A case for conceiving architecture in terms of flows, drawing from a critique of Freud's psychoanalysis. Buildings and inhabitants are explored as flows of fragments, objects, machines and materials.

Flow: architecture, object and relation

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This paper – like those following it in this issue of **arq** – focuses on the shifting notion of 'flow' and the significance of that notion for the practice, critique and theorisation of architecture.

The spatial significance of the notion of flow was articulated through the work of the Catalan sociologist Manuel Castells. Castells' notion of the 'space of flows' refers to a specific socio-cultural moment. It is the moment at which technologies allowed the instant movement of information, capital and images. Castells introduced the concept in his text *The Informational City: Information Technology, Economic Restructuring and the Urban-Regional Process* (1989) where he defines the 'space of flows' in terms of the societal impacts of real-time global information networks. In a later series of texts *The Information Age: Economy, Society and Culture* (published in three volumes between 1996 and 1998) and in subsequent papers, he expanded the idea and broadened its impact:

> [O]*ur society is constructed around flows: flows of capital, flows of information, flows of technology, flows of organizational interactions, flows of images, sounds, and symbols. Flows are not just one element of social organization: they are the expression of the processes dominating our economic, political, and symbolic life. If such is the case, the material support of the dominant processes in our societies will be the ensemble of elements supporting such flows, and making materially possible their articulation in simultaneous time. Thus, I propose the idea that there is a new spatial form characteristic of social practices that dominate and shape the network society: the space of flows.* The space of flows is the material organization of time-sharing social practices that work through flows.[1]

Castells suggests the emergence of a new type of space, but one cannot help but feel that the characterisation of space across Castells' work maintains something of the Cartesian banality of space as a homogeneous background or context. For Castells, space is defined as 'the material support of time-sharing social practices'.[2] Most important in his account are the elements of socio-technical co-evolution that operate *through* flows. That is, space itself is characterised as a neutral backdrop against which, through which, particular elements move; and for Castells elements of which the space of flows is composed include 'territories, physical places, whose functional or symbolic meaning depends on their connection to a network, rather than on its specific characteristics as localities'.[3] It is difficult to imagine an actual territory that is not in some way connected with networks of one sort or another, and therefore participating in flows.

'… space itself is characterised as a neutral backdrop against which, through which, particular elements move …'

Rather than seeing the space of flows, like Castells, as a novelty that is introduced as society adopts digital technologies, we would rather generalise the idea to include such flows as electricity, plumbing, rainfall and ventilation. Flow is a general condition that is pervasive in speculative accounts of the origins of things, whether in Biblical chaos or Lucretius' *clinamen*.[4] Typically, however, flow has been something that civilisation tries to arrest, preferring stable forms that are the same each time we come back to measure them. Our culture prefers a general idea that great civilisations produce great imperishable monuments. We tend to take the pyramids of Egypt, produced in a few generations of the long history of Egyptian society, as evidence of that society's greatness rather than pay attention to the intricate and astonishing hydraulic culture that sustained the society's life over a much longer period. That culture was surely a more remarkable achievement, but it was one that lacked a clear geometry and impression of permanence. Flux is the substrate of life and everything else is developed from it, defined by more-or-less geometric borders that help us deal with it. Territory is extracted from flow. For the philosopher Gilles Deleuze and the psychoanalyst Félix Guattari, a territory:

> *is not a milieu, not even an additional milieu, nor a rhythm or passage between milieus. The territory is in*

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> *fact an act that affects milieus and rhythms, that 'territorializes' them. The territory is the product of a territorialization of milieus and rhythms. [...] A territory borrows from all the milieus and rhythms; it bites into them, seizes them bodily (although it remains vulnerable to intrusions).*[5]

One implication for architecture of this 'inversion', or restitution, is that the act of design is not about some transcendent 'creation' of objects or elements but rather an act of attenuation, amplification, resonance and intensity. Design in this sense is the territorialising of flow – of creating connections or conjugations, blocks or modulations, that articulate sensations. It is to this particular restitution and the significance of Deleuze and Guattari's philosophical position on flow that the present paper turns.

