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Revisiting Yesterday's Future: the 1960s and the Internet of Things

Lara Schrijver

The IoT shares two crucial assumptions with the architecture debates and future visions of the 1960s. First, that our (urban) environment reflects, or should reflect, the state of flux modern society is in. And second, that technology is, or should be, both embedded and ambient. Although these assumptions are easily combined in different ways, they are derived from two separate focal points in the architecture debates of the 1960s.

The City in Flux

The focus of cities in the 1960s on anthropomorphic and organic qualities set the stage for an altered vision of technological impact. The groundwork for this re-framing of the space of the city was laid in the 60s with projects such as Dennis Crompton's Computer City, as well as more general ideas on the city in flux, as manifest in Constant's New Babylon, where the city is based on continual change and the vitality of human occupancy. Incorporating human qualities, approaching the sentient beings they are often portrayed as in near-future science-fiction scenarios.

There are similarities between Constant's New Babylon and various projects by the Smithsons such as Golden Lane, Hauptstadt Berlin, and the cluster cities. In particular, they all share an emphasis on human life, individual and in association, as defining city space. This is expressed through an environment constructed of different levels and connections, and organized around networks of infrastructure, with pedestrian movement generally a level removed from the ground which is devoted to motorized traffic. These networks incorporate the idea of endlessness while simultaneously representing flexibility. The flexibility of these networks is founded on the idea that cities can be made more responsive to their inhabitants by incorporating the

The Nano World Map was designed by Niko Vegt for the Nano Supermarket project.
The IoT is based on a number of assumptions about our environment and our relationship with technology. The debate about these technologies, they are derived from two separate focal points in the architecture of technological possibilities and current social issues. This includes the notion that the internet of things (IoT) is a likely reference for a seamless technological environment. The groundwork for this notion is laid in the 60s with projects such as Dennis Gabor’s Depressions Monitor Device, the in-built ubiquitous and living objects (things) in the New Babylon, where the city is envisioned as nomads, always in motion and modifying its environment. In addition, it allows for multiplicity of whether objects will be based on continual change and the vitality of human qualities, or whether the city was a response to the failure of the modern city to provide an environment amenable to human beings. Incorporating the idea of endlessness while simultaneously incorporating the idea of endlessness while simultaneously responsive to their inhabitants by incorporating the state of flux modern society is in. And second, that technology is, or should be, embedded and ambient. Although these assumptions are easily combined in discussions on the seamless technological environment promised by digital and RFID technology, they are derived from two separate focal points in the architecture of technological possibilities and current social issues. This includes the notion that the internet of things (IoT) is a likely reference for a seamless technological environment.

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potential for change. Nevertheless, there are distinctions between how the Smithsons and Constant handle infrastructure and networks. Many of the proposals for new cities (including those of Archigram and the metabolists) follow the Smithsons: they offer a relatively stable infrastructure that can be expanded and accommodate change. Constant takes this a step further by elevating the rate of flux to the very essence of his city order (where the formal expression of the city is dependent on the actions of its occupants). He believed an ever-changing life necessitated an ever-changing environment: the instability of his city was a great adventure that would encourage homo ludens to emerge.

Archigram’s explorations of the changing aspects of the urban environment were shown in the 1963 Living City exhibition. It offered seven areas, or ‘gloops’, that questioned the relation between the inhabitant and the city. As a follow-up, Archigram 5 was devoted solely to the new metropolis: the growth-based crystalline city as proposed by the Japanese metabolists, cluster cities, network cities, Yona Friedman’s spatial city – the issue is filled with projects that no longer form a closed system. Their cities can grow to whatever dimensions and in whatever direction necessary, unlike the more rigorous formal boundaries of the Corbusian city. Although the Corbussian grid is in principle endless, in his images he shows virtually no possibility of variation within the assigned scheme. In the 1960s, terms such as ‘flux’, ‘flexibility’ and ‘freedom’ were introduced in opposition to the rigid forms of the modernist city. They represent a need to manifest individuality (as opposed to the mechanical collectivity of the modernist city), as well as the need to address the failure of universal form (thought possible by modernism) and the desire to replace a static and permanent design with space for changing conditions. Yet both approaches are still based on what Herbert Gans called the fallacy of physical determinism, the idea that expressed in a rational architecture or a need for change through ‘flexible’ architecture.

The emphasis on growth and change in the 1960s confirmed the continuing speed of social transformation, but also opposed the mechanical orientation of modernism by inserting a reference to the natural and human world in particular. While the idea of change accommodated a desire for individual expression and the potential to transform, the idea of growth suggested a shift toward the city as a living entity. The city was to become more amenable by reformulating the very nature of the architectural environment, approaching the city as a tree or a field of flux. Nevertheless, the metaphors of growth and change proved no insurance against a final definition of city form.

