

Towards an ontology of use, design, evolution and the roaming subject in an unstable environment

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Abstract

This paper sets out to explore some of the philosophical issues concerning the dynamics of use in architectural form and design. My research at the university of Eindhoven is concerned with the question of how to arrive at an ontology of use. Ontology can be described as a discipline that questions the existence of a thing by attempting to describe it as a part of the world. The purpose is to come to a description of the role that use assumes in the arena of our doing and thinking and then to mobilise this description in the construction of a practical aesthetics of use, leading eventually to a satisfactory attitude to design in architecture. This article will begin with a short overview of some of the problems one encounters when thinking about use and will suggest a possible direction for further thinking by renegotiating the subject-object relationship to what I would like to call an aesthetics of generosity.

Wild use

The ideas of evolution and involution and the problem of learning are central to the concept of use. After all, as conditions change so does usage. This is fundamental to the maintenance of self. In this sense usage is, in a special way, indeterminate. This indeterminacy refers to the fact that things have a virtual, weightless aspect to them where an infinite accretion of possible uses is prepared in the tension between roaming subject and discoverable object, between a potential *user* and a potential *thing*. [Deleuze, 1987] Martin Buber in his *I and Thou* writes that *the thing* is curiously narrowed when it becomes an object. [Buber, 2004] A thing is as it were softly killed by the use it is put to by the subject. A thing is at risk of being reduced from a “you” to an “it”. Frantz Fanon in the fifties similarly made an interesting reference to the fact that what was awful about slavery was that it reduced a man to an object. [Fanon, 1995] I will come back to this a little later. Similar claims have been made about women in a pre-emancipated society. Interestingly Man Ray, the surrealist artist used to set objects “free” by denying them their overt function. One of the most famous of these was an iron with spikes, making ironing a thoroughly destructive affair. This said as much about the freeing of objects as it did about the freeing of women and, perhaps incongruously, about eroticism. Already in Spinoza’s philosophy, we arrive at an indeterminate, liquid and individuated concept of use that can only be made concrete in relation to the using subject. It is the self-maintaining subject that determines usefulness and specific uses either consciously or unconsciously, it is the subject that finds the appropriate form either through search or a serendipitous accident. It is the subject that objectifies fragments, partial objects and shards of the environment and individuates them into things separated from their environment and prepared for use. Use becomes an accomplice of the good and the good is thus never larger than individuals in agreement with each other, never an absolute, always relative. What is useful in a certain way for one, might be different for another. Use wrests the good from the absolute in Spinoza’s naturalism. Use in fact becomes a vehicle for Spinoza’s expressionism. [Deleuze 1992] If we express the substance, (nature or Spinoza’s God) in everything we do then using our environment is really an expression of oneness in multiplicity or, to put it in different words, of God in everything.

If use has a relationship to the individuated good, it has also a relationship with the concept of enjoyment. There is, after all, an important linguistic link between use and enjoyment. Use is “having the pleasure of something” to “have the enjoyment of something”. And this opens up possibilities for a concrete and practical aesthetics, whereby the idea of use in architecture, long held to be rather a difficult relationship, can be made inspiring. If we could describe all the more ethereal functions of architecture as useful in the same sense as all the physical functions of architecture, and see them not as separate but as moments along a continuous conceptual framework we can arrive at an aesthetics of architecture which achieves multiplicity. [Calvino, 1996] From the premise that Man might be defined as a territory, a set of boundaries, and that the transgression of those boundaries to explore other territories is a question of simple flight, use then becomes both the transgression of a boundary between man as a territory and his environment as well as the condition for that boundary to be tested. [Deleuze & Guattari, 1987] It is on this front that the problem of Donna Haraway’s cyborg becomes

interesting: where does the body stop and the environment begin? This way of thinking provides us with the possibility of a topography of man's place in the world which differentiates between various kinds of border and sees the skin as only one of them. In other words *use* is the method whereby man maintains his *self* in relation to the environment by questioning and testing that border. Every instance of border conflict or transgression with that self is an instance of use.

