

Media and the Theatre of Life Innovation

Timothy J. Senior

For anyone encountering BioArt for the first time, these are works that seem to challenge a conventional understanding of disciplinary roles (as artist or scientist), of the possible relationships between technical devices and living matter, and of the connection between concepts of life (the world of ideas) and the tangible forms that life can take. How might we grapple with these provocations? In *Bioart and the Vitality of Media*¹, Robert Mitchell suggests that we need to look beyond the readily apparent (what an artwork might be made of or the message it conveys) if we are to glimpse what really is at stake in the creation of these works. This means looking more closely at the dynamic relationships generated between living bodies, ideas, objects, and professions in the creation of new work. At the heart of Mitchell's approach is a new understanding of *media* itself: To become solely pre-occupied by whether living or non-living elements are used in an artwork is to engage with media in too limited a material sense (*media as material*); equally, to concentrate on how an artwork might 'generate debate' or 'make statements' about the world is to focus too intently on a model of cultural media (*media as communication*).

In Mitchell's view, these two perspectives only offer a partial account of artwork as media. Seen together, however, they point to a new understanding of media – one that is more than the simple addition of material properties and communicative functions. Building on the concept of *vital*

¹ Robert Mitchell, *Bioart and the Vitality of Media* (In Vivo: The Cultural Mediations of Biomedical Science) (Seattle: University of Washington Press, 2010)

communication, a connection between the two emerges in how artworks bring into being original and changing states within living systems. Here, living systems (whether biological or social) are understood as those always in a state of becoming something else, achieving moments of stability (what we might call identity), whilst always retaining the potential for future change and adaptation. It is this theatre of life – *of life innovation* – where the artist researcher intervenes in the creation of new work. By bringing new living beings, environments, or social states into existence, the material and communicative properties of media come to exist in a highly dynamic, generative, and changeable relationship.

Mitchell's theory of media directs us to three essential questions about artworks. The first is to ask how new work participates in the theatre of life innovation, i.e., how living processes are reshaped or directed towards new states in the work. The second is to ask how these new states come about through a reconfiguration of relationships between different elements that constitute the work, including living bodies, tools, techniques, practices, institutions, legal systems, and so on. So emerges a third question: With this reconfiguration of relationships between elements, is something newly *uncovered* that cannot be explained by prior concepts or models of understanding? Here, we might ask if new concepts are needed to make sense of these altered relationships or to ask what consequences might follow from further reconfigurations amongst elements. Taking all three questions together, the narrowness of media as material property or communicative function is replaced with concern for a work's generative and capricious nature in the theatre of life innovation.

An artwork that has living material at its core may best capture this theatre in action: Here, the driving of living material into new states creates fertile ground from which to ask these three questions of work as media. Active audience participation in the work (perhaps through influencing when and how new living states emerge) might bring us even closer to this new understanding of media such that we – as living processes ourselves – become

part of the medium under scrutiny. In contrast, a painting that addresses living themes but lacks a living element *per se* (for example, through depicting genetically modified animals) might best enable the viewer to adopt a considered and critical position on the impact of biotechnology: A message is received, but, shielded from living matter itself, the theatre of life innovation remains silent.

In the years following Mitchell's work, the opportunities for artist researchers to draw on new living, technical, and methodological sources have only increased. This has generated new types of work through which we can probe Mitchell's theory of media. The boundary between artworks that engage us in, or distance us from, the theatre of life innovation is neither fixed nor clear-cut. New work that captures the advances of our time serves only to blur that distinction further. Today, for example, the *simulation of life processes* (whether through computational modelling, speculative design methods, or future-historical thinking) now compellingly explores how living processes might be transformed into new states. We can ask if, far from shielding us from 'real life' through digital or textual means (as life unfolds elsewhere), these are works that place us through their intensity and credibility firmly within the theatre of life innovation.

For this book, we have brought together thirteen artist researchers whose work animates that theatre. Through Mitchell's theory of media, we explore how individual artworks (or bodies of work) reconfigure relationships between living material, tools, techniques, and institutions to ask new questions of living processes. Recognising the vitality of media as one that demands ongoing interpretation and reflection, our discussions with artists aim to capture a current moment in their creative lives as they grapple with this space in their own terms. Whilst each artist's chapter can stand alone, there is as much that unites them together as distinguishes one from the other. As such, there are many different ways to approach the material in this book. Here, we draw out five themes that juxtapose the

work of different artists to reveal the depth and breadth of the theatre of life innovation.

