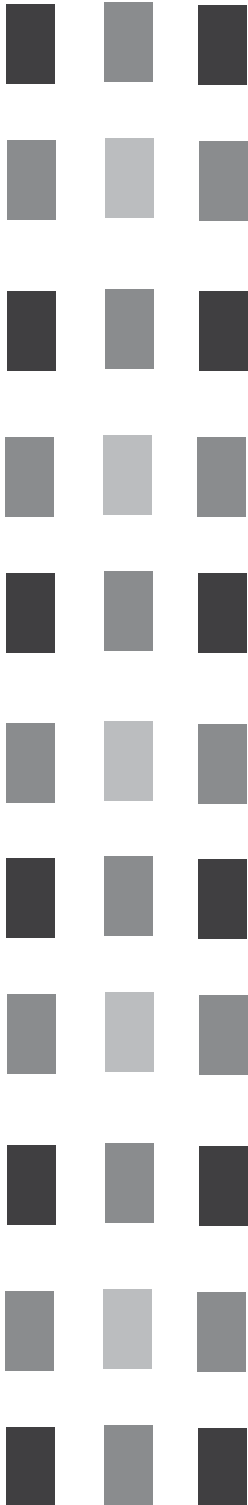


Digital Worlds

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Humanism is a complex concept. The way I use it here is not in the theoretical way of 'anti-humanism' in discourse or theory. Michael Hays in his book on Hannes Meyer and Ludwig Hilberseimer refers to this 'anti-humanism' in theory.¹ The subject, Hays writes, is no longer viewed as an originating agent of meaning, but as a variable and dispersed entity whose very identity and place are constituted in social practice. Objects and social processes are seen as having a material existence independent of, and at times threatening to, the unity of the individual self. What Hays argues is that an analogous perceptual shift, which he calls posthumanism, can be detected within modern architecture – in particular the architecture of Meyer and Hilberseimer. It is a shift away from the humanist concept of subjectivity to the so called 'death' of the subject that refers to the transformation of the romantic ideal of individuality to 'structurality' in e. g. Althusser or Foucault. It is the notion that humans stand as triumphant subjects among inert objects, a concept long gone. With Deleuze and Guattari we can go one step further. It means that the distinction of organic and inorganic life has to be reformulated. If organic life cannot be easily demarcated from inorganic matter as they claimed, it behoves subjects to look at all matter from a different angle. Our experience of a shrinking globe writes Conley, inflects the vision of the monad, – the name that Leibniz ascribes to the soul –, since compressions of time and space modify the difference of inside and outside, and of public and private. Leibniz monad is a cell, a room with neither doors nor windows, a crypt where all activity takes place on the inside. The monad is about the autonomy of the inside, a phenomenon that is as good as lost in our present day world. Monadology in Leibniz turns into nomadology in Deleuze, a way of emigrant thinking, deterritorializing accepted notions of space and received ideas. Theory has to be grasped in the place and time out of which it emerges. These situations are constantly changing. This also works for the position I will try to explain here; Greg Lynn's notion on 'folding' in his *Animate Form*.² The same goes for the position I will argue from, not so much circumscribed by post structuralism or psycho-analysis but by social theories; discourses that seek not only to make social life intelligible but also to make it better. My argument will be that with Greg Lynn's experiments we are finally loosing all ground. With Scott Lash I claim that we need more 'ground' instead of 'folds'. I think I can agree with Lash's critique on Koolhaas, which also works for Lynn: Speed supersedes space as indifference supersedes difference. The location of most of Koolhaas's constructions is nowhere, they might be anywhere. The complexity of movement in international airports, themselves interchangea-