'Design in this sense is the territorialising of flow – of creating connections or conjugations, blocks or modulations, that articulate sensations.'

Fragment and flow

In the tenth plateau of *A Thousand Plateaus* entitled '1730 Becoming-Intense, Becoming-Animal, Becoming-Imperceptible ...', Deleuze and Guattari explore a concept of *material flow* and its relation to the notion of *becoming*.[6] They do so by taking up the narrative of 'Little Hans'. Little Hans was the young subject of one of Sigmund Freud's published case studies. In a 1909 paper titled 'Analysis of a Phobia in a Five-year-old Boy', Freud gives an account of the extraordinary neuroses and successful treatment of Hans.[7] Initially the father wrote to Freud to describe Hans' problem as being 'afraid a horse will bite him in the street, and this fear seems somehow connected with his having been frightened by a large penis' (it goes without saying that Hans' father was aware of Freud's psychoanalytic work). Hans tended to classify all animate and inanimate objects on the basis of whether or not they had a penis. His neurosis took the shape of a phobia of horses and he was terrified he might come across one in the street. At one point Hans suffers a particularly architectural fear, a fear that 'the horse'll come into the room'.[8]

The narrative structure of Freud's case study is complex. The story is told through Hans' father, a disciple of Freud's, who was acting as the analyst. We are told that the father recounts to Freud the significant moments of Hans' case in a long series of letters. The narrative thus jumps between: Hans' father speaking of his son's thoughts and actions; Hans' father interpreting the thoughts and actions; Freud interpreting Hans' father's thoughts; and Freud interpreting Hans' thoughts and actions with a view to resolving Hans' neurosis. Freud's retelling of the case also involves moments of soliloquy where he turns from the case and addresses the reader or audience directly in order to praise or rebuke Hans' father for his analytical skill. This aspect of the narrative structure emphasises Freud's mastery and foresight, like a witch or a soothsayer in a Shakespearean tragedy. Like Shakespeare's mystic figures Freud met the protagonist Hans only briefly but he had a consistent impact on the boy's early life. At a first meeting Freud explained to Hans the prophetic power of the Oedipal theory: 'Long before he was in the world, I went on, I had known that a little Hans would come who would be so fond of his mother that he would be bound to feel afraid of his father because of it; and I told his father this.'[9]

The plot of Hans' case involves a vast array of characters. In addition to the Oedipal family and many horses, the story also features furniture vans and buses; faeces that looked like a stocking; two giraffes (one erect and one flaccid); a stork; a home, a street and a warehouse; a maid on all fours; and a plumber with a borer. Fortunately the narrative is fairly linear and all the characters only took the stage together in Freud's summation of the case. It comes as no surprise to the reader of this case study that Freud thought that Hans' anxieties were rooted in the Oedipal complex and what he diagnosed as a castration anxiety. For Freud, 'Hans really was a little Oedipus who wanted to have his father "out of the way", to get rid of him, so that he might be alone with his beautiful mother and sleep with her'.[10] (Hans himself was unable to connect his fear of horses to the desire to supplant his father and there are many occasions where Hans, ever prompted by his father, refers to his phobia as 'this nonsense of mine'.) Jacques Lacan was later to describe Hans' case as 'all the possible permutations of a limited number of signifiers in the form of a myth' and as a 'case study which thus far has only been used as a scrap heap'.[11] There is in the case of Hans a fascination, if not a fixation, on fragments or elements; all of which are assigned meaning.

