characterize the Laboratory of Fun. A celebration of transparency and curiosity is mediated by unedited video screens which show visitors actions occurring in other sites. The Fun Palace is an environment of both entertainment and education, passive and active engagement.

### Stratford East Theatre

Littlewoods legacy of giving agency to people continues. In 2011, the theatre is offering a 'tweet zone' where spectators can 'live tweet' during the performance.<sup>8</sup>

Joan Littlewood the Fun Palace will be a war on dullness, apathy, and despair<sup>9</sup>

### 1.03 Gordon Pask

Recognized as one of the great minds among cyberneticians, Gordon Pask was also a designer, researcher, academic, and playwright. Pask contributed his knowledge as a cybernetician to Cedric Price's Fun Palace and Generator projects. In 1968, Pask was invited by Price to be a visiting lecturer at the Architectural Association. It was at the Architectural Association that Gordon and Pask influenced the architectural collective Archigram.

Andrew Gordon Speedie-Pask was born in Derby in 1928. He was the son of a partner in a wholesale fruit business in Covent Garden. Pask held many degrees from various schools: technical College, Cambridge University, University of London, and the Open University. He was a pioneer in the field of cybernetics and developed his own coherent theories. In 1953, Pask founded System Research to explore strategies of learning, knowledge, task analysis, and design processes.<sup>10</sup>

Cybernetics was named in the 1940s as the discipline concerned with information, feedback, identity and purpose. Pask contributed his own research to the field of cybernetics and published many works on his "Conversation Theory." He viewed the human as part of a resonance that looped from the human, through the environment or apparatus, back through the human and around again.<sup>11</sup>

Conversation theory was a theory of interaction encompassing human-to-human, human-to-machine and machine-to-machine configurations in a common framework.<sup>12</sup> To investigate his theory, Pask created "maverick machines", that blurred the boundary between art and technology.<sup>13</sup> He believed that through performance both machine and performer learned from each other. The project "Colloquy of Mobiles" from 1968 was a physical embodiment of Conversation Theory, where mechanical artifacts rotated in response to a conversation of light beams. Another project was the MusiColour Machine from 1953, which was a performance machine that generated coloured lights from audio input from human musicians.

Gordon Pask's strategies challenged the traditional architectural model. Hasque says that his Conversation Theory is relevant today because it suggests how, in the growing field of ubiquitous computing, humans, devices, and their shared environments might coexist in a mutually constructive relationship. Dynamic instead of static, Paskian architectural systems consider the occupant's role in configuring or evolving the space he or she inhabits.

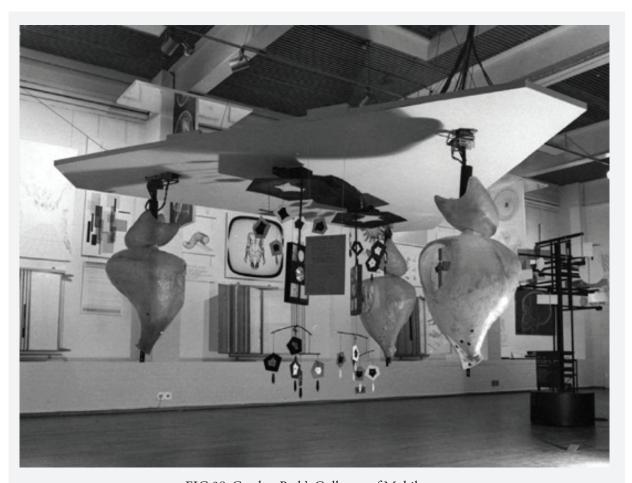


FIG 08 Gordon Pask's Colloquy of Mobiles

### 1.04 Anti-Architect

Cedric Price was born in 1934 in Stone Staffordshire; he obtained an undergraduate degree in architecture from Cambridge University in 1955 and a diploma from the Architectural Association in 1957.

Cedric Price was the son of an architect and was also known simply as "Cp". Cp described himself as an anti-architect; he was opposed to heritage conservation and believed that a building should only last as long as it is useful. His critique of the conventions of architecture was infused by strong social opinions, and a profound interest in the potential of technology to catalyze community and social interaction. Even though Price's experiments with technology were not always successful, his architectural intentions were always to allow people to think the un-thinkable.

Mark Wigley Cedric Price redesigned the figure of the architect.<sup>15</sup>

## Cedric Price

It was well into the detailed design of the project at an alcohol-inspired brain-storming session off Times Square in 1962, we decided on the name Fun Palace.<sup>16</sup>



FIG 09 Cover of Architectural Design from October 1970 depicts Cedric Price as an inflatable structure. One of the reasons Cedric Price may have not built very many project was that he suffered from alcoholism.

### 1.05 Architect's Philosophy

At the core of Price's philosophy was that architecture should be liberating, enhancing and supportive. Price and Littlewood shared the same desire to create a place that offered people freedom to control their own destinies. From the first conversations about the Fun Palace, Price understood Littlewood's desire to create a place that was a kind of launching pad for finding yourself.<sup>17</sup> Price was deeply concerned with the effect that architecture may have on its occupants.

Cedric Price was unconventional and he criticized architects that designed recognizable symbols of identity and expressed their aesthetic sensibility. Instead of creating a technological aesthetic, like the early modernists, Cedric Price actually wanted to integrate technology. By integrating technology he sought to create supportive environments that transcended conventional wisdom. Cedric Price investigated how cybernetics, game-theory, and systems theory could be integrated in the design of the Fun Palace.

Cedric Price's critique of the monumental extended to his idea that buildings should only last as long as they are useful. To prevent the building from becoming a monument, the Fun Palace was designed to expire after ten years. For Price, the purpose of architecture is what it can do for society and not what it says about society. The identity of the building is less important than communications between users and their environment.

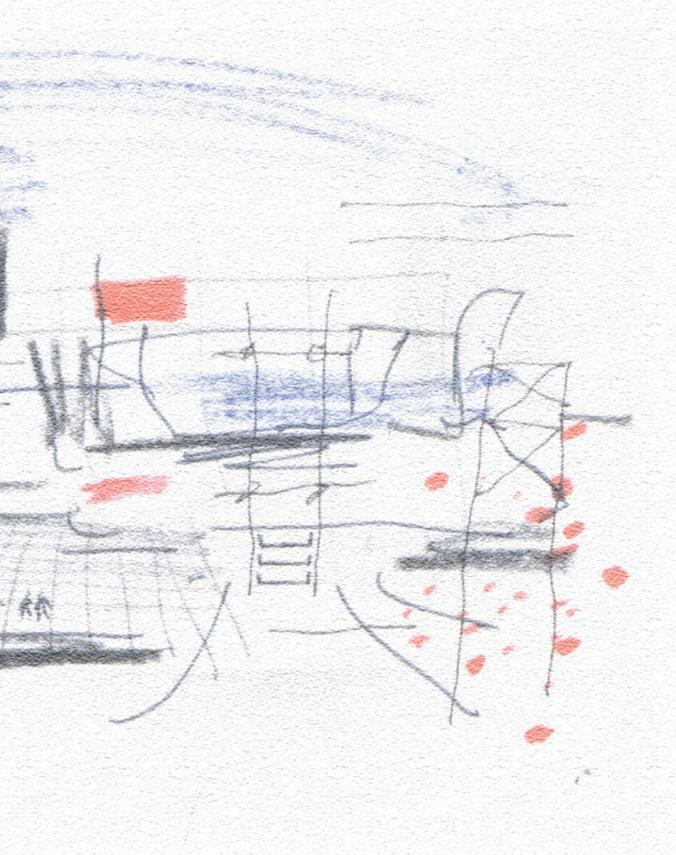
Information technology became a recurring and important part of Price's architecture. The Potteries Thinkbelt was a network for a higher education facility that challenged the idea of the conventional University. Generator was an architectural brain that could respond and learn from its users. These two projects will be discussed in the third part of this thesis. Above all, Cedric Price's philosophy is that architecture must work for humans and give them agency to enhance their lives. It is this desire that resonates with Joan Littlewood's dream and what created the spark for the Fun Palace.

### Cedric Price

Architecture is too slow to respond to the tasks and solve the problems of accelerated contemporary life.<sup>18</sup>

FIG 10 Overleaf: Early conceptual sketch of the Fun Palace interior, c 1963





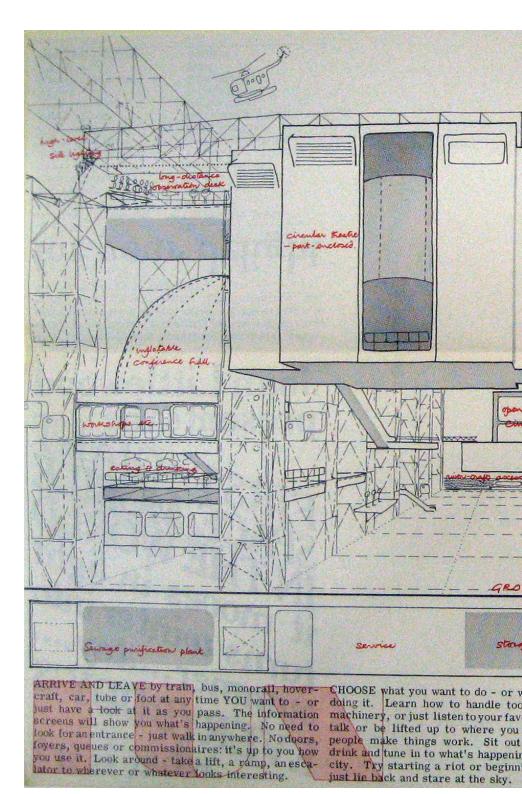
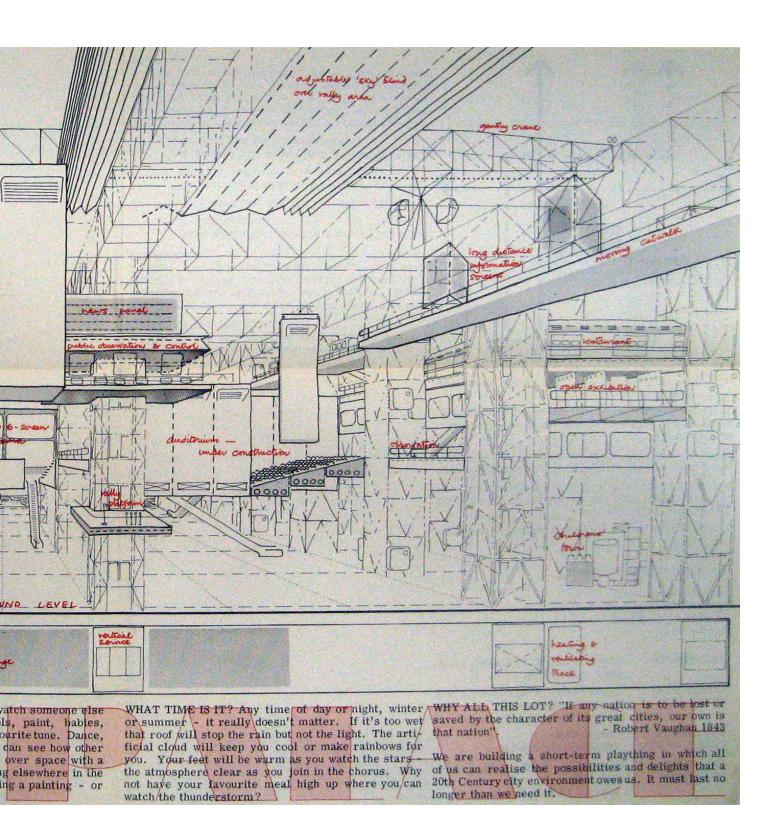
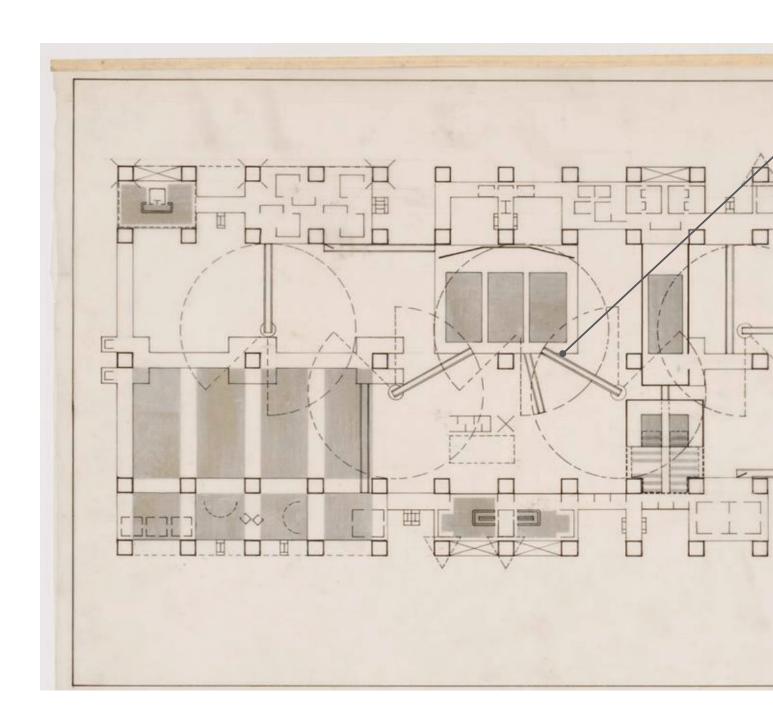


FIG 11 Fun Palace: Interior perspective, Canadian Centre for Architecture, Montreal





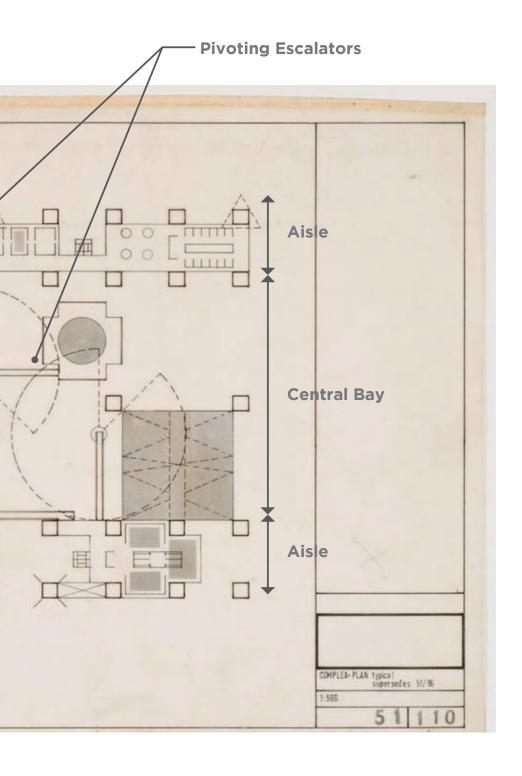


FIG 12 Fun Palace: plan of structural system, 1963. The structure consists of a central bay and two aisles. This drawing clearly shows the footprints of the pivoting escalators

#### 1.06 Structure and Components

Although the Fun Palace challenged architectural convention, it was designed by a pragmatic architect. Cedric Price carefully considered how the Fun Palace would be constructed and he integrated his knowledge of the building code. The building was designed as an open, semi-enclosed structure with multiple levels.

Cedric Price had consulted with the talented structural engineer Frank Newby to devise an efficient structural system. Frank Newby was an engineer who studied under the tutelage of Felix J Samuely. It was at Samuely's firm that Newby's outlook on engineering changed. Newby once said that he was no longer a 'linear man' and that his understanding of engineering had changed as a result of working with Samuely. In 1965, Price and Newby collaborated on the built project: the Regent's Park Zoo Aviary, which is considered by many to be the starting point for high-tech architecture.

The structural framework of the Fun Palace was composed of two main bays spanning 73.2 metres. The long span of the bay consisted of 14 parallel rows of square service towers, 18.3 metres apart. Two 18.3 metre side 'aisles' flanked the 36.6 metre-wide central bay. Services such as stairs, elevators, electrical cables, and mechanical ducts were located in the square towers. The main bays supported gantry cranes on rails. These gantry cranes would have been used to re-configure the various components of the complex. The roof was semi-enclosed with corrugated roof elements and adjustable louvers.

Besides the mechanical components, The Fun Palace was also designed to generate atmospheric environments with environmental controls, such as charged static vapour zones, optical barriers, warm-air curtains, and fog dispersal plants. These ideas on atmospheric environments are interesting, and call to mind Diller & Scofidio's Blur project, which will be discussed later on in the thesis. A number of details indicate the level of specificity of the plans to build the Fun Palace. For example, in order to leave the steel structure exposed Price specified intumescent paint for fireproofing.