ble, is indifferent. Just like zeros and ones are indifferent.³

I do not refer to this abstract theoretical concept of 'anti-humanism', but to a more concrete form of humanism – that makes no abstractions from the "richness of meaningful human activities" – very much in line with Scott Lash. Humanism thrives where there are no sharp dualisms. The dualism of people and machines excludes humanism in a meaningful sense. Alberti and Vitruvius were humanists. Descartes and Hobbes were not, already dealing in the logic of abstraction, he writes. Organic images for the human society were developed by the Greeks. They conceived the citizen, the city, and the cosmos to be built according to the same principles. To see the structure of human groups as a mirror of natural forms has remained imaginatively and intellectually powerful.⁴ Renaissance architects drew on these organic images. We are all familiar with their images. But major changes in science and technology have occurred. In his Introduction to Kas Oosterhuis' book *Programmable Architecture*, Ole Bouman writes that today we experience the next step of dissolution of social bodies.⁵ Families, firms, communities are either vanishing or changing their structure. After the melting into air of ideologies and big moral institutions, it is now the turn of patterns of dependency and interaction between people to be liquefied. They have become malleable, Bouman writes. Oosterhuis' architecture to him is the art of no longer occupying space by its enclosure, but the creation of situations that become movable and thus reflecting these social tendencies. It is difficult to represent values when there are no longer any shared values, he writes. Architecture is at risk of losing its cultural relevance. Unless it is able to redefine itself in *Hyperarchitecture* of moving surfaces as in Oosterhuis' *Trans-ports Version* with a rubber exterior, or in interactive surfaces to overcome the supposed passivity of the viewer.

Of course no form of humanism is present in this information culture, in which the machinic and the digital become predominant and human beings become increasingly attached to their information machines and display screens. Although it leaves many questions to be solved, Ole Bouman's critique still operates on a notion of relative autonomy, a relation with society is still present. But why this kind of architecture should be mimicking society without any form of resistance, is not clear. It seems more like a perfect fit into the experience industries. The architects themselves operate on a completely autonomous level. For Lynn the prevalence of topological surfaces presents the first opportunity for architects to draw and sketch using calculus. The challenge for Lynn is to try to understand the appearance of these tools in a more sophisticated way than as simply a new set of sha-

pes, he writes.⁶ My impression is that we are not dealing with another form of contemporary formalism, nor with a new geometry in terms of style. Although with Oosterhuis and van Berkel this is also the case. Oosterhuis explicitly refers to the design of cars, the Audi in particular.

The American biologist Donna Haraway has argued that biology has ceased to exist and that the organism has been replaced by cybernetic systems, which have radically changed the connections of physical life, and the human sciences.⁷ Socio-biology, like all modern biology's, studies not the human body, but a control machine as its central object. "Nature", writes Haraway, is structured as a series of "interlocking cybernetic systems", which are theorized as communications problems. The genetic calculus of socio-biology concerns maximization strategies of genes and combinations of genes. The noumenal object here is "the gene", called by Richard Dawkins the "replicator", within the gene pool. Bodies and societies are only the replicator's strategies for maximizing their own reproductive profit. There seems to be a certain correspondence in the way Deleuze understands Leibniz in his book on *The Fold and the baroque*.⁸ In Leibniz we are dealing with an infinity of monads which form the center of a compound substance, as he calls it (for example an animal). This body is organic when it forms a kind of automaton or natural machine, which is a machine not only as a whole but also in its smallest observable parts. Each monad is a kind of living mirror, or a mirror endowed with internal action, it represents the universe according to its point of view. Leibniz envisions three hierarchical levels of organic existence among "aggregated substances". An organism as integrated aggregate, an animal as an organism dominated by a soul and an intelligent creature; an animal dominated by a spirit. Animals have consciousness or feelings, intelligent creatures have self-consciousness. Leibniz's philosophy is pan-organic writes Nicolas Rescher.⁹ In Leibniz all nature is alive, every monad is a vital center of an organic structure. Each organic body of a living being is a kind of divine machine or natural automaton which infinitely surpasses all artificial automata, Leibniz writes. This is only true for living machines, not for man made machines. A divine planning in nature is common for some 17th century thinkers, God was the great watchmaker, a machine maker. But for Leibniz God was the great organism-maker, a machine as an organic automaton with inherent teleology. Every piece can be divided into further pieces, each of which has some motion of its own. Otherwise it would be impossible that each bit of matter could express the whole universe, Leibniz writes in *Theodicy*.¹⁰ Leibniz pan-organic view of the world is predicated on the idea that life is everywhere. The then-recent discovery of the

