Article

VAN BRANDENBURG UNFURLED: ARCHITECTURE IN THE EXPANDED FIELD OF CONTEMPORARY PRACTICE

Leoni Schmidt

LOCATING

A fortuitous decision brought Architecture van Brandenburg, of Dutch and South African extraction, to the small creative city of Dunedin[1] on the east coast of the South Island of New Zealand. In this part of the world, spectacular mountains, a profusion of luscious fern varieties, green forests and blue lakes form a perfect fit for an architectural practice inspired by natural forms. Their office adjoins a chic Italian restaurant in downtown Dunedin, with its own interior exuding the ambience of a sculpture studio – it's clearly a place where ideas are made manifest in objects redolent of a particular geographic location. But, typical of our globalised era, Architecture van Brandenburg's current project was commissioned for the Chinese Marisfrolg Apparel Headquarters in Shenzhen. Boris Groys reminds us that postmodernity "enacts a complex play of removing from sites and placing in (new) sites,"[2] and Leslie Sklair analyses how "aspiring global cities use iconic architecture [often from far-away places] as a prime strategy of urban intervention and self-identification."[3]

Figure 1.

TOUCHING

Marisfrolg is all about fashion; fashion is all about the senses; Architecture Van Brandenburg eschews the rationality of modernist design by foregrounding a tactile epistemology – one can understand the world through the haptic experience of matter. A hand has held and touched a leaf, a frond, a shell, and this shows in the work. An intimate knowledge of the structural particularities of a natural object shines through. This kind of understanding has a long and proud genealogy in phenomenological discourse, stretching back to Henri Bergson on matter and memory and Gaston Bachelard on the imagination of matter. Nearer to our time, Juhani Pallasmaa has brought this thinking into the realm of current architecture with *The Eyes of the Skin: Architecture and the Senses* (2005), *Encounters: Architectural Essays* (2005) and "Hapticity and Time: Notes on Fragile Architecture" (2000), where he quotes Maurice Merleau-Ponty to argue for the primacy of touch in "the task of architecture to make visible 'how the world touches us'."[4]

A tactile epistemology is one which acknowledges the fragility and slowness of architecture in a world driven by digital media, speed and a uniformity imposed by dominance of the sense of vision. Instead, Pallasmaa yearns for an architecture which creates existential microcosms and embodied representations of the world; an architecture of opacity and depth, sensory invitation and discovery, mystery and shadow, an architecture of beauty and humility – the qualities one finds in Marisfrolg by Architecture van Brandenburg. This essay contends that these qualities are achieved through strategies of mimicking, integrating, crafting and unfurling, as discussed below.

Figure 2.

MIMICKING

Senior partner Fred van Brandenburg has expressed his passionate interest in biomimicry, a practice and related theory of design striving to find alternatives for the uniformity and flatness of surfaces found in modern and modernist architecture. Fred states: "The forms found in nature enthuse us. In our buildings the form change as one moves around them. They are not flat surfaces – a front façade, a side façade, a rear façade and a roof plan, basically two-dimensional objects that do not exist in nature – our designs do not need to struggle with proportions on a façade, