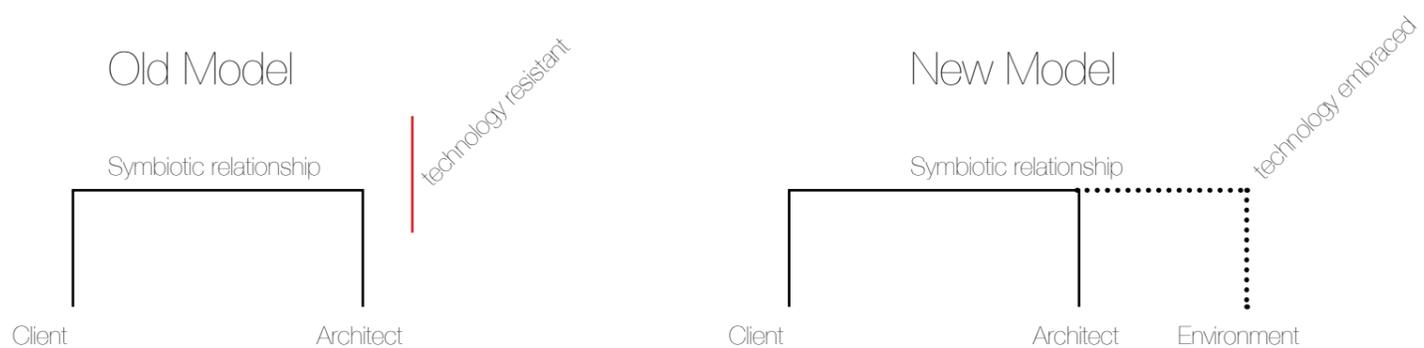


# SUPERSTUDIO 2012- SHIFTING SANDS (...AND OTHER COMPOUNDS)

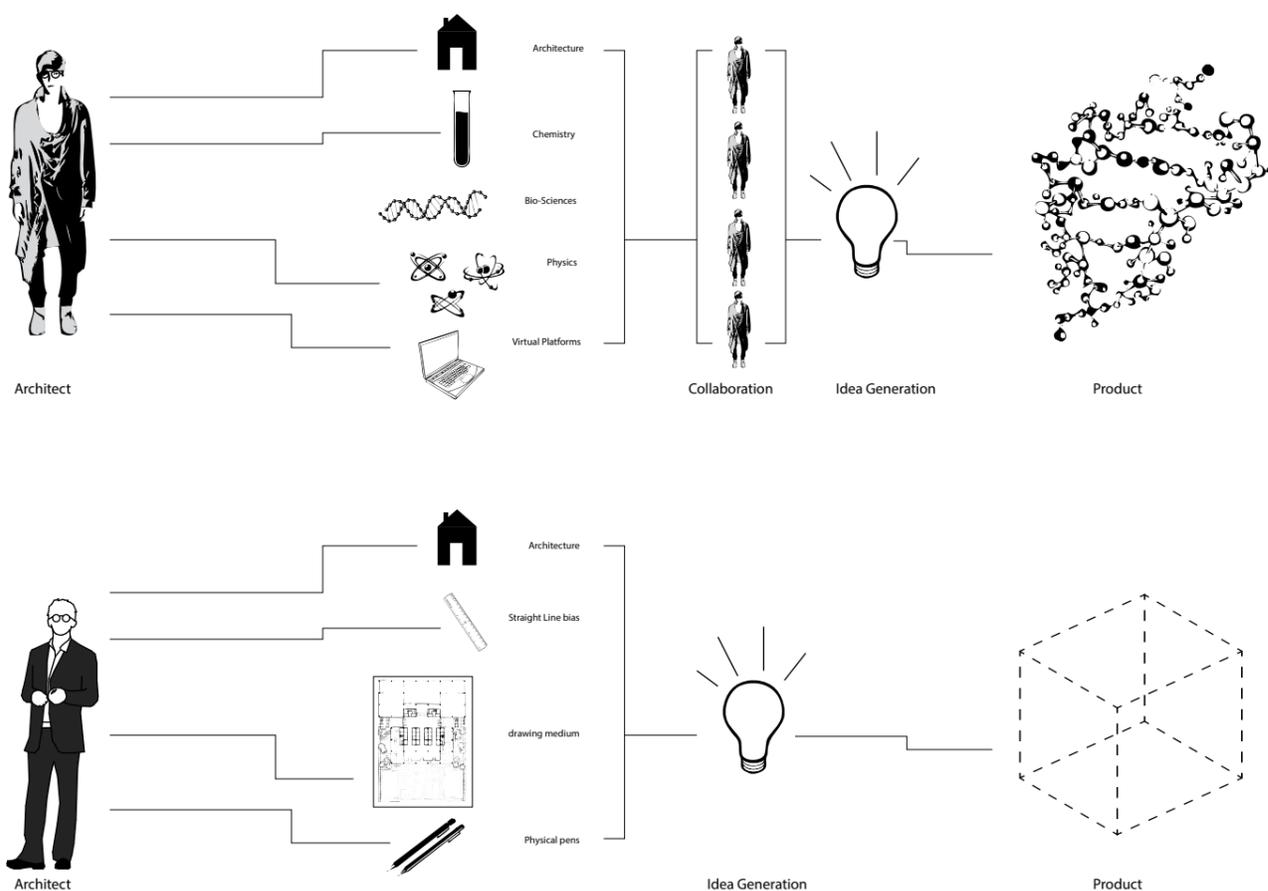
MERCEDES MAMBORT (RMIT)  
MARK HOCKING (RMIT)  
MICHAEL MURDOCK (RMIT)

# MANIFESTO

The practice of architecture is moving into new territories beyond the old disciplinary boundaries. 100 years from now the role of the architect, dwelling and user will be a very different proposition.



To survive as a specialisation the 'architect' will have to become a polymath, a person whose expertise spans a significant number of different subject areas. Collaboration between professionals will create outcomes that cross over nanotechnology, cybernetics, augmented reality, architecture, engineering, biology, biomaterialology, bacteriology and meteorology.



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# **MANIFESTO**

Techniques to represent design and architecture will embrace technology and augmented reality innovations such as AR media 3ds Max plugin (use in the proposal for the Venice Biennale Gonzo architecture) will be commonplace. Long gone will be the incomplete means of representing 3d structures with 2d line drawings and words.

The role of the user will also have to expand. Existence will be interactive, a person's experience will come in a range of settings and home life will involve reversible fabrication processes as a means to preserve materials and space. The experience of internal spaces will come with the option to customise and will be viewed through augmented reality.

The dwelling will be highly intelligent and responsive to environmental forces; it will work with the environment to produce optimal living conditions with maximum efficiency and no negative impact on the environment.

The reason for this shift from the current architectural paradigm is clear. Current theory and practice is out dated and since the time of the industrial revolution assertions have been made that our way of architecture is not serving the planet or mankind as well as it should be.

Further the tendency towards collective house as the only model for sustainable living will gain momentum. There is and will continue to be a shift away from conservative and homogeneous collective housing and its parameters will not be subjected to rules of marketing but instead governed by rules of material, technology nature and environment.

Gustau Gili Galfetti writes in *Model Apartments* (1997) that when architects started to participate in designing the collective house (which prior to modernism belonged to the masters builders scope of work), the artifice of the average standard man was designed to. This standardisation, still designed to today poses an impediment to the evolution of housing for a number of important reasons that are mostly within the realm of un-met potential.

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# **MANIFESTO**

More specifically; spacial richness, ESD, responsivity, flexibility, best practice technologies and materials and construction methods are under tested, unfeasible in a failing global economy and not experimental enough.



*Coop Himmelblaus 'Cloud' (1968-1972)*



*Alison and Peter Smithsons 'The House of the Future' (1955-1956)*

The interest of these experimental ways of living more than 50 years ago are much the same as the interest of today's future dwellings; flexibility, mobility, evolution and technology. (Galfetti, 1997). What has changed have been advancements in technology. Futurists such as Ray Kurzweil, Bruce Sterling, and Vernor Vinge believe that the exponential improvement described by Moore's law will ultimately lead to a technological singularity: a period where progress in technology occurs almost instantly, ([ted.com/talks/ray\\_kurzweil\\_on\\_how\\_technology\\_will\\_transform\\_us](http://ted.com/talks/ray_kurzweil_on_how_technology_will_transform_us)). With this in mind it is not a far fetched proposition that we will be able to build the accompanying proposition through technological optimization in the next 100 years.

