Socrates Yiannoudes
The visionary project of the architectural avant-garde of the 1960's as a challenge for the design of contemporary architecture

Introduction

In its historical manifestations the avant-garde deals with progress, societal and cultural change, radicalizing "the basic principle of modernity, that is the urge toward continual development, the rejection of the old and the longing for what is new" (Heynen, 1999, p.27). Hilde Heynen following Renato Poggioli's analysis of the avant-garde movements into 4 moments of activism, antagonism, nihilism and agonism, explains that, in their attempt to respond to the challenges brought forth by the processes of modernization they end up in sacrificing themselves for the sake of cultural advance. If the price of obtaining mastery over the future is its destruction, the avant-garde is fully prepared to pay it because it is convicted to find its supreme fulfilment in this way. It is the avant-garde's fate that others will have the opportunity to build after them (Heynen, 1999, pp.27-28). It is our view that the avant-garde movements, by proposing and envisaging a virtual future, an open-ended possibility that is yet to be fulfilled, create challenges for contemporary thinkers and designers.

Within this paper we consider the potential of these challenges for contemporary design and practice. This would involve the attempt to synthesize their visionary project with current technological developments and social conditions by revisiting their radical agendas. We discuss an educational experiment and the projects that came out of an elective course in architectural design at the Department of Architecture Technical University of Crete, which was concentrated around the ideas, tactics and projects of those early movements.

The course "Adaptive Architecture"

We focused on some of the avant-garde architecture groups that emerged out of the particular post-war cultural milieu of the 1960's, characterized by the expansion of the consumerist system, the industrialization of mass produced expendable artefacts, cybernetics, and the dissemination of pop culture images, space travel hardware and lightweight mobile structures. In this context, projects such as Cedric Price's *Fun Palace,* Archigram's *Living 1990* and *Control and Choice Dwelling,* Constant's *New Babylon,* and Yona Friedman's *Spatial City*, seemed to share an obsession with systems, networks, interfaces and communications, flows and networks, mobility and transience, adaptation and responsiveness, indeterminacy and user choice.

The aim of the course was to examine the potential to design contemporary architecture through critical inquiry into these avant-garde projects. In particular, students had to question the ideas of the early paradigms, looking at the particular socio-economic conditions within which they were proposed, and to attempt to "transform" them into new projects embedded within and responsive to current conditions and needs using contemporary technologies. The initial projects that the students had to choose from would include the following:

Archigram's *Control and Choice Dwelling, Plug-In City, Walking City* and *Instant City*;

Cedric Price's *Fun Palace, Generator* and *Potteries Thinkbelt*;

Constant's *New Babylon*;

Yona Friedman's *Spatial City*;

1. ToyBox unit.

The projects that came out dealt with questions of modularity and extensibility, mobility and nomadism, adaptation through responsive mechanisms and networks in the urban environment. Two of them will be discussed here further because of their in-depth investigation and radical re-examination of some of these issues.

Projects outcome and reflection
Toybox (by Mesaritis Marios_Kantarzis Michalis_Liakou Georgia_Lionaki Eleni_Hondaj Clodian).

Toybox was initially influenced by Cedric Price's and Joan Littlewood's Fun Palace (1961), a plan for a changeable and functionally open-ended environment, inspired by cybernetics[1] and game theory, emerging within the context of the wider socio-political changes in post-war Britain. In the optimistic vision for a new leisure-based society where workplace automation and the trend towards shorter working hours would lead to more free time for the working class, the Fun Palace was regarded by Price and Littlewood as the new architecture for the constructive use of free time (Mathews, 2007, p.69). A creative, improvisational, educational and entertaining outlet, the Fun Palace would inspire and motivate different social groups to appropriate it for social interaction and participation using the latest communication and information technologies, collectively shaping their own environments in any way they desired (Mathews, 2007, pp.74–75).

ToyBox is a modular system of multifunctional units able to produce various patterns of use, motivating users to appropriate space, reclaiming public space, promoting social interaction in the city connecting digital and physical layers of engagement, while opening up possibilities for unexpected events. Each unit is a 50x50x50 cm cube combining smart materials, adaptive properties and network communication. It consists of a flexible Amoled Screen, an adjustable polymer Film Speaker, Power Plastic@, Corian, and a Plug-in Wall (*fig.1*). Its structure is composed of a metallic frame and an inner mechanism (metal axis, telescopic legs, wheels) that can allow the unit to move, elevate and rotate, creating individual or group activities, such as board game playing, film observation (creating shuttles and screen), gathering, concert, speech, outdoor courses, etc (*fig.2*).

The ToyBox installations are placed in various public locations in the cities and the cubes can be activated through a webpage where users can choose or customize the cube patterns according to the desired activity (*fig.3*). When users log in they can get newsfeed and recommendations of top rated locations and patterns, specify the time of interest, the activity-pattern (choose either a pattern recommended by the system or customize their own), the number of people and the position in the selected public space. Users can also vote or suggest public events that, in the past, increased the interaction between them and the installation. The users' choices are collected through this programmatic procedure in digital space and are translated directly into transformations in the physical public space in the city.