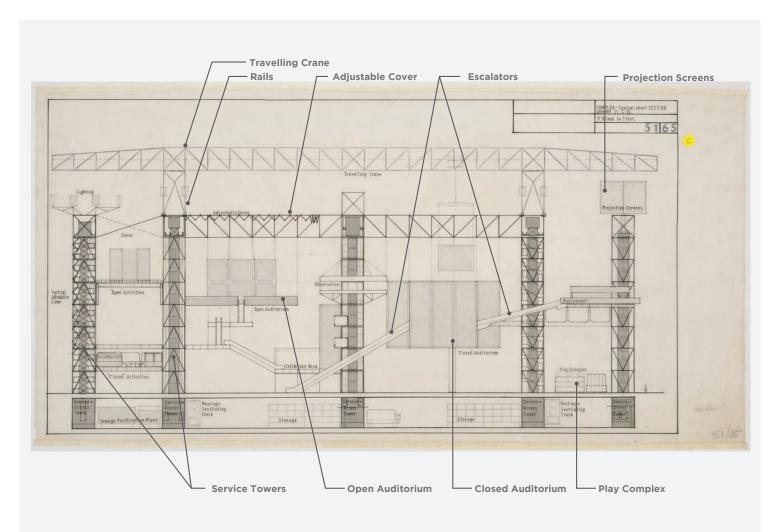


FIG 13 Lateral section through Fun Palace, c 1964. Pen and black ink, black felt tip pen, graphite and adhesive transfer on wove paper  $38.1 \times 75.1$  cm, Canadian Centre for Architecture, Montréal

To meet the building code, it was determined that the Fun Palace would require 200 exits. Anticipating the the project would be built despite all of the bureaucratic complications, borings for the foundation were tested.<sup>20</sup>

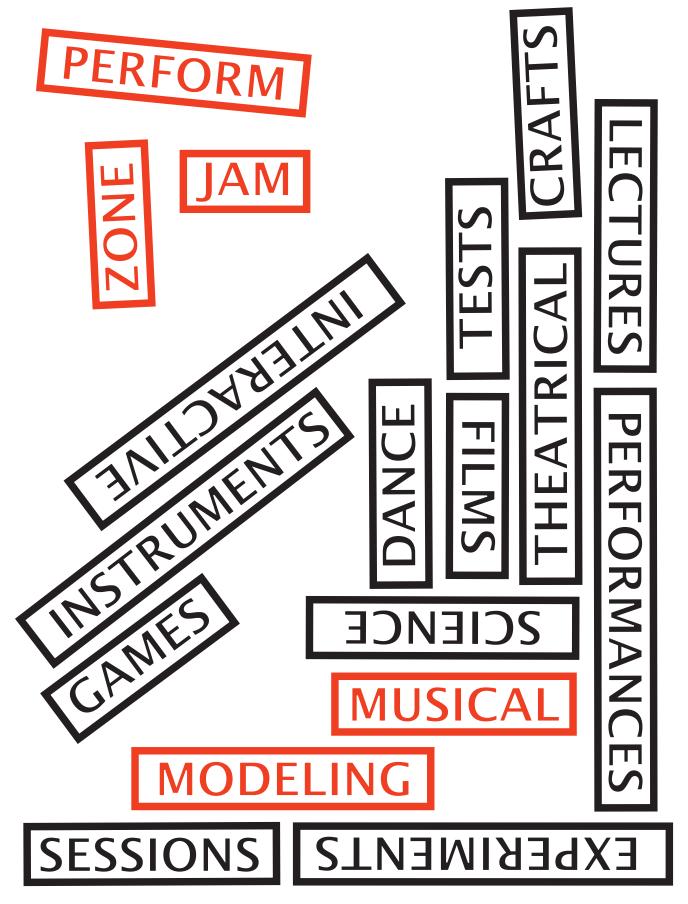
The structural framework of the Fun Palace was designed to hold temporary modules, kiosks, ramps, a suspended auditorium, floating walls, pivoting escalators, and moving walkways. The ground level was designed to be open and to accommodate large gatherings. Projected images, live performers, and sounds would have been used to create different environments.

The Fun Palace promised to offer an exhaustive amount of activities, including: theatrical and musical performances, games, tests, interactive jam sessions, dances, science experiments, lectures, films, modeling, and crafts. In the music zone, for example, instruments were to be located on a lawn for anyone to perform jam sessions or hold dance-ins.



FIG 14 Above: Fun Palace, drawing of the Lea River Valley Scheme. Cedric Price Archives, Canadian Centre for Architecture, Montreal.

FIG 15 Right: A collage of words representing the activities of the Fun Palace. By arranging the words playfully, one is encouraged to free-associate.



#### 1.07 Architectural Logic

The Fun Palace was designed to operate with a logic that destabilizes power relations between building, author, and participant. Both Cedric Price and Joan Littlewood were interested in dissolving the binary of work and leisure; They hoped to liberate people and allow them to activate their creativity. The design of the Fun Palace is deliberately non-hierarchical.

Instead of dividing spaces according to program or function, the Fun Palace was designed as a field of non-linear associations. This means that the content and activity of the Fun Palace would have been in a state of continuous flux. As observed by Stanley Mathews, the logic of the Fun Palace is similar to the concept of the rhizome.<sup>20</sup> The rhizome is a philosophical concept that was invented by Deleuze and Guattari. The rhizome is a dynamic, non-linear construct that destabilizes centralized power structures and allows for multiple meanings.

#### 1.08 Review: Deleuze Reframed

This purpose of reading this book was to understand Deleuze's concept of the rhizome. The authors explain that the rhizome is literally a horizontal plant stem that connects with other stems. But, as a philosophy, the rhizome describes a way of thinking that is opposite to the causal and hierarchical thought of western philosophy, which is structured by binaries.

The rhizome is understood as a singular multiplicity. A spatial example of the rhizome is swarms of moving animals (wolves, birds, bees) that "continually form and re-form a single fluid entity that is at once one and many." Similarly, protest movements that are mobilized by the internet embody the rhizome. The structure of these protest movements cannot be traced since they are not defined by one activist or organization. Unlike hierarchical institutions, protest movements self-organize to form spaces of resistance.

The rhizomatic logic of the internet allows people to destabilizes capitalist power structures. The author warns, however, that the very same logic is easily co-opted to form new types of power structures.

Deleuze & Guattari The rhizome is in perpetual construction breaking off and starting up again and again<sup>21</sup>

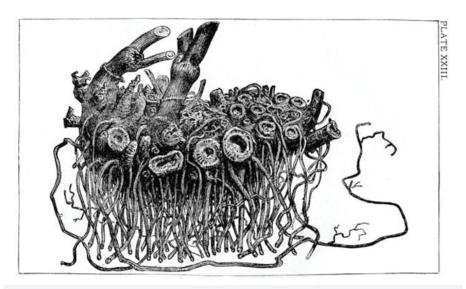


FIG 16 Above: In botany, the Rhizome is an invasive horizonal plant stem. But in philosophy it is a metaphor for an open, dynamic, and horizontal construct system of meaning that transcends binary logic.

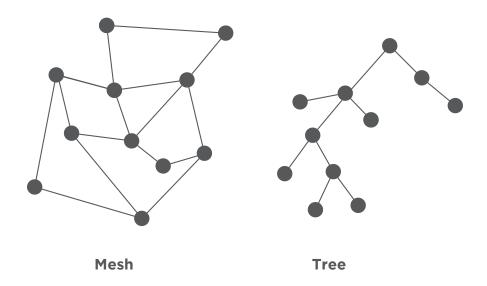


FIG 17 This diagram compares a mesh structure with a tree structure. The logic of the Fun Palace was more like a mesh than a tree because all nodes are connected to each other. Whereas in a tree there are defined hierarchies.

More important than expressing a unified aesthetic was how the Fun Palace mobilized events. For this reason, Cedric Price designed the Fun Palace to be put together with non-distinctive elements or common industrial products because he didn't want to aestheticize it.<sup>23</sup> Like a theatre stage, which is always changing, the Fun Palace was a framework for environments to be constructed. The goal was to create an environment for users to define their own spatial experiences. The logic of the Fun Palace has been interpreted as both strength and a weakness.

In Responsive Architecture/Performing Instruments, Beesley and Kahn understand the Fun Palace as an interactive tool for producing urban life. They are critical, however, of the ephemeral framework because they see it as the precedent for market driven developments. This contrasts with Santiago's Cirugeda's Recetas Urbanas which is rooted in Price's ideas of enabling people. Cirugeda's recipes for urban intervention, in fact, are designed to challenge commodified spaces such as the shopping mall.

### 1.09 Review: Responsive Architecture / Performing Instruments

In this pamphlet, Philip Beesley and Omar Khan discuss the Fun Palace as a responsive architecture. The Fun Palace is a building in perpetual construction. A feedback loop between the building and its users allows them to be modified mutually. Beesley asks whether the Fun Palace can be considered a kind of "spontaneous combustion" machine for producing urban life?<sup>24</sup>

They compare the Fun Palace is compared to Lawrence Halprin's Lovejoy Plaza and Cascade of 1966. Where the Lovejoy plaza constructs a permanent and rugged stage for action, the Fun Palace is like a dissolving prop that works alongside its users.

The authors agree that the ephemeral framework of the building is vulnerable because it is easily co-opted. This is the case with the shopping mall, which adopts the model of the flexible framework. The shopping mall is constantly refreshed to sustain consumerism. Beesley and Khan conclude their dialogue by agreeing the Fun Palace is an architecture that provides tools for people to interact with their environment, but that they prefer the rugged stage of the Lovejoy plaza.

#### 1.10 Case: Recetas Urbanas

Recetas urbanas or "urban recipes" is an open-source architecture that gives people user guides for urban intervention. Santiago Cirugeda created the recipes as a reaction to the idea that the architect is the sole designer.<sup>25</sup>

The purpose of the recipes is to empower citizens to make transformations in their city by subverting laws and regulations. These urban prescriptions enable urban and social renovation and go against capitalist or commodified space. The recipes are not intended to be taken literally and people are encouraged to make variations. For example, guidelines for occupying the street with a skip offer variations: a playground, a dance-floor, or a reading room.

Variations on this kind of project, such as Skip Waste by Oliver Bishop-Young, have set up a website that tracks the contents of existing skips so people can salvage their contents. Skip Waste humorously refills the skips with miniaturized pools, living rooms, and skate parks.



FIG 18 Recetas Urbanas 'Skips. Dumpsters',

Rem Koolhaus Price's most radical contribution was his relentless questioning of the claims and pretensions of

architecture.26

#### 1.11 Collaborative Design

Besides allowing people to create their own experiences, the Fun Palace was designed by an eclectic and diverse team. This was an unusually collaborative project for its time. The design team was divided into various committees, such as the ideas committee and a cybernetics committee. Collaborators included scientists, sociologists, psychologists, cyberneticians, and politicians.<sup>27</sup> Some of the more eclectic members included Buckminster Fuller, Yehudi Menuhin, and the Queen's cousin George Howard. The synthesis of creative energy between the collaborators enriched the project and eventually the influence of cybernetics took propelled it into the realm of computers and information.

# 1.12 Review: Calculated Uncertainty: Computers, Chance Encounters, and "Community" in the Work of Cedric Price, Transformations Journal

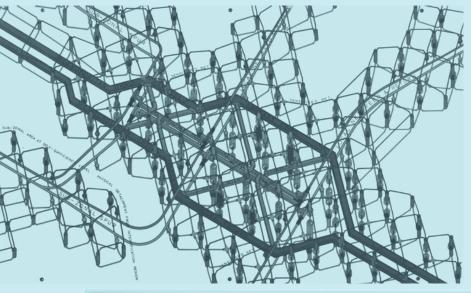
Wilken investigates the contradictory idea of "prepared accident" and the ambitions for creating a techno-sociality, in Cedric Price's Fun Palace. Wilken reviews Price's philosophy of enabling, and his interest in technology-as a means to catalyze social and spatial interaction. Because it explores alternative social forms, Wilkins' compares the Fun Palace to Constant's new Babylon, which also incorporated ideas of the technological, ludic, and social.

Cedric Price's approach with Fun Palace is more scientific, however, in his attempt to create an "accidental environment" by combining cybernetic theory, meticulous planning, and communication technologies<sup>28</sup>. Theoretically, Wilken compares the social goals of the Fun Palace, in terms of community, with the work of poststructuralist philosopher Jean-Luc Nancy and social theorist Kevin Hetherington. Although his comparison to the post-structuralists is weak, I agree with Wilken that the Fun Palace is relevant to the discourse on ephemeral mobility, and the ways media and communications shape the social realm.

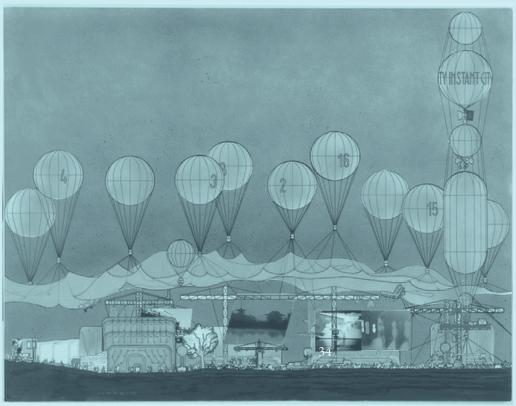
FIG 19 Right: Cedric Price and the Co-creators, collage of the various Fun Palace collaborators in alphabetical order, clockwise from top: Cedric Price, Roy Ascott, Tony Benn, Tom Driberg, Yona Friedman, Buckminster Fuller, Joan Littlewood, Yehudi Menuhin, Ian Mikardo, Malcom Muggeridge, Gordon Pask, Robert Whiteread.



CHEER UP! ITS ARCHIGRAM! "Is a cry to the world at large....The world of Architecture and those who have to experience architecture....A cry....For goodvness sake stop being so grim and unimaginative....The world is an imperfect place...And yes, There are many things that must be changed....And there are ways in which the old concepts of "house", "city", "design", "problem", "place", "space", "artefacte" (and the rest) can be exploded, shaken, pummeled, and re-invented.<sup>29</sup>"







#### 1.13 Archigram

The Fun Palace was designed during a remarkably fertile and creative intellectual environment at the Architectural Association in London. Cedric Price's ideas influenced the representationally bold work of Archigram. Archigram was an architectural collective made of up six members: Peter Cook, David Greene, Mike Webb, Ron Herron, Warren Chalk and Dennis Crompton. Archigram was influenced by Cedric Price who was acted as a kind of guru for the Group.<sup>30</sup> Gordon Pask was also an influence for the group and was the systems consultant for the 'Instant City' project.

Many of the themes that Cedric Price investigated in his work, such as mobility, change, technology, and civic participation appear in the work of Archigram. Unlike Cedric Price who resisted in representing his ideas in a commercial way, Archigram popularized the aforementioned themes with vibrant imagery. Archigram's drawings contributed to the cultural zeitgeist of pop art in the 1960s.

What was provocative about the work of Archigram was this it had a political dimension. The member's of Archigram sought to shake up the architectural status quo and they infused the work with commentary about society. Many of the drawings from Archigram manifested as posters or magazine covers. One cover humourously and directly cries: "Cheer up. It's Archigram."

Like the Fun Palace, Archigram investigated the idea of Fun and Leisure in society. "Free Time / Fun Node," for example, speculated on an expanding and contracting structure that services trailers and caravans. The Fun Node was designed for a society with a 2-3 day working week. Another sketch from a different project calls for "Fun Machine," and illustrates a contraption that includes trampolines, slides, and escalators.

FIG 20 Right: Collage of Archigram projects, Computor City (top left), Ideas Circus (top right), and Instant City (below).

Mobility and change are the central ideas for the "Ideas Circus" from 1968. The "Ideas Circus" proposed a mobile educational facility for staging and feedback of information from seminars, screening, exhibitions, etcetera. Comprised of one or multiple vehicles, the aim of the Ideas Circus was the communication and extension of ideas and knowledge by creating a feedback circuit between various centres.

One of the more recognizable projects by Archigram was Instant City. Professor Gordon Pask of Brunel University was the systems consultant for the project. Instant City was a `traveling metropolis' that infiltrated communities and was assembled according to site and local characteristics. Not all components of the Instant City "packages" were necessarily used and the 'City" had the tendency to fragment. Instant City catalyzed a network of information-education-entertainment or 'play-and-know yourself' facilities.<sup>31</sup> Of course, the idea of a heuristic approach to learning -through play-was also the basis of the Fun Palace.

The ambition to integrate technology and computing in the work of Archigram is very clear in "Computor City." Computor City was described as a synthesized metropolis with electronic changeability, where the activities of an organized society occur within a balanced network of forces.<sup>32</sup> Forces naturally interacted to form a continuous chain of change. In Computer City, "A METROPOLIS is situated at the point of maximum display of interactive energy and shows the most complex field of forces."<sup>33</sup>

The ludic space of the Fun Palace has been compared to Constant Nieuwenhuy's New Babylon. Whereas the Fun Palace sought to be a place where 'play' could be used as a constructive use of free time, New Babylon sought revolution.