An old tired problem: the duality of form and function

Architectural aesthetics has always suffered from the entanglement of categories. Or perhaps we should say, it has suffered from an understandable impatience with the complexity of the Gordian knot. The relationship between form and function, for example, has never been adequately analysed, they have intuitively always been conceived as something separate. "The history of the concept of Style could be interpreted as the history of the attempt to overcome the duality between content and form, either by acceptance of that duality or by its rejection," [Susan Sontag, 1994] The rejection of this duality has, even by sympathisers, invariably been countered by the problem of how to deal in practical terms with its disqualification. What does it mean for function or content to be form? Imagine the possibility that form can *only* be described in terms of function, or, what comes to the same thing, in terms of content. Imagine that form is in fact a category of the mind in the Kantian sense, form is a psychological function of the mind, the purpose of which is to accommodate, explore and find uses. This is a compelling hypothesis. In other words *any* description of form is an exercise in the search for content. The more abstract the description, the more open-ended is its search. In fact abstraction is in this sense a method of "breaking the mould" so as to free ourselves in the search for new possibilities within the virtual. Style, as method whereby a foreground is isolated in relation to a background, [Merleau-Ponty, 1969] is a concept which brackets the relationship between form and function. In fact when we have described it as such form and function cannot be seen as separate for to separate form from function is to commit an absurdity. Is merely the description of the possibility of function.

Ornament, which has always served the purpose of differentiating space and surface, has, from early on in the history of modernism come under severe criticism. Sometimes it was helped to its own death by its greatest advocates, such as John Ruskin, who forced it to court excess by claiming for itself the full scope of architectural practice and to elude the useful on purpose so that it could be relegated to an elevated position as something that *transcends* the useful. Becoming to all intents *useless* as well as *tired* and *perfunctory* it was, in modernism's reduction of architecture to an admittedly very narrow conception of functionalism banned from its sphere altogether. In the doctrine of functionalism the idea of use appeared to take up a central place. After all the functions of a building's programme determined the configuration of design priorities: *Form follows function*. But it did so incompletely, in fact, functionalism is said to have failed.¹ It is a luxurious and happy failure that can boast such fantastic buildings and in that sense its failing has itself to be seen in a rather narrow and miserable light. Functionalism, it has to be said, as far as designers and architects consciously pursued such an aesthetic, was not at all loyal to its own premises and rules of engagement. It couldn't be. No doubt most architects who felt a sympathy for functionalism, knew that the extraordinary force and cogency of the slogan "form follows function", coined by an inspired Louis Sullivan [Sullivan, 1988] took up a rather curious place in their own design thinking. It formed only part of the wild and Dionysian exploration of the enormous energy latent in a new language of form, a new attitude to modern materials, ornament, the social role of architecture and, most particularly, the fresh beauty of the healthy human body. The failure of functionalism was simply a failure to keep to its own rules of

¹ A lot has been written about functionalism, I do not want to repeat it all here. See for example: Horatio Greenough, Form and Function: Remarks on art, Design and Architecture, (1947) oorspronkelijk 1852; Frederick Kiesler, Pseudo-Functionalism in Modern Architecture, Partisan Review (July, 1949):32 Edward de Zurko, Origins of the Functionalist Theory, (1957); Reyner Banham, Theory and Design in the First Machine Age (1960); Theodor Adorno, "Functionalismus heute," (1965) translated as "Functionalism today" in Neil Leach ed., *Rethinking Architecture* (1997); Peter Collins, *Changing Ideals in Modern Architecture 1750 - 1950* (1965); Peter Eisenman, "Post-Functionalism" in *Oppositions* (1976) nr. 6; Brent Brolin, *The Failure of Modern Architecture*, 1976; Peter Blake, Form Follows Fiasco: Why Modern Architecture hasn't worked, (1977) Stan Anderson, "The Fiction of Function" in *Assemblage* (1987) nr. 2 pp. 18-31; Hilde Heynen, *Architecture and Modernity, A Critique*, (1999) "Het Functionalisme en zijn Schaduw", in Hilde Heynen et.al., *Dat is Architectuur*, (2001) pp. 699 ff.

