

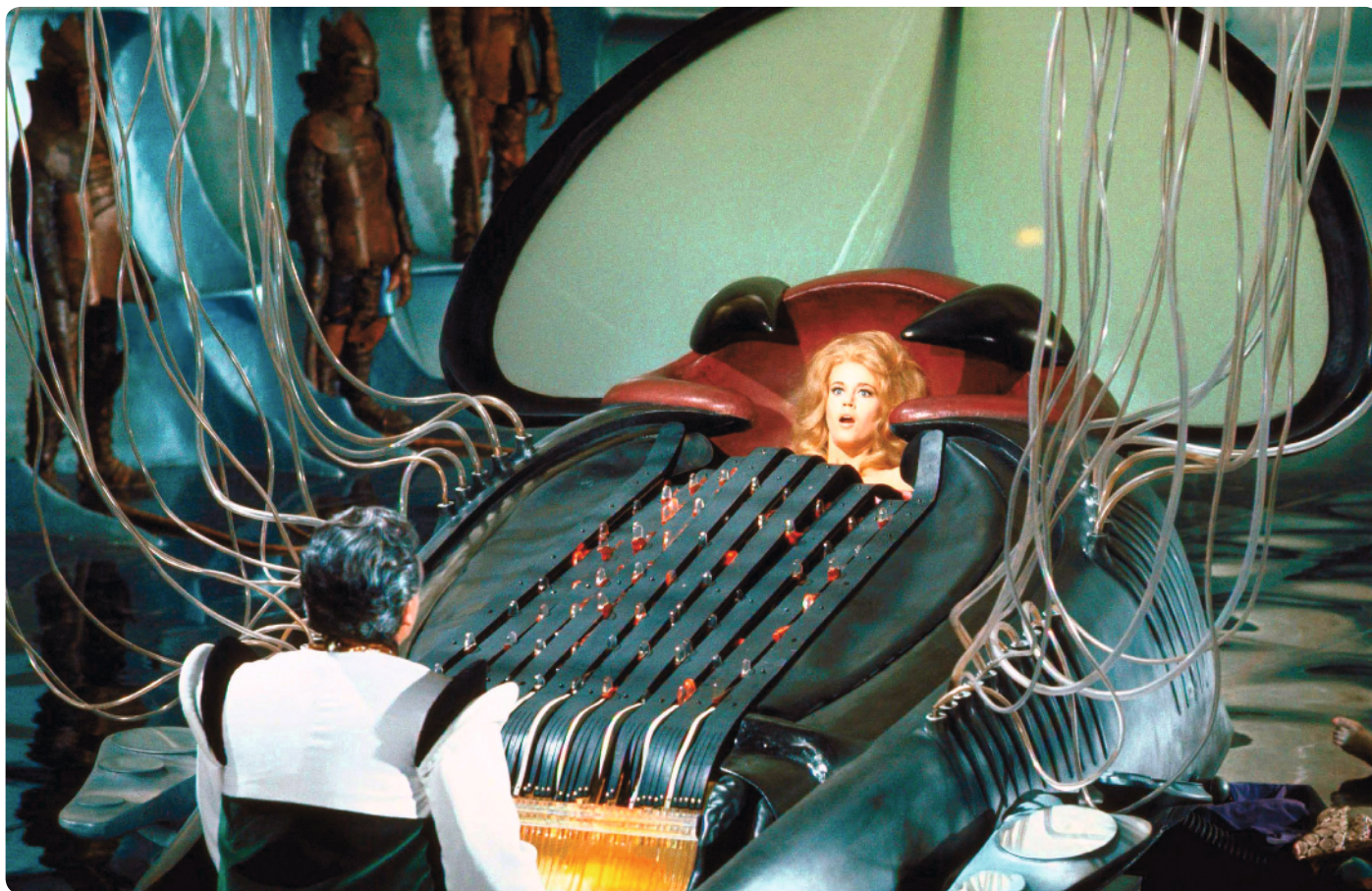
Pia Ednie-Brown

THE ETHICS OF THE IMPERATIVE

The bald desire to innovate is not sufficient in itself. To go beyond mere technical invention and make a positive difference, innovation requires an engagement with overall ethical intent. Here, Guest-Editor **Pia Ednie-Brown** espouses a design ethos that values an open-ended approach to architectural innovation. She illustrates the ethical impact of implementing new technologies with two opposing paradigms – one dark and one affirmative – as exemplified by two classic films from 1968: *2001: A Space Odyssey* and *Barbarella*.