Just as in the Fun Palace, this information is collected for further evaluation through feedback. User choices, suggestions and impressions as well as the statistics of changes in unit system configurations, are collected by the system while a central unit processes them so that the system is continuously informed and transformed. As a result, new suggestions for the users occur, the most popular patterns prevail, the current are propagated while the more innovative are displayed.

Setting aside the Fun Palace as its initial inspiration project, the Toybox can be contextualized within a range of experimental practices and discourse about the city involving the transient properties of media and urban events. The Toybox, as well as other similar projects, are manifestations of a conceptual shift of architectural thinking, from the "hardware" of urban space -the built environment- to practices that deal with the immaterial architecture of "software" infrastructures. Archigram's Living City exhibition celebrated the ephemeral ambient and immaterial qualities of modern city life — light, sound, communications and the movement and flow of vehicles and people — (Sadler, 2005, pp.52–65), while the Situationist critic of the modern city space was performed through the radical urban strategy of the dérive.[2] Both can be located within a historical continuity which includes contemporary technology-mediated practices such as the so-called *locative media*[3] urban practices and performances.[4] Within this scope of techno-social performances or enactments, space is part of an assemblage, including code and people within the city and the course of daily life. It is conceptualised as a social product, one that is enacted and performed by users through specific behaviours and practices rather than designed and constructed. Apart from being a thing in the world, able to be manipulated by architects and invented as a distinct category for architecture's purposes (Forty, 2004, p.275) — one that Lefebvre describes as being part of the dominant discourse of power in modern capitalist societies (Lefebvre, 1991, pp.361–69) — space is also "lived" and encountered by the body of city dwellers, as well as produced and appropriated by societies as they go along (Lefebvre, 1991, p.38). Projects such as the *Toybox* seem to place analogous ontological questions about space in the city and the social dimensions within which it is produced.

TRAIN[ing] Pleasure (by Alexiou Elly_ Anthouli Nadia_ Chatzimichali Anna_ Kapsalis Alexandros)

This project was inspired by Archigram's *Control and Choice Dwelling* (1967), which manifested the possibility for an innovative nomadic lifestyle of temporary living in the city. The *Control and Choice Dwelling* is an imagined pylon supported modular truss structure enclosed by a flexible responsive skin, where robotized elements, trolleys and cars, provide ephemeral facilities, such as TV, colour and lighting services, food and drink, as well as lavatory services. Travelling units provide locomotion, change of place, instant enclosure and privacy (Cook, 1999, pp.68-70). In the *Control and Choice* housing project domestic space responds and adapts to users' individual desires, whereas boundaries between private and public are deliberately blurred.

By bringing these ideas within a contemporary urban environment the student team proposed an alternative nomadic way of living and experiencing the city by refurbishing and reusing an "alternative" existing train shell in the following ways:

2. Individual and group activities using the ToyBox.
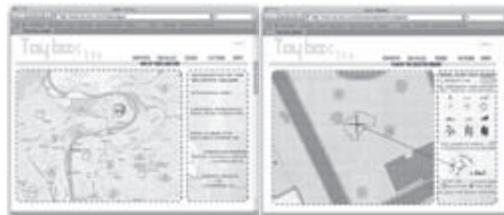
3. The ToyBox internet site.

– keeping the existing shell and modifying several of its parts to make them kinetic in order to be able to adapt to different environments (*fig.4*).

– placing the basic equipment in the floor space (living, dining and cooking, WC, storage) and on the walls (stairs, beds, offices) (*fig.5*).

– keeping two levels and separated them into two zones. A public one (1st level) and a private one (2nd level). In the intermediate space there is a semi-transparent transformable membrane which both connects and separates (*fig.6, 7*).

What this project seems to put forth is a critical synthesis of a contradiction: on the one hand, it illustrates a conception of dwelling as a spatial enclosure, bound to concrete places, providing comfort, security and seclusion to its occupants. On the other, it depicts dwelling as an impossibility, permeated by the ephemeral and transitory phenomena that shape the experience of modernity and the migratory, ever-changing and mobile lives of individuals in modern societies. This problem of dwelling as a polar opposite of modernity has its philosophical roots in the philosophy of Heidegger (Heynen, 1999, pp.16-18).[5] Heidegger's description of modernity as a condition diametrically opposed to dwelling is considered as an incidental and reversible loss by Norbert-Schulz, who proposes a concept of dwelling as a meaningful creation attached to a sense of belonging, rootedness, organic solidarity between man and a concrete place characterised by a specific *genius loci*. Yet, for Massimo Cacciari, Heidegger's assessment of dwelling reveals the impossibility of dwelling in the modern condition: "non-dwelling is the essential characteristic of life in the metropolis". For Cacciari this concept is best expressed in architectural terms in the neutral signs and indifference reflected in the glass transparent structures of Mies van der Rohe (Heynen, 1999, p.20)

Criticising the negativity towards modernity that these contrasting approaches seem to suggest, Hilde Heynen finds them inadequate for any satisfactory response to the tensions inherent in the discussion about dwelling in the modern metropolis. She proposes the adoption of a dialectic mode of thought in any discourse about architecture and dwelling that acknowledges and deals with the dilemmas, conflicts and ambiguities that are peculiar to modernity.