The way to technological optimization is to work with nature, as working against it is a futile and energy expansive endeavour. Not only are today's materials inefficient and often working against nature, but they are used in construction systems that are unfunctional. Neri Oxman, Architect, designer and assistant professor of media arts and sciences at the MIT Media Lab, works to enhance the relationship between the built and the natural environments by

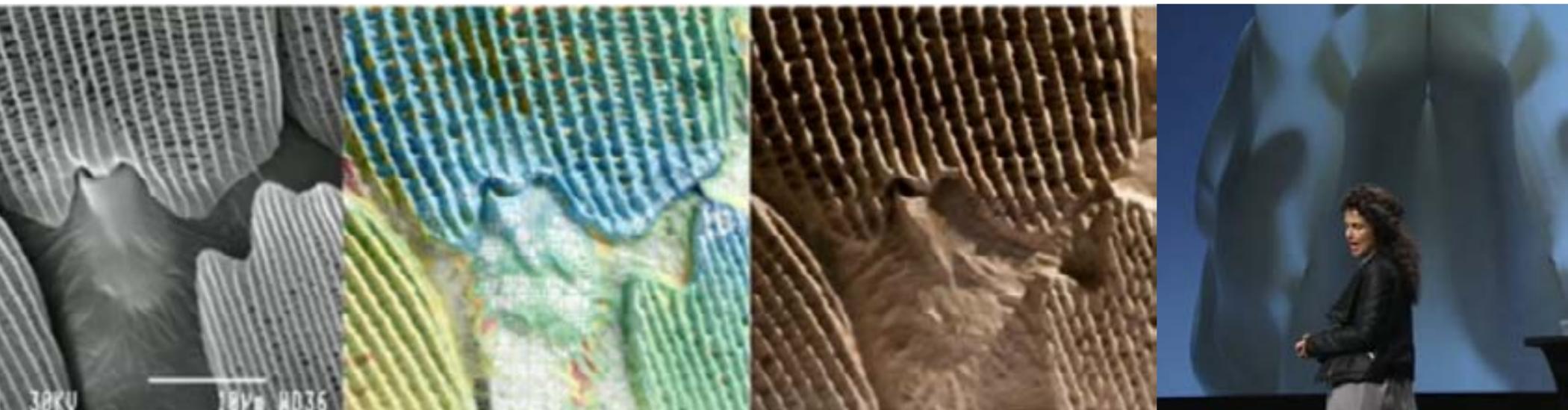
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# **MANIFESTO**

employing design principles inspired by nature and implementing them in the invention of digital design technologies.

We need to accept nature as being long standing proof of a successful system, as nature authors forms that have a mixture of desirable material properties and inherent environmental responsivity. (<http://vimeo.com/7806194>).



*Neri Oxman discussing variable property printing applications in the built environment.*

Neri Oxmans work is not a 100 year vision; a hundred year vision is to suggest a world far more advanced. Where integrated living systems as well as static materials and cybernetics are the future of construction and maintenance.

Cedric Price was perhaps the most influential of the early architects to adopt the theoretical work in cybernetics and extend it to an architectural concept of "anticipatory architecture." In order for something to be considered "intelligent" in this context, it must be able to learn about its world and develop its own ability to interact with it. John Frazer, who was a systems consultant on the project, extended Price's ideas, in positing that architecture should be a "living, evolving thing". Robotic agents and building sensors will work to inform and maintain the buildings through their creation and beyond their completion, in fact the term completion in respect to a building will be an outdated notion as the building will be ever changing based in external and internal inputs.

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# **MANIFESTO**

This is the space within which our speculative project lies. Outdated poorly performing buildings will be engulfed by bio-robotic cocoons, the constituents of these buildings will be broken down to elements by agents and recycled in situ. The building will be encapsulated, degraded, reborn and released. Like a holometabolous insects they will undergoes a complete metamorphosis.

After the structure is reborn and becomes inhabited it will continue to evolve and not just in the outdated 'interior architecture' sense. Flexibility will be possible because the building can be programmed to grow a new wall, or to re-figure itself to a more appropriate layout and respond in real-time to the needs of the occupant. It will do this through incubator that house bacterial who's by-product is structural as well as the employment of robotics to assist the process. All the while maintaining a symbiotic relationship with life around and within it.

It is the responsibility of today's architect to design a future that accepts and unifies different sciences, and rejects the archaic rules of architectural practice. One that strives to design systems that effect more than basic individual human needs. We need to address the mistakes of the past and find means to create and test new ideas with the end goal to create a harmony between technology and the environment for the future greater good.