#### 1.14 Case Study: New Babylon

New Babylon imagines a city of nomadic citizens engaged in creative play. Nomads move through a network of interconnected sectors. Inspired by Huizanga's concept of Homo Ludens, New Babylon is a ludic society where the nomad is freed from automated work.<sup>34</sup> The nomad is fully aware of his power to act upon the world, to transform it, and recreate it.<sup>35</sup>

Constant says that it is only as a creator that the human being can attain his highest existential level.<sup>36</sup> The ambitions of New Babylon paralleled the work of the Situationists. The Situationists were a neo-Marxist group that simultaneously embraced and subverted the capitalist system. Ultimately, the situationists wanted to spark revolution. Although New Babylon was supposed to be a playful and spontaneous complex, the structure was in fact a massive steel structure at the scale of the city. What New Babylon sought to realize architecturally, which aligned with the ideas of the Situationists, was to create emotional affects or atmospherescalled 'situations.'

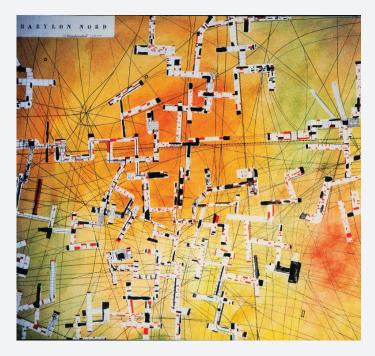


FIG 21 New Babylon consists of a network of sectors where nomadic citizens are engaged in creative play.

#### 1.15 Influence of the Fun Palace on Architecture

Throughout the seventies, Cedric Price's ideas influenced the work of Richard Rogers, Renzo Piano, Bernard Tschumi, and Rem Koolhaus. The greatest irony of the Fun Palace is that it's un-intended aesthetic became the precedent for one of the world's most recognizable cultural buildings. The Fun Palace's influenced the high tech aesthetic of the Pompidou Centre.

The Pompidou Centre could never truly realize the openness and flexibility of the Fun Palace. Whereas the Fun Palace aimed to be a generator of social interactions for the working classes, the Pompidou Centre is monument of elite culture. Originally, the ground level of the Pompidou Centre was intended to be open to the city on all four sides; but the logistics of security and admission forced the Pompidou Centre to have a carefully controlled entrance on one side of the building.

If Cedric Price's design for the Fun Palace was not as pragmatic as it was, it would be tempting to call the Fun Palace a utopia. That the Fun Palace could realize the infinity of possibilities that it claimed, is questionable. Albert Meister's book "This so-called Utopia" critiques the social ambitions of the Pompidou, and the Fun Palace implicitly.

It was Cedric Price's rhetoric on indeterminacy that influenced Rem Koolhaus and Bernard Tschumi. Both Koolhaus and Tschumi became finalists in the high profile Parc de la Villette competition, for an urban park in Paris (1984). Cedric Price also participated in the competition, but the un-specificity of his submission did not capture the attention that Koolhaus and Tschumi enjoyed.

Bernard Tschumi won the Parc de la Villette competition. Tschumi had developed a theory on 'event-cities.' Like Cedric Price, Tschumi was more interested in the events that happen through architecture than the physical building. Unlike Cedric Price, whose design was too vague for the judging panel, Tschumi formalized the ideas on indeterminacy with a strong graphic approach.

#### 1.16 Review: In the Bowels of the Fun Palace, Mute Magazine

Mark Crinson observes the primary contradiction of the Fun Palace: users have the freedom to create their own spaces in an open environment, but their behaviours will be monitored. Because the Fun Palace was never built, Crinson speculates whether the promises of an unshaped environment would have been fulfilled. As with most other writings on this subject, the Fun Palace is compared to the Pompidou centre. The Pompidou centre appropriated the rhetoric and aesthetic of the Fun Palace, even though the Fun Palace was never meant to be recognized for having an aesthetic. Crinson outlines the shortcomings of the Pompidou centre and the failure of its subsequent renovations to provide flexibility and indeterminacy. Crinson compares the Pompidou centre to an alternative vision of the "Beaubourg": The So-Called Utopia of the Centre Beaubourg by Albert Meister. Crinson says that the anti-Beaubourg is a non-architecture that is even truer to the ambitions of the Fun Palace. Both the Pompidou and the Fun Palace are lessons on the problems of infinite flexibility, which easily becomes the strategy of neoliberal developments.<sup>37</sup>



FIG 22 Cover of "The so-called utopia of the centre beaubourg" by Luca Frei



 $FIG\ 23$  The Fun Palace influenced the aesthetic of the Pompidou Centre in Paris.

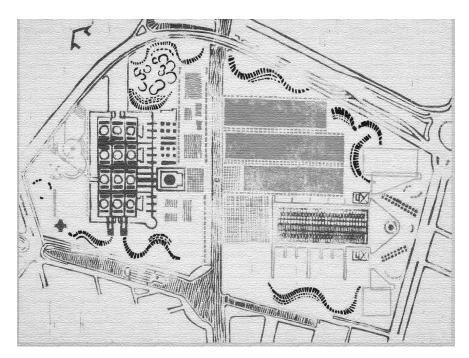


FIG 24 Illustration of Cedric Price's plan for Parc de la Vilette, Canadian Centre for Architecture, Montreal.

#### 1.17 Case: Bernard Tschumi's Parc de la Villette

Bernard Tschumi's design for the Parc de la Villete is an example on deconstructivism. Instead of designing a naturalized landscape, and follow the model of Frederick Olmstead—which was popular at the time—Tschumi opted for an urban approach. Bernard Tschumi introduced a grid of red 'folies' to structure the urban park.

The folies have a dual meaning: oscillating between "folly," meaning a small building, and madness.<sup>39</sup> Effectively small pavilions, the folies are dynamic points of intensity, which is represented in a drawing of an exploded folie. The folies are at once one and many; they resist a precise meaning and instead imply multiple meanings.<sup>40</sup> Spaced by 120 metre intervals, the folies can be read as a field instead of individual sculptural pieces. Each folie varies according to assemblage and location. Tschumi describes the folies as "generators of events; their spatial potential accelerates cultural or social transformation that is already in progress."<sup>41</sup> In theory, the folies work to simultaneously structure the park and destabilize it, through the events they engender.

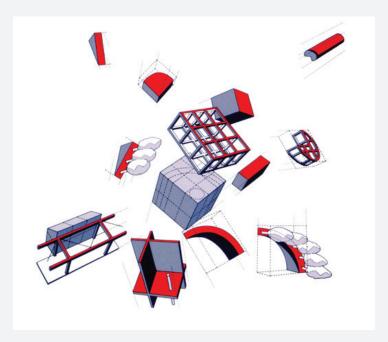


FIG 26 Drawing of an exploded 'folie' from Bernard Tschumi's winning submission for Parc de la Villette.

Bernard Tschumi Architecture is as much about the events that take place in spaces as about the spaces themselves.<sup>38</sup>



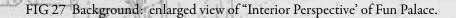
FIG 25 Book Cover of Event Cities

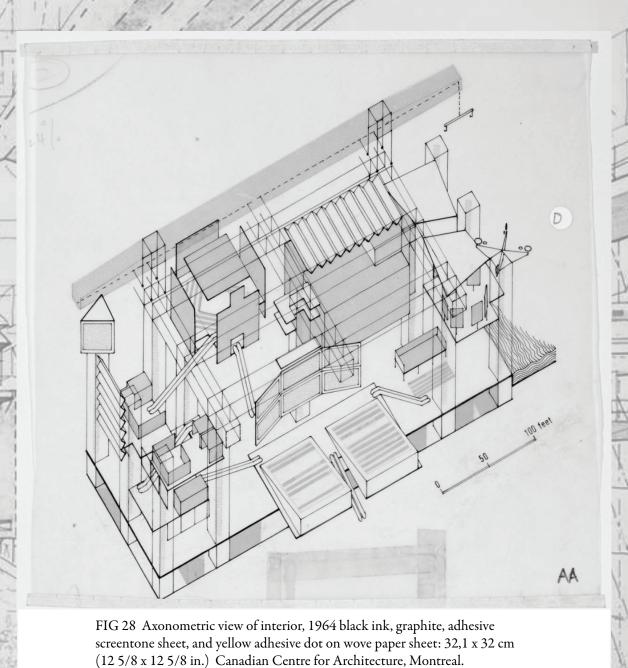
#### 1.18 Learning From the Fun Palace

The Fun Palace was an extraordinary and imaginative architecture whose design was led by the creative dynamic between three geniuses: Joan Littlewood, Cedric Price, and Gordon Pask. The designers hoped that through the pursuit of fun (in the Brechtian sense), the Fun Palace could initiate a heuristic approach to learning that activated creativity and liberate people from the stifling repetitions of everyday convention.

Instead of a monument to culture, the Fun Palace was an ephemeral framework that allowed people to design their own environments. By including many participants in the design, the authorship of the architect became limited.

The ideas of the Fun Palace were so novel and compelling that they greatly influenced the work of Archigram and architects such as Richard Rogers and Bernard Tschumi. As the design of the Fun Palace evolved, cybernetics became increasingly influential. The idea that the Fun Palace is a multi-dimensional space will be investigated in the next part of the thesis. The narrative of the Fun Palace will be used as a lens for reflecting how the Fun Palace anticipated the new condition of the digital city.





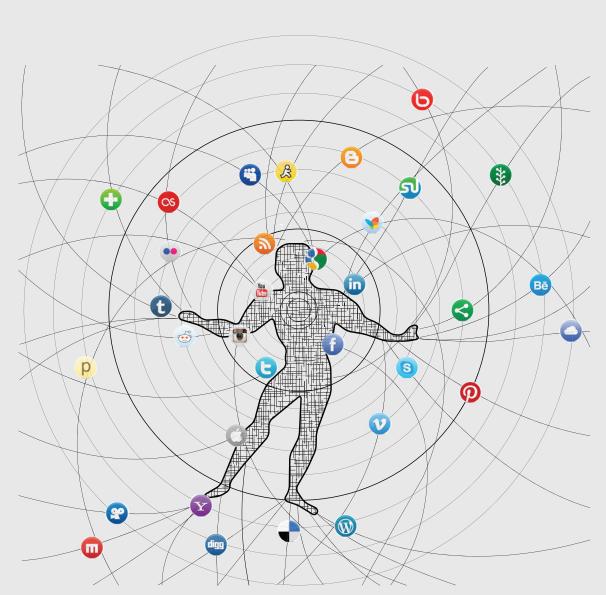


FIG 29 In the digital city, bodies are infused and intersected by networks. This diagram is inspired from Oskar Schlemmer's "Egocentric Space Lines". The diagram illustrates the icons of the largest social networks in relation to the networked body. The closer the icon is to the body means that the network is more pervasive and invasive.

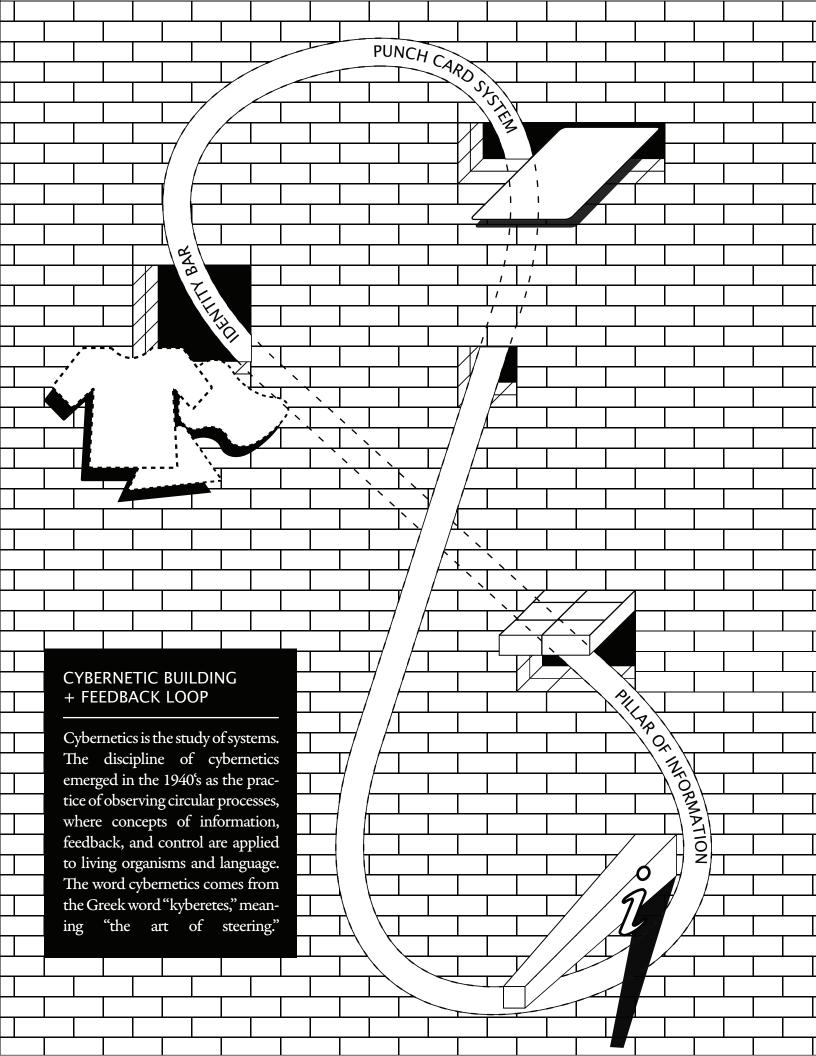
# **Digital City**

More than a building, the Fun Palace was a informational interface that integrated cybernetic theory. The influence of cybernetics on the design propelled it beyond Joan Littlewood's original dream for a university of the streets. Cybernetic experiments introduced new implications that deviated somewhat from the original intentions of the project, and they made the project more complex. The Fun Palace became a prophetic project that anticipated the contemporary condition described in this thesis as the 'digital city.'

In section one we established that the Fun Palace was a participatory architecture that challenged the idea that architecture is authored by a single architect. In modernist functionalism, architecture was a machine to live in; it was like a tool that served the inhabitant. With its cybernetic intelligence the Fun Palace proposed an alternative architecture. The Fun Palace was rather an "environment with which the inhabitant cooperates and in which he can externalize his mental processes." In the words of architect's Diller & Scofidio: architecture is now a space to machine in. 43

On one level, the Fun Palace is a steel framework for a mechanical dance of architectural components. On another level, the moving components are signs for a virtual space of interactions, forces, and processes. In this view, the Fun Palace was architecture on the threshold of becoming information.<sup>44</sup>

Communication technology and information were integral to the project's design. The Fun Palace combined the standard components of a building with teletechnologies. Joan Littlewood explained in New Scientist that the Fun Palace would have been equipped with multiple video screens. The screen would have broadcasted, without editing, events in the complex and in and around London.<sup>45</sup> The more difficult task of responding to user input would have to be administered by cybernetic science.



In order to plan for future activities the building had to learn the movements and behavioural patterns of it's users. Cedric Price used analytical studies, tables, and charts to understand the relationship between similar activities. One study looked at variations in theatre seating configurations for the Cybernetic Theatre. Eventually Cedric Price turned to the fields of cybernetics, game theory, and computer technologies. Price sought an autonomous system that could mediate between the building and its users.<sup>46</sup>

In 1963, both Joan Littlewood and Cedric Price invited Gordon Pask to join the design team. Gordon Pask was a leader in the British strand of cybernetics and viewed the brain and cognitive behaviour as a "performative model that elucidates an emergent interplay of human and material agency." The interplay between human and nonhuman elements added complexity and depth to the Fun Palace. These developments were led by the innovations of the cybernetic committee.

#### 2.01 Cybernetic committee

The interplay between humans, events, and the building were facilitated by the feedback loop. The cybernetic committee was responsible for proposing a number of imaginative ideas. In order to negotiate between building and user, a punch card system for tracking and allotting resources was proposed.<sup>48</sup> Each user of the building would be given a punch card to register their personal preferences. This way, the building could learn to adapt to its users.

London based artist Roy Ascott proposed an 'identity bar,' that dispenses paper clothing, so people could experience the thrill of taking on different personas and gender roles. <sup>49</sup> Yet another fascinating idea by Roy Ascott was the pillar of information. The pillar of information displayed information and memorized previous inquires, allowing users to gain insight into the activities of other users. <sup>50</sup>

FIG 30 Left: "Cybernetic Loop," collage of the Fun Palace's cybernetic conversation loop which includes punch cards, information pillars, and user input.