This fascination with fragments is something that architects and architectural theorists can well appreciate. Modernity was composed from theoretical fragments and a differentiation of architectural elements, objects and functions; and it can be argued that post-modernity is 'torn together' from fragments that construct and deconstruct.[12] In contemporary architectural production and theorisation, there remains a fascination with the fragment and element but also a renewed investment in the relation between the fragments. In order to operate in different conditions, heterogeneous elements need to negotiate a number of relationships between fragments. The constellations of and capacities for relationships between the component fragments have been given as much attention as the component parts themselves. For example, Ben van Berkel distinguishes different types

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of organisation such as a 'fragmented organisation of disconnected parts'; a 'displaced organisation of connected parts'; and 'seamless organisations of disconnected parts'.[13] Through these differentiations, van Berkel traces a history of techniques initially through assemblage and collage towards the purpose of breaking up and situating former objects and elements in new contexts and relationships; and then, more evocatively, to hybridisation and material flows that lie at the core of design practices, and which refer to relations, origins, contexts, and components, as wholes.[14]

Machine and flow

Deleuze and Guattari, ever critical of the 'long error' of psychoanalysis, tie Little Hans' narrative not to the usual, charged, topic of 'authorship' or to 'narrative prompting' that has been the subject of much speculation surrounding this case, but explicitly to the topic of material flow. They wish to challenge a discourse of fragments, objects and elements; parts and wholes; in favour of flow. They do this with specific consideration of the most contended of *part-objects*: the penis. Hans would refer to the penis as a *Wiwimacher* (a 'widdler' in the translation of Freud) which Freud insistently treated as an object. Deleuze and Guattari, however, draw attention to and restore the material flow characteristic of Hans' original name for the penis:

> *When Little Hans talks about a 'peepee-maker', ['fait-pipi'] he is referring not to an organ or an organic function but basically to a material, in other words, to an aggregate whose elements vary according to its connections, its relations of movement and rest, the different individuated assemblages it enters. Does a girl have a peepee-maker? The boy says yes, and not by analogy, nor in order to conjure away a fear of castration. It is obvious that girls have a peepee-maker because they effectively pee: a machinic functioning rather than an organic function. Quite simply, the same material has different connections, different relations of movement and rest, enters different assemblages in the case of the boy and the girl (a girl does not pee standing or into the distance). Does a locomotive have a peepee-maker? Yes, in yet another machinic assemblage.*[15]

Hans had seen water being let out of a steam engine when he was at the railway station. He could see that the engine was peeing, but not the *Wiwimacher,* though obviously it was there somewhere out of sight, the way these things so often are.[16] When Deleuze and Guattari refocus on machinic functioning and material flow in their reading of the case of Hans they do so not in a metaphoric sense and not only as an attack on the inevitability of the Oedipal complex in psychoanalysis. Rather than trying to make Hans' remarks fit Freud's preconceived schema, they try to pay close attention to the significance that Hans himself invested in the events he described – by no means easy, because the only direct record of them is from Hans' father, himself a disciple of Freud and predisposed to be attentive to a Freudian interpretation.

In turning to the machine, Deleuze and Guattari do so in a literal rather than metaphoric sense, following the historian, philosopher and architectural theorist Lewis Mumford's example in calling the archaic empires 'megamachines'. Mumford himself was following the definition of 'machine' expressed by the nineteenth-century mechanical engineer Franz Reuleaux; though Mumford went further in suggesting that if the machine is 'a combination of resistant parts, each specialized in function, operating under human control to transmit motion and to perform work, then the labour machine was a real machine'.[17] This idea of the machine that escapes from the bounds of symbolic and metaphoric forms of representation is consistent with Deleuze and Guattari's broader philosophic critique. They follow Samuel Butler in declining to see any important discontinuity between organic and inorganic machines.[18] Instead of fixating on readings of meaning or the locating of an agency in respect to the machine, Deleuze and Guattari are interested in the movements and breakages of material flows that the machine articulates. The much-quoted first paragraph of Deleuze and Guattari's first collaborative text *Anti-Oedipus* establishes this agenda:

> *Everywhere it is machines – real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections. An organ-machine is plugged into an energy-source-machine: the one produces a flow that the other interrupts. The breast is a machine that produces milk, and the mouth a machine coupled to it.*[19]

'The twentieth-century architectural concentration on the machine focuses on its technical potential in terms of both function and ideological signification.'