Film still from *Barbarella*, Roger Vadim, 1968

Entrapped in the 'excessive machine', Durand Durand tries to kill Barbarella. Her subsequent triumph over the killing machine involves a mode of virtuosity that becomes a reference point across many articles in this issue, as an exemplary model for approaching the innovation imperative.





Film still from 2001: A Space Odyssey, Stanley Kubrick, 1968

In the opening sequences of Kubrick's film, set in the prehistoric Pleistocene era, we are presented with the paradigmatic 'Ah-ha' moment of invention, where the ape-man realises the potential of a bone as a tool. This invention leads to innovation, as the relations conditioning the Pleistocene environment alter, with new kinds of predation and defence emerging, changing relationships between different organisms, and between primates and objects, for instance. As discussed here, however, this is indicative of an instrumental understanding of invention, and suggestive of the darker side of innovation and its imperatives.

In 1968, Stanley Kubrick unleashed his film *2001: A Space Odyssey*, from a screenplay co-written with Arthur C Clarke. While set in the (then) future, the film begins with the prehistoric, where a group of primates are woken at dawn by an operatically singing, smooth black obelisk: an alien intelligence. Soon after, one of these apes – an alpha-male called Moon-Watcher in Clarke's accompanying novel – plays with skeletal remains scattered across a dry landscape. The potential of these bones as a tool gradually dawns on him, and he eventually works out that he could smash a skull into spectacular smithereens. This leads to a scene in which Moon-Watcher bludgeons another from a competing tribe to death in a territorial dispute over a watering hole.

The relations constituting this Pleistocene landscape are forever altered: animals become food rather than simply competitors for resources, predators can be fought in new ways, a new kind of warfare between apes comes into being, and objects such as bones attain a new status altogether. In this way, the invention of a tool becomes innovation. Memorably, Moon-Watcher throws the bone into the air in a triumphant and exuberantly expressed 'Ah-ha!' moment. The camera follows the upward tumbling motion of the bone in slow motion, until a montage cut transforms the bone into a spacecraft floating in the black of space. Traversing millions of years in a single cut, we jump from a proto-human instance of innovation – transforming the field of play – to the future unfolding of that field.

What might this story tell us about how we conceptualise the roots of the innovation imperative? Kubrick's *2001* might be taken as a kind of solemn reminder that there can be a darker side of innovation; that a competitive, destructive drive underwrites the imperative, quietly inflecting (or infecting?) the field of activity in which it operates.

This dark portrayal of the innovation imperative can be juxtaposed with another film from 1968. *Barbarella* (directed by Roger Vadim) offers a very different story about innovation. In one of the more memorable scenes of the film, the figure of evil, Durand Durand, tries to kill Barbarella with an 'excessive machine': a large rubber-and-plastic piano-meets-bed-like device that induces such heights of ecstasy in women that it kills them.

An analogy between the bone in *2001* and the excessive machine as killing tools is irresistible here. Durand Durand becomes the virtuoso of death as he plays a musical score to drive the machine, telling Barbarella that when he reaches the crescendo she will die a swift and sweet death. But not only does she survive it; it does not survive her. Her extended orgasm overcomes the machine, which smokes and finally bursts into flames. As Reyner Banham wrote in 'Triumph of Software', a laudatory 1968 review of the film, 'the insatiability of her flesh burns its wiring and blows its circuits'.¹

The most instructive thing about this counter-example lies in a shift of the status of the tool. As Durand Durand wields his

Alisa Andrasek and Jose Sanchez, BLOOM, Victoria Park and Trafalgar Square, London, 2012

