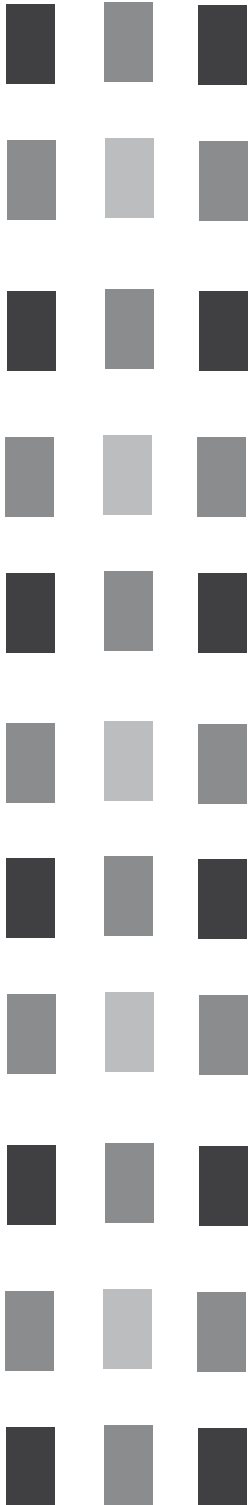# On the Romanticism of immersive techno-logical environments

Or, dancing with the machines

Jon Goodbun

Introduction

In this paper I will be asking how architecture works as a medium, as a communicative environment. In particular, I will consider this question in relation to digital environments. Much of this paper comes out of work I have been involved in, either through the practice WAG Architecture, or through the Polytechnic research group and design studio at the University of Westminster. I will be showing a mix of this work, as well as referring to that of others.

The paper will move through three parts. In the first section, I want to outline what I see as the problematic legacy of postmodern thought and historiography, and the difficulties this has caused for the contemporary development of architecture as a communicative spatial practice. In the second section, I will outline a reconstructed modernist history and epistemology of spatial communication, thought through the terms Empathy and Prosthesis. I will then locate this spatial aesthetics in relation to a Romantic, and Marxist aesthetics of alienation. In the final section I will suggest what this might mean for theorising contemporary spatial media. I will make some comments on current developments involving the spatialisation of the computer interface, and the tendency of the interface to become an immersive environment – understanding these as working through a modern architectural aesthetics of alienation.

The problematic legacy of postmodern thought

We live in what Peter Osborne, following David Harvey and Manuel Castells, has described as an emergent global capitalist modernity.[1] There has been a significant shift in the balance of power on the planet in recent decades. Non-capitalistic modes of production, whether the bureaucratically deformed socialist states of the Soviet bloc, or the pre-capitalist economies of the developing world, have been incorporated or contained in various ways, whilst oppositional organisational structures (such as the Labour and trade union movements) that emerged from within the fabric of capital, in the hope of providing the framework for new post-capitalistic social and economic formations, have suffered massive defeats.

Postmodernism, if it is still useful as a conceptual or historical tool at all, must be understood as the cultural correlate of these shifts in power. Indeed, it can be argued that postmodern theory was one of the primary ideological tools used to reinforce this shift. Although postmodernism is now largely unused as a term, a number of its revisions have become naturalised, and urgently need to be revealed and dismantled.

Perhaps the most poisonous and reactionary of these revisions is what we might call the postmod-

ern history of modernism. Here, modernism was rewritten through a narrow reading of 'high modernism': as a singular, monolithic discourse, obsessed with function, and rationality, and so on. Large sections of modernist thought or practice, which do not fit this description, such as those around expressionism, dada, surrealism and situationism, were erased or marginalized from this history of modernism. This then allowed postmodernists to claim anew for themselves fragmentation, irrationality, the body etc. In architecture, the postmodern history of modernism took a particular turn, where the concept of architecture as a spatial practice came under attack, and was temporarily replaced with a model of architecture as a purely sign based practice. This was a dangerous move in many ways, not least because it left architecture impotent with respect to the possibility of critiquing capitalistic spatial relations and ownership patterns.

