FCJ-078 Plastic Super Models: aesthetics, architecture and the model of emergence

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SuperModels

2 > What does physical eroticism signify if not violation of the very being of its practitioners? ...The whole business of eroticism is to destroy the self-contained character of the participators as they are in their normal lives. (George Bataille, 2001: 17)

3 To become a supermodel is a dream of many young girls, longing for their own bodies to exemplify the image of desire and eroticism. Young women's bodies provide a framework for the fashionable or, in other words, for the endlessly restless style of contemporary longing. In wanting to be, say, another Elle MacPherson or Christy Turlington, they long for the awkward unfoldings of early womanhood to blossom into the very shapes and forms that collective desires inhabit, or flow through. As they feel the stirrings of their own desire intensify, they want to feel the flow of collective desire turn back to pass through them, setting up one endless vibration of desirability in which their individual being becomes collectively powered by erotic circuitry. In a manner that is ultimately a complex dynamic of power or force relations, the supermodel stands as a vibratory nodule of desire.

4 Models, in general, exemplify or portray properties that are not actually present, whether this is because they don't exist (yet), are too complex to exist simply (never being available to comprehension in its entirety) or are by nature ungraspable (virtual). Supermodels tune in to the ungraspable through their very (desirable) flesh.

5 In early 2005, a couple of recent architectural graduates ran a design studio called 'superModel' in the landscape architecture program at RMIT University. The studio focussed its design investigations around the production of performative physical models as well as digital ones, picking up on a tide of interest in work that architect Lars Spuybroek had been referring to as 'analogue computation'. The studio investigated performative modelling techniques that were able to 'compute' a set of circumstances in a manner more complex than could be done otherwise. Discursively, this move was a recognition of the way that computers have helped us to understand material properties and forces in computational terms, at the same time as it acknowledged the limitations of the digitally described event by shifting computation outside the computer. By the end of semester, a sea of strange objects had been produced, each a testament to an investigation of dynamic material relations.

6 These particular tutors were also among the more sophisticated of a new wave of digital-savvy graduates emerging from RMIT's architecture program. This studio was run hot off the pressing formation of their now well-published practice, kokkugia. These days, they are Australian exports, practicing, teaching and doing postgraduate research at prestigious institutions in New York and London. It's a path not unlike that of an Australian supermodel, such as Elle.[1] If young girls actively style their bodies to resonate with the shape of desire, young architects can shape their (desirable) models as similar receptacles with which to grasp the ungraspable – or unspeakably desirable aesthetic conditions such as the pursuit of style. Within architectural discourse, strange as it may seem, style is still a dirty word. It has a reputation for superficiality and anti-intellectual imitation; somewhat like the judgements often passed on models of the nubile-body variety. But this judgement, as I hope to have argued by the end of this paper, simply reflects its own superficiality, being more a product of a long history of denial and shame than of a lack of actual depth in the judged subject.

Architecture's Modelling Dynamic

7 > ... he suggested that the dynamic had served each of us well. Something in the way he said this gave me the feeling that the dynamic was moving on, perhaps down the block, where it would serve some other confused family. And we would be left dynamic-less, four people alone with all the wrong feelings for one another. (July, 2007: 189)

8 Like all families, the culture of architecture is held together by a more-or-less unspeakable dynamic that serves to both cultivate the status quo and maintain the confusions necessary to sustain it. However, this always skirts a fragile surface because the discipline also exhibits

compulsively persistent attempts to transform itself. As such, the struggle (and the excitement) lies in testing the limits without allowing the status quo to completely fall apart.

9 One episode of this ongoing drama can be read through an obsession with diagrams in architectural discourse in late 1990s. The diagram enjoyed a brief but intense period of attention in which it became not just a tool with which to investigate or generate, but a tool that was in itself being re-investigated and regenerated. In general, a common tendency in this reappraisal of the role and nature of diagrams was an implicit desire to render them more pliant, responsive and performative. This wave of diagramming seems to have recently reappeared in the fleshier guise of a reconsideration of models.

10 In architecture, the term 'model' is most commonly used to refer to a three dimensional representation of an intended building, usually in the form of a physical maquette or miniature version of a building and, increasingly, three dimensional constructions using digital media. But the model is also an overall diagram: a system of relations mapped out through all the various kinds of representational artefacts produced during the activity of designing (physical maquettes, drawings and diagrams on paper or in software, etc). In other words, models describe or exemplify assemblages of relations, or systems. Models are never just modelling something, they are also things in themselves and, as such, are always a complex tangle of the general and the particular. In large part, the recent reconsideration of models involves a recalibration of this complex tangle.

11 The making of models has a special interest for architecture because modelling is at the core of what architects do. The discipline is always caught in an intermediary condition: architects don't actually make buildings (builders do that), they make models of potential buildings. While this makes architectural discourse particularly adept at modelling imagined futures, it also becomes especially fragile and sensitive to shifts in the status and nature of models and modelling. Architectural practice is so deeply imbricated within the life of models, that to question them is to question architectural identity. This issue has a long and dramatic history, episodically played out through the propensity of architectural discourse to appropriate epistemological models from other disciplines as a way of reorienting and reinvigorating its internal logics. Architecture loves testing out novel moves as it models new clothes acquired from epistemological boutiques.