The appreciation of the machine has as much an architectural heritage as a philosophical one. The twentieth-century architectural concentration on the machine focuses on its technical potential in terms of both function and ideological signification. The machine was object, tool and technological augmentation. In this respect the Modernist preoccupation with the machine was similar to that of the Futurists. The 'great, humming power station' of Filippo Tommaso Marinetti's manifesto of 1914 performs a similar rhetorical purpose to the grain silos, ocean-liners, aeroplanes and automobiles of Le Corbusier's *Vers une architecture* (1923). The coming age was to be the age of machines, and one could either embrace that idea or make oneself irrelevant.

Nuno Mateus Guerreiro's following paper 'Electro(on)ic palpitations' focuses on a means by which contemporary architecture addresses a significant machine. The paper explores a design proposal for a visitors pavilion for the Bieudron power plant in the Valais Canton, Switzerland. The key question that the design proposal concentrates upon is not, however, the functional or ideological significance of the power plant but rather the

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question of the invisibility of the flows of hydrological energy production and social consumption and the role that architecture may have in rendering such flow visible, to make palpable of flow. Mateus Guerreiro's paper clearly addresses the difficult field of an architecture that is at once implicated in and expressive of flow. In this paper we do not fall back into a definition of objects, parts and wholes and territories that seem to supersede flow. The focus is not on the object-ness of the machine and the idea that it is the object that generates the flow; but rather the transformative power of flow itself.

Likewise for Deleuze and Guattari it is the flow that constitutes the machine. Flow is neither an arrangement nor a permutation of elements or fragments but rather the boundless movement of matter that does not generate nor depart from any datum or centre:

> *Every machine, in the first place, is related to a continual material flow* (hylè) *that it cuts into. It functions like a ham-slicing machine, removing portions* [...] *from the associative flow; the anus and the flow of shit it cuts off, for instance; the mouth that cuts off not only the flow of milk but also the flow of air and sound; the penis that interrupts not only the flow of urine but also the flow of sperm. Each associative flow must be seen as an ideal thing, an endless flux, flowing from something not unlike the immense thigh of a pig.*[20]

'The concept of flow is thus located in respect to the fraught issues of subject, subjectivity and subjectification that concern philosophers and architectural theorists alike.'

At different scales, every organ is a machine, or already many machines. The body is a machine and society is a machine; in their different ways they all consume and produce – that keeps them going – and we do not start to see them as objects with boundaries or autonomy until we extract them from their flows. The concept of flow is thus located in respect to the fraught issues of subject, subjectivity and subjectification that concern philosophers and architectural theorists alike.

Self and flow

One implication of Freud's account of Little Hans is that the child and his neuroses are only engaged through Hans' temporal extension (the anxiety); his spatio-technical extension (the chaff bag, the stirrup, the blinkers) and his affective extension (biting, stamping of the feet). There would seem to be, even in Freud's account, no 'essential' Hans – no inside but only extensive relations. Similarly, for Deleuze and Guattari, Hans' horse exists only in relations, it 'is not a member of a species but an element or individual in a machinic assemblage: draft horse-omnibus-street'.[21] In this sense it becomes impracticable to reify the interior of Hans (or the horse) and to dissociate him from what he is connected to in material relation, let alone to specify his absolute temporal or spatial boundaries. The same may be said of the parts, objects and organs that constitute Hans. In his work on Hans, Freud distinguished between the initial onset of anxiety (which was not attached to any object) and the ensuing fear which was focused specifically on horses; only the latter constituting a phobia proper.[22] Freud is able to consider the transference of the fear and anxiety, which we may habitually imagine to constitute something like an 'inside' of the self, because of his understanding of the libidinal. For Freud:

> [...] *in anxiety-hysteria the libido which has been liberated from the pathogenic material by repression is not* converted (*that is, diverted from the mental sphere into a somatic intervention*), *but is set free in the shape of* anxiety.[23]