engagement. Admittedly, the focus, however wide, was not inclusive. A number of traditional functions of architecture, such as the function of ornament, were delegated to massing, the configuring of space. To see ornament as functional became something of a heresy. Ornament, emptied of its task was rudely substituted for other ways of differentiating space and surface. The careers of Loos, Le Corbusier, Mies and Oud illustrate this in various ways. And functionalism's best buildings are far more generous than their narrow legitimation would suggest. No doubt the best architects knew that form is not very obedient. Functionalists, in so far as they truly believed in their architectural panacea, heartily ignored the fact that a sentence such as *form follows function* gives a much too simplistic view of the causality it tries to make explicit and thankfully it didn't stop them designing great buildings. As we have already seen, form *never follows* function; or vice versa. The model of causality that lies at the basis of this slogan is simply bad philosophy.² The slogan was not so much a description of an existing relationship as a normative command for impossible things to happen. To separate form and function is a philosophical absurdity. For they are simply different ways of approaching the same side of the coin. Literature discovered this a long time ago. The form *is* the function and the other way around; *the medium is the message* [McLuhan, 1964]. Form fits, fills, finds function, and function happily, through experience, suggests certain forms as helpful. Form is a way of talking about function, an aspect of function and vice versa, actually, form *is* function and that's that.

A stick

In terms of form and function in design we could think, for example, of a stick or a protein in the human body.³ Without exactly *that* form, there is no functioning of the stick or the protein. Admittedly, some functions allow a greater margin of freedom in form and a single forms has untold possible functions or uses. Of course the stick or the protein may not be used at all, in which case the function is purely virtual. A thing may thus carry an infinity of virtual uses without becoming any heavier to wield. The analysis of form encourages functions that were not intended by the user or by the thing itself. This has been adequately shown in the theory of affordances developed by J.J. Gibson. [Gibson, 1986] But all this still does not mean that they can be seen as separate. Form and function are ways of looking at a thing, ways of colonising it. Form and function are predicative aspects of a thing whereby we take possession of a thing both physically and psychologically. A thing has, from a practical point of view many different qualities. These are each bound to a particular scale and are extracted from or actualised in the object by the subject making use of them at that particular scale. Things are described at a specific scale as an intentional form, even though the intention may have been discovered by accident. This description does not come from the thing itself. It is *objectified* by describing one of its possible functions and the form it has at a particular scale. The stick has its own inscrutable *raison d'être*, and we do not know how it would describe itself. In that sense we have not gone very far beyond Kant. After all a stick speaks no known language, it does not even speak the language of its own possible uses. We speak the language of its possible uses, we describe it as long and hard, as those are qualities that pertain to it as being useful to us, for hitting people, or building things. When we make use of something, that use should be seen in a peculiar way independent of the thing used. That is what an object is, a thing from which only its use is extracted, leaving the thing as a thing, cold, distant and unknowable. We objectify the stick by selecting its univocal use to us. We make the stick into an object and refuse it the right to be seen as a subject: that would after all be absurd, a stick does not live. But actually this refusal to subjectify the stick is crucial to the metaphysical blip we are subject to in approaching our world. When we speak of the function of a thing, we speak of what we do with it, we speak of the shape which is peculiarly suited to that kind of doing, but we leave, in conformance with Kant, the *ding an sich* out of the picture, we only take its relationship to us and *our world* seriously; we are exclusively concerned with the way the thing is directed to our attention. That is *natural*. And this also applies to the stick we were just discussing. I have been able to use that stick as an abstract machine without it even existing as a stick!

This argument can also be applied to a work of art or architecture. As soon as we describe something, the description lays down the conditions of its use to us, no more, and no less: we *shape* it

² That was pointed out in the 18th century by David Hume in his *Treatise of Human Nature* (1739)

³ Mad cow disease was purported to be caused by a protein folding in the wrong way so that its destination couldn't receive it and thus kept calling for proteins to be produced while the place of production never stopped making badly folding proteins. This overabundance of uselessness eventually caused the madness.