This interactive system was conceived as an urban game, a distributed social toy and collective 'gardening' experience that seeks the engagement of people in order to construct fuzzy bloom formations throughout the city. Initial series of ground configurations are laid out to provoke and engage the public. The pink, injection-moulded plastic BLOOM cell is 100 per cent recyclable, with the work overall being considered as a mode of assembly, disassembly and reusability.



evolved, musical bone-weapon, played with the intention of doing her over, Barbarella invents a new kind of instrument that is not so much a device per se, but a kind of virtuosity that involves riding a fine line of both 'doing' and 'being done'. She does not try to control the killing machine, but neither does she become submissive. As the machine affects her, she moves with it, literally giving back that which is being performed upon her, producing an internal feedback loop and transforming the event from the inside. Barbarella had the power to both affect and be affected, such that her adversary, a machine made only to work in one direction, was overpowered by its own aim. Software, introducing feedback and nonlinearity into the system, triumphs over unidirectional hardware.

What is important about the bone, then, is not just what it is (because it certainly has the potential to be used for many things, not just kill), but what drives its use (the imperative that moves things along). In the aggressively instrumental stance, we know what the desired outcome is before it is achieved (ie, kill) – it is really just a matter of getting it done. Barbarella, on the other hand, did not know where this would lead, expressing some surprise and regret over the now flaming and spluttering machine-cum-lover. What mattered was that she operated precisely on the line of simultaneously affecting and being affected – not as two separate acts, but as part of the one act of engagement. The excessive machine scene is one of many instances

across the broader narrative trajectory of the film, where Barbarella gradually increases her capacity to move, quite literally and physically, into the tissue of circumstances in allowing new forms of the world to emerge – or in other words, to innovate.

It would be a mistake to think that the instrumental approach is not without an appreciation of process, or of taking pleasure in the unfolding of relations; Durand Durand delighted in killing through pleasure, just as the ape might have gained pleasure in the act of bludgeoning. But when the predetermined goal is made to happen externally, rather than allowed to emerge through an intricate negotiation from within the situation, there is less room for more implicit or quietly lingering potential to surface and become explicit. If we expand the idea of the machine to the cultural, economic and material systems we inhabit – and the 'excessive machine' seems an apt analogue for the capitalist machine – *Barbarella* becomes a parable for the kind of virtuosity one might aim to develop in seeking an ethical approach to the imperative for innovation.

In terms of design practices, the kind of approach being pointed to here by invoking Barbarella finds one trajectory in computational design and material form finding, examples of which can be found in collections such as Mark Fornes' curated exhibition and website, 'Scripted by Purpose' (2007),² in Mark Burry's book *Scripting Cultures* (2011),³ Gail Peter Borden and Michael Meredith's *Matter: Material Processes*



Eva Franch i Gilabert, Strategies for Public Occupation, Storefront for Art and Architecture, New York, 2011
 Storefront for Art and Architecture, directed by Eva Franch i Gilabert, set up a series of events in direct response to the Occupy Movement, a movement that arose internationally against social and economic inequality. In October 2011, Storefront put out a call for submissions for projects and strategies that proposed new, creative and productive approaches to spatial occupation, for public demonstrations and actions in cities throughout the world in order to enable communication and exchange between the civil society and the structures of economic and political power. This led to an exhibition and a seven-day programme of talks, workshops and events through which to generate ideas and discuss the current state of affairs in relation to the Occupy Movement around the world.

in *Architectural Production* (2012),⁴ and the recent Δ *Material Computation* (2012), guest edited by Achim Menges.⁵ Across these collections, one can see a clear shift away from the kinds of authorial mythologies that locate creative ‘genius’ entirely within the architect. At their best, these design approaches involve working with materials (physical, digitally described and/or social and conceptual systems and substances) in a way that guides the formation of a project in desired directions while negotiating or working with the tendencies, characteristics and ‘wilfulness’ of that material.