However for Freud the libido is a set-free entity not restricted to particular objects. For Freud it is an entity that remains in the bounds of the human and is organised through *investments*. Sexuality, thus, is the 'organisation' of the libido (the territorialisation of the flow). The movement from anxiety to an investment in a material can be seen in the similarities between the fetish and the phobic object, both of which for Freud are symbolic substitutes for a missing element and both of which serve to give structure to the surrounding world. Freud, however, identifies parenthetically 'a real need for speaking with caution on this point', he suggests in respect to the case of Hans that 'the innate constitution of hysterics – that this is also true of perverts is almost self-evident – is marked by the genital zone being relatively less prominent than the other erotogenic zones'.[24] Fetishism for Freud, very briefly, is the displacement of sexual desire onto alternative materials or body parts, caused principally by the subject's confrontation with the castration complex. This definition of fetishism is based on a pathology of *unnatural* impulses and connections to materials through which sexuality is not habitually expressed: the mouth of a horse, the neck of a giraffe, the borer of a plumber.

So though Freud begins to take us to a field where we can enter a discourse of flow – of novel and intense material connections with that which is non-habitual, non-genital, non-human – unfortunately for Freud there is a 'natural' connection and investment; a personalising of desire that ties the ebbs and tides of the libido to the self and the familiar/familial. Freud pathologises 'transferences' or transformations of the genital human norm. The connection of the human to material (that is other to the human) is considered a perversion of 'the natural' and a 'para-philia'. As Freud himself suggests '*analysis replaces repression by condemnation*'.[25]

It is little wonder that the way in which architects think, construct and connect with materials is such a highly regulated engagement. We allow ourselves to touch architectural elements and materials only in very particular ways. We behave, especially in public places, as though there were a contract to regulate

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contact between the material of the body and material considered external to that body. One might stroke a timber surface, or one of Aalto's leather-wrapped handrails, but not too lingeringly. Tadao Ando's superb concrete walls can fascinate our eyes without causing societal concern but it would certainly be transgressive to try to connect to the magnificent texture and seeming depth of that wall's surface by touching it with one's tongue, sensitive though it be. Even walking barefoot in a museum would cause problems if one can no longer pass as a child, for whom all sorts of things – as little Hans reminds us – are more fluid. The manner by which one touches a stone in a wall, negotiates a steel column, walks down a ramp or approaches a bronze sculpture is an act that is mediated in a way that becomes rigid with repetition, as convention and habit take a grip, so that one's patterns of behaviour can come to be reified as solidly as walls, and we subjectify the material of body and objectify the material of architecture.

Two subsequent papers explore the idea of the material of architecture and the architectural element, and the relation of the element to flow. That is, the means by which architecture's elements, its walls, screens, landings and ramps articulate and amplify flow while at the same time differentiating themselves from the particularities of the flows they foster. Lee Stickells' paper 'Conceiving an Architecture of Movement' explores changing architectural conceptions of circulation. The paper focuses on one key element by which architecture structures the flows of its users: the ramped surface. Stickells considers the different movements negotiated by Le Corbusier's Carpenter Center and Bernard Tschumi's Alfred Lerner Hall, as examples of the manner by versions of the same architectural element might suggest entirely different modes of connection and flow. Karin Theunissen's paper 'Flows from Early Modernism into the Interior Streets of Venturi, Rauch and Scott Brown' focuses on the work of those architects as a 'weave' of the fabric of urban contexts and a 'filter' to the flows of users of the spaces, goods and information. Theunissen identifies the key elements in the architecture of Venturi's work: the freestanding and directional wall; the Venturian knot; and layering screens and suggests that such elements are implicated in Venturi's 'interior street' buildings; which 'gathers all interior movements and links interior and exterior movements in the street as a directional space'.