by exploring its usefulness, at the scale at which we distinguish the thing as a thing. Thus we re-create the thing in our image, as a prosthesis of our body or at the very least a thing in an intimate dialogue with our body. That re-creation is the foundation of our use of the thing, even if we only use it as parable or abstract machine in our thinking. [Deleuze & Guattari, 1983]. Use begins at the moment we start wondering as to what we have here in front of us, it continues with each thought, and intensifies from the virtual to the actual with each action and ends with killing, manslaughter or murder. The use of beauty has inadequately been put in relation to the beauty of use, through an analysis of their respective structures. This play on the Vitruvian triad is no accident. It hits upon a central thread which is the possibility that the Vitruvian triad: *Utilitas*, *Firmitas* and *Venustas*, represent successful criteria of judgement of architecture precisely because they are irreducible to each other and at the same time meaningless without each other. We could emphasize that relationship by translating into English as form, function and physics. Each of the three is in fact an aspect of the other two. This allows us to question the nature of the assemblage we make with our environment when we use something. After all, use is treasure in the form of good tricks and insights orchestrating our *entanglement* and *mixing* with the environment. In any assemblage governed by any form of contiguity or propinquity use constitutes a fitting of the body back into the world in order to modify both. To test the boundaries of man through his use of the environment. The body territorialises that which it finds (which involves a deterritorialisation of everything the thing was before it was isolated for use by the user and a reterritorialisation of the thing as thing) and, through a process of learning and practice (involution) the body and its thing arrive at an elegant relationship between the two [Bergson's theory of movement and grace in Bergson 2004 as well as in Le Rire] Involution becomes part of evolution through the Baldwin effect which provides a cogent model for the role of learnt movement and memes in the evolution of a population. [Dennet, 1996 & 2004] Why evolution is not simply progressive is down to two factors. The first is of course the need to individuate the concept of progress. There is only progress for a territorializing subject in relation to a particular set of circumstances. The more stable that environment, the more the territorializing subject can practice its possibilities and limitations, the better it can become at being in that environment. That subject may be a group of individuals who become one through agreement on some issue but never more. The second is that bad ideas have proved, at least in evolutionary terms, equally successful as good ideas. Even bad ideas can have a good use, an individuated purpose. Aristotle's concept of *eudaimonism* still stands as one of the best formulations of the good in philosophy. This bad person may be a good example to a person slipping towards negligence of his self. History then, is, as in Walter Benjamin's view of it, a mountainous pile of rubble. It is, like our concept of use, indeterminate, it has no known purpose beyond itself and it can be mobilised to any purpose. It is useful to us when we start rooting for its treasures in the form of good tricks and insights to keep us going.

Turning objects into counter-subjects

If man is a set of administrative boundaries, a sense of exclusion is lost. His separateness from his environment is undermined. And that in our world where the only nature we are destroying is that nature, that is to say, that refined set of natural conditions in which we do well as human beings is actually a useful redefinition of boundaries. Even the concept of life as something one owns, is no longer a guarantee for one's separation from the rest. Life pervades and starts in unlikely places. And if this helps making us less artificially separate from the world and places us as men-in-the-world, instead of as men, then surely that is a good thing. I would like to take Cedric Price's The Generator Project as an example whereby our environment is de-objectified into a cryptic life-form enabling our strategies towards the environment to take on a similar refinement as our strategies of dealing with people. The question arises how architecture and society might fare as the literal "stability" and sense of permanence of the environment is undermined and eroded through the explorations of commercial opportunity, technological possibility and creative abandon and disregard for our habitat.⁴ What happens when the built environment literally starts moving? Our whole method of practicing the environment will have to be approached in another way.

⁴ Cedric Price, The Generator, a project dating from 1976 in which people could program a computer to implement temporary changes to their house in a small development in Florida. However, if people did not make use of the computer sufficiently, it would "wake them up" by "thinking" of alterations itself and take revenge for its neglect as a possibility. These alterations would be made when the inhabitants would be at work and would surprise them on their return.

One cogent definition of intelligence is the ability to adapt. Consciousness at its most instinctive is particularly focused on the adequate response to things that move, loom and change before our eyes. [Dennett, 2004] The responses to such movement lie deeply embedded in the codes and culture that makes us what we are: human beings. When we move through our environment, through buildings for example, they change their appearance to us. This is where we generate narratives from the fragmentary and highly selective nature of the partnership between perception and memory [Bergson 1990; Dennett, 2004 and Scruton, 1980] and so anticipate upon possible threats and opportunities. With the advent of theatre, a central concept in architectural design, the world began to pass us by in a very interesting way. We sat still and observed quietly as life and various simulations of it happened before our eyes in a way which allowed us to participate in the lives of other people [Rorty, 1982] This ability to travel “au bout de la chambre” was enhanced by cinema and television and has now gone wild in virtual space. The result has been that our questions began to exceed the rather limited problem of simple threats and opportunities: the element of metaphor and indirect discourse entered into things [Deleuze, 2004]. We have found new strategies and tactics to comprehend and anticipate the space around us. We know how to deal with virtual movement. Now we have arrived at a next stage. The environment we are creating, our very own Neo-Nature, has been so designed to “respond” to us and our activities, our moods and desires. This shift is more fundamental than many of us perhaps realise. Our relationship is shifting from a metaphysics in which the stability of the “landscape” of our environment could be depended upon to work as parameters for our own movement and whereabouts, to a metaphysics where we need to relativate by talking of spheres and bubbles [Sloterdijk 2003] capsules [De Cauter, 2005] and the possibility of “things” becoming intelligent. Cyborgs are humans which have become adapted to this new environment by enmeshing with it physically. Metaphors such as “foundations” which imply a secure ground, a level 0, have to be supplanted with far more relative metaphors such as gravities [Midgley, 2003] and intensities [Deleuze, 2004]