In a recent essay, computational design architect Roland Snooks, of kokkugia, distinguishes between working with generative algorithms – in ways that accept a messy volatility – and ‘form finding’, which he sees as risk averse and equilibrium seeking.⁶ The more open volatility he advocates has an affinity with the design ethos being advocated here, and similar traits are fairly emphatically expressed through the work of other digital design practices. However, digital computation is not a prerequisite for related approaches. The diverse cast and the very different practices in this issue aim to gather a broad, expanded sense of the value of open-ended approaches for architectural innovation, and ways in which working across many media and dimensions might be important. One could line up the practices and projects of, for example,

architects Alisa Andrasek, Eva Franch i Gilabert and Veronika Valk and discern a productive through-line or affinity in their desire to enable or initiate participation, to expand their engagement beyond architects or conventional architectural media, and to encourage collectively acquired value – each through extraordinarily different means, modes and media. Moving transversally across engagements with socio-cultural events, digital and biological media, models of community and urbanism, and imagined, speculative propositions, *The Innovation Imperative* explores the importance and role of working in multiple modes and media – but also the importance of seeking affinities beyond obvious clusterings or architectural ‘styles’ in gathering a sense of what is emerging across the bigger field of architectural exploration.

It is worth noting here that the kind of virtuosity this implies, particularly when involving digital computation, is too often mistaken as the abdication of intent, or the ‘giving over’ of authorship. This strangely persistent critique is not a logical necessity, and quite ironically operates in sympathy with the problematic notion of the ‘creative genius’, who uncompromisingly implements his or her visionary design ideas. The affinity between these positions – ‘hands off’ self-organisation and the stamp of individual genius – can also be found in the notion that economic systems are entirely self-correcting. Commonly wielded as a neo-liberal weapon, this notion is used to argue that care and responsibility for

Veronika Valk, *Swinging In The Light*, Tallinn Festival of Light, Tallinn, Estonia, 2006

This mobile hotel offers an open invitation to spend time outdoors despite the somewhat extreme Estonian wintertime conditions, where temperatures can fall to -35°C (-31°F). At night, these super-sized, insulated white hammocks are illuminated and heated further by directional infrared lamps.



collective interest can be abdicated (because the self-correcting system takes care of that), giving the self-interested individual the right to care exclusively for that self-interest (and his or her uncompromising vision). But the more realistic and ethical alternative is something more co-defining: individuals who 'stand out' become important instigators, being affected, inflected and moved by collective entanglements while affecting the tangle in turn. To some degree the individual and the collective are always in tension, together generating intention. Along these lines, intentionality in design cannot be absolved, but rather relocated. Rather than being inside the individual, intention is generated in an outside – as part of the tensions between collective and individual insight and concern.

If we are feeling the imperative to innovate, we need to grapple with intention in order to navigate the ethics of our actions. The kind of virtuosity being referred to here, fleshed out via *Barbarella*, becomes a way to work with an intent to negotiate pressures from within situations and events, to navigate the concerns of others and the many material properties of the world without losing one's way: to find an ethics for approaching the imperative for architectural innovation. However, we can only get so far towards an understanding of what any of this means for architecture through *Barbarella*. Across this issue of Δ are a series of more targeted architectural stories through which to speak of related acts within the spectrum of individual and collective virtuosity. Δ

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Notes

1. Reyner Banham, 'The Triumph of Software', *New Society*, Vol 12, No 318, 31 October 1968, pp 629–30.
2. 'Scripted by Purpose' exhibition and website, curated by Marc Fornes, Philadelphia, September 2007: <http://scriptedbypurpose.wordpress.com/>.
3. Mark Burry, *Scripting Cultures: Architectural Design and Programming*, John Wiley & Sons (Chichester), 2011.
4. Gail Peter Borden and Michael Meredith (eds), *Matter: Material Processes in Architectural Production*, Routledge (London and New York), 2012.
5. Achim Menges (ed), Δ *Material Computation: Higher Integration in Morphogenetic Design*, March/April (no 2), 2012.
6. Roland Snooks, 'Volatile Formation', *Log* 25, Summer 2012, pp 55–62.

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