The will to master (and, in mastery, to transcend) flow, to regulate a flow is not something unique to the disciplinary realm of architecture. Both papers suggest that the articulation of a flow always involves a reconfiguring of individuals. Flow thus is a notion that reconfigures ideas of *self* as it simultaneously offers that subject a realm of intense engagements. It is important that we understand such engagements in flow not as some form of nirvana of perception but as an intensity of material encounter or connection removed from pre-given rules of engagement and the hierarchies of habit.

Material and flow

In summation of Freud's reading of the case of Little Hans, Lacan focuses on the issue of objects and relations and of the regrettably prophetic character of Freud's analysis. For Lacan the axiomatic character of Freud's Oedipal theory is the issue. Freud could speak with confidence upon first meeting Hans: 'I had known that a little Hans would come'; as the case was always going to be a case of castration anxiety resolved only through Hans' acknowledgement of this very same *fact*.[26] According to Lacan:

> *We should be struck* [...] *by the fact that it is in the coextensivity of the development of the symptom and of its curative resolution that the nature of the neurosis is revealed: whether phobic, hysterical, or obsessive, the neurosis is a question that being poses for the subject 'from where it was before the subject came into the world'* [Freud's phrase, which he used in explaining the Oedipal complex to little Hans].
>
> *The 'being'* [être] *referred to is that which appears in a lightning moment in the void of the verb 'to be'* [être] *and I said that it poses its questions for the subject. What does that mean? It does not pose it before the subject, since the subject cannot come to the place where it is posed, but it poses it in place of the subject, that is to say, in that place it poses the question with the subject, as one poses a problem with a pen, or as Aristotle's man thought with his soul.*[27]

'Materiality and molecularity become the currency of flow and the necessary ground of the indistinction between organic and inorganic; language and body; libido, object and subject; interior and exterior.'

Lacan cannot help but find something of the hylomorphic schema in Freud's account of the case of Hans. Hylomorphism is the doctrine that things are constituted as a form/matter relation. For Aristotle the soul and body are an instance of form and matter: whereby the soul is the *form* of the body; and the body the *matter* of the soul. The implied subservience of matter to form here resonates precisely with the habitual subservience of that which is seen to be without form (material flow) to that which orders and organises (territory, object, subject). One of the key characteristics of the Deleuzean restitution of the primacy of flow over objects, elements, selves and organs, is that flow is regarded as the extensive continuum of material. Materiality and molecularity become the currency of flow and the necessary ground of the indistinction

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between organic and inorganic; language and body; libido, object and subject; interior and exterior. A material is understood from within, as a structural property, directionality, chemistry, while the formal characteristics become unimportant in this understanding, while we attend to what Deleuze and Guattari refer to as 'latent potentials', 'variable intensive affects' and 'material traits of expression'.[28]

'The flow of sound, the soundscape is prepersonal and prehuman.'

Where Freud describes the libido as a floating energy in flux that is organised by specific 'investments' of an individual or subject, Deleuze and Guattari in their notion of material flow prompt the 'alterior event'. Deleuze and Guattari free the libido from imprinted objects of investment, such as the maternal breast or the Oedipal family triangle. The object and its investment are extracted from the flow. That is, the libido flows as all material flows, with neither object nor investment. For Deleuze and Guattari the becoming of the body (and subjectivity) can be thought of as an extraction from the flow, a territorialising. It is, we think, for this reason that Deleuze and Guattari find themselves so outraged by Freud's analysis of Hans. The outrage is not only because Freud played the soothsayer in generalising a narrative for which he would then particularise a neurosis. It is not only for the wilful imposition of meaning on every fragment of Hans' life, without paying scrupulous attention to the meaning that these fragments had for Hans. It is not only for the father. It is not only for the pathologising. It is that as Freud at once recognised the freedom of the libido and yet felt it necessary to restrict it to particular objects and investments; so he restricted Hans' parents to the organisation of Hans and in doing so traumatises the material of Hans. For Deleuze and Guattari this blockage in the potential of flow executed by Hans' parents is an outrage:

> [...] *(they barred him [*Hans*] from the rhizome of the building, then from the rhizome of the street, they rooted him in his parents' bed, they radicled him to his own body, they fixated him on Professor Freud). Freud explicitly takes Little Hans's cartography into account, but always and only in order to project it back onto the family photo.*[29]

Thinking in material requires a continuity that follows a material's 'latent potentials' that inform its potential of becoming: following the grain of the wood, the ductility of a metal. The desire to master material, to descend from above and impose a 'formal' order to architecture – to map, to plan, to represent – is a desire of many an architect. What is lost in this 'mastery' is the disavowal of connections within the flow. Michael Fowler's paper below, 'Mapping Sound-Space: the Japanese Garden as Auditory Model', focuses not on the role of the architectural element in the articulation of space but rather the often-ignored and under-theorised connection to the auditory in the space of flow. Fowler pursues an exploration of the 'acoustic ecology' of the Koishikawa Korakuen and Kyu Furukawa Teien Japanese gardens that leads him to suggest that the flow of sound is both spatially and temporally replete with data that prompts another set of tools for the designer of the multi-sensory environment. The aim is not to constitute a particular subject (or subjectivity) but to open the architectural agenda to the potential of the sound in flow. The flow of sound, the soundscape is prepersonal and prehuman. In this way Fowler's paper responds to the suggestion of Deleuze and Guattari that '[f]lows of intensity, their fluids, their fibers, their continuums and conjunctions of affects, the wind, fine segmentation, microperceptions, have replaced the world of the subject.'[30]

Habit and the fixation of the object

The concept of flow creates a 'zone of indiscernibility' between and around things. Instead of looking for the clear outline that defines a form, one gives priority to the line that connects and relates: organs, subjects and objects; societies and technologies; the organic and inorganic; cities, architectures and users. It remains concrete and empirical – it is not merely a matter of interpretation (of getting *in touch* with the intensity of material) but very much an architectural project, a project of creation that entails the restructuring of experience and drives one on to think afresh the material of architecture. It is the flows that make things work, the connections across boundaries into the world beyond the building over which we might aspire to have immediate control – though even that turns out to be a complex negotiation between a whole array of people with different kinds of skills, expectations and inclinations. The flow of money into the project, for example, depends on the money finding its way to the client, which – depending on the client – might be perturbed by a shift in the market in response to a new idea, or a change in interest rates or the exchange rate of a currency, a natural disaster or a political coup in a far-flung place. All of these are events over which the architect can have no control. Likewise the flow of people across a site might be influenced by the attractiveness of the site, the availability of parking or public transport links, the proximity of a city, by open water or the nuclear power plant next door. Freud tells us that when Hans' mother found him at three-and-a-half touching his penis that she threatened him by saying 'if you do that, I shall send for doctor A to cut off your widdler. And then what'll you widdle with?' In Freud's interpretation the event was the origin of Hans' fear of castration, but Hans himself did not seem anxious at the time. His sense of the architecture of his body

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was still in flux, and it had not settled into the rigidities of convention and habit, so when his mother asked him, 'And then what'll you widdle with?' Hans calmly replied, 'with my bottom', which was for him equally viable as an idea because he was not, like the grown-ups, fixated on the object, but was thinking of the function – of the flow – which could be managed perfectly well, even if he turned into a steam engine at the railway station. If we concentrate on the flows, then we secure the vitality of our projects while finding ourselves open to a surprising range of new possibilities.