If use narrows particular chunks of our environment to *things* and *objects* and if an *object* is a *thing-narrowed-to-its-place-in-our-consciousness*, perhaps then it is necessary to look again at how the concept of use should be viewed in that process of toing and froing of thought and action we call design. That is not difficult. After all, use lies at the very foundation of all our thinking and doing. In using something we fit our body, (very literally) back into the environment after we have calibrated its relationship to us through consciousness. Using is a fitting through grasping, squeezing, pressing, rubbing, tearing etc. Consciousness, as it is described by Sartre, is where man creates a core of nothingness by stepping outside himself, to be able to look back at himself critically in his environment. In this sense, we have to claim our existential responsibility for our own prioritisation and the selection of functions that we find important. We must be aware and try to be explicit about the fact that we are always politically active when determining our priorities and making our selections, and we must try to become aware of what we are excluding from our attention. That is what makes design so exciting and so messy. Any form of systematisation in the design task bears the risk of *objectifying* the user and the used and an object bears the risk of being buried alive, as being treated as lifeless. However, it is physically impossible to be very thorough or complete. That is after all what politics is about. Not everything is possible at the same time, that is what makes prioritisation in everything we do so essential. If the functionalists had simply acted not from a misguided and ultimately false sense of objectivity through which they offloaded their personal responsibility through words like *natural* and *organic* and other words like it, but had taken an honest Nietzschean stance, which declares its political attitude in terms of place and occasion, there would have been no philosophical issue, no “failure” but simply an existential choice. And we would not have to go through the absurd ritual of trying to wrestle with our awe on seeing a fantastic building which has by some narrow minded and pitiable creature been labelled a failure. God bless failures! But this reconfiguration of responsibility whereby they achieve a directness and honesty which we so admire in scientific method, really only raises further questions: what is a good prioritisation of design issues? How do we arrive at such a good prioritisation? And how do we deal with what we consider less important, or what we know we are ignoring and all the stuff we can be sure we don’t know at all? This is where the issue of use becomes interesting.

Adaptable man

Jamaica is a country with a considerable population of poor people. There are men with just one tool: a saw or a hammer; they wander around with that single tool in the tenacious hope that people will call out to them from the pleasant shadows of a veranda or from a gap in the endless wall of rusty corrugated iron to have them do a job. Their name at that moment is derived from the tool they carry with them: “Ey ‘ammerman, com ‘ere nuh?” or “Eeh! Sawman! Com an ‘elp me...” Arriving on the veranda it is perfectly possible that they will not need that particular tool to perform the task that has been set them but that is beside the point. The tool performs an important function: on the one hand it is an instrument that can be used by the man who is attached to it, on the other it is a nomadic billboard.⁵