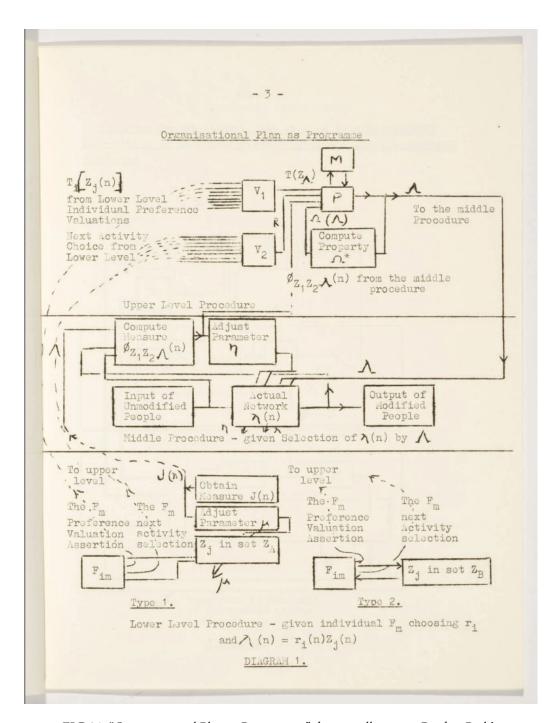


FIG 31 "Organisational Plan as Programme" diagram illustrates Gordon Pask's diagramatic work in designing a conversational system for the Fun Palace. The diagram suggests that the system that could potentially modify people.

The democratization of information is an idea that also appeared in Cedric Prices's design for the Oxford Corner House of 1965-66. The Oxford Corner house was a twenty-four hour "information hive" located in central London.<sup>51</sup> The pillar of information and the Oxford Corner House clearly anticipated the internet and the internet café by various decades. Gordon Pask work on the Fun Palace shifted the focus of the project somewhat.

What began as an intention to empower the individual through the notion of 'Brechtian Fun' turned into an investigation on user behaviour. Gordon Pask's 'Organizational Plan as Programme' diagram, for example, shows 'unmodified people' as input and 'modified people' as output. In this flowchart, the human being is considered just another piece of data. Gordon Pask was interested in developing a mathematical model that could determine what is likely to induce happiness.<sup>52</sup> Here, the purpose of architecture expanded beyond providing a space for activity. Through the emergent sciences of cybernetics, game-theory, and systems theory, architecture began to actively interact with it's users.

#### 2.02 Digital City

In the Fun Palace, technology produced networks of relations that mediated between the organic and inorganic through feedback. The dynamic relationship between humans, machines, and space describes the digital city. The digital city, as defined by Benjamin Bratton in "iPhone City," is the shared nervous system where bodies are infused and intersected by technology and networks. Having anticipated this, the Fun Palace marks a shift in architectural thinking. From an architecture that is defined by walls to an architecture of fields. The digital city adds a layer to the city in the form of informational spaces that this thesis calls 'fields'. Fields are highly quantified and networked spaces that aggregate user information.

Through the experiments of the cybernetics committee, the idea of user profiling began to emerge. In the contemporary digital city, tracking and measuring technologies have already become so sophisticated that

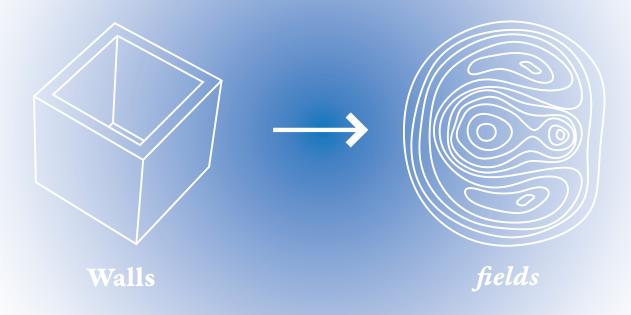


FIG 32 A multi-dimensional architecture shifts from being defined by walls to being generated by informational spaces, or fields.

they already profile individuals in a multitude of ways. For example, a google profile can keep track of an individual's calendar, entertainment preferences, curiosities that are inputed into the search engine, and personal correspondences with friends. This information can be used to make suggestions and mentally condition an individual's future choices. Another example of user profiling is music services, such as 'Rdio,' which tracks the musical preferences of its users and uses algorithms to make musical recommendations.

In the digital city, people are surrounded by informational fields that play a role in shaping their social and spatial experiences.<sup>53</sup> To truly consider architecture in the digital city we have to understand these virtual spaces and the role they play in design. Architects can not only concern themselves with creating architecture that is defined by walls. Architects must consider the de-materialization of architecture. The word field can be a rather abstract term but what is compelling about it is that it suggests the overlapping of various spatial layers.

a: a region or space in which a given effect (as magnetism) exists.

b: a complex of forces that serve as causative agents in human behaviour.

c: a particular area (as of a record in a database) in which the same type of information is regularly recorded.

FIG 33 Definitions of the word "field" from the dictionary.

## 2.03 Review: The Fun Palace as Virtual Architecture: Cedric Price and the Practices of Indeterminacy

Stanley Mathews uncovers the contemporary discourses and theories that influenced Cedric Prices' improvisational architecture. Mathews explains how Cedric Price was motivated by a delight in the unknown, which informed his interest in change and indeterminacy. The Fun Palace was based on ideas from theatre, and was designed as a socially interactive machine. Mathews charts how the project became increasingly influenced by game theory and cybernetics. Optimism for the potential of technology led the cybernetics committee to propose ideas that bordered on social control. Although technology had become very important in the project, the motivation of the Fun Palace was always to empower the individual.<sup>54</sup>

#### See Click Fix Like a collaborative 311, SeeClickFix connects citizens to city hall-and one another.



FIG 34 Illustration of a person using the application to report a street that needs repair.

#### 2.04 Diagrammatic Architecture

For Mary-Lou Lobsinger, the Fun Palace is a diagrammatic architecture because it exhibits neither a functionally determined or conceptually determined formalism.<sup>55</sup> The moving parts of the Fun Palace are in fact analogs of virtual communications. Very much like a computer, the Fun Palace can be viewed not as a dumb building but as intelligent machine that processes commands and interactions.

This idea is easier to understand today than it was in the sixties. when the internet had not yet been invented The smart phone, for example, realizes the kinds of interactions between user and environment that the Fun Palace anticipated.

The smart phone has quickly become a powerful consumer tool that facilitates interactions with the urban environment. Smart phones allow people to interact with their environment in real-time. For example, "SeeClickFix," is an application that "allows users to report non-emergency issues, like graffiti, burnt-out streetlights and potholes, to the appropriate city authority with a geo-tag and photo." Virtual tools such as SeeClickFix enables people to transform their urban environment.

### 2.05 Review: Cybernetic theory and the architecture of performance: Cedric Price's Fun Palace, In Anxious Modernisms

Mary Lou Lobsinger examines the Fun Palace in a chapter from 'Anxious Modernisms,' a book that focuses on architecture from post-war Britain. Lobsinger explains how Price's attitude to architecture aligned with Reyner Banham's critique of the architectural status quo, which aestheticized technology instead of truly embracing its potential. She elaborates on how the Fun Palace was also a critique of the welfare state and an archaic sense of time, which divided work time and leisure time. Lobsinger's goes deeper into a critique of the Welfare State to explain that the Fun Palace was a reaction to the failed promise of the airwaves as a space of freedom outside the market.

For Price, time was the fourth dimension of architecture. Instead of a building Lobsinger sees the Fun Palace as an "abstract diagram," in the Deleuzian sense, for a real-time production of the social and individual realm. Lobsinger explains how the project eventually suffered an identity crisis when the cybernetics committee sought to predict what makes people happy. At times, no one really new what the Fun Palace actually was.

I agree with Lobsinger that ubiquitous information plays an important role in affecting spatial relations. Considering pervasive information in architectural theory and practice is relevant to the current phase of technologically enabled-late-capitalism.

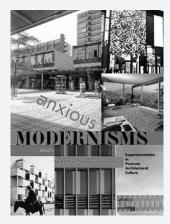


FIG 35 Lobsinger's article appeared in a book about post-war experimental architecture: Anxious Modernisms.



FIG 36 What makes the iPhone remarkable is that it allows for the stacking of many virtual applications on one device.

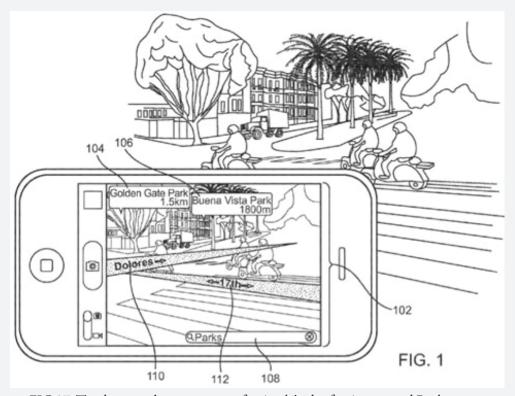


FIG 37 The diagram above is a patent for Apple's idea for Augmented Reality, which uses the phone's GPS enabled maps, camera, and gyroscope to accurately layer information such as street names, addresses and landmarks.

Arguably, the most revolutionary consumer product of the last decade is the iPhone. What makes the iPhone so compelling is that is augments and extends the cognitive abilities of its users in space and time; It is effectively a prosthesis of the human body that networks spaces from multiple temporalities. In the digital city, the people moves through urban space not merely as a physical body but as a informational fields.

### 2.06 Review: iPhone City

Benjamin Bratton says that the augmented capacity of the smart phone is changing the way we interact with each other and our cities. He proposes an experiment: that half of architects should dedicate their time to designing and programming software that improves the structures and systems that already exist.

In the digital city, mobility has transformed from mechanical to informational. The mobile phone was an innovation that emerged from the car. Now, the mobile phone is now replacing the car as the primary technology of mobility. The mobility of the iphone establishes a new grid for a digital city.

Bratton defines the digital city is a shared nervous system where bodies are infused and intersected by extensional networks.<sup>58</sup> We operate the digital city as a recursive read-write medium. The spaces we inhabit in the digital city are ambient informational fields or spheres. Space has become an informational substance.

The interface and hardware of the iphone blends into a single dynamic form or field. Such that computation has become a cheap ubiquitous vapour. What makes the iphone particularly compelling is that it directly manipulates this substance through gesturing; by pointing & clicking, touching & pinching, waving & poking, and so on.

Bratton argues that the infrastructure of phones and networks are important to democratic societies because they make the city a read-write medium. The impact these technologies have on spatial interaction will increase, since the hand-held computer will be the first computer for most of the world's population.

### William Mitchell

The city becomes a collectively constructed memory palace that divulges its contents to inhabitants as they circulate through it.<sup>57</sup>



FIG 38 Above and Background: Blur is an anti-monument. The structure is but a mere shell that generate an atmosphere of mist that is controlled by computers.

### **Blur**

Beyond the material dimension of architecture, there is the dimension of communications and information that is integral to the production of space. The Blur building by Diller & Scofidio is a compelling polemic that represents two of the Fun Palace's most important ideas. Firstly, Blur is an architecture that produces effects, instead of a fixed and recognizable symbol. Secondly, Blur integrates media elements and investigates ephemeral communications.

### 2.07 Case Study: Blur by Diller + Scofidio & Renfro

Blur is less of a building and more of an atmosphere that dissolves the boundary between the artificial and the organic, the virtual and the real. Architects Diller & Scofidio borrow Aldo Rossi's concept of the building as a framework in which things are revealed.<sup>59</sup>

Blur is an intelligent framework that generates a cloud of mist. The cloud is generated by an array of high-pressure mist nozzles that are fed by water pumped from the lake. A smart weather system reads the climactic conditions of temperature, humidity, wind speed, and direction. Information is processed in a central computer that regulates water pressure to 31,500 fog nozzles. The quality of the mist changes depending on season, day, hour, and minute.

In Blur, there is no distinction between the body and space itself. "The body is not what is contained within the sack of our skin but rather enmeshed in the substance of space as a kind of toric envelope." 60

Blur is not just architecture but also installation and performance. The architects wanted to integrate media elements into the performance of Blur, but unfortunately they were never realized. 'Braincoats' were supposed to track the movements of visitors, using embedded sensors. The sensors and coats would have been keyed to computer-coded information-collected from questionnaires at the entrance. The LED's in the coats would have emitted different colors to indicate the attraction and repulsion between visitors. Although it was a primitive idea in 2002, locative media is now used in a myriad of applications and social networks.

**Liz Diller**Blur is an inhabitable medium.<sup>61</sup>

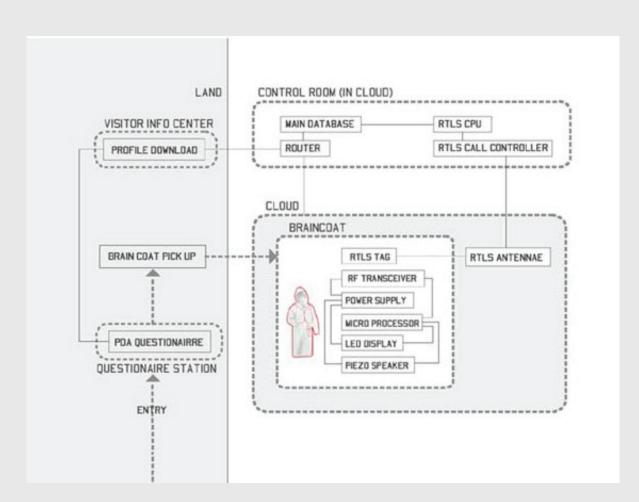


FIG 39 This diagram of Blur's Brain-coats illustrates how user's would receive a questionnaire upon entry. The user's profile would be sent to the control room in the cloud, which would manage the information and distributed it to the braincoats. The brain-coats would have be equipped with micro-processors, LED displays, speakers, and so on.,

To return to the narrative of the Fun Palace: The Fun Palace was designed as a space for learning through the pursuit of fun. No longer confined to the work-place, the Fun Palace was a place where people could find the transcendence of the theater by creating their own experiences. Yet, the cybernetic explorations introduced new and complicated implications. How can the users of the Fun Palace be free, if their minds and desires are connected to the building's nervous system? Beneath the gloss of 'fun' are the subtler forms of control.

The subtler forms of control are investigated in Deleuze's essay "Societies of Control." Deleuze says that the way power operates in control societies is more ephemeral and harder to locate. Although, the Fun Palace is supposed to be a space of play and freedom, it is precisely this kind of social environment that can be exploited.



FIG 40 Brain-Coats are embedded with LEDs which emit coloured light that indicated the attraction or repulsion between visitors of the Blur pavilion.

### **Bruno Latour**

We are enveloped, entangled, surrounded; we are never outside without having recreated another more artificial, more fragile, more engineered envelope. We move from envelopes to envelopes, from folds to folds, never from one private sphere to the Great Outside.62

# Warren Neidich In the field of the society of control, conversely, the body is coerced through unseen and sublime mediated agents like radio waves and cin-

ematic images that have no boundaries

and enter the eve

directly as invisible energy to adminis-

ter consciousness.<sup>63</sup>

### 2.08 Review: Deleuze's Societies of Control

In order to define the societies of control, Deleuze first defines Foucault's disciplinary societies. Disciplinary societies are the environments of enclosure which organize production and administer life. Deleuze says that the enclosures that defined the disciplinary societies, such as the prison, hospital, and school are in crisis and are being replaced by the open system of forces that constitute control societies.

The new form of control is described as a spirit or gas that is constantly varying, such that liberating and enslaving forces confront each other. The control mechanism is embodied in the metastable conditions of the corporation which absolves the distinct spaces of the prison, hospital, and school into a continuous variation.<sup>64</sup> The condition of control societies is that a person is never finished with anything.

Using vivid terms, Deleuze sees the man of control in undulatory orbit in a continuous network. Control societies operate in a higher order capitalism where the operation of markets is the instrument of control. The individual is a code in the circuits of information, which are controlled by access, in the form of passwords. Instead of man enclosed man is in debt.

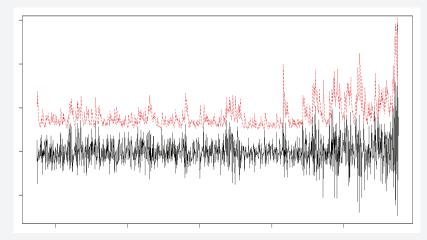


FIG 41 Societies of Control are ruled by volatile and ephemeral forms of power. Deleuze considers the operation of markets to be an instrument of control in higher order of capitalism. This graph above depicts algorithmic trading in the stock market.

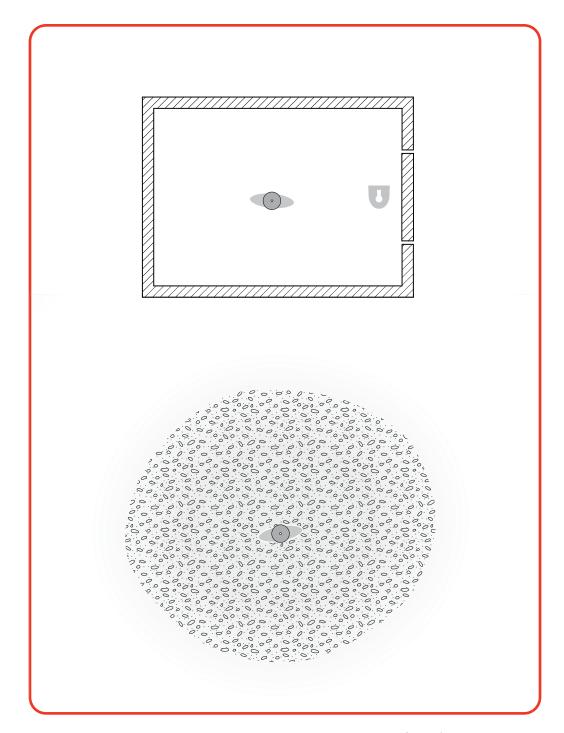


FIG 42 Disciplinary societies are administered by enclosures (above), while Control societies (below) operate through control mechanisms that are gaseous and hard to locate.