12 Unsurprisingly, the areas of architectural discourse most closely related to the field of new media studies have been most actively rethinking and reworking the nature of modelling and diagramming over the last decade.[2] Here we find modelling emphasised over 'models' per se, where the modelled thing is meaningful in terms of the process through which it emerged and/or the processes of interaction for which it is designed.

13 The superModel studio is one example of this recent interest in the (re)making of models. Increasingly, models are made to explore relations in generating dynamic systems rather than to represent something. In other words, what the models describe or exemplify are the dynamics of differential relations, commonly employed to generate flexible, complex systems arising through a simple, internal, material/relational logic. This is very present at RMIT in studios and seminars run by a range of academic staff, such as Tim Schork and Paul Nicholas (mesne), Craig Douglas and Rosalea Monacella, Jerome Frumar and Tom Kovac, Leanne Zilka and myself. Notably, the activity of model making has been the subject of an ARC project, Homer Faber; Modelling Ideas, by Mark Burry, Peter Downton, Andrea Mina and Michael Ostwald.

The Pandora's Box of Emergence

14 For some sectors of this network of practitioners, the term 'emergence' has served as an important model of and for the design process exploration involving the making of these performative models. More or less explicit claims to an affinity with emergence can be found in practices such as kokkugia along with, amongst others, mesne, biothing, Matsys, Aranda/Lasch, MOS and most clearly by name, The Emergence and Design Group (a subset of the practice network, Ocean North).

15 Emergence is a model of design or creative process that I would argue has been implicit to the investigations that thread back to Greg Lynn's seminal experiments in the 'folding' 90's and, indeed, to historical precursors such as Archigram and Cedric Price's Fun Palace. As a model of design process, emergence casts the designer out of the role of a controller – or centralised commander – and into a more participatory, guiding role. It involves a mode of composition or

creative practice that amplifies and highlights the act of entering into dynamic relation, negotiation and interaction.

16 Elsewhere, via a discussion of biothing, I have argued that we are witnessing the development of a new compositional paradigm (Ednie-Brown, 2006). What's 'new', however, is primarily a foregrounding of largely unspoken, implicit operations that more-or-less quietly massage all acts of creative composition. In what amounts to the surfacing of a secret history, there has been a fair amount of squirming and blushing as Pandora cleaves open her box, although the awkwardness gets mostly smoothed over by the buzz of swarming novelty.

17 The most stunningly noticeable tendency of the field is the proliferation of charismatic ('hot'), aesthetically sophisticated ('cool') formal objects that are largely abstractly sculptural in the sense that they don't have any function outside of aesthetics. If the priority is process, then why does it appear so formalist? These architectural emergentists, such as The Emergence and Design Group, have tended to emphasize mathematics and computational scripting techniques and (Darwinian) evolutionary processes. Aesthetics are downplayed in the rhetoric, and troublingly aesthetic questions – such as how to select one form out of the many generated through these techniques – remain awkwardly unanswered.[3] Questions of aesthetics – seen to be embarrassingly 'fluffy' – are kept locked away in the closet (or herded back into their box).

18 Michael Hensel, a director of Ocean North and co-author of multiple publications on the topic of emergence and design, made a surprising move during his recent keynote address to the AASA architecture conference at UTS in Sydney (September 2007). Referring back to a paper by Adrian Lahoud earlier that day, which had examined the critical difference between weak and strong emergence, Hensel seemed happy to throw the relationship between his work and emergence into doubt. This was perhaps meant lightly, as a throw-away aside. But the throw-away infiltrated his presentation which, after so much emphasis upon it in the past, now avoided the topic of emergence, emphasising instead environmental issues (or sustainability) as the primary goal of his exploratory endeavours. The shift of emphasis was quite marked, but the work itself had not changed.

19 Does this indicate simply a change of garment, as the architectural designer parades their model-bodies? Or is it just that every time Pandora squeezes open her juicy box, it is slammed shut too quickly – closing the lid before Hope can escape?

20 A less jumpy, more formally 'tasteful' lid was slapped over the opening by a very recent edition of Architectural Design, Elegance (2007), guest edited by Ali Rahim and Hina Jamelle. This edition gives emergence, as a model of design process, a stylistic or tasteful goal: that of elegant composure, which 'has the ability to push forward the discourse of contemporary architecture by accepting that complex architectural compositions require an accompanying visual aesthetic as sophisticated as the current techniques used to generate form.' (Rahim and Jamelle, 2007: 6) Techniques modeled around the notion of emergence can now target the production of 'elegant sensations', which 'have particular formal characteristics, such as presence, formal balance, refinement of features and surface, and restrained opulence.' (Rahim and Jamelle, 2007: 9)

21 Interestingly, several of the essays in the edition suggest elegance involves the concealment of process. In ways that I am about to address, emergence was a little too troubled, messy and risky. Situating emergence in the service of elegance is an elegant move in itself, only involving a change of three letters. As I will discuss towards the end of this paper, it is a clever response to the worrying, nagging questions prodding at the overt aesthetic prowess of this field of work. It satisfies the problem of how to answer these sticky questions of aesthetic composition, while keeping any embarrassing details stylishly covered over. But, as something is gained, something else is put at risk.