Of course the “sawman” or the “hammerman” is much more than just a machine that can perform a trick. That fact is important, even crucial. He is also a man, with everything that this implies. In fact, he is a man caught in a network of social and natural relations. He is a *man-in-the-world*. Our dealing with others, that is, other subjects, requires strategies whereby the extremely complex, is simplified without objectifying them. To reduce hammerman to his hammer or his saw, denies him his multiplicity, his manifold. That mistake has been made over and over again in the past and is still being made. It was made during slavery and before the full emancipation of the woman; social processes we are still struggling with.⁶ Hammerman’s potential use takes priority over the rest of his many abilities and gives him his name as he walks there. But during the evening he is no doubt “lover-bwuoy” or something even more glorious such as “dancehall king” To achieve these names he has exchanged his hard-earned cash for some bling-bling attributes in order to be able to make the right impression. He *becomes* what he uses his body for, and this he communicates to the world and to himself through the relevant and most effective attributes. That these attributes do not always have the desired or intended effect makes the operative territory of use more interesting, less predictable, but no less fundamental to his being. Not only is he *adaptable* from his own perspective on the world around him, but also from the point of view of the network of relations that he is part of within his environment. The use of his body by him and by others, intentional or contingent, gives him his *substance* in the form of a direction, that is, his emergent being in terms of a name. It is important to emphasize that use is extremely unstable. Descriptions, such as names always narrow a thing and thereby give it a direction, just as a corridor suggests a clear direction by virtue of its narrowness. His body, as Deleuze and Guattari conceived it, is constantly being territorialized [Deleuze & Guattari, 1983, especially “The Process” and “The Territorial Machine; see also Deleuze & Guattari, 1987 esp. “1837, Of the Refrain”]. That is, it is constantly being de-territorialised by uses that have abandoned the body, or been abandoned by it and it is constantly reterritorialised by uses which it accepts or which are being forced on to it; uses which master his body. Many uses deploy themselves simultaneously, are master over the body in a coordinated way, other need to wait their turn for full effect. It is this multiplicity whereby man transcends the status of object to make him into a human being and determines the care we take in approaching him as a human being, observing the right codes of conduct.

What is equally important is that the body does not receive these functions passively. It is subject to evolution and involution. It reacts to uses. The gestures, movements and postures of the body change. A *hammerman* does not walk like a *dance-hall king*. In the long term the response can be even more radical. The body changes itself. It can change through involution, which essentially means that it learns to do something increasingly well, effectively and efficiently [c.f. Bergson, 2004].⁷ And the body changes through evolution: the hand that began as a foot, or vice versa. What applies to the *body as object* also applies to every other kind of *object*: an object as distinguished from its background by our consciousness is much more than the narrowing it has undergone.

An aesthetics of generosity

⁵ <http://www.voorthuis.net/Caribbean2/Name.htm>

⁶ The Caribbean philosopher Frantz Fanon argued in 1956 that the truly awful aspect of slavery was that the slave owner objectified the slave-person to an object with a univocal use. [See Fanon, 1995]

⁷ Involution is the word that stands for the increasing sophistication of our movements as we grow, mature and practice our movements. The walk of a baby and the walk of a babe on the catwalk 18 years later is a fitting example.

In order to avoid the problem of narrowing that objectification necessarily entails, we could take a look at what the word generosity could mean within a design situation. To be generous, means that, despite a clear prioritisation for which one is prepared to accept responsibility explicitly, one makes a conscious effort not to lose sight of the whole.⁸ That is one places one's use in the context of its patent selfishness. To be generous means that during the prioritisation of aesthetic, that is, desirable qualities, one does not go too far in pursuing an artificial seclusion and *cleansing* of values by treating them as exclusive. In fact the qualities that one is pursuing can only flourish in an inclusive context, in which they take up their position as priority and are not asked to subsist in an environment in which they appear vacuum-packed. This requires an undermining of the traditional subject-object dualism that still persists in practical philosophy. Every discourse between a body and its environment should be a negotiation between two subjects. I think this is what both Buber and Heidegger were saying. To reduce something to an object is full of risk. To narrow its existence to a monocultural function, it narrows a thing down to our use of it *at that moment*, while every thing is so much more than that. In other words, without becoming silly and mystical, the discourse of design would benefit if it were to, somewhat in the spirit of Louis Kahn and Team 10, approach every *thing*, not as an object but as a subject. Essentially this entails treating the design task of say, a house, as the negative of the human beings that use it, in whatever way. In this way a house is approached as a subject. It is asked in Kahn's terms "what it wants to be."

Adaptable, adj.