Although this purely sign based theory was too impoverished as a model for the production of architectural objects to sustain itself for any length of time, it did assist in the erasure of modernist spatial thought. This has resulted in what I would argue is an imbalance in contemporary architectural epistemology. A dominantly iconographic model now drives our understanding of architectural meaning, which marginalizes communication generated out of bodily experience. We see this condition clearly in the work of Libeskind, who has produced a number of buildings (in particular the Jewish Museum, Berlin), where the main communicative significance arises through the induction of distinct phenomenological effects in the occupant. However, despite this success, the architect seems to feel the need to legitimate these structures through banal iconographic readings, such as understanding the Imperial War Museum in Manchester as a shattered globe, or the form of the Jewish Museum in Berlin as being generated out of connected addresses in Berlin.

Perhaps we need to establish a theory that is able to incorporate both the bodily experience of space, and the semiotic experience of iconography. Without this, contemporary architectural practice will remain unable to articulate or evaluate itself.

A modern architectural epistemology of spatial communication

I propose to use the following conceptual diagram to outline an epistemological model for architecture:

KINAESTHETIC   COGNITIVE   ICONOGRAPHIC

Here, the two terms kinaesthetic and iconographic are the two fundamentally different routes through which architectural meaning is construc-

ted. The kinaesthetic is that which is directly perceived or felt, through the sensuous, moving bodies of the occupants. It deals with the phenomenological experience of architecture. The iconographic is not directly perceived, but is deferred through reference, or representation. It deals with the symbolic or sign based experience of architecture. Both experiences are resolved through the formation of cognitive maps in the mind of the occupant. The iconographic components of architecture are the easiest to understand, and have been dealt with extensively in recent years.

Instead I want to spend some time here looking at kinaesthetic models of architectural experience, which utilise the logic of prosthesis. In order to understand how environments might work as communicative prosthesis, I will introduce two conceptual models that deal with the experience of extended bodies, and propose what features a synthesis of the two might have. The first of these is the body of thought known as empathy theory, which was developed initially at the end of the nineteenth century by German art theorists such as Schmarsow, Wölfflin and Worringer. Schmarsow writes:

"Psychologically, the intuited form of three-dimensional space arises through the experiences of our sense of sight, whether or not assisted by other physiological factors. All our visual perceptions and ideas are arranged, and ordered, and unfold in accordance with this intuited form.

The intuited form of space, which surrounds us wherever we may be and which we then always erect around ourselves and consider more necessary than the form of our own body, consists of the residues of sensory experience to which the muscular sensations of our body, the sensitivity of our skin, and the structure of our body all contribute. As soon as we have learned to experience ourselves and ourselves alone as the centre of this space, whose coordinates intersect in us, we have found the precious kernel, the initial capital investment so to speak, on which architectural creation is based.

Our sense of space and spatial imagination press towards spatial creation; they seek their satisfaction in art. We call this art architecture; in plain words, it is the creatress of space."[2] (fig. 1, 2)

Here, the architectural inhabitant imagines space to be a second skin, an external membrane to their body (an interface or prosthesis) that enables them to expand into, and wear the building. It sees the building as an alienated, yet recoverable part of the individual, or social body. Rosemarie Haag Bletter uses empathy theory to explain expressionistic design:

"Because of the polymorphous variety of Expressionist forms, which almost never expose easily comprehensible designs such as Euclidean solids,

1, 2 | *WaG Architecture, Greer Gallery, London (2002)*

they constantly force the mind to carry out the kinds of processes of reduction and extension described by Gestalt Psychology to make them comprehensible designs. The mind is, so to speak, not presented with a restful, balanced image to begin with. The spectator is instead presented with what appears chaotic. In the mental ordering of such designs the observer is asked to undergo the processes of compression and tension in order

to achieve a semblance of balance. The spectator becomes a partner in the creative process: like the artist, he must share in the organisation of meaningful patterns. This procedure is like the constant creation out of chaos of the mystic. The highly dynamic nature of Expressionist design, which at times approaches living objects, can be best explained in terms of Gestalt Psychology: the intentionally chaotic forms presented by the artist or architect are catalysts of forces which activate our powers of perception."[3]

The second conceptual model is found in the work of Marshall McLuhan. Here, all technology and media (from clocks, satellites and computers to languages) act as extensions of our bodies, as new organs, as prosthesis, in a similar way to empathy space. He states:

"All media work over us completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the massage. Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments. All media are extensions of some human faculty – psychic or physical. The wheel is an extension of the foot, the book is an extension of the eye, clothing, an extension of the skin, electric circuitry, an extension of the central nervous system. Media, by altering the environment, evoke in us unique ratios of sense perceptions. The extension of any one sense alters the way we think and act – the way we perceive the world. When these ratios change, men change."[4]

In both of these conceptual models, the experiences of our sensuous bodies are seen to constantly update our cognitive maps of ourselves, of our bodies, and of our environments. In both cases, our senses are understood to have been socially produced.