### 2.09 Cognitive Architecture

In the digital city, cognitive energies are increasingly connected by communication infrastructures. Social networks, blogs, and micro-blogs continuously index cognitive processes.

The ability to access, analyze, and engineer user information on the internet has tremendous value. The social media network Facebook, for example, exploits the identities and social interactions of it's users. The 'fun' of communicating with friends is in fact another form of work. The privately owned network analyzes public information to produce targeted advertising. Social interactions produce value that only generate financial profit for the few people who control the network.

What we find is that the late-capitalist ideology of pursuing your desires, which the Fun Palace followed, is exploited by the ruling elite. The rhizomatic, non-hierarchical logic of the internet appears to offer freedom. Yet, corporations who control the networks and infrastructure profit greatly from the interactions of its users. Google, for example, uses the cognitive power of the people who use the search engine.

Google is the best example of cognitive capitalism, a term defined by Matteo Pasquinelli. Pasquinelli coined the term to describe how corporations profit from the cognitive energy of those who use the services. Google does not care what people look at as long as they frequently use the search engine. In exchange for the free services of the internet, users effectively rent their cognitive labour for free. Cognitive labour is data-mined to extract information about consumer habits and desires. The desires of the services of the internet, users effectively rent their cognitive labour for free.

If for a moment we can equte the infinite flexibility of the Fun Palace with the endless variation of the internet, we find that they do not realize a genuine freedom. Philosopher Slavoj Žižek says that by embracing the logic of erratic excess, capitalism finds new ways of extracting value.<sup>68</sup> The irony of a space that is free and flexible is that is can be appropriated to shape a new form or regime of control.

# Deborah Hauptmann ognitive capital-

Cognitive capitalism acts through a reconfiguration of the temporal structures that also serve to mediate such things as memory and attention.<sup>65</sup>

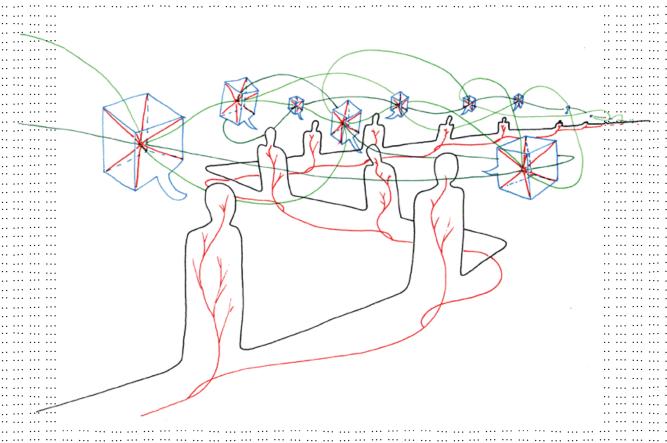


FIG 43 In the digital city, a cognitive architecture is structured by the networked profiles and cognitive processes of its users. The illustration above is an interpretation of paragraph 6B from the introduction to Deleuze and Guattari's book, One Thousand Plateaus. Illustration by Marc Ngui.

Where can the citizezn of the digital city find refuge from the omnipresence of information and communication infrastructure? If the Fun Palace was designed to liberate the worker from the dreariness of repetitive industrial work, the problem for the worker of the digital city is to escape the virtual architectures that thrive off his/her psychic life.

### 2.10 Review: Noo-Architecture & the Internet of Things

In this article, which appeared in Volume magazine, Deborah Hauptmann defines cognitive architecture in the age of communications and information.

First, Hauptmann distinguishes between bio-politics which acts on the body and noo-politics which operates on the architecture of the brain. Hauptmann explains that on the virtual level, minds act on minds at a distance. Noo-politics is a continuation of Deleuze's societies of control, where power operates on the mind through technologies of communication. At the virtual level, noo-politics reorganizes other power relations because it operates at the most de-territorialized level.

Through media and communications, the planet has become a central nervous system, creating complex conditions of control and resistance. <sup>69</sup> The noo-sensorium is a spatial term that describes temporalities of perception, experience and memory-which are processed by the mind. Resistance is possible only once we are already subject to its effects.

Hauptmann cites the film 'Inception' as an example of the nooimaginary. The film is a landscape of neuro-architecture, where minds are mapped and re-mapped within minds. In the cities of control, attention is administered through selective nodes and networks of information. Power is exerted on attention, memory, and desire.

This article affirms the understanding that architecture is not autonomous and is rather embedded in the fabric of complex relations. Noo-architecture concerns itself with the recurrent and recursive processes that empower the imagination, and inform what urban space might become in the future.



FIG 44 This image is a still from the film "Inception," which exhibits the concept of the noo-architecture. In a noo-architecture minds are mapped and re-mapped within minds.

### 2.11 Digital Life

In the digital city, pervasive communications are changing our social behaviours. The term 'non-presence,' for example, describes the event when someone's attention is on a virtual space and they are absent from their physical environment. As we outsource our mental processes we inhabit simultaneous environments. It has become normal for our body to occupy a random physical space and for our minds to reside somewhere else entirely.<sup>71</sup>

**Diller+Scofidio**Man in an appendage of themachine.<sup>70</sup>



FIG 45 Athletes breath monitored to determine metabolic rate.

Digital technology is also changing the way we access information. It is more likely that a person will read something that is recommended by a friend or someone that they follow on a social network. By 'following' someone, we become ever more tethered to complex flows of information. In these flows, our mental processes are quantified, and our identities, emotions, and expressions become a kind of commodity in the virtual market place.

By participating in the distribution of information a new labour force based on attention has emerged. The new labour of the information economy is based on web logics that makes attention unstable and rhizomatic.<sup>72</sup> In the digital city information has become cheap and made attention expensive. The merchandise of the information economy is not information but rather attention.<sup>73</sup>

The Fun Palace anticipated the era of pervasive communications. We can imagine the kinds of effects the cybernetics science would have had on its users. To what extent could the Fun Palace have modified the behaviours of its users? The answer lies perhaps in an examination of the digital life where we inhabit simultaneous environments, which has had an effect on our brains and behaviours. We have effectively become technologically augmented beings or cyborgs.

The actors of the Fun Palace can be seen as an early version of the cyborg citizen. The innovations of the cybernetic committee anticipated the technologies that are common place in the digital city. Applications on Smart phones, internet profiles, feeds, blogs, and social networks: these are the virtual spaces that the cyborg inhabits daily in the digital city.

# 2.12 Review: Simultaneous environments: social connection and new media

In this article, Varnelis charts the impact of technology on urban and mental life, from the blasé attitude identified by George Simmel, in "The Metropolis and Mental Life", to the phenomenon of the non-place observed by Marc Augé. Varnelis says that the alienation brought on by the non-place has been undone by the ubiquity of networked communications. 'Networked Publics' is Varnelis's thesis and the title of his book.

'Networked Publics' argues that communications enabled by mobile phones and the internet is now a social phenomenon between people, which replaces the top-down broadcasting of content.<sup>74</sup> Contrary to the alienation of non-spaces, the ubiquity of communications makes it difficult to find a sanctuary. The problem now is excessive connection.

Persistent multi-tasking means that people live in simultaneous environments, resulting in social disorders. For example, the inability to disconnect and pay full attention to one thing. Varnelis argues that network culture must be looked at with a healthy dose of skepticism. The effects of network culture on urban life must be monitored. Some of these effects include: surveillance of social behaviours, cognitive isolation, and loss of privacy.

Kazys Varnelis is the director of the Network Architecture Lab at Columbia University. Varnelis investigates the impact of computation and communications on architecture and urbanism.

Varnelis Kazys
Continuous partial
attention replaces
our ability concentrate on one task.<sup>75</sup>



FIG 46 The term "lab" has become very popular in academic circles in recent years. Netlab is a think tank at Columbia University that investigates network architecture.

### 2.13 Review: Cities for Cyborgs: 10 Rules

The cyborg is a technologically enhanced being that extends it's nervous system in space and time. The cyborg city is not defined by walls. Cyborgs invent tools and respond to liquid fields of presence: temperature, mobile signals, stimulants, quiet zones, etcetera.<sup>76</sup> To create zones of privacy, for example, the cyborg does not retreat to closed rooms, but rather limits incoming and outgoing signals.

Constantly producing and broadcasting, the cyborg is a genus electro-nomad that is both the consumer and the consumable. The cyborg is always on the move; his home is in his office-his office in his home.

The cyborg must reconcile cognitive overload and visceral contact. Online memory banks are used to manage, organize, and communicate the overwhelming connections a cyborg makes. The cyborg enjoys the physical city and seeks spaces that are fun and exciting. The architecture of the future will respond to the habitat of the cyborg; it will recognize the cyborg and the city as organic entities in perpetual flux.



FIG 47 In a cyber cafe, the cyborg simultaneously inhabits a public space and liquid fields of presence.

Like a network, the Fun Palace only would only work if people participate. The more the network is used, the more intelligent and useful it becomes The collective intelligence of social networks has mobilized some compelling and politically charged spatial phenomenons. Social networks have helped shape a new form of the resistance movement.

### 2.14 Social media and public space

Social media has helped mobilize a new form of the resistance movement. The Arab spring, in 2011, emerged as a de-centralized and leaderless resistance movement. The movement was in part made possible through networking platforms such as Twitter, Facebook, and Blackberry messenger. Even though these networks are privately owned, they allow people to broadcast information that is not in the mainstream media.

Because these networks are so efficient in organizing people, they have become contested spaces subject to censorship. After violence and looting took over the streets of London, the governments petitioned Blackberry for their cooperation. To prevent similar events in the future, officials sought to monitor and censor activity on the Blackberry messaging system.

The way these social movements have self-organized in the city has invigorated discussions on public space. When the meme "occupy wall street" became viral, it inspired hundreds of spontaneous occupations of public spaces worldwide. The phenomenon brought attention to the issue of income inequality. Yet, it also invigorated a discussion about what what is public space and to who owns it. In many cases, such was New York's Zuccotti Park, public spaces are in fact privately owned. More than just an issue of how private public spaces can be used, this fact is symbolic of the problem of the commons at large. It is symbolic of the question of who owns the intellectual property of online information. The social network Twitter, for example, states that the information posted on the network is owned by their users. Increasingly, however, governments—and especially the United States—are requesting information from the network, and in some cases requesting information to be taken down.<sup>78</sup>

Cedric Price Cities exist for citizens, and if they do not work for citizens, they die.<sup>77</sup>

### Volume What happens when things start talking back at you?<sup>79</sup>



FIG 48 Issue #28 on the Internet of Things.

### 2.15 The Internet of Things

In the twenty-eighth issue of Volume magazine, leaders in architecture, design, and technology discussed the "Internet-of-Things." The Internet-of-Things is a term that is used to describe how in the very near future the connectivity of the internet will apply to many ordinary objects. The Internet of Things is made possible by wireless connectivity, sensor networks, and computational power.<sup>80</sup> These technologies will move computation from the desktop to the sidewalks, streets, and public spaces of the city.

The feedback between human and computer will also apply to a variety of things, such as: benches, refrigerators, and even other living species. The cover of the book "Democracy of Objects" illustrates intelligent objects that communicate with each other. In fact, 'things' are not inert physical objects but rather wobbling, dancing, matter; their molecules are in oscillation, in rhythmic change.<sup>81</sup>

Shintaro Miyazaki proposes the metaphor of "AlgoRhythms" to describe the interactivity between things. AlgoRhythms, such as smart phones, are recursive and programmable drum machines that send out inaudible radio and/or electrical pulses.<sup>82</sup> Space itself is viewed as being infused with electric and electromagnetic digital signals which have the potential to control physical phenomenon.

With the Internet of Things, the environment itself is an interface where computational processes are embedded in everyday objects. Miyazaki says it is important for designers and architects to understand at least the basics of these technologies. The hyper connectivity between objects in space, described by the "Internet-of-Things" will impact how we relate to our environment. And, it presents exciting challenges for architects and designers.

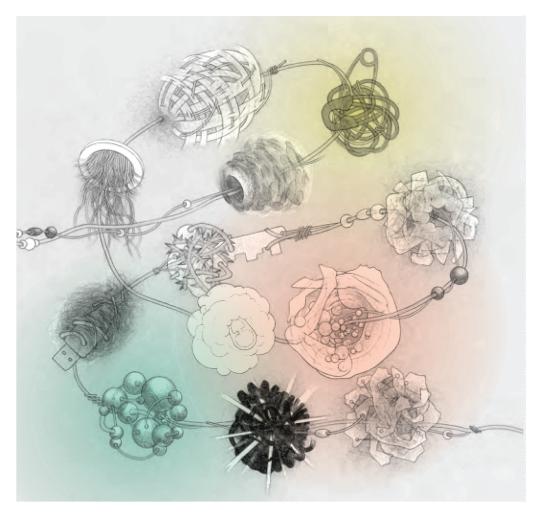


FIG 49 This is an illustration from the cover of the book "Democracy of Objects." The Internet of Things will use technology to connect more than just people and it will create a democracy of objects, where all things have agency.

### 2.16 Fate of the Fun Palace

The Fun Palace was never built. Lack of funding, changes in London government, and the un-specificity of the project's physical form worked against its realization.<sup>84</sup>

Cedric Price would later build the Inter-Action Centre, which realized some of the Fun Palace's ambitions at a smaller scale. The Inter-Action Centre was part theatre, part commune, part school, and part creative-play place. Established by Ed Berman, who was a scholar in sociology and social work, the Inter-Action Centre was closer to Price and Littlewood's original intention for the Fun Palace. The Inter-Action Center focused less on technology and cybernetics and more on the social environment. For the Inter-Action Center focused less on technology and cybernetics and more on the social environment.

When the Inter-Action Center became subject to demolition in 2003, Cedric Price whole-heartedly supported it. In fact, Cedric Price had created a manual explaining how to disassemble the building and recycle its parts.<sup>87</sup> Most of Price's projects were designed to operate in time, and when they lost their usefulness it became necessary to allow them to become obsolete.

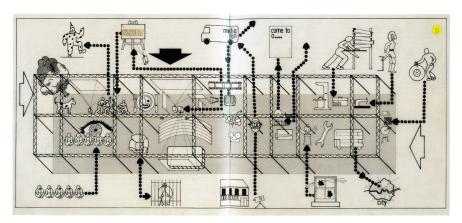


FIG 50 Programme diagramme for the Inter-action Centre.

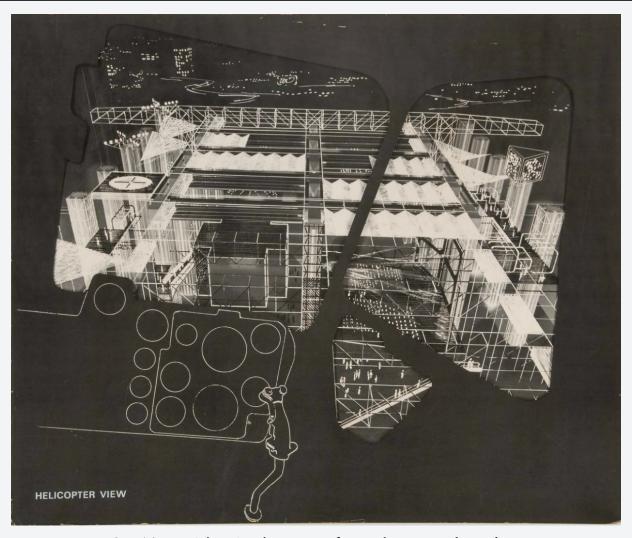


FIG 52 The Fun Palace, Aerial perspective from cock-pit: cut-and-pasted painted paper on gelatin silver print with gouache, 22.2 x 26.7cm, date of drawing unknown. Museuem of Modern Art, New York.

# Architecture in Motion

One of the most frequently published images of the Fun Palace shows the project framed from within a helicopter cockpit. This clever representational technique indicates that the Fun Palace is an architecture in motion. For Cedric Price, time was the fourth dimension in architecture and many of his projects considered how a building changes and accommodates uncertainty. Other projects by Cedric Price that investigate time include Potteries Thinkbelt and Generator. These projects will be discussed along with the contemporary projects E-motive house, Swarm tower, and BMW Guggenheim.