The word *adaptable* plays an important role here. The word not only means flexible, supple, pliable, and compliant but also adjustable. The word *adaptable* stands, from an evolutionary and involutory point of view, for the success of man in his environment. Intelligence is after all another word for adaptable. Intelligent people see a situation, make a salient assessment of it and develop effective attitudes and strategies to deal with it. And if they do not, then they find other things more important. The attitudes, gestures, movement and communications *territorialise* the body for the purposes of use at that moment. They become whatever purpose they lend their body-mind for. What is so remarkable is that in evolutionary and involutory terms we always speak about *our* ability to adapt to our environment. Within that equation it would appear that the environment is seen as a given. The environment is where we find ourselves as mobile creatures. With current technological innovations, that is what is being changed around.

Adaptable, noun.

For this reason we have to shift our attention from the adjective to the noun. *The* adaptable is not just a thing, an object, it is a machine that produces a quality, a quality we find desirable. But in contrast to a simple machine which can be switched on or off during or after the production process, the adaptable is more complex. It does not just serve, like an object does, it has acquired a character. With this I mean that it is capable of movements whereby it is able to switch between various uses, or is able to serve the user of the adaptable under varying circumstances with respect to the same set of functions. It *adapts* itself to us. But that is not all. When things adapt themselves to us, we do not remain passive. This makes the complexity of our relationship with the adaptable grow exponentially and creates a conflict. In that conflict something happens which looks like magic. To illustrate this we merely need to replace the adaptable with a person. After all, what is a person sitting opposite you, other than a machine whose predictability causes you to proceed with care? The person you deal with *is* an adaptable and dealing with things that *live* require strategies of human intercourse: two machines (of which one is your body-mind) constantly adapting themselves to each other, opposite each other, or rather, as extensions of each other... The adaptable is a first step (actually there are prior steps, but we will leave them out for the moment) in the necessary personalisation or subjectification of the environment. The intersubjective is not just a privilege that should be accorded to other people, but, if we want to interact with our environment at the level of complexity we seem to be steering at, the subjectification of the environment is a strategy that makes that complexity manageable. The

⁸ Compare the admirable definition of democracy which is a system of government which expressly avoids the temptation to become a dictatorship of the majority, as this would inevitably lead to an antidemocratic system, but pursues a form of government in which the power of the majority is explicitly geared to protecting the rights and duties of the minorities it is entrusted with. That is in fact the only condition in which a democracy is possible at all.

complexity that emerges in the confrontation between two adaptables, can only be managed if we begin to see and approach the adaptable environment as living [Dennet, 1994]. Living means to be an adaptable: partially predictable, with an own will and useable as well as interesting. As soon as two adaptables meet and begin negotiations, the strategy of man is to treat the *other* as a subject. He endows it with a virtual life in order to make negotiations easier. Only the passive can remain an object and be *used* as an object.

All the *adaptables* designed by students I have helped supervise are concerned with redefining the role of *man-in-his-environment*. This is done in such a radical way that the conventional attitudes with regard to life and death, living and non-living can no longer be taken for granted.

Two representative examples

Karel Kamman began from the following premise: Cities are filling up, there is far less space that we can claim for ourselves. What a shame that so much of the space available in any one house is used so little during the course of a normal day. Described like this it has a similar point of departure as the magisterial "Drive-in House project" by Michael Webb of Archigram.⁹ But after this he goes his own way. 'What if we were to reduce the absolute useable surface area of a house plan to just a little more than a serviceable living room and then install walls that can move, so that, when we wish to sleep, the bedroom can claim most space and when we go to the kitchen, the kitchen unfolds itself, etc. etc?' In this way he has managed to separate the useable surface area of a house from the absolute surface area, keeping the latter relatively small and increasing the former by no less than 40%. But the real challenge in the project was not so much the simple mechanics of movement; it was rather finding answers to the urgent problems that then arise: How do we deal with walls that move? What happens to the usual collection of things lying around on the floor? What happens with pictures and posters? What happens when two people want to be in different spaces? Is he designing a nightmare? The solution can only be found in one particular place. We shall have to re-centre ourselves with respect to a building that has taken over our evolutionary capacity for adaptation. But things are not quite as simple as that. The building's ability to adapt to us will not mean that we can sit back and become lazy. In fact it will demand an agility on our part: We in turn will have to invoke an *extra* adaptive capacity in order to deal with the adaptive capacity of the house. Adaptability on the part of our environment will demand more adaptability from us: a layered adaptability. The question as to what this will yield is the challenge that a project such as this will need to accept. The emblem of Cedric Price's Generator offers itself.¹⁰ The building is in a position to show subversive behaviour. It will begin to live and will demand from us that we approach it as a living being. Philips is in fact experimenting within the area of domotica with a house as a personality, the particular one I have in mind is called "Dimmy" (nomen est omen) who behaves like a good servant and regulates the light and various other electronic functions in the house. In this example we can still communicate with our machines as if they are slaves, but that will start to change, live beings, with an ability to adapt are more than slaves. And, peculiar as it may sound, most of us don't want slaves around the house.