microscope and the finding that even a single drop of water contains a whole variety of organisms, was regarded by him as a striking illustration of this position. The work of e.g. the Dutch scientists Jan Swammerdam and Antoni van Leeuwenhoek always interested him enormously.

Folding and unfolding in this sense are no longer simply means of contraction and dilation, but evolution. The organism is defined by its ability to fold its own parts and unfold them to a degree of development that is characteristic of each species. To unfold is to increase, to grow, just as the caterpillar will unfold into the butterfly. Here we might find a link to contemporary socio-biology. Haraway rightfully criticizes the explicit agenda of contemporary socio-biology. Socio-biological reasoning applied to the human societies easily glides into facile naturalization of job segregation, dominance hierarchies, racial chauvinism, and the 'necessity' of domination in sexually based societies to control the nastier aspects of genetic competition. For a socio-biologist, dominance is not a trait, nor even an individual organismic predisposition, but a system property.¹¹ The comparison between the genetic or rule-based phenomenon of computation is not comparable with human intelligence or nature. The computer is not a brain, Lynn writes, it's "intelligence" makes "mindless connections", the failures of artificial intelligence suggest a need to develop a systematic human intuition about the connective medium, rather than attempting to build critically into the machine. Haraway's critique on socio-biology easily works for a blind folding of computer generated forms. It even works for Lynn's vocabulary. Haraway distinguishes the difference in vocabulary in pre-second world war life sciences and post war socio-biology. Before the second world war the bio-science of organisms was dealing with notions of: psychobiology, human engineering, organism, physiology, intelligence and person. Post war theories are dealing with: socio-biology, communication control, cybernetic machines, systems theory, information and genes. In other words the person with his/her intelligence is replaced by genes and information structures.

A similar critical notion we find in Virilio who is of the opinion that when people invent the "world brain" by declaring that humans are no longer human but "neurons inside a world brain", and that interactivity factors this phenomenon, it is more than just a question of the society of control – it's the cybernetic society. Taking the model of bees or some other self-regulated system, is the very opposite of freedom and democracy, Virilio remarks.¹² Architectural concepts and procedures are never neutral, not in Renaissance architecture, not in the Baroque and not in our present day situation of blob architecture.

In that sense this kind of architecture (whether you call it blobs, folds, diagrams, un-volumetric or programmable architecture) is not related to practical humanism since it deals with information systems, digital technologies, simulation and visibility. The reason I am referring to sociobiology is that the deities of the organic body as in Alberti are not sacred to the new designers of evolutionary strategies. Sociobiology, with all its dangers included, has the advantage that it can cleanse its objects of obsolescent flaws in natural design. One of the things we could learn from Haraway is her insight in the difference between natural and artificial, one of the parameters of every contemporary design strategy. Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed. Our machines are disturbingly lively, and we ourselves are frighteningly inert, says Haraway. The socio-biological narratives depend on a high-tech view of the body as a "biotic component" or "cybernetic communications system". What Hays has detected in Hilberseimer's and Meyer's modernism, the decentering of the subject, is ironically if not cynically fully present in today's socio biology.