Troubled waters

22 Joseph Earley claims that 'the word "emergence" was first used in English during the sixteenth century — as a fancy and learned way to refer to the process of coming up out of the sea.' (Earley, 2002)[4] This remains an amusingly apt kernel for the subsequent development of the term, which refers to a model of the complex operations of the world. Referred to as 'a ubiquitous feature of the world around us,' (Holland, 1998: 2) emergence becomes the name for a contemporary understanding of the laws of nature.

23

As a discursive construct it seeks to explain, often through mathematical frameworks, the way that complex, global forms of organization come into being through simple, local behaviours and rules, in the absence of any apparent, centralized or dominant control mechanism. A very powerfully significant feature of emergence is that it is no less applicable to economic systems, games and urban planning than it is to living and natural systems. Since its first appearance in the english language, emergence has snowballed into layers of white noise and froth, artfully sweeping together culture and nature.

24 From its earliest philosophical conjectures, the issue of emergence has been tied up with the battles between theories of evolution and creationism; the world as machine and the existence of God. It is a construct that seeks to explain how novelty arises, whether it be new species of life, innovative theories or technical objects. As such, emergence intrinsically concerns processuality and how things are created or generated and has significant relevance to problems of creative process.

25 In other words, emergence is an issue of composition: the process and outcome of combining things to form a whole. As soon as that connection is made, the notion of composition as a formal arrangement of parts is given a processual or performative spin, because emergence models processes of interaction or the dynamics of unfolding relations.

26 For the sciences, there is a palpable anxiety concerning the fact that emergence refers to something that can't be fully explained. There is no scientific definition of emergence. However, there are well-understood descriptions. Steven Johnson's popular book, Emergence, first published in 2001, summarises emergence as the movement from low-level rules to higher-level sophistication. One of the more cited publications on the subject, Emergence. From Chaos to Order (1998), is by John Holland, a professor of psychology, electrical engineering and computer science who is promoted as 'the father of genetic algorithms'.[5] Here he similarly describes the hallmark of emergence as 'much coming from little.' (231) But these are provisional descriptions strapped around an elusive problem and as Holland admits: 'It is unlikely that a topic as complicated as emergence will submit weakly to a concise definition, and I have no such definition to offer.' (3) At the end of his book, he outlines a series of obstacles standing in the way of a better understanding of emergence. But before he launches into this list he writes:

27 > There is one larger issue, however, that I will avoid. It may be that the parts of the universe that we can understand in a scientific sense – the parts of the universe that we describe via laws (axioms, equations) – constitute a small fragment of the whole. If that is so, then there may be aspects of emergence that we cannot understand scientifically. (231)

28 How might these scientifically unattainable aspects be understood? Aesthetically?

29 Emergence may befuddle the reductive tools and conventions of science, but emergent phenomena are nevertheless deeply familiar to us all. Some of the more aesthetically oriented examples of character, atmosphere and style are also deeply familiar qualitative 'things'; textures or consistencies that we know even though we are not sure how we know them.

30 Contemporary accounts of emergence do not tend to discuss these kinds of phenomena, concentrating more on organizational complexes which clearly arise through operational systems (such as behaviour in economic markets, games, cellular automata) and/or those apparently independent of human perception (weather, ant colonies, crops and nature in general).

31 As remarked upon earlier, architecture has largely followed suit (or lab coat, perhaps). This attention to techniques and technologies over the aesthetic properties or implications of the work is almost certainly not the case in terms of what goes on when a designer designs, but it is the case when they come to discuss what they produced. This lack of acknowledgement is symptomatic of a broader problem in the arts and humanities related to the supremacy of scientific frameworks. For some time, architecture has spoken in scientifically oriented terms while operating through highly, but unarticulated, aesthetic means. It is a somewhat dysfunctional, complex discursive dynamic.

Emergence as a Model of Creative Process

32 In one poignant section of Holland's Emergence, he moves into the realms of aesthetics in addressing the question of the nature of emergent phenomena. After devoting the majority of the book to an intricate exploration of constrained generating procedures, or the micro-laws of specific processes of emergence, he turns to address their connection to the macro level, or to the

emergent phenomena themselves: 'Whether it is Conway's automaton or some real world process, we do not expect the emergent phenomena we observe to have simple descriptions in terms of the underlying laws. Indeed, in both cases, we search avidly for simplifying macrolaws.' (189)

33 Holland insists that a deeper understanding of emergence requires that we better understand, or model, the macrolaws of emergent phenomena. He writes that as we move between levels, there is an axiomatic shift: the scope and nature of the laws of the system changes. There is shift in order. A move 'down' to the micro-level involves a burrowing into the details, wherein we loose sight of the global qualities of the macro-level. On the other hand, a moving out to survey the big picture means that the details can no longer be seen. This shift in law and order, inasmuch as it describes a leaping between scientific reductionism and aesthetic wholes, can also be likened to movements of attention involved in stepping back from a drawing to appreciate the overall composition and then shifting back in, to working up close on the more local behaviours within the pen work techniques. Or, in a more contemporary framework, the shift between fiddling with code and considering the forms that code generates. Refining our understanding of how these levels work together entails a kind of attention that deepens the creative process. Or, perhaps more precisely, it offers (at least) two different kinds of depth, adding dimensions to the field of attention. For Holland, the (creative) process of invention or innovation offers clues regarding what we might need to look out for.