When we think about time and motion in the Fun Palace we have to think literal movement: mechanically movable components and helicopters. The representation of the complex, through the dashboard of the helicopter also indicates that the Fun Palace is an interface. Architecture as interface is continuously adjusted and programmed consistes of real-time transactions.

In "iPhone City", Benjamin Bratton says that some of the clearest changes to cars in the last five years is in the display electronics of the dashboard. Although cars are slowly moving to alternative power, the biggest changes have actually been in the interface of the car. The dashboard is where we regulate our climatic comfort, sonic experiences, navigate our movements in space, and so on.

The dashboard as a representation of mobility also appears in the interfaces of social networks and mobile phones. The dashboard of the iphone, for example, is the interface where users access applications and organize their activities. Another example is the dashboard of a Tumblr blog, where bloggers can read, filter, publish, broadcast, and exchange images, texts, and sounds. Thus mobility in a multidimensional architecture is not limited to physical motion. Motion in architecture can manifest in various ways; this is the topic investigated in the book "Flying Dutchman: Motion in Architecture."

### Mary Lou Lobsinger The Fun Palace has the potential to nurture a mental mobility.<sup>89</sup>



FIG 53 Neural networks

### Jormakka The building may be static, but the architecture is never at rest.<sup>92</sup>

### 3.01 Review: Flying Dutchman: Motion in Architecture

This book examines architecture as an art of time. "Flying Dutchman" investigates movement in the projects of contemporary Dutch architects. Jormakka uses a theoretical framework that draws from the writings of Bergson, Merleau-Ponty, and Deleuze.

Jormakka explains that movement in architecture can be represented metaphorically or metonymically, literally through moving parts, or be implied by the architectural promenade. I am interested in the section of the book titled "Liquid Architecture" that discusses Spuybroek's Fresh Water Pavilion. Here, architecture is conceived in terms of events, performances, spectacles, and rituals.

Movement in architecture does not necessarily imply that an object is in motion but rather that there is a "continuous differentiating coconstitution of the frame and the mobile." The book challenges the reader's perception of architecture as static. Instead of a neutral container, architecture can be viewed as someting that emerges from a heterogeneous and multi-centered field of forces.



FIG 54 Fresh Water Pavilion

### 3.02 Case: Potteries Thinkbelt

Potteries Thinkbelt (1964-67) was a proposal by Cedric Price to transform a decaying industrial site and railway infrastructure in North Staffordshire. The Potteries Thinkbelt was designed as a networked, mobile learning facility for 20,000 students. Transcending a building, it had the potential to catalyze institutional and economic revitalization. Price imagined that the Potteries Thinkbelt could offer learning facilities at different stages of it's users lives. It was an unconventional proposal for higher education that posed powerful questions about what the architecture of a university education can be.

Like the Fun Palace, the Potteries Thinkbelt is dynamic and accommodates change. The network comprises of student accommodation, transports systems, and varying configurations of teaching units. The teaching units include: inflatable lecture theatres, capsule facilitates, and fold-out decks. Cedric Price proposed four categories of housing for professors, researchers, and students: 'crates', 'sprawls', 'capsules' and 'batteries'.

Arguably more ambitious than the Fun Palace, the Potteries Thinkbelt had the potential to connect to national or international infrastructural networks. The Potteries Thinkbelt fulfills Price's belief that buildings and technologies must be catalysts for social and spatial interaction.

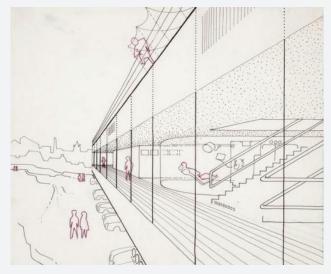
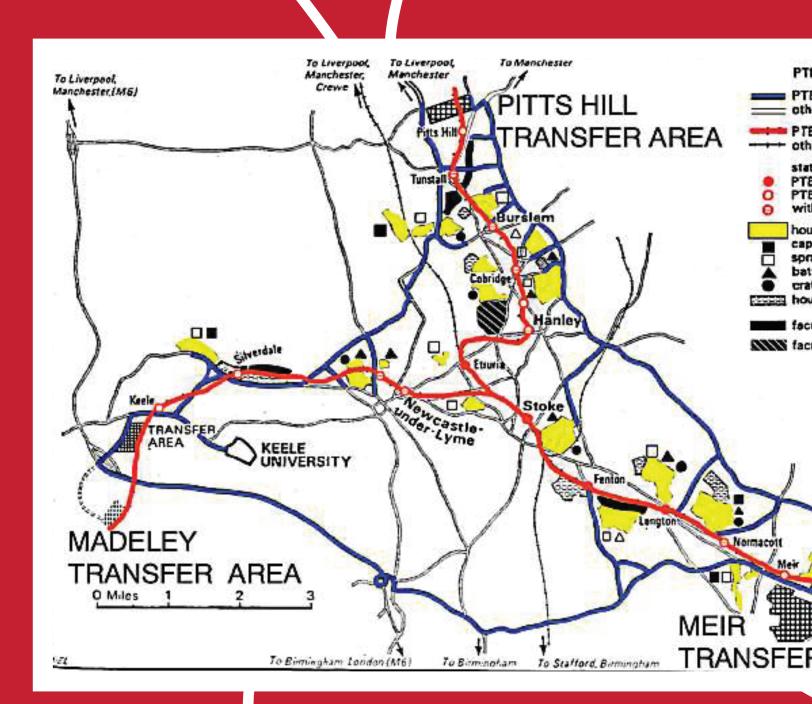


FIG 55 Potteries Thinkbelt



B=Potteries Thinkbelt service roads er roads service railways er railways ions -& public use use only h small siding sing areas by type sule housing lwa tery te ising expansion area ultyarea ulty/industry shared area



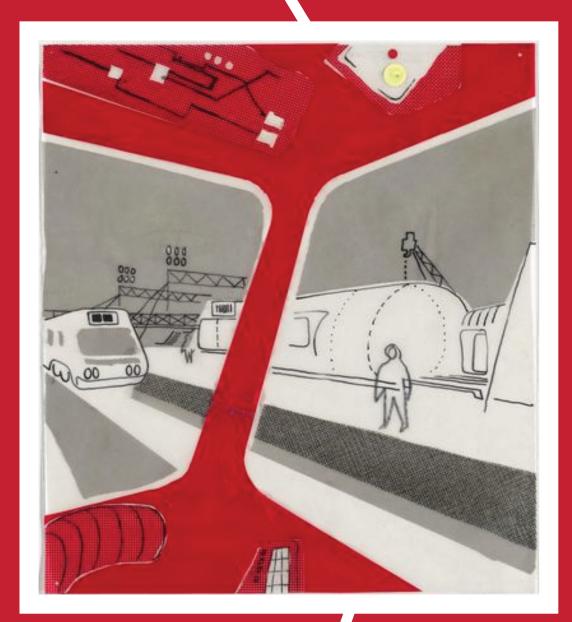


FIG 56 Left: Potteries Thinkbelt Network

FIG 57 Above: Potteries Thinkbelt, Perspective of Mobile Teaching Machines; self-adhesive printed polymer sheets with ink and graphite on tracing paper, with self-adhesive paper dots, 31.1 x 279cm.

### 3.03 Intelligent Building

Intelligent buildings, such as The Fun Palace and the Potteries Thinkbelt are not merely structures for human occupancy bur rather "generators" that operate in real-time. The term "generator" was introduced in the architectural language by Cedric Price. Generator is the name of Price's project for the Gilman Paper Corporation from 1978. This was another collaboration with cybernetician Gordon Pask, where the environment itself became an an intelligent artifact.

Price described Generator as a responsive environment that was designed to enrich freedom of thought. Touching on ideas of artificial intelligence, Generator was an intelligent building with memory that could respond to user input. Generator pushed further the ideas of the Fun Palace by proposing a building that not only reacts to its users but also learns from them, and when necessary re-learns.<sup>93</sup> The assembly of the building is effectively generated by the computer or brain of the facility, which rearranges the building components.

The scheme consists of a series of one hundred and fifty-four metre cubic modules that can be assembled into various configurations. User's interact with computers to activate a process of exchange in order to configure desirable environments. The computers assist the visitor in making the best decisions and when the computer senses inactivity, or has become bored, it will initiate unsolicited changes. The information database grows the more generator is used, and in time it becomes more intelligent.

Generator embodies Pask's conversation theory because there is interaction between human and non-human activity in a common framework. In fact, the building was designed to find out what were the interests and preferences of its users. Price emphasizes how the building enabled choice and a range of possible scenarios within a framework, by establishing a set of rules. Within a framework of rules and along the axis of time, various environments could be constructed. The intelligent building is the subject of the book: "Hyperbodies."



FIG 58 Right: View of working electronic model of the Generator project, between 1976 and 1979.

### 3.04 Review: Hyperbodies

The book Hyper Bodies defines architecture as the discipline of building transactions.<sup>94</sup> The book investigates the concept of "Swarm architecture," which is a space of real-time transactions mobilized by data from social activity.

Swarm architecture produces intelligent buildings that process information. All building components are intelligent and, like a herd, configure themselves in real-time. The authors describe the E-motive house which changes shape and content in real time, as it responds the whims and wishes of its inhabitants. The house also surprised and plays games with it's users. Also know as hyperbodies, these kinds of buildings are played like instruments by their users. There is no barrier between the brain of the user and architecture.



FIG 59 E-Motive house responds to it's users in real-time.

"Field conditions move from the one toward the many; from individuals to collectives, from objects to fields",55



FIG 60 Swarm of animals in a field.

### **BLDG BLOG**

Perhaps someday we will see autonomous helicopters assembling gridcities in Western Australia or the Canadian Arctic.<sup>96</sup>

Quadcopter Robots Video of robots assembling tower in real-time



http://bit.ly/taolcX

Imagine that all elements of a building are connected and form a swarm architecture. Recently, the concept of the swarm has been applied to experimental constructions methods. These experiments elucidate the potential of complexity to establish time-based design and new construction methods.

### 3.05 Swarm Tower

In 2011, Architect Gramazio & Kohler and Italian robot designer Raffaello D'Andrea experimented with swarm-architecture. Their project is an experimental art installation that programs robots to build a twenty foot tower out of polystyrene building blocks. Building blocks are lifted by swarms of intelligent quadcopter robots that know when a block is correctly placed.

Although the tower project is only an art project in its current form, the technology it uses demonstrates the potential for it to become a consumer product. In the future, for example, nanobot kits can be programmed to assemble simple additions to houses.

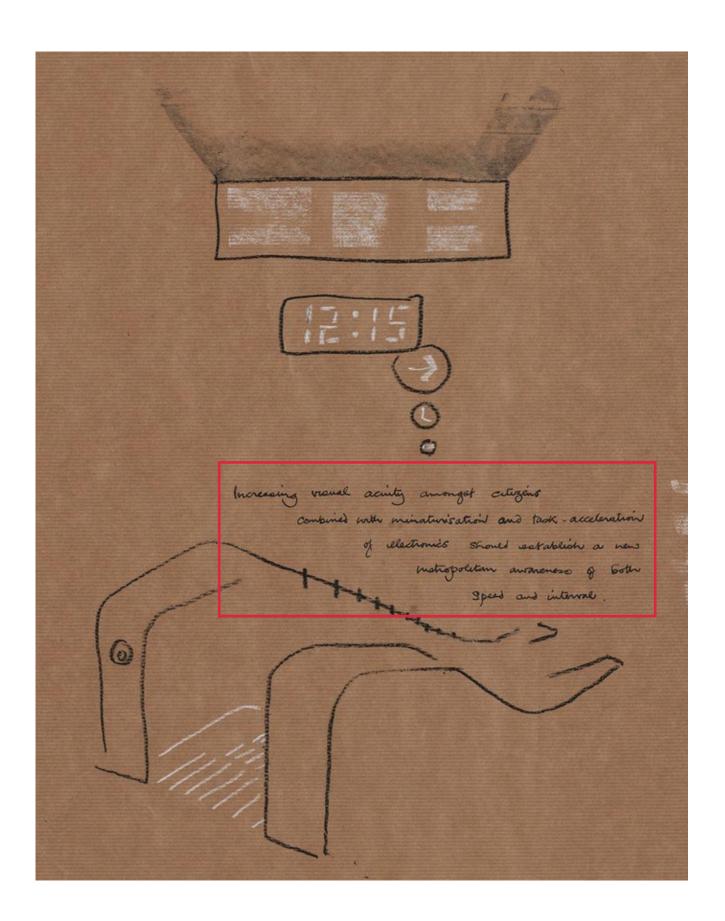


FIG 61 Drone lifting a polystrene block.



FIG 62 Above: Rendering of swarm tower. Flying quadcopter robots coordinate in space and time to construct a curvaceous tower out of polystrene blocks.

FIG 63 Overleaf: The drawing above i by Cedric Price from a series titled "City of the Future" (1965) The series of drawings was a summary of his vision of architecture. The caption in the drawing appears enlarged on the facing page.



## → CITY

"Increasing visual acuity amongst citizens combine with miniaturization and task acceleration of electronics should establish a new metropolitan awareness of both speed and interval." "

QF

### 3.06 Mobile museum

Like the Potteries Thinkbelt and Archigram's ideas circus, the consideration of the interval, or time, in architecture plays a central role in the design of the BMW Guggenheim Lab. Instead of a singular building the BMW Guggenheim Lab is a mobile museum that de-territorializes the institution from one site; it's form and content change in time. Similar to the Fun Palace, the building is generated by a continuous exchange between the Lab and it's users.

Wow The lab is more like a theater rather than an exhibition space, because theaters are constantly changing.<sup>98</sup>

**Atelier Bow** 

The BMW Guggenheim Lab challenges the notion that a cultural institution needs a monumental building. The BMW Guggenheim Lab is effectively the antithesis of the Guggenheim museum in Bilbao. Designed by celebrity architect Frank Gehry, the Guggenheim in Bilbao, Spain became famous for its expressive monumentality. The city of Bilbao became a model for how signature buildings can help boost tourism and make an entire city a brand. The BMW Guggenheim Lab, by contrast, rethinks the museum. Instead of an iconic building, the museum functions as a tool-kit for public engagement and operates in time as a culturally fabricated object.

The museum as laboratory is an interactive institution that integrates its context, affects it, and is affected by it.<sup>99</sup> Instead of identifying, classifying, and storing culture, the Lab makes and consumes culture as real-time event.<sup>100</sup> In the interval between sites exists the potential for the Lab to change and take on new forms. In perpetual flux, the Lab embraces the participatory culture of the 21st Century.

In the participator culture of the 21st Century everyone is a co-creator. A co-creator is both a consumer and producer, and perhaps also the consumable. As discussed in section two of the thesis, the profiles and movements of people in the digital city are networked to form a shared nervous system. What makes the BMW Guggenheim Lab compelling is that it gives material presence to the real-time exchanges of a participatory culture. The Lab calls to mind the nomadic players of New Babylon who co-create by navigating through various sectors of the city.

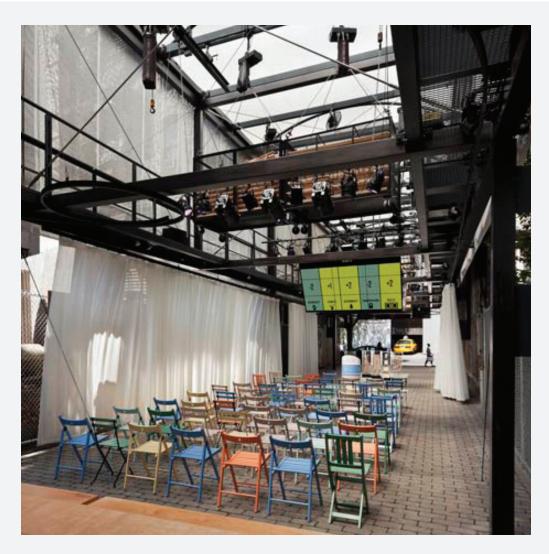


FIG 64 In this view of Atelier Bow Wow's 2011 design for BMW Guggenheim Lab, colourful wooden chairs are arranged for a discussion, beneath the fiberglass structure that holds lights, screens, and curtains.

### 3.07 Case: BMW Guggenheim Lab

On their website, the BMW Guggenheim Lab says that it aims to inspire innovative ideas for urban life. The BMW Guggenheim Lab is a time-based architecture that is designed to travel to nine cities worldwide over the course of six years. Atelier Bow Wow's charming 2011 design of the BMW Guggenheim Lab has been described as a "traveling toolbox". The structure consists of a flexible rigging system made of carbon fiber.

The structure is supported by perimeter columns and hovers above an open space. Tools can be lowered from the rigging system to suit various programs. These tools include lights, screens, and curtains. On the ground, the toolbox is furnished by workshop tables, a stage, and restroom cabins made of wood. The Lab covers 2,200 square feet and is designed to fit into narrow urban spaces. The BMW Guggenheim Lab acts as an urban activator by hosting events, games, and lectures.