There is a sketch of yet another conceptual model, which predates both of the above, but which contains the features that we might imagine a synthesis of those two models might have. Like both McLuhan and Schmarsow, it starts out from the active, experiencing, sensuous body of the individual, which it imagines as being historically produced and subject to change, through its extensions and distortions in technology: its own productions and consumptions. And in so far as we all share similar bodies, and in so far as technologies, practices and environments socialize our senses, make our senses common, the individual and the social are continuous. This thesis then extends to include society as a prosthetic. This model can be found in the early Marx, in particular in the Economic and Philosophic Manuscripts of 1844. Although this is not a point I can develop in

detail here, it is worth noting that we should not be surprised by this congruence, as Marx had been studying the work of the proto empathy aesthetician Friedrich Vischer, prior to writing this and embarking on Capital. As Terry Eagleton and others have suggested, Marx's project is profoundly aesthetic.

"The transcendence of private property is therefore the complete emancipation of all human senses and attributes; but it is this emancipation precisely because these senses and attributes have become, subjectively and objectively, human. The eye has become a human eye, just as its object has become a social, human object – an object emanating from man for man. The senses have therefore become theoreticians in their immediate practice. They relate themselves to the thing for the sake of the thing, but the thing itself is an objective human relation to itself and to man, and vice versa. Need or enjoyment have consequently lost their egotistical nature, and nature has lost its mere utility by use becoming human use.

In the same way, the senses and enjoyments of other men have become my own appropriation. Besides these direct organs, therefore, social organs develop in the form of society; thus for instance, activity in direct association with others, etc., has become an organ for expressing my own life, and a mode of appropriating human life.

The forming of the five senses is a labour of the entire history of the world down to the present."[5]

So we have here now three conceptual models, all based upon extensions of the body. It is worth considering for a minute why this might be so. Are they talking about the same thing? Do they share a common origin? I think the discourse they all are indebted to is romanticism. To clarify here, romanticism anticipates the problematic of alienation in modernism. Aesthetics is seen as the means of overcoming this, of unifying subject and object. And it is an aesthetics of alienation that empathy theory, McLuhan and Marx all share.[6]

Immersive spatial media

The computer interface is developing now as an application and generator of architectural knowledge, through the logic of prosthesis. I am particularly interested in how the interface between the individual (and the communal) and the 'computer' is developing as a spatial question. Specifically, I would argue that there is an emerging shift away from the Graphic User Interface (GUI) of the classic desktop computer operating system, towards a Spatial User Interface. This tendency is primarily driven by the development of technologies around WWW, databases, networks etc. and the need to navigate networks of assembled information speedily and intuitively (fig. 3–5).
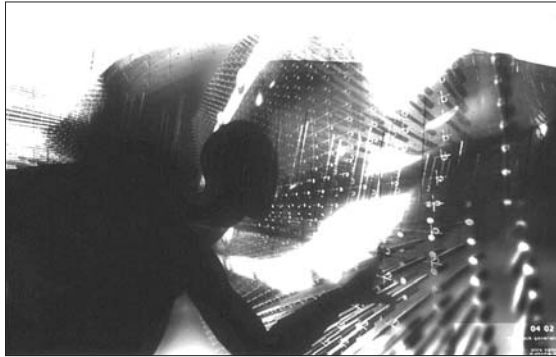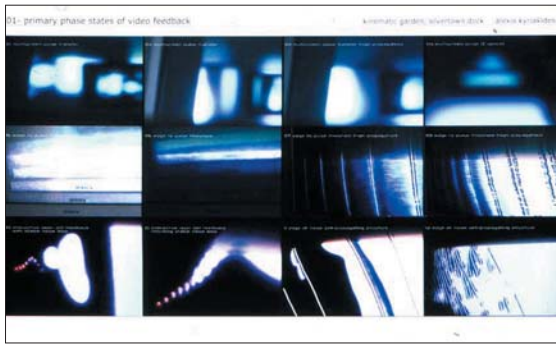
3–5 | *Alexis Kyriakides, The Kinematic Garden (RIBA Medal Winner 2001)*