34 Emergence comes in different strengths or intensities, sometimes classified as nominal, weak and strong. (Bedau, 2002) One example of strong or ontological emergence is the coming-into-being of innovation. An innovation may emerge, but we can't track the steps back to generalize that process in order to control the production of more innovation, at will. The process is not reproducible – evidenced in the struggles to generate successful institutes and research centres whose mandate is: innovate. Innovations do not simply rise (magically) out of the sea, they fold back to recalibrate the waters, altering the conditions from which it arose, This has been referred to as the 'vicious circle' of 'downward causation.' (Bedau, 2002) 'Ultimately,' Holland writes, 'to understand emergence, we must understand the process that engenders these inventions,' (202) suggesting that true innovation involves a leap that remains mysterious only because we lack a well-defined model of the creative process.

35 The 'creative process' is not the same thing as the mechanical laws that internally define a system displaying emergent outcomes. It is also not the same as the conventions through which scientific research displays its processes of enquiry, which Holland characterizes as 'careful, step-by-step reasoning, each step following directly and closely from the previous step.' (204-5) The problem with this neat and tidy form of explanatory, logically reasoned display, he writes, is that 'this widely accepted scientific standard has given rise to a view, held by some scholars and scientists, that this step-by-step, almost mechanical procedure is the way that science is actually constructed. It is a view that marginalizes imagination and creation. But few scientists, if any, actually carry out their research in this fashion.' (205)

36 Innovation in the sciences occur, Holland argues, via quite a different process: one of a transversal mapping of relations from one model into another new model. As an example he refers to James Clerk Maxwell's use of a mechanism-oriented fluid mechanical model to arrive at his equations for electromagnetic fields. Maxwell writes about holding onto a 'clear physical conception', borrowed from one area of physical science, in developing a new conception of another. Holland discusses this as a metaphoric conjunction where a source model is used to develop a target model, via the link of metaphor.

37 But this transversal movement of a pattern from one site to another does not happen without involving the affects of a submerged, embedded background of disciplinary knowledge and assumptions, accumulated as 'a complicated aura of technique, interpretation, and consequences, much of it unwritten.' (206) Both source and target come to the party of metaphoric conjunction with their auratic accumulations unfolding a 'recombination of these auras, enlarging the perceptions associated with both the target and the source.' (207-8) The result: something new. While the new thing is, most explicitly, the 'target', the source is also renewed. In other words, the newness is all encompassing: what emerges is an all-over, over-all shift in the nature of the world.

38 Holland goes on to suggest that an as-yet-unformulated carrier model of creative process would pertain to the conjunction of poetry and physics. 'In a sense,' he writes, 'the poetic framework is

too loose whereas the scientific framework is too tight.' (219) The loose and the tight need to join forces, combining their 'auras' in a mutually transformative conjunction. The important implication here is that the invention of a model of creative process would involve a mutually affecting conjunction of science and aesthetics.

39 This is implicitly embedded in the way that emergence alerts us to the relation between different modes of knowing the same thing, generally understood in terms of the difference between laws of the micro and the macro. This can be generalised into two divergent and competing epistemologies, roughly sketched here out as science and aesthetics. As different modes of attention, scientific reduction is oriented toward discrete micro-relations and aesthetics toward the macro-configurations. In the inventive, creative process – as in strong emergence – both modes or levels are involved in change, affecting one another in a co-determining manner.

40 At first sight the creative leap arising from metaphoric conjunctions between models might seem more like a macro-macro pattern match, rather than the leap between the micro and the macro that tends to describe emergence, placing it in an ambiguous relation to the usual description. But the conjunction between patterns or models involves both micro and macro levels. In fact, it involves a breakdown of the two-tiered model into a far more spatially folded one, where an intensive order arises through the intimate meeting of disparate micro-organisations, such that together, they transform or leap into a change of overall state. It's what we might call the emergence of a new style. As Sandford Kwinter eloquently put it : 'each innovation is the product of single and novel way of being in the world, an invention that then re-disposes the world according to entirely new rhythmic values.' (Kwinter, 2000: 35)

41 The emergence of new models of creative or design process, as developments upon, and of, the model of emergence, would not simply lie in scientific forms of attention becoming more attuned to aesthetics, but also in aesthetic forms of attention becoming more attuned to the abstract, micro-relational scales of events that science excels at. For aesthetics, the micro-relational dwells in the textures of affect.

Situated Composure – the ethics and art of emergence

42 > To tend the stretch of expression, to foster and inflect it rather than trying to own it, is to enter the stream, contributing to its probings: this is co-creative, an aesthetic endeavour. It is also an ethical endeavour, since it is to ally oneself with change: for an ethics of emergence. (Massumi, 2002: xxii)

43 In a paper titled 'The Challenge of Complexity: Unfolding the Ethics of Science,' Isabelle Stengers warns against complusive reductionism and calls for scientists to take a more generative, risky, uncertain stance. This, she suggests, is an ethics that unfolds from complexity science itself:

44 > Complexity, as it started with the discovery and study of surprising properties, usually related to the irreducible importance of nonlinear relations … would produce the opportunity to entertain a different relation with the past, emphasising openness, surprise, the demand of relevance, the creative aspect of the scientific adventure, and not reduction to simplicity. True scientific simplicity is never reductive; it is always a relevant simplicity that is a creative achievement. (Stengers, 2004: 96)