FIG 66 Although the BMW Guggenheim Lab is a temporary and mobile structure, it requres a suitable urban space to operate. This photograph shows the Lab before installation on a site in the Lower East Side, in New York. The installation of the Lab catalyzed the renewal of the site and made it inhabitable. After the Lab moved, the site continues to be used as public space.

Saskia Sassen Speaking at BMW Guggenheim lab tonight at 7pm for "Talking back to your intelligent city.<sup>101</sup>



FIG 65 Saskia Sassen is a sociologist and urban thinker who is very active on twitter.

### 1 CYCLE - BMW GUGGENHEIM LAB

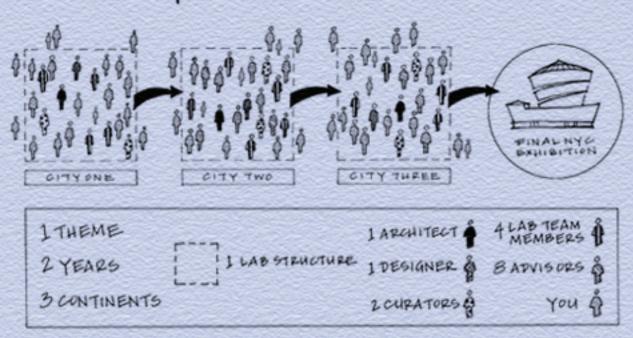


FIG 67 This diagram shows the schedule for the BMW Guggenheim Lab over the course of three years and travelling to three cities. The project will culminate with a final exhibition in New York City.

## 1 VENUE - BMW GUGGENHEIM LAB

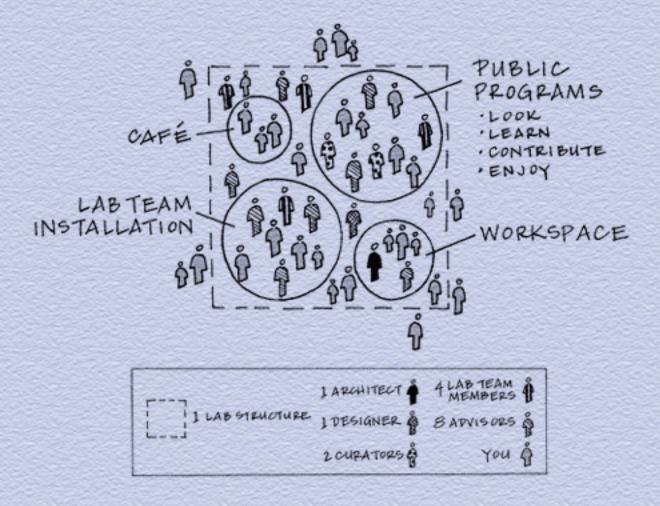


FIG 68 This diagram shows the mixture of spaces and participants that design the structure and the events of the BMW Guggenheim Lab. Besides the architect, there are various collaborators which include "you." Perhaps "you" can be considered the 'dis-interested outsider' that Markus Miessen discusses in his work on "The Violence of Participation."

The BMW Guggenheim Lab is not without its critics. The installation of the Lab in Kreuzberg, Berlin—the second stop—became a contentious issue. Many citizens and activists of Kreuzberg are opposed to the Lab because they are argue that it will accelerate gentrification of the neighbourhood and lead to higher rents and new luxury residential developments. One opponent called the Guggehneim a "Potemkin façade" that has nothing to do with arts and culture and that it is a sympton of the problem of gentrification. Eventually, the Lab had to choose a different site because it was threatened with violence.

Another criticism is of the obvious sponsorship of the Lab by a luxury corporate brand. It is yet another example of how open-ended and participatory projects become co-opted by big-money. Is the BMW Guggenheim Lab much more than a spectacle of self-organization and participation? The intentions of the Lab to be participatory and create new solutions for urban life are undermined by its corporate sponsorship.

#### 3.08 Participatory Architecture

The Diagram on the facing page illustrates various participants. Like the Fun Palace, the BMW Guggenheim Lab only works if people participate. Yet, what does it mean to participate and how can it be productive? According to Markus Miessen, participation can either create a space of consensus or conflict. Miessen is an architect and spatial consultant who calls for a "violent" form of participation, as a form of critical engagement. For Markus Miessen, participation is seen as a productive form of conflict that opens a micro-political practice where the participant is an active agent. <sup>105</sup>

Existing outside the existing network, Miessen describes the "disinterested outsider," who introduces friction and opens the possibility for change. What is important in a participatory architecture is how relations between different agents produce spatial designs. By allowing this productive form of participation he sees the emergence of more sophisticated designs.

Koolhaus Cedric Price wanted to eliminate power in architecture. 104 Miessen also calls for new approaches to architecture that transfer financial resources from the material building to operations. The cost of buildings tend to use most of the operative capital of the institution, which leaves less resources for complex programming of those spaces. <sup>107</sup> Instead of creating buildings as consumable commodities, architecture can be seen as a spatial practice that works within a complex field of forces. Such that, the architectural practice does not have to necessarily propose a building. This recalls a humourous anecdote by Cedric Price, who would advise clients who wanted a new house, that perhaps what they really needed was to leave their wife. <sup>108</sup> A smart architecture does not produce sexy renderings, but rather complex operational and curatorial procedures. <sup>109</sup>

#### 3.09 Design as Research

In art and architecture it is important to have laboratories for experiments and for testing ideas. Temporary architecture such as the Serpentine Pavilion(s) can stimulate innovation and allow for new things to emerge. The Pavilions are not just architectural shells but rather "content-machines" that act as forums or agoras for conversation.<sup>110</sup>

Each year, the Serpentine gallery commissions a new international architect to design a pavilion on the gallery's lawn. Beyond the purpose of the pavilion to provide a leisure space and cafe for the public, over time the Pavilion is a place where a marathon of experiments and conversations can take place. As a co-curator of the Serpentine Gallery, Hans Ulrich Obrist is interested in controlled chance and in this regard he directly cites Cedric Price's ideas on the non-plan, which challenged the authority of the master plan.

In 2006, Obrist and Rem Koolhaus interviewed over 70 multidisciplinary practitioners over the course of twenty-four-hours to discuss what London is today. The event was the culmination of a summer of "infinite conversations." The conversations are seen as a way of allowing casual encounters and a catalyst of the butterfly effect, for new and future collaborations. Although the event would expect to offer a number of







FIG 69 Top: Toyo Ito, 2002 FIG 70 Above: Rem Koolhaas and Cecil Balmond, 2006 FIG 71 Left: Olafur Eliasson and Kjetil Thorsen, 2007





FIG 72 Top: SANAA, 2009 FIG 73 Above: Jean Nouvel, 2010 FIG 74 Right: Herzog & de Meuron and Ai Weiwei, 2011



conflicting voices, Markus Miessen critically highlights that eventually all the participants were part of an existing network or stemmed from the same cultural milieu.<sup>111</sup> The following year, Olafur Eliasson, who designed the pavilion with Kjetil Thorsen, proposed an "experiment marathon." The experiment marathon comprised of leading artists, writers, and scientists performed experiments, exploring perception, artificial intelligence, the body and language.

#### 3.07 Case: Serpentine Pavilion

The Serpentine gallery is located in Kensington Gardens, in central London, and is one of the most visited galleries in the world. The Pavilion program was conceived by by gallery director Julia Peyton-Jones in 2000 and invites world renowned architects to design a pavilion on the gallery's lawn. The pavilions are constructed within six months of invitation; there is no budget and they are paid by sponsorship.

Jean Nouvel's contribution from 2010 is a "contrast of lightweight materials and dramatic metal cantilevered structures." The pavilion is completely red, creating a juxtaposition with the green setting of the park. The pavilion is a public space, a café and a venue for the gallery's "Park Nights", which is a program of public talks and events. The pavilion "highlights the idea of play with its incorporation of traditional French outdoor table-tennis tables."

The 2009 pavilion by Kazuyo Sejima and Ryue Nishizawa, of SANAA is a "field of activity with no walls, allowing uninterrupted view across the park and encouraging access from all sides." The design blends in with the park and is designed as a shelter for people to read, relax, and enjoy summer. The aluminum canopy appears to float. The canopy is supported by slender columns that wrapping around the trees of the park.

The 2002 pavilion by Toyo-Ito appears to be an extremely complex random pattern but in actuality it is derived from an algorithm of a cube that expanded as it rotated. The Serpentine web page describes it: "The numerous triangles and trapezoids formed by this system of intersecting lines were clad to be either transparent or translucent, giving a sense of infinitely repeated motion." <sup>112</sup>



FIG 75 Mobile Laboratory, Conceptual Model 1 is an interactive an playful wooden piece. The pieces of the model can be arranged and re-arranged in various configurations.

# **Mobile Laboratory**

There was a struggle in this thesis to represent a proposal. In the beginning it was very tempting to propose a singular building on specific site. And, for some time it was difficult to resist writing about the historical and cultural context of certain sites that were chosen. As my research of the Fun Palace gained more depth, I realized that the site was never what was important.

Though the Fun Palace was almost built, I believe the project has more significance to architectural history as an un-built project. The idea of the Fun Palace is more interesting than what would actually have been built. The true value of the Fun Palace is as an abstract architectural model. Without resorting to emulating the Fun Palace, which would be anathema to what the designers intended, my proposal would also have to challenge representation.

By using the Fun Palace as a lens, this thesis has shown how the mobility that the Fun Palace represented, with its flexible structure has manifested in the digital city through hand-held and ambient technologies. This presented a challenge in the thesis. How to give a physical presence to an architecture that is indeterminate and immaterial?

The BMW Guggenheim Lab, that was reviewed in section three of the thesis, is seen as a good precedent for Mobile Laboratory because it is a participatory architecture that changes in time. Yet, this thesis does not want to emulate it because the BMW Guggenheim Lab is seen as an institution that tries to look like Joan Littlewoods avant-garde theatre but is in fact more like the elite Pompidou Centre.



FIG 76 This image shows the unassembled components of the Mobile Laboratory: two triangular bases, the frame, planes, acetates, and assorted objects.



FIG  $\,77\,$  The Mobile Laboratory is a framework for different arrangements of spaces and artefacts in time. The images on the following pages illustrate variations on the Mobile Laboratory.

The first experiment model for the Mobile Laboratory is a conceptual one that represents a de-territorialized architecture—which is to say it no longer limited to one site or time. The mobile consists of a wooden frame that is supported by two triangular bases. The wooden frame supports four slipping planes that hold acetates of maps, textures, and geometric objects. The intention of this model was to represent a structure whose content is continuously varying. The objects are active on four simultaneous planes of activity. The mobile can be assembled, un-assembled, and re-assembled in endless variation. The model was satisfying in the way it represents an indeterminate architecture through physical material. The second model uses vignettes to evoke the atmosphere of the Mobile Laboratory as a virtual architecture.

The second model is a virtual model of the Mobile Laboratory that collages a rendered three dimensional model and images. The images from the collage are derived from the authors Tumblr blog and they aim to add texture to the representation through their aesthetic affect. The purpose of using this images is to bring attention to the contemporary way in which we assemble informational environments. Blogs such as Tumblr work along a time-line of images and text that is aggregated from accounts that are 'followed'. This is interesting because a vast majority of the population self-administer cultural conditioning. In the context of the Mobile Laboratory, this conditioning is seen as influential in how the city is authored.

In actuality the Mobile laboratory is perhaps an itinerant structure, such as the BMW Guggenheim Lab, or an ever changing gallery, such as the Serpentine Gallery. The intention of the Mobile Laboratory is to embody the theatrical essence behind Littlewood's traveling theatre— to empower ordinary people to activate their creativity, to a perform as a launching pad to finding oneself. Yet this thesis acknowledges that in the complex condition of the digital city, creativity and the enactmet of 'fun' is vulnerable to being co-opted by other forces. This is why in the Mobile Laboratory each co-creator is considered a space making force—and co-creators must filter what comes in and what comes out of their 'field'.



FIG 78 Mobile Laboratory, 1



FIG 79 Mobile Laboratory, 2



FIG 80 Mobile Laboratory, 3



FIG 81 Mobile Laboratory, 4



FIG 82 Mobile Laboratory, 5

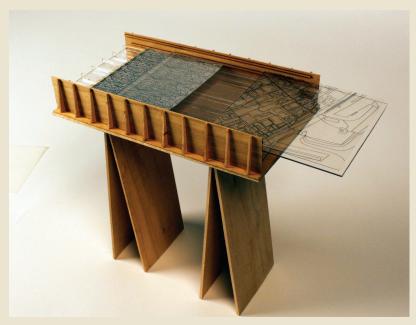
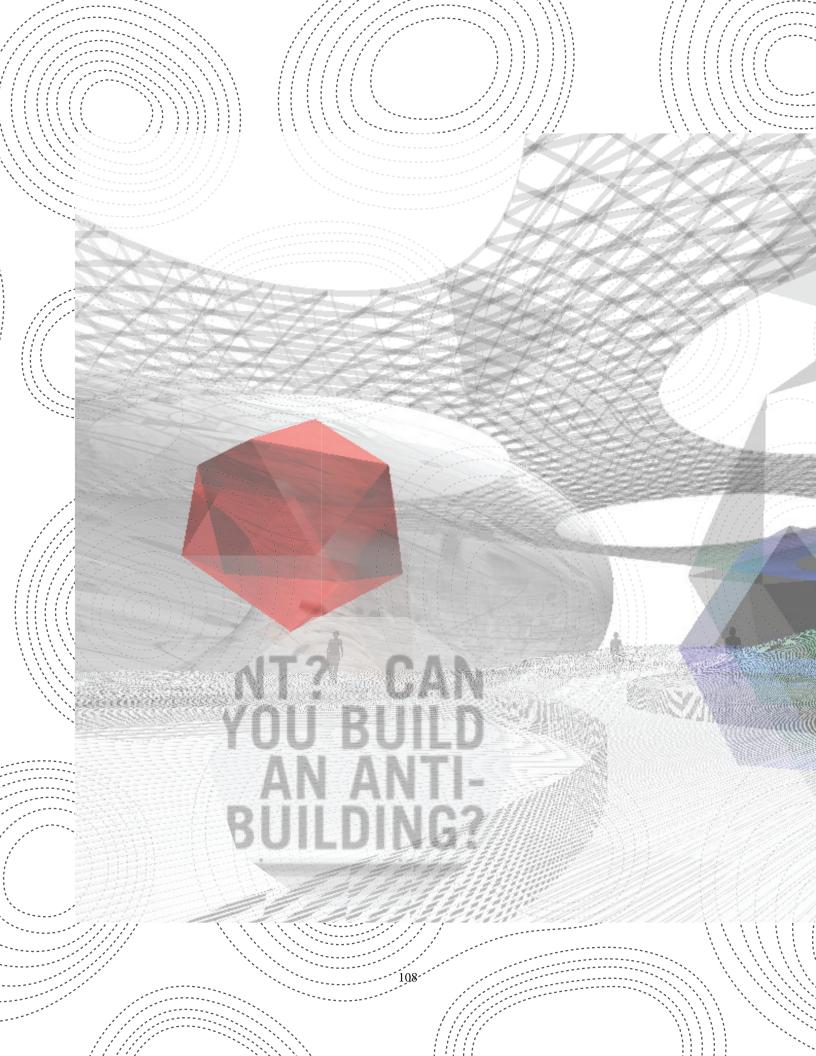
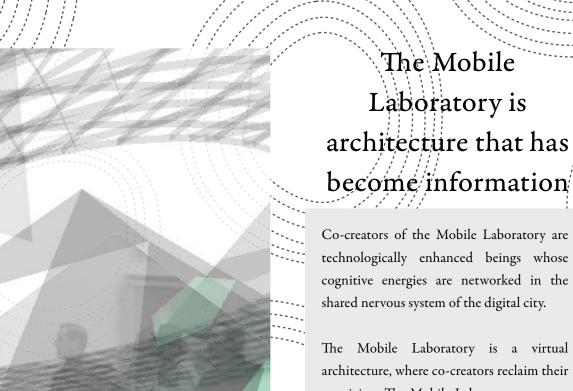


FIG 83 Mobile Laboratory, 6

InTheFields, co-creators—both human and non-humancreate and move through spaces known as fields. Co-creators continuosly cultivate affects, memories, and desires through their technologies, which they shape and are shaped by.

Co-creators are informational channels or frequencies—they shape space with their attention. Fields are more like an aether than a physical space. Co-creators constantly filter what to include and exclude from their fields.





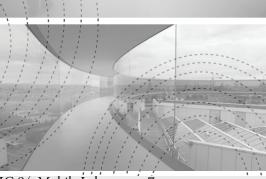
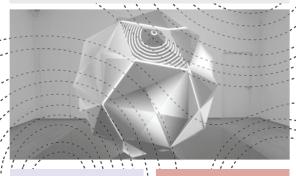


FIG 84 Mobile Laboratory, 7

## Co-creators of the Mobile Laboratory are space making forces

The movements and actions of co-creators resonate in different temporalities. Co-creators are the makers of fields and they operate on simultaneous planes of attention and activity.