Notes

1. Manuel Castells, *The Rise of the Network Society, The Information Age: Economy, Society and Culture,* vol. 1, 2nd edn (Cambridge, MA and Oxford, UK: Blackwell, 2010), p. 442.
2. Castells, *Network Society,* p. 441.
3. Manuel Castells, 'Toward a Sociology of the Network Society' in *Contemporary Sociology*, 29/5 (September 2000), p. 696.
4. Lucretius (Titus Lucretius Carus), *De rerum natura* [on the nature of things] many editions and translations; Michel Serres, trans. by Josué V. Harari and David F. Bell, 'Language and Space: From Oedipus to Zola', and 'Lucretius: Science and Religion' in *Hermes: Literature, Science, Philosophy* (Baltimore, MD: Johns Hopkins University Press, 1982), pp. 39–53, 98–124; Michel Serres, *La naissance de la physique dans la texte de Lucrèce* (Paris: Les Editions de Minuit, 1977), trans. by Jack Hawkes, *The Birth of Physics* (Manchester: Clinamen Press, 2000).
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6. Ibid., pp. 232–309.
7. ' Freud' references below are to Sigmund Freud, *Standard Edition of the Complete Psychological Works of Sigmund Freud*, vol. 10: *Two Case Histories ('Little Hans' and the 'Rat Man'), 'Analysis of a Phobia in a Five-Year-Old Boy (*1909)' (London: The Hogarth Press and the Institute of Psycho-analysis, 1955).
8. Freud, pp. 24 and 115.
9. Ibid., p. 42.
10. Ibid., p. 111.
11. Jacques Lacan, *Écrits* (Paris: Éditions du Seuil, 1966); trans. by Bruce Fink, 'The Instance of the Letter in the Unconscious, or Reason since Freud', in Jacques Lacan, *Écrits: Complete Edition* (New York: Norton, 2006), pp. 412–41 (p. 432).
12. Barry Bergdoll and Werner Oechslin, eds, *Fragments: Architecture and the Unfinished. Essays Presented to Robin Middleton (*London: Thames & Hudson, 2006).
13. Ben van Berkel and Caroline Bos, 'Techniques', in *Move* (Amsterdam: UN Studio and Goose Press, 1999), p. 84.
14. Ibid., p. 84.
15. Deleuze and Guattari, *A Thousand Plateaus*, p. 256 (p. 313 in the French).
16. Freud, p. 9.
17. Deleuze and Guattari, *A Thousand Plateaus*, p. 457. Deleuze and Guattari recall Mumford citing Franz Reuleaux: 'If a machine can be defined more or less in accord with the classic definition of Reuleaux, as a combination of resistant parts, each specialized in function, operating under human control to transmit motion and to perform work, then the labour machine was a real machine'. Lewis Mumford, 'The First Megamachine', in *Diogenes,* no. 55 (July–September, 1966), p. 3. Deleuze and Guattari quote this section but the translation of their last sentence reads: 'then the human machine was a real machine'.
18. Gilles Deleuze and Félix Guattari, *L'Anti-Oedipe*, vol. 1 of *Capitalisme et schizophrénie,* 2 vols (Paris: Editions de Minuit, 1972), trans. by Robert Hurley, Mark Seem and Helen R. Lane, *Anti-Oedipus: Capitalism and Schizophrenia* (New York: Viking, 1977), pp. 284–5; and see Andrew Ballantyne, *Architecture Theory* (London: Continuum, 2005), pp. 109–10 and 126–43.
19. Deleuze and Guattari, *Anti-Oedipus*, p. 1.
20. Ibid., p. 36.
21. Deleuze and Guattari, *A Thousand Plateaus*, p. 257.
22. Lacan, in his seminar of 1956–7, offers a detailed reading of the case of Little Hans, and proposes his own view of phobia. Following Freud, he stresses the difference between phobia and anxiety: anxiety appears first, and the phobia is a defensive formation which turns the anxiety into fear by focusing it on a specific object. Jacques Lacan, *Le Séminaire,* vol. 4, *'La relation d'objet',* 1956–57, ed. by Jacques-Alain Miller (Paris: Éditions du Seuil, 1991), pp. 207, 400.
23. Freud, p. 115.
24. Ibid., pp. 108–9.
25. Ibid., p. 145.
26. Ibid., p. 42.
27. Lacan, 'The Agency of the Letter', *Écrits*, p. 168.
28. Deleuze and Guattari, *A Thousand Plateaus*, pp. 148–50.
29. Ibid., p. 14.
30. Ibid., p. 162.

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