45 Related issues are explored through a remarkable little book called Ethical Know-How. Action, Wisdom and Cognition by Francisco Varela (1999). Varela distinguishes between ethical expertise and ethical deliberation. Most western writers on ethics, he claims, tend to focus on reasoning as the central issue wherein ethics becomes an issue of deliberation. (23) Ethical expertise does not centre itself on rational judgements of reasoning or on how this may be applied as ethically instrumental. Rather, it is based on the inextricability of the specific tissue of circumstances or situatedness. With some affinity with Foucauldian and Spinozist approaches to ethics, as well as Felix Guattari's notion of the ethico-aesthetic, his notion of ethical know-how dwells in a 'skillful approach to living … based on a pragmatics of transformation that demands nothing less than a moment to moment awareness of the virtual nature of our selves.' (75) To act ethically, one must be acting with sensitivity to the particularities of the situation where there is not a reliance on a set of rules:

46 > To gather a situation under a rule a person must describe the situation in terms of categories we may call cognitive. Instead, if we try and see correspondences and affinities, the situation at hand

> becomes much more textured. All relevant aspects are included, not just those which fit the reduction of a categorical analysis. (28)

47 Action becomes infused with flickers of relevance, becoming situated in a field of potential such that the creative and transformative possibilities are multiplied and amplified. To put in terms used by Paulo Virno (2004), ethics is no longer about the virtuous, but about the virtuoso: the skilled performer. As the architectural emergentists have demanded more dynamically performative properties of their models, they have also demanded more of their own performative capacity.

48 The kind of virtuosic know-how being discussed here does not exclude forms of knowing that 'fit the reduction of a categorical analysis', clearly inscribed in the demands on these architects to manipulate digital code, as well as draw and render form. 'Knowledge of' and 'know-how' are not set up in opposition; know-how incorporates both rational forms of categorical analysis and the situated forms of aesthetically inclined knowing.

49 Theorist Mark Taylor, in summarising 'the moment of complexity', writes that 'according to complexity theorists, all significant change takes place between too much and too little order,' (Taylor, 2001: 14) resonating with Holland's suggestion that innovation requires finding an artful middle ground between the looseness of poetry and the tightness of science. Along similar lines, Varela suggests that:

50 > … intelligence should guide our actions, but in harmony with the texture of the situation at hand… truly ethical behaviour takes the middle way between spontaneity and rational calculation. (31-32)

51 This property of ethical expertise might also be called 'the art of emergence'. Steven Johnson writes that:

52 > We are only just now developing such a language to describe the art of emergence. But here's a start: great designers … have a feel for the middle ground between free will and the nursing home, for the thin line between too much order and too little. They have a feel for the edges. (Johnson, 2004:189)

53 Stenger's assertion that an ethics that unfolds from complexity science calls for a more uncertain stance, can also be seen as a call for scientists to embrace the art of emergence wherein, perhaps, lies the missing model of creative process. It would seem that the 'art of emergence' involves what Varela calls 'ethical know-how'.

54 I should emphasise here that ethics is not about the 'good' and the 'bad', redemption or claims for redemptive powers. It's about a 'measured' practice of engaging with the world, of how we behave, of what we acknowledge is at stake. Ethico-aesthetic know-how is about the amplification of potential – which doesn't necessarily lead to the 'good' because it magnifies risk. Even if there are no easy rules or moral guidelines here, there is an important principle or navigational directive. That is: that the performance of any act strives for a balance between affecting and being affected, between active reflection and the immediacy of embodied response, between sensitive responsiveness and determined agency. This is a politics of action that neither caves in passively to collective desires or beliefs nor holds to individualism, authorship or dictatorship as the power of truth. It's both determined and respectful, pushy and playful.

Barbarella and the threat of Plastic Models

55 These pushy and playful politics resonate with the modelling activity of the new architectural emergentists. As I have discussed in some detail elsewhere (Ednie-Brown, 2006 & 2007), the performance of the designer is met with dynamic, life-like diagrams that are themselves configured in terms of behaviours and performance. The strength of the life-like nature of these diagrams (or abstractly experienced objects) means that they become like puppets that the designer guides, but with enough in-built character to take a part in leading or guiding the way. In other words, the design material is not passive but pushy, involving a dynamic between designer and the designed wherein each both affect and are affected by one another.

56 However, it would seem that the 'art of emergence', in terms of what is verbally articulated, is precisely that which is denied in favour of an appeal to scientifically and mathematically rigorous method. A scan over an impressive collection of relevant work in a recent exhibition, Scripted by Purpose, devoted to modelling via digital code, quickly demonstrates the irony of this situation.

What we find is a proliferation of a particular formal language in what amounts to largely ornamental objects, generally of some beauty, or at least, a compelling charisma. Are we back in the land of Elle + Christina (styled and dressed by predominantly male designers)?

57 Perhaps. But as suggested at the beginning, it would be remiss to dismiss them as superficial. In considering the value of these architectural supermodels, we will turn back in time to the late sixties and the film Barbarella, which, according to architectural theorist, Reyner Banham, was an architectural supermodel of its time.