More importantly, underlying questions remained unanswered: Is it the role of architecture to express the psychological conditions of society or its occupants? Can architecture evoke behavior through form, and is this desirable? Whether stable or dynamic, these projects conceptualize the environment as a constantly changing field, yet make transformation a material reality. In doing so they demonstrate the tension between the physical presence of the city and the continually changing life within it. The constant growth and change – the logic of the organism rather than the machine – paved the way for rethinking not only what technology might do but also how it was incorporated. The blurring of the boundary between technology and the human subject, the shift to the cybernetic organism, also finds a precursor in the 1960s.

Archigram: Embedding Technology

While the city itself is in flux in order to accommodate the human beings within it, technology is seen as a way to bridge the gap between people and their surroundings. Many Archigram projects show cheerful visions of future technologies that catch a certain zeitgeist. One might even argue that Archigram’s
tomatoes (or even ‘hunt and fish’) while we stay at home. The Electronic Tomato is a project of sheer suggestion, an object that connects to its owner to give them ‘the wildest buzz’. The wires extending from the tomato to a person suggest a permanent state of being plugged-in. With such cheerful pop imagery it is no wonder that Reyner Banham saw the work of Archigram as emblematic of his ‘second machine age’, which expressed the transforming nature of technologies and a shift in how it was approached. As technology became less an external instrument and more a prosthetic, the newer domains of cybernetics and networking technologies promised an increasingly organic and integrated technological environment. Archigram incorporated these technologies in architectural visions of a networked environment, combining their ideas with pop cultural references and reflecting Banham’s own predilection for the phenomena of pop culture, such as American cars and their styling.

Popular Imaginary

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Archigram: Embedding Technology

While the city itself is in flux in order to accommodate the human beings within it, technology is seen as a way to bridge the gap between people and their environment. Many Archigram projects show a clear vision of future technologies that catch a certain zeitgeist.

One might even argue that the Electronic Tomato can be seen as one of the earliest precursors to the ambient technology that underlies the IoT. If technology, as does its companion project, the Manzak, which is described as a personal object that can venture out into shopping (or even hunt and fish) without a home. The Electronic Tomato is a project of sheer suggestion, an object that connects to its owner to give them ‘the wilderst buzz’. The wires embedded in the tomato or a person suggest a permanent state of being plugged-in. With such cheerful pop imagery it is no wonder that Reyner Banham saw the work of Archigram as an apotheosis of his ‘second machine age’, which expressed the transforming nature of technologies and a shift in how it was approached. As technology became less an external instrument and more a prosthetic, the newer domains of cybernetics and networking technologies promised an increasingly organic and integrated technological environment. Archigram incorporated these technologies in architectural visions of a networked environment, combining them with pop-cultural references and reflecting Banham’s own predilection for the phenomena of pop culture, such as American cars and their styling.

Popular Imaginary

Reframing our relationship with technology is impossible without addressing popular culture, as the two have gone hand in hand since the advent of the printing press. Each technological innovation is deeply connected to the culture of its time, whether it is an unexpected use to which it is put by a broader group of people, the internet, originally constructed as a network to link scientific and military institutions so as to more easily communicate scientific progress, is now the domain of a reconfigured virtual public. It is not limited to military secrets or obscure scientific discoveries, but has been inundated with everyday functions such as shopping and chatting. Marshall McLuhan’s motto ‘the medium is the message’ is now more appropriate than ever. The members of Archigram express technology in such a visually powerful way that they become laden with the kind of symbiosis we would traditionally expect from a purely aesthetic endeavor. In this aesthetic technology, Archigram played a role in the development and exploration of the machine as an entity, and an organon of the human experience.

Although this pop-culture technology incorporates direct attacks on earlier forms of technological idolatry, it is not as much destroyed as sidelined, through a different form of expression. This work poses some critical questions: Should we want to live in a mechanistic world? Should technology control the human experience? Should we want to follow only engineering rules, and if so, should those rules dictate our aesthetics? If we want to appeal to functionalism, should a functional form be ‘functional’? Yet in the end, technology remains both a symbol of a better world soon to come and a critical instrument that requires little more than some well-designed guidance to help us achieve utopia. Archigram has envisioned many different potential technologies, but the gaudiness it revealed in prevents a careful assessment of how these technologies impact everyday life. What appears necessary here is a form of critique that can go beyond the technological condition of contemporary technology, a critical position that simultaneously acknowledges how strongly technology has become tied to the materiality of our society.

The hybrid understanding of technology as both medium and message is endemic to contemporary society; we can no longer isolate ourselves from technology, yet since it is such an integral part of our daily existence we cannot examine it as an autonomous object. This problem is colored by the fact that we maintain an instrumental understanding of technology and a progressive stance towards the future. In the optimistic years of the 1960s it was taken for granted that we were moving ‘forward’, that a new step in human evolution had arrived. Scapinello toward modern technology as technological progress promised an increasing organic and integrated technological environment. Archigram incorporated these technologies in architectural visions of a networked environment, combining them with pop-cultural references and reflecting Banham’s own predilection for the phenomena of pop culture, such as American cars and their styling.