It's of course not the same, but in a certain way Alberti's narrative already shows some similarity. Karsten Harries stresses the artificiality of Alberti's construction¹³. He quotes Hubert Damish who writes that Alberti reduces the viewing subject to a kind of Cyclops that obliges the eye to remain at one fixed, indivisible point. In other words, it obliges to adopt a stance that has nothing in common with the effective conditions of perception. In his discussion on *Folded Forms* from Leibniz to Lynn (Skin and Bones), in *Warped Space*, Anthony Vidler shows us that Leibniz notions of the classical picture space have complicated this concept.¹⁴ Rather than accepting the viewing subject as Cyclops, and accepting the back surface of the camera as a receiving surface, he has himself stretched a canvas in the space, as a receptor of the images. This screen Vidler explains, is not the flat picture plane of classical representation; it is from the start ridged and folded. The spatial setting of understanding is thus a pinhole camera, only with more than one opening for the transmitting of images from the outside. Leibniz postulated a screen / canvas or curtain in the darkened room to receive what he called 'the species' (les especs, or being). This screen or curtain is not uniform, but diversified by folds (les plis) representing items of innate knowledge. Deleuze sketches a house with two floors. The two levels are connected. It is the upper floor that has no windows. "Monads" Leibniz writes, have no windows through which something could enter or leave. Its only furnishing is that of the screen which represents a brain, a kind of mecha-

nically pulsating substance, quite different from Alberti's construction. Deleuze, writes Vidler, has provided a lower story for this unlivable house without windows, one with five openings to let the five sense do their work, it operates as a kind of bodily anteroom to the monadic soul. But here too there is no stable ground for referentiality, no coherent system of meaning or autonomous base. The monad is a chamber of whispers, and expression occurs only at the synthesis of these whispers into a chorus in which the monad itself might appear like a conductor, writes Gregg Lambert in his book on Deleuze.¹⁵ The folds, cords or springs represent an innate form of knowledge, they move into action by matter. The movements of the visible oscillate or vibrate from the matter below, it is by a process of resonance in the monad that the visible movements in matter become audible. What is perceptible on one level becomes legible on the other, from matter to soul. The monad or crypt functions as echo chamber. Deleuze writes that it is pointless to imagine modern situations unless they can help us understand what the baroque had entailed. Folds are in the soul and exist only in the soul. Matter triggers 'vibrations or oscillations' at the lower extremity of the cords, through the intermediary of 'some little openings' that exist on the lower level. It is a great baroque montage, writes Deleuze, a montage that moves between the lower floor, pierced with windows, and the upper floor, blind and closed. Deleuze makes it more complex, the fold in this construction runs between the mind and the body that can no longer be figured in terms of oppositions. The philosophical use of concepts and their regulation through a process of jurisprudence, is problematized, writes Gregg Lambert. The cords translate visible and audible movements from below into sounds up above. But upper and lower floor are there for a reason. I already mentioned that folding means evolution, evolution into humans. When the hour comes to unfold their parts to attain a degree of organic development, proper to man, or to form "cerebral folds" as Deleuze writes, at the same time their animal soul becomes reasonable. Life here is implicated or enclosed with matter, knowledge is the discernment of the method by which the soul is folded with an animal's body. Very much comparable with the paintings of Francis Bacon where the distinction between animal and human is blurred.¹⁶ "Discernment" means for Deleuze to be a "cryptographer", someone who can at once account for nature and decipher the soul, someone who can peer into the crannies of matter and read into the folds of the soul. Cryptography is the art of inventing the key to an enclosed thing. In Leibniz becoming is an elevation: a change of theater, of level or of floors. In other words, the theater of matter gives way to that of spirits or of

God. With Leibniz we notice three fundamental notions: fluidity of matter, elasticity of bodies, and a motivating spirit or God as mechanism.