58 In a short essay 'The Triumph of Software,' published in New Society in 1968, Banham chews over a growing sensibility related to software and responsive environments. He offers a laudatory review of the film Barbarella, which had been released that year, using it to exemplify this sensibility. He holds this in contrast to a hardware related sensibility, exemplified by Stanley Kubrick's film, 2001, also released in 1968. He writes of Barbarella's 'ambience of curved, pliable, continuous, breathing, adaptable surfaces' and juxtaposes it with 'all that grey plastic and crackle-finish metal, and knobs and switches, all that … yech … hardware!' in 2001. Banham's essay was printed with an image from 2001 of a semi-naked male lying somewhat impassively relaxed in a hard surfaced, hard edged environment juxtaposed with an image of Barbarella in tight, sheer garments and on all fours in her fur-lined space-ship, looking a little startled.

59 Banham paints a picture of a battle between the behind-the-times hardies and the finger-on-the-pulse softies. Banham, being a softie, celebrates that which he sees as the "whole vision" of the film as 'one in which hardware is fallible, and software (animate or otherwise) usually wins.' (630) Banham hails Barbarella as a cult movie whose responsive environments will 'become what the film is remembered to have been about.' (629) It is a 'splendid coincidence', he writes, that a company called 'Responsive Environments Corporation' went public on the New York stock exchange in the same week that the film premiered: 'Whatever the company is about, Barbarella is about responsive environments, of one sort of another, and so has been the architectural underground for the last three years or so.' (629) Banham exposes his admiration for fur as a superior and super-friendly material, linking its enigmatic nature to the inflatable, and thereby to Archigram's inflatable prototype personal environment. He makes a connection, in other words between 'natural' materials such as fur, and the 'artificiality' of plastic membranes.

60 Interestingly enough, 'The Triumph of Software' has been re-addressed by theorist Sylvia Lavin, who is also Greg Lynn's partner. In an essay titled 'Plasticity at Work,' Lavin briefly critiques Banham's review of Barbarella in order to position the role of plasticity in relation to modernism. Lavin claims that Banham is 'more-or-less the only architectural critic to say anything interesting about plastic,' (2002: 75) but she critiques the opposition he sets up between hardware and software, suggesting that the plasticity of software rather bought something repressed within hardware to the surface. She tracks the role of plasticity in architectural discourse back to its earliest days, with Vitruvius's Ten Books, where he codified the 'plastic arts' as derived from the Greek term plassien, or to mould. (76) The plastic arts were rooted in the material and manual labour of ceramics, stucco, plaster and sculpture and distinguished from the 'higher', liberal arts which pertained to abstract rather than material properties.

61 Lavin notes that in modernism the use of the term 'plastic' seems to attain a higher status, where she claims that almost every major modern architect was interested in the kind of plasticity discussed by le Corbusier as a pure creation of the mind. Architecture was now both of a 'higher', abstract order and a plastic thing: 'Plastic…is modernity itself for Wright and Le Corbusier in the form of plasticity.' (76) The growth of plastic production and application in the 1960's becomes a very material analogue of the pure but plastic, conceptual mind. A tension arises here between mind and matter. This gave rise to a sensibility in which, as Lavin puts it, modernity itself 'is disfigured by a plastic already embedded in modernity's ideology.' (75)

62 As Lavin's argument suggests, through this shift in the connotations of the term 'plastic', one can see less of an opposition between the hard and the soft (or the rigid and the responsive) than a transformational surfacing of a plastic materiality, implicitly embedded in the conceptual plasticity of modernism. This background materiality, I would argue, can be seen as the plasticity of affect, which highlights the sensual aspects of thinking and the bodily reality of the mind.

63 The main point of Lavin's essay seems deeply related to her later published book on the architect Richard Neutra, Form Follows Libido, where she writes that her 'study seeks to explore the zones

of affective intensity that came to infiltrate the cool and neutral spaces of modernism.' (2004:9) That which infiltrated and disfigured modernism was 'affective intensity'– the force of relations at the fold of mind and matter. If this sensibility – this sensitivity to affective intensity – was emerging in the 60′s, it re-emerged in a different form in the 1990′s, when 'folding' explicitly took centre stage through Greg Lynn.

64 Lavin gave birth to her and Lynn's first child while finishing the fourth chapter of Form Follows Libido, which was titled 'Birth Trauma.' This was in the late 90's, around the time that Lynn's Embryological Houses were being widely published. If something was conceived around that time, it was perhaps lodged in Lavin's introductory question regarding why Neutra's work is still considered to be contemporary. This eventually leads to her final remarks that 'today's interest in Neutra, the moodiest of architects, reveals that architecture… [is] again able to generate new affective environments. That's why these houses by Neutra are not merely modern but rather contemporary.' (144) If Neutra's affective sensibilities are poignantly contemporary, then Lavin must have had some particular contemporary architecture in mind. In drawing attention to Neutra's part in a history of relationships between architecture and psychoanalysis (or the analysis of affects) she associates his work with both Peter Eisenman and Frank Gehry. But in her relationship with Lynn, there is perhaps an even more poignant association.

65 In her book, Lavin reveals numerous amusing and rather intimate details about Neutra that architectural discourse (in maintaining a proper poise for this modernist exemplar) has chosen to ignore. One of these details pertains to how Richard Neutra's wife, Dione, would often play the cello in the background while he delivered his lectures. The air would be filled, explicitly, with a constructed background tone. Her cello playing was, in a sense, part of his architectural atmospherics; the air filled with a musically composed affective texture. Like Dione's cello music swirling around and through Richard's lectures, Greg's plastic diagrams and environments could be considered as the architectural atmospheres in which Sylvia speaks of a contemporary, affective sensibility.