Polytechnic Design Studio, University of Westminster. Grown out of the performative spaces of video feedback, this is architecture as a membrane: a kinaesthetic interface to the global city. Dancing with the machines, between the rhythms of the body and the rhythms of the airport, this site is alive - in the system is trapped the very life of the city and its users as a perpetual feedback loop of cause and effect. The site has miked up the city. Incoming planes landing can be felt through the kinematic grass, the operation of the Thames barrier reverberates through the site. A person waving their hand may set off as a wavefront that would allow someone to feel it some distance away. The site is alive, a non-linear system that is our real nature. The scheme continually feeds-back on itself, responding to changes in light, sound, and media patterns. Its liquid form pulses and evolves in response to its environment and its users, whose presence and movement forms an integral part of the kinematic experience. Users may learn to drive the machine, to seek brief periods of control within its constant state of non-linear, emergent flux - an electro-analogue prosthesis.)

The network (or grid) and the assemblage are of course both modernist architectural figures. They are related to each other, and both are in some sense concrete figurations of cognitive maps, intended to act in some way as interfaces to the reality of modernity. The assemblage exists in its pure form in the Merzbau of Kurt Schwitters, and was to some extent anticipated in the mosaic work of Gaudi. It was also developed, to some extent out of Expressionism, by the Constructivists, in order to organize objects, signs and images abstractly and empathically, in space. This project was continued, in the department store projects of Mendelsohn, where we see an assemblage of signage, lighting and commodities, organised across and through a warped space, that implicitly (and sometimes explicitly) expands into the surrounding city, attempting to continue the Werkbund demand that architecture manage all the other communicative systems in the city, through the form of the Gesamtkunstwerk. The figure of the network shares much of its history with assemblage. It emerged out of the infrastructural and town planning grids of the nineteenth century, was felt by Mondrian, was reified in any number of megastructural and plug-in projects (Friedman, Constant, Price, Tange, Cook, Soleri…etc.) and exists perhaps in its purest form in the L.A.W.U.N. (Locally Available World Unseen Network) projects of David Greene, published in Archigram.

In all of these assemblage and network projects, we find a constant cognitive architectural experience: that of an iconographic or informational surface (of text, images and objects) organised across or through a kinaesthetic construct, encouraging the inhabitant to expand themselves into an architectural web that ultimately encompasses the planet.

Such an understanding of the figures of the assemblage and the network would seem to suggest a basis for a modern and simultaneously kinaesthetic, cognitive and iconographic architectural epistemology. It also suggests that such an architectural knowledge might be required or indeed generated by the tendency of the computer (and its interface) to disperse itself into the spatial environment.

The spatialization of information (the configuration and organisation of information in space), achieved through an integrated assemblage of physical and virtual spatial environments, would begin to engage the mobile, experiencing and extended body of the user in the navigation of information. In this model, the spatial environment must be understood as a prosthesis, as an extension of the body. When we are driving a car, we are simultaneously processing vast amounts of information, through our whole body. The current interface challenge is to get computers off of the

screen and to spatialise information, so that it can be similarly navigated with our entire sensorium.

"The brain is the centre of the nervous system, composed of neurons extending through the spinal cord to the surface of the skin. The nervous system is not contained within the body's limits. The brain is … part of a system that connects the individual organism to the environment, passing through the person and his or her world."[7]

We should understand a component of this period of interface development as a properly utopian modernist aesthetic project, concerned with romantically resolving the separation of subject and object, as a dialectic of man and machine.

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Notes:

1 See Peter Osborne, *Non-places and the space of art*, in David Cunningham, Jon Goodbun and Karin Jaschke (eds.), *The Journal of Architecture*, vol. 6, no. 2: summer 2001.

2 August Schmarsow, *The Essence of Architectural Creation* (1893).

3 Rosemarie Haag Bletter, *Bruno Taut and Paul Scheerbart's Vision: Utopian aspects of German Expressionist Architecture* (1972).

4 Marshall McLuhan and Quentin Fiore, *The Medium is the Massage* (1967).

5 Karl Marx, *Economic and Philosophic Manuscripts of 1844* (my italics).

6 See David Cunningham, *A Question of Tomorrow: Blanchot, Surrealism and the Time of the Fragment*, in *Papers of Surrealism* 1 (2003).

7 Susan Buck-Morss, *Dreamworld and Catastrophe* (2001).