For Deleuze Leibniz is the philosopher of the Baroque. The experience of the Baroque entails that of the fold. He is the first philosopher and mathematician of the pleat, of curves and twisting surfaces. "Malerisch" is the word Wölfflin used. 'Movement' alone is certainly not enough to describe the baroque. The baroque uses the "Gewalt des Affekts", the ecstasy.¹⁷ In Baroque architecture the severing of interior from the exterior is characteristic. Wölfflin mentions the contrast between the exacerbated language of the more closed façade and the serene peace of the inside: a little coffin containing the absolute as Jean Rousset writes. It did not mean that the inside was quiet. It is the enclosed world of the altar, the world of the "splendori celesti", as it was called, of heaven with its clouds and angels. Leibniz rethinks the phenomenon of the point of view, of perspective. As I mentioned, Leibniz' screen is under tension, has a kind of elasticity or active force. The actions of the screen consist in certain vibrations or oscillations, like a cord under tension that is plucked and gives off a tone or musical sound. The problem with this concept as we know now, is that nerves are physiologically distinct, a uniform cause like electricity, would generate different sensations from one kind of nerve to another. Electricity applied to the optic nerve (or cord, for that matter) produces the experience of light, applied to the skin the sensation of touch. Different inputs to the same nerve do not produce different sensations – revealing a fundamentally arbitrary relation between stimulus and sensory reception. The body possesses an inborn ability to misperceive, unable to register semantic input and, sensations can be interchangeable to some extent. Designers and theorists have tended to see the Deleuzian model as an invitation for a rather literal folding of the envelope, a curving of the skin that tends to ignore rather than privilege the interior, Vidler writes. The Leibnizian fold could in no way be replicated simply by the curved surface of a tent-like or blob-like structure. This,

by the way is not the case in Lynn's *Animate Form*, his references to Leibniz are not very central to his argument.

Conclusion

Anthony Vidler referred to the new alliance between spatial theory and 'biotectonics', utilizing the potentials of digital modeling and drawing on the observations of Deleuze and Cache, as a way of sidestepping the traditional modernist and post-modernist polarities of simplicity/complexity, harmony/opposition, and construction/deconstruction. Such 'reductive typologies' are replaced in Greg Lynn's practice by an open ended set of mathematical/topological experiments that disturb if not replace the formal paradigms of postmodernism. Lynn's forms are now 'proto-geometric', 'anexact', 'bloblike', 'viscous'. Form is no longer conceived of as a geometric 'original' distorted or broken to incorporate complexity or represent conflict, it is, says Vidler, a topological surface as if organically generating new species in a speed up of Darwinian evolution. Greg Lynn's architecture simulates organic analogies in information systems, it mimics artificial nature. Lynn's spatial morphologies are generated to offer potential evolution to architecture. If the "human" is introduced as a force, Vidler writes, it is as movement – crowd or swarm – and not as a generative instrument in itself, in other words we have finally lost all ground. What gets lost here is corporeality in a threefold way, three bodies are lost at the same time, the territorial body of the planet and ecology, the social body or socius, and our human body. From this results the need to reorient oneself, Virilio writes, to reorient oneself with respect to the body, to reorient one's body with respect to the other, but also with respect to the Earth, or the world proper ...¹⁸ In other words, we need to find another practical humanism in architecture.

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Notes:

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- 5 Bouman, Ole: *Hyperarchitecture, in Kas Oosterhuis, Programmable Architecture*, (l' Arca Edizioni), 2002.
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- 7 Haraway, Donna J.: *Sex, Mind, and Profit, in Simians, Cyborgs, and Woman, The Reinvention of Nature*, (Routledge) 1991, p. 57.
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 - 10 *Monadology*, Section 65, in: Op. cit., note 9, p. 226.
 - 11 Op. cit., note 7, p. 64.
 - 12 Virilio, Paul: *Politics of the very worst*, an Interview by Philippe Petit, translated by Michael Cavaliere, (Semiotexte), 1999, p. 80.
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 - 15 Lambert, Gregg: *The non-philosophy of Gilles Deleuze* (Continuum), 2002.
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 - 17 Wölfflin, Heinrich: *Renaissance und Barock, Untersuchung über Wesen und Entstehung des Barockstils in Italien*, Munich 1908, p. 22.
 - 18 Op. cit., note 12, pp. 43–44.