66 This swirling, or swarming affectivity is precisely that which is unleashed from the Pandora's box of emergence and the architectural supermodels. The performative model amplifies qualitative, plastic properties, infiltrating the intimate interactions between designer and the design process and, often, between the (interactive) forms and those people or forces who encounter it. Highly composed expressive forms usher affect into the scene with greater ornamental flurry than has been tolerated for some time. But affect, which hovers around 'feelings', bodily sensations and aesthetics, remains a blushingly pink cloud in architectural discourse, best kept at a distance, safely summed up on romantic or auratic horizons.

67 The problem – and the potential – of these architectural supermodels, is that they threaten to open up an uncomfortably close intimacy of material relations. This threat unsettles the cool, disciplinary restraint that gives architecture its refined poise and cultural status. The threat does not come from body shame, but from a fear of shamelessness.

Shameless Supermodels

68 > Any line of social action, from a casual conversation to an artistic performance to a sexual interaction, is vulnerable to breakdown from too-close attention to its necessary machinations. Awkwardness, not just practical ignorance, threatens to provoke a destructive shame. But the alternative is not the transcendence of shame. A constant running on the surface of shame is a necessary foundation of social action. (Katz, 1999: 171)

69 In one of the more memorable scenes of Barbarella, the figure of evil, Durand Durand, tries to kill Barbarella (supermodel of virtue) with the Excessive Machine, a large, rubber and plastic piano-meets-bed-like device that induces such heights of ecstasy in women that it kills them. Even if you've seen the film before, it's worth watching this scene again on YouTube. This particular bit of video uses different music to that in the film, but it includes what Reyner Banham called 'the best line in the script: "Have you no shame?".' (1968: 630) Durand Durand's expression of disgust was provoked when Barbarella not only survives the Excessive Machine, it does not survive her. As Banham writes: 'the insatiability of her flesh burns its wiring and blows its circuits.' (630)

70 Barbarella becomes an explicitly vibrating nodule of desire – an expressive supermodel – through her impressive ability to sustain an embrace of affective intensity. This affective intensity moves

within her, as she moves within it, without becoming submissive or too easily impressed or attempting to control it through distancing and denial. Barbarella had the power to both affect and be affected in a way that her adversary could not sustain. Software triumphs over hardware.

71 This YouTube version unfortunately doesn't include the early part of the scene, where Durand Durand is preparing for the ritual killing, which involves playing music through the machine. Before the playing commences, with black gloves on his hands, he holds up the musical score such that it fills the screen. What we see is not the usual musical notation, but an arrangement of coloured geometrical shapes that reeks of a geometry-loving modernism. This musical score, resonating with his odd, geometrically-burdened outfit, tells us that this is a man of culture, even if a culture that believes in the nobility of evil and murder. Other references reinforce this, such as his belief in 'truth and essence' over 'humanism and moral principles' (which are 'rubbish'), and his black box of tools with which he promises to do things 'beyond all known philosophies.'

72 The accusation, 'have you no shame?', neatly ties this scene into a parable of the creative sensibility which sociologist, Jack Katz, argues: 'depends not on a fear of shame, but on a fear of shamelessness.' (1999:169) Barbarella, it seems, had nothing to hide or, at least, her capacity to embrace and affirm affective intensity was not kept hidden. Her 'shamelessness' was the shameful thing because she had moved outside the modernist virtuoso's spectrum of power.

73 In a study of emotions by Katz, he picks up on the shame of Henri Matisse when it was revealed to him, through a slow-motion film, that he made certain motions before his pencil touched the paper. He lifts a quote from Matisse: 'I never realised before that I did this. I suddenly felt as if I were shown naked–that everyone could see this–it made me deeply ashamed.' (169) Matisse felt exposed, as if the revelation of this little bodily gesture had dissolved his artistic aura, like the little boy pointing at the Emperor's lack of clothes. Had he been shameless, like Barbarella, he would not have been concerned about letting his delicate, silken aura slip to the ground.

74 Katz writes that shame is 'at once an experience of revelation and of mystification. The experience hovers between exposure and cover up. What is revealed is something that one does not yet and perhaps cannot fully confront.' (149) Katz suggests that this double experience of revelation and mystification in shame is related to our outside-of-awareness social involvements in which we shape our behaviour through processes of making sense that are 'disguised aesthetically':

> 75 We see in the experience of shame a taken-for-granted, ubiquitous, even ontological demand that the individual make sense of his or her conduct in society, which means shaping his or her behaviour in some coherent relationship to collectively recognised forms; and, further, that the process of making sense be itself disguised aesthetically, i.e. by becoming a seemingly natural, idiosyncratically tailored way of being with others. (173-4)

76 Running on the surface of shame, as "a necessary foundation of social action" (171) sustains and is sustained by the development of artful composures that gives a sort of 'natural' air to one's way of being. This is precisely why elegance was such a wise choice of emphasis to wrap up the processual mess of these frothing forms, because it is exactly what elegance is: an artful composure. The risk of shamelessness is something that 'elegance' does not threaten, and is in this sense, is the safest of aesthetic categories, and perhaps, the epitome of style.