A field is an aggregate of informational assemblies, such as user profiles and social networks. Co-creators are constantly connecting, broadcasting, and exchanging—in real-time

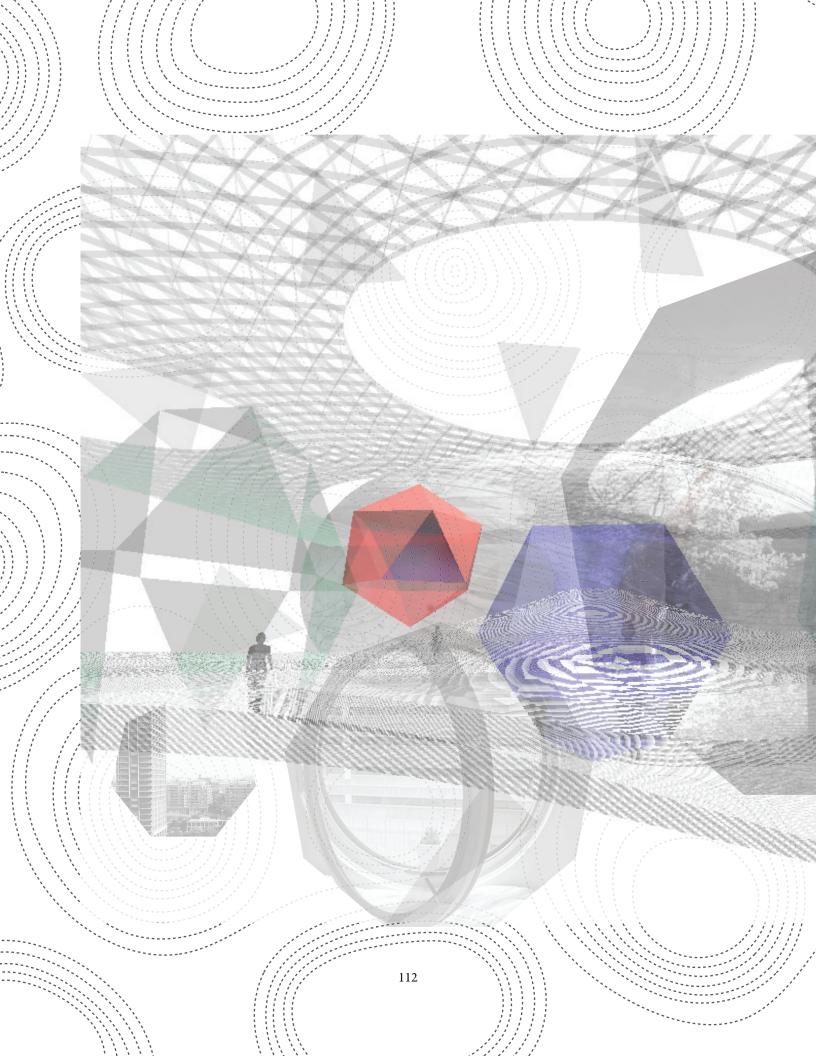


What we pay attention to greatly informs what we learn and what neural networks will be acivated and ampified.<sup>113</sup>

Architecture and design, as that which structures our technomorphic lifeworlds, can seal certain ways of interaction and enable others.<sup>114</sup>

FIG 85 Mobile Laboratory, 8







Less of a building, The Mobile Laboratory is rather like an atmosphere of electromagnetic signals and frequencies. The digital city consists of numerous fields, such as Wi-Fi, GSM, RFID, bluetooth, and DMB.



In the fields of frequencies, co-creators continuously decide what to include and what to exclude from their field of awareness.

Rhizomatic in structure and logic, the Mobile Laboratory is in a perpetual state of re-construction. As Heraclitus once said: "No man ever steps in the same river twice."

A field can also be a retreat from undesired information, allowing a co-creator to recover her subjectivity and independence.

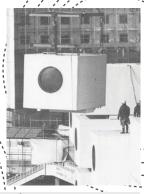
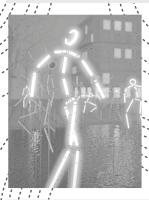


FIG 86 Mobile Laboratory, 9

Ever more integrated into daily cognitive habits, technology effectively disappears—becoming ubiquitous and invisible.

Not only actions, but thoughts have palpable effects on the design of the city. The contested spaces of the city are increasingly located in the virtuality of minds.





A Field is a fluid assembly of informational vectors that condition what environments will become in the future. Through their interactions and power of ideation, cocreators gradually author the city.

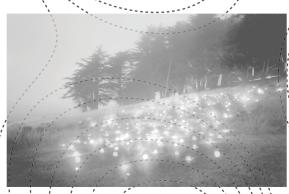
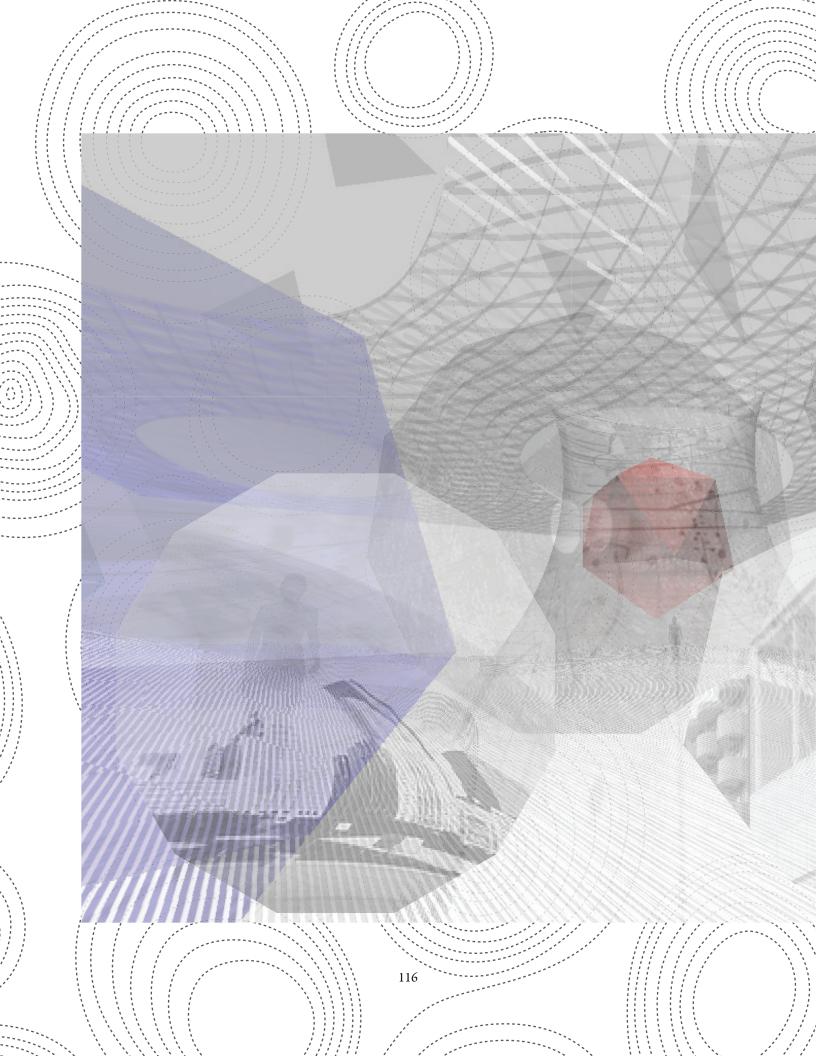
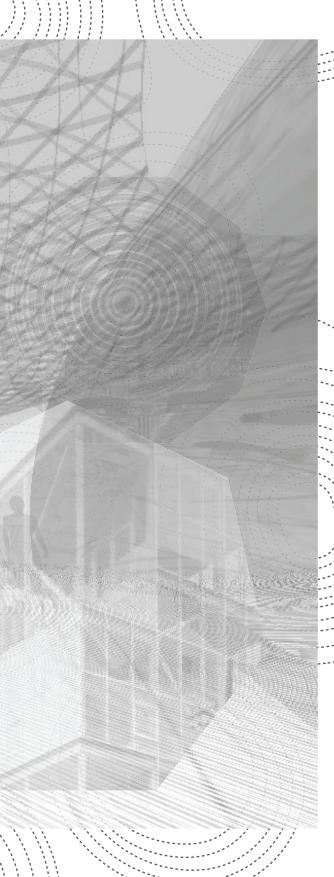


FIG 87 Mobile Laboratory, 10









Co-creators are aware that their creative awareness is perpetually being drawn into other fields, which try to funnel it into their usage. Fields have to be carefully tended to, lest they be invaded by other frequencies, algorithms, or data-mining machines.

The Mobile Laboratory operates in the attention economy. Whatever is in the field of awareness of a co-creator gains value and visibility—in the digital city.

 $I \cap I \cap I \cap I$ 







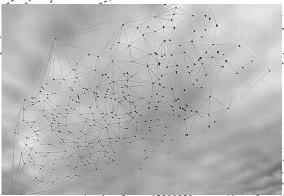


FIG 88 Mobile Laboratory, 11

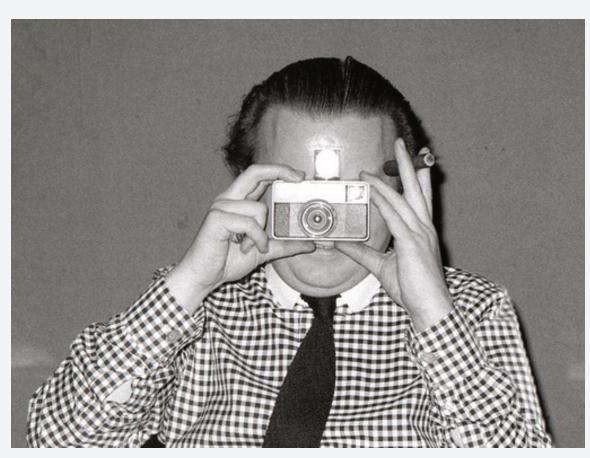


FIG 89 Cedric Price's friend and client Niall Hobhouse called Price a seer.

### Conclusion

In a talk given at the Architectural Association in London, a close friend and client of Cedric Price, Niall Hobhouse, reflected on Price's legacy as an architect:

"For any account to be complete, it ought to include the seer's ability to convince us that there was something happening beyond the horizon which, at least for the moment, only he could see." 114

The architect is a seer when his imagination allows him to see beyond the present horizon. Cedric Price and his collaborators did precisely this and anticipated how digital technology would transform the world. The model of architecture embodied in the Fun Palace shifted an understanding of architecture as autonomous and static to complex and dynamic. From an architecture of walls to an architecture of fields. More than a building, the Fun Palace was a information interface where architecture and user were connected by cybernetic feedback.

This thesis was particularly interested in the compelling but problematic narrative that the Fun Palace developed. The Fun Palace was a place where people had the freedom to design their own spatial experiences, with the condition that their behaviours be monitored and probed. This narrative resonates in the context of the contemporary digital city.

This thesis used Benjamin Bratton's definition of the digital city. The digital city is the shared nervous system where bodies are intersected and infused by networks. The digital city illustrated a complex view of architecture and the city. This view considered more than the physical arrangement of things in space. Events, technologies, and the input of people as co-creators of the city play important roles in the digital city.

The first section of the thesis reviewed the origins of the Fun Palace, it gave insight into its creative team, explained the structure of the project, and uncovered how it influenced other architectural works. This section also explained the complex authorship of the Fun Palace's design. The Fun Palace was seen as an early model of a participatory architecture.

The second section of this thesis explained the role that cybernetics played in the Fun Palace and how it changed its narrative. The narrative of the Fun Palace anticipated how cognitive processes would become networked in the shared nervous system of the digital city. This section also elaborated on how new consumer technologies have changed the way we interact with our cities. It also elucidated how these technologies affect social behaviours.

Section two also explained that the economy of the digital city is based on social information and powered by attention. Cognitive capitalism described a new kind of labour that profits from the interactions of their users. The mechanisms of control no longer operate as physical enclosures but rather through the more ephemeral mediums of communications and social interaction. On the other hand, social networks have helped mobilize social movements.

In section three, architecture was investigated as a generator of real-time transactions. Operating in time, the Fun Palace was not a static building but rather an architecture in motion. This section explained that movement in architecture can manifest literally as moving components or as the virtual and social exchanges between human and non-human actors. Along with the Fun Palace, projects by Cedric Price such as Potteries Thinkbelt and Generator, investigated time and motion in architecture. Contemporary projects, such as E-motive house, Swarm Tower, and BMW Guggenheim Lab, also demonstrate the fourth dimension of architecture: time.

This thesis proposed the speculative project *In The Fields*: a Mobile Laboratory for co-creation in the digital city. The Mobile Laboratory is a deterritorialized and virtual architecture operating in a complex field of informational spaces. In the Laboratory, participants co-create spaces called 'fields' by exchanging, curating, broadcasting, etcetera. Instead of a monumental and fixed building, the Mobile Laboratory is seen as operating in a field of forces.

The virtual dimension of architecture and the city is less tangible but equally important. As architects we have the responsibility to provide shelter for protecting the body from the elements but in a technological society we also have to consider other dimensions such as communications and the electro-magnetic environment. This thesis argued that in the digital city we also inhabit informational fields; These spaces extend our virtual selves into multiple temporalities and the are as codes in the shared nervous system of the city.

The rapid proliferation of the mobile device has made the internet ubiquitous. Technology has become ambient and embedded in the fabric of everyday life. Considering the advances in communication technology, and their spatial implications, I believe architecture has been slow to adapt. Arguably, most architects continue to draw in the same way they would draw with a drafting board. When more sophisticated computational tools are used, they tend to produce a digital formalism. Instead of merely creating a digital aesthetic, this thesis believes architecture can engage technology to invent new critical approaches.

Because communication technology has become pervasive in urban societies, it is changing our social and spatial interactions. We spend a large part of our days 'online', playing, socializing, studying. Mobile devices and their virtual tools enable new and exciting interactions with our environment. Information is now so readily available that attention has become an extremely valuable commodity. Technology increasingly blurs the boundaries between physical and virtual space.

I think that the relevance of the architect is threatened by the information architects or application developers. Instead of public squares, the new social spaces of the city exist in the virtuality of social networks and microblogs. Yet, the way the architect practices has not changed much. The information technology architect, on the other hand, is creating virtual tools at impressive speeds. These tools are profoundly changing the way we interact with our environment. Instead of buildings, the most radical changes in the globalized world are happening in the infrastructural space of software<sup>1</sup>.

The word architect is very often used in the media to describe a person responsible for a creation. In the media, the word architect is equally used to describe fashion designers and baseball team managers. It seems the definition of the architect has become somewhat indeterminate. In a complex technological society perhaps the role of the architect needs to re-examined.

Even though the Fun Palace was designed in the sixties, it still poses powerful questions about the role of the architect. Considering the digital city, perhaps the scope of the architect's work can expand beyond form-making. Since communication technology is becoming more embedded in our lives, the architect ought to investigate how it can be integrated into his spatial practice.

The Fun Palace is the kind of rare architectural work that can be probed endlessly. The volume of ideas and discourses that the project engaged is impressive. By challenging conventions, the Fun Palace is an invitation for architects to explore the gaps between materiality, technology, and human agency—and to look beyond the horizon of what is possible.

I hope that this thesis brings attention to the role of the architect in the context of a technological society. The architect has the potential to anticipate new ways of living in the city. All too often, the architecture profession is solely preoccupied with fulfilling the demands of the markets and economy. What is also necessary and of value is to practice

architecture as a means for innovation and to find new ways of creating the city. As the Fun Palace demonstrated, a project does not have to be built to be influential. For this reason, I believe practitioner and academics ought to engage in more collaboration and experimentation across disciplines to imagine new ways of being in the city.

The future will see more technology and connect our world even more, not less. It is anticipated that the "Internet-of-Things" will take the internet beyond the screen and connect a multitude of "things"—both real and virtual. Architects cannot ignore the spatial implications of these technological shifts. The relevance of the architect and her contribution to society depends on how well she adapts to change-and even anticipates it.

Reflecting on this thesis, I believe that the architect is not merely a service provider of architecture as commodity. Neither is the architect an author that makes autonomous spaces. It is my view that the architect operates in a complex field of social, spatial, and technological processes. Perhaps, the days of the architect as a heroic figure have passed. I believe that the architect of the future will push further the ideas that Cedric Price first proposed in the Fun Palace. The architect will become a kind of creative agent that enables and orchestrates architectures—both real and virtual-amongst a multitude of other creative agents.

I believe that as architects it is important to make and study architectural works that dare to imagine new possibilities. Such works serve as critical lenses that help extricate us from conventions and from the greater forces that bind us to them. I learned that in essence the Fun Palace has been realized, but not in the way it was intended; not with the same innocence but rather within the complexity and contradictions of the digital city.

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