In addition to the age-old sense of security and seclusion, dwelling takes on a new level of meaning that has to do with porosity and transparency, with adaptability and flexibility... Dwelling means the permanent quest for an ever-new enclosure, because no dwelling can be more than momentary at present: dwelling is continually permeated by its opposite (Heynen, 1999, p.224).

In this line of thinking modernity and dwelling are not to be considered as polar opposites but interrelated in complex ways revealing their multifarious and ambivalent layers and contradictions. TRAIN[ing] Pleasure seems to suggest an intertwining of the most commonly understood sense of space in the architectural context, that of *enclosure*, with the mobile, and transitory attributes of the modern condition. Space as enclosure was first introduced in the discourse of modern architecture by Gottfried Semper and later elaborated by Loos in his Raumplan compositions (Forty, 2004, pp.257–258).

In the TRAIN[ing] Pleasure, dwelling is a coming together of *space as an enclosure*, a thing in the world providing warmth and a liveable environment, as Loos would have it, and a *transformable environment* detached from concrete places and fixed structures, a nomadic environment proper to the migratory lifestyles of the modern condition.

Conclusion — Discussion

The whole process of the course, involving research on the initial avant-garde projects, made clear that the architectural avant-garde is a locus of virtuality, a place where possible futures are being fertilized. It was concerned with the discursive and utopian element of architecture, placing questions and opening debates about the architects' role in shaping urban experiences and the very disciplinary limits of architecture itself. The projects that came out of the course seem to suggest a possible shift in the very identity of architecture: from the "hardware" of urban space — the built environment — to the immaterial and adaptive architecture of "software" infrastructures, mobile environments and networked systems.

Can the profession of architecture engage a form of practice that no longer places the act of making buildings as the central and defining role of the architect? What is the role of the architect in projects such as those discussed above and to what extend other disciplines may play a part in shaping urban experiences? We believe that answers can be found in both the historical avant-garde and current projects that attempt to radicalise these early visions, placing ontological questions about the possible "blurring" of the disciplinary limits of architecture and the role of the architect in shaping contemporary urban experiences. Answers to these questions have to take into account what seems to be at stake here: the different concepts of space in architectural and philosophical discourse and the impossibility of keeping the idea of space as we commonly understand it within the limits of the architectural practice, especially when, as Forty argues, such a concept is a category invented for purposes of architects themselves (Forty, 2004, p.275).

4. TRAIN[ing]_Pleasure. Interior.

5. TRAIN[ing]_Pleasure. Longitudinal sections.

6. TRAIN[ing]_Pleasure. Cross section.

7. TRAIN[ing]_Pleasure. Interior.

1 → The new science of cybernetics was a key concept since, its founder, Norbert Wiener, in <u>The Human Use of Human Beings</u> (1947), described how information feedback was central to the creation of environmentally responsive machines. Cybernetic control systems were imagined as literal paradigms for the design of flexible, transformable, self-regulating and adaptive architectural environments.

2 → One of the basic situationist practices, literally meaning "drifting", the dérive involves wandering through the city while determining transitions of psychological ambiences of attraction or repulsion beyond the control of any central principle or prevalent economic power. The dérive is not a random activity, a simple stroll or a journey, because the drifters will have to let go of their customary work and leisure activities, and be driven by psychological urban encounters or discouragement to enter certain urban areas. It is a playful-constructive behavior involving the awareness of psychogeographical effects (Debord 1996 [1956], p.22).

3 → Locative media are mobile communication systems (supported by Wi-Fi, cellphones, GPS technologies, PDAs, Tablet PCs, earphones, etc) functionally bound to certain physical locations, able to trigger social activities and urban experiences by relocating the user from the virtual world of the computer screen to the digitally-mediated physical environment of the city. They can engage playful, situated and participatory activities in the city, which are often not determined by the designer or media artist but the user him/herself. Locative media technologies can enhance spontaneous social connectivity in the public urban space, creating communities and social relations within both the digital and physical place of individual action (Charitos, 2007, pp.46–61).

4 → For a discussion about the links between the Situationists and locative media practices see: McGarrigle, 2009.

5 → The ethical and sociological considerations of this polarity have been discussed by Theodor Adorno and Peter Berger, Brigitte Berger and Hansfried Kellner. The experience of modernity then is one of homelessness, of mobility and migration. Modern consciousness is that of the "homeless mind" –modern nomads, foreigners and migrants providing a model for the experience of individuals in a modern mobile and unstable society (see Heynen, 1999, pp.18–19)

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