Microbial Assemblages

The vitality of media lies in how it brings environments or bodies into existence, uncovering new questions for living processes and the factors that shape them. Three of our artists work with microbial life to ask questions around life as encounter, exchange, duration, process, and archive: For Sonja **Bäumel**, the transplantation of microbial life from her own body becomes a means of exploring self-expansion – from a multispecies body (Me) to a flourishing of independent selves (We); for Roberta **Trentin**, nurturing microbial life in parallel to raising a family of her own gives insight into the very conditions for life itself – a means to question personal versus familial growth and the interaction between nature and nurture; for Sarah **Craske**, the microbial life of the archive reveals social and natural histories of institutions – a way of uncovering new forms of cultural and intellectual exchange.

Life Containment

Life is ubiquitous, and whilst interventions may intensify or reshape the relationships between living bodies, they may also put life itself into jeopardy – whether artist, microbe, or publics: For Roberta **Trentin**, fungal spores from home produce past its best-by date ground an artistic engagement with the microbial life that is all around us – the use of domestic wares (rather than laboratory tools) creating a new kind of artistic domesticity; for Mellissa **Fisher**, the creation of new microbial worlds sourced from her own body means the suspension of her own life (as an artist) in favour of the creative life in her own work – the use of protective casing helping assuage the public's fear of contamination from this strange new foreign body; for

Anna **Dumitriu**, Tuberculosis and the meticillin-resistant *Staphylococcus aureus* (MRSA) ‘super bug’ hold great promise as media but require her to undertake advanced training and to operate out of biosafety research laboratories supporting the highest levels of biocontainment in the UK.

Life Beyond Bodies

In the theatre of life innovation, it is not only living bodies that are subject to transformation into new states but cultural and social life as well. Here, we see how extensive the relationships can be between different elements in the world implicated in Mitchell’s theory of media: For Vivian **Xu**, the millennia-old tradition of sericulture (silk manufacturing) is still a living one, with new connections between material, living bodies, and data elements enabling a culture of innovation; for Sonja **Bäumel**, the microbial life on our skin offers the promise of a novel interactive second membrane – a powerful non-verbal platform for revealing human encounters and enabling exchange between peoples and cultures; for Wayne **de Fremery**, oral and print traditions linked to South Korea’s cultural record are fertile ground for new forms of digital object – a way of creating human-centred acts of memorialisation, political action, and public discourse.

Speculative Futures

In reconfiguring relationships between living bodies, tools, practices, institutions, and so on, new work can point to different possible future states, each with its own characteristics and consequences. Three of the artists interviewed for this book speculate on adaptive human futures in response to the challenge of food security. Proposing strategies that point to alternative and highly contrasting futures, each promises a different reconfiguration of our food industries: In Nestor **Pestana**’s work, a bio-hacker community living in isolation from the industrialised world uses

biotechnology to pursue extreme self-sufficiency and self-isolation; for Paul **Gong**, modification to our digestive systems allows once-inedible foodstuffs to be consumed as part of our everyday diet – a stimulus to new forms of cuisine, culinary behaviour, and social hierarchy; in David **Lisser**'s work, the gradual development of a global lab-grown meat industry is outlined, and the possible environmental and cultural fallout of a new product – CleanMeat – imagined.

Conceptual Models

With this reconfiguration of the relationships between elements in the world by media, where does a need for new conceptual models (and further reconfigurations) arise? **Boredom research** ask whether the simulation of biological systems on aesthetic grounds can create a model for the shared understanding of the environment – and our impact on it – amongst researchers and the general public; for Nestor **Pestana**, the prospect of human modification through biotechnology takes Design beyond its current status as a discipline – a call for new models of design science fiction; for David **Lisser**, the path to a meat-free global food movement is impossible to predict – a model of future scenarios and a retrospective reconstruction of how we got there may help us imagine what is in store; for Sarah **Craske**, the impact of cross-disciplinary practice is to recast materials with a biological, social, and cultural force outside of disciplinary ownership – pointing towards a new model of transdisciplinary material.

As these works will reveal, Mitchell's theory of media helps us see how questions of life innovation are proper to us all, not just the biomedical sciences. Its ramifications for our understanding of media in its reconfiguration of people, professions, objects, and ideas make us all valid actors in the theatre of life innovation.