77 Both Barbarella and the art of emergence play provocatively with the ethico-aesthetic demand to find a 'balance' between the polar 'opposites' of all conditions (too much order and too little, formality and informality, the one and the many, concealment and exposure etc etc). But these dualities are less opposites than categories that define the limits of various states of relation. 'Balance' does not equate to stillness or sweet, peaceful composure, because it might tend more toward a wildly oscillating performance of relation. Situations are rarely, if ever, free of struggles to connect, conflicts of interest/affect or obstacles to sharing/engaging – or, in other words, of the rather inelegant mess of life.

The Elegant Antidote

> 78 Thus it may have been in self-defense that Lyon's aggravated preteen body replaced itself with an unaggravated, rather amazing woman's body in the summer after her freshman year of high school. I thought this elegantly bubble-bottomed response was brilliant; I could not have said it better myself. (July, 2007:192)

79

Just as Miranda July seems to hear the wordless expressions uttered by bodies and their gestures, we might do well to appreciate the maturation of an architectural style in its teens, having been in development since its (re)birth in the early to mid-nineties. If the exhibition Scripted By Purpose, offers a good coverage of the latest generational phase, then, just like a young girl-woman, it has recently developed into some very elegantly bubble-bottomed responses.

80 If emergence is a passing fashion for the architectural supermodels (or the emergentists-cum-elegants), its not just that the garment is worn, its how you wear it. For Architecture, the act of modelling (in the broadest sense) is a complex dynamic that sustains the very identity of architectural practice. For some more than others, it matters how good you look when you do it, and whether you make it into the glossy magazines or not. But those who do 'make it' tend to do so because they've made sense of their conduct in (architectural) society by shaping themselves and their work into forms that, at best, provocatively test the limits of collective recognition, while managing to artfully compose that process of making sense.

81 If all social activity involves the experience of shame, as Katz argues, we are also always negotiating the ethico-aesthetics of emergence: always negotiating the hover between exposure and cover up, too much control and too little. But if Barbarella has something to teach us, it might be that this latest move toward elegance might flip the scale out of balance as it veers dangerously toward concealment and control.

82 But we ought not to believe everything architects say. And as I read through the essays of the AD edition, Elegance, the words 'elegance' and 'elegant' are used so often that, like many overly repeated things, they began to look strange, becoming a rather inelegantly composed combination of letters. 'Elegant', it struck me, requires only minor alterations to become 'Elephant'. Actually, if you take a second look at all of the work published there, it borders on, if not enthusiastically embodies, a composed form of wild grotesquery.

83 Perhaps the fact that, with one minor exception, there is no colour in the projects published – being quite consistently all white or light grey – helps create the sense that the collection elegantly holds together. But, if you white washed a bunch of elephants and got the angles right in the photographs, it could well have the same effect. Whether the elephant remains inelegant or is styled to be otherwise, it remains a beast, like all beasts, of fabulous and wondrous complexity. Similarly, these architectural supermodels, no matter how you look at them, do embody an awesome formal complexity that is, frankly, brilliant.

84 In what amounts to architectural discourse's equivalent of new media studies, there has been a lot of dressing and redressing of models. They have been dressed in folds, hypersurfaces, diagrams, emergence and, finally, they became elegant. Underneath all the change of garments is a model that, perhaps most fundamentally of all, is a vibratory nodule of desire. Isn't that what Botticelli's Venus presented the world with, as she rose elegantly out of the sea?

85 Perhaps one could say that this model is always clad in shameless self-promotion, with a bit of soft porn thrown in. But like Barbarella, this 'hot' architecture might, through its insatiable flesh, blow some more fuses in some socio-cultural machines of instrumental mastery – while developing some intricate and new ways to openly embrace and express the swarmings of affect. And this virtuosic capacity is not, as many others have pointed out, without some profound ethical and socio-political implications.

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Notes

[1] Not all models are female, but most of them are. Similarly, not all young architects are male, but most super-architects certainly are. While this paper is not explicitly focussed on gender issues in architecture (a currently under-discussed topic in itself) these issues are (dysfunctionally) embedded in the complex dynamic that is the subject of this paper.

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[2] This field of architectural discourse is discussed in Anna Munster's Materialising New Media, where she situates the work of architects such as Greg Lynn and Bernard Cache, in exploring how 'the topology of the fold … provide us with detailed new media studies.' (9) At stake here is a remodelling of design or creative process, in itself. Lynn, accompanied by others in the field, set about remodelling (yet again) the schematic of design process through these explorations.

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[3] This question has been asked so many times that it has become an ever-present echo in contemporary architectural discourse. It was an unanswered question, for instance, that Peter Eisenmann asked of Greg Lynn's work at the 2000 ANY conference in New York. This in no way diminished my personal surprise when, at the AASA conference at UTS in September 2007, Michael Hensel admitted he could not offer any answers to that same old question, when asked of him by theorist Helene Frichot from the audience. This simply demonstrates the degree to which the aesthetic nature of such a decision is either too shameful to discuss, or beyond conscious reach.

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[4] Earley cites his source as: Brown, L., ed., The New Shorter Oxford English Dictionary (Clarendon, Oxford, 1993).

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[5] On back cover of Holland (1999).

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