Alex Suma is trying to design a facade which can billow, heave and undulate like the impressive thighs of a skating athlete. That is, it will be able to move as the muscular tissue and skeletal structure under our skin can move. His product will result in a designed pavilion that will not attract us through sexy pictures and colourful advertisements projected onto its façade, but rather through a convincing simulation of the ease and elegance of intentional human movement [c.f. Bergson 2001]. For this he has done research into the working of human tissue, and on the basis of a convincing analogy designed a system which conjures up the possibility of a building in direct competition with an attractive man or woman. Imagine James Bond walking through the street and meeting a lady and a building simultaneously as two equal arguments.¹¹ Who will he favour with his winning backward glance? The

⁹ Michael Webb, Drive-in House project, 1963. The idea was that you should see your house and your car as a combinatorial whole, whereby the car could unfold into a house and be combined with other house-cars so that people could easily adopt a nomadic life and create large or small spaces as the occasion demanded, thus reducing the permanent space consumption of cities.

¹⁰ Cedric Price, The Generator, a project dating from 1976 in which people could program a computer to implement temporary changes to their house in a small development in Florida. However, if people did not make use of the computer sufficiently, it would "wake them up" by "thinking" of alterations itself and take revenge for its neglect as a possibility. These alterations would be made when the inhabitants would be at work and would surprise them on their return.

¹¹ For the image of two equal arguments I am indebted to the great futurist Marinetti

answer is no longer quite so predictable. In a fantastic novel set in Jamaica the protagonist is the “crazy” Aloysius who in a scene remarkable for its passion and resonance makes love to mother earth [Winkler, 1987]. It is beyond all dispute: man desires more life around him and his ability to distinguish between machine and man is being tested. He has already become a cyborg, a creature in which technology and biology are finely enmeshed. He fights his loneliness and his boredom on every front. In the name of Apollonian order and science he creates with Dionysian rapture. Alberti saw ornament as the first step in the great chain of being of matter spiritualising itself into mind, ornament as the first step towards character, a concept implying life [Alberti, the preface and book 6, chapt 2 and book 9, chapt. 5]. Now man has proceeded further still and is in a position to make buildings move and talk. Use creeps where it will and creates, wildly. Use always lays at the basis of our actions. Not because we know what we are doing or what we want, but because we don't: we dole through this world like naive children as if it is still able to perform miracles. And it can. And as our environment becomes livelier, it will be useful to us to enter into discourse with it as if it were a subject. Generous architecture will no longer be a metaphorical epithet. Manners and behaviour in buildings will become in an absurd way, essential to our dialogue with our creatures.

We shall need to relearn to walk in our environment, to walk on, along, under, through, over and into unpredictable spaces that shift the goal posts the moment we enter. We are in a very literal and rather exciting way “designing our nightmare”, which turns out to be what we desired most deeply: more life, more potential! This has its implications for the evolution of design as well as the evolution of our body-mind. We shall have to face uncertain walls, but above all we need to preserve ourselves within this new environment and maintain some sort of relationship with the ground we walk upon, even if it is no longer the so familiar perpendicular relationship that has characterised man and distinguished him from the rest of the creation. The question we have to ask with regard to the movement of the otherwise inert is how this will impact on our lives. What will be the result of a life in which the predictable is subject to instant corruption? How will we maintain our selves in this world of automatic adaptation and movement? How do we “respond” to these *things* that are beginning to claim important aspects of life as part of the set of their own characteristics? Do they become surrogate humanoids, slaves to which we speak in imperatives? And, more interestingly, how will designers respond to our responses? Will they make their humanoids ever more human? One way to centre ourselves with regard to the experience of movement around us is to reconceive our role in the world. This paper will introduce a new description of the concept of use and the useful which might become a starting point for a reconceptualisation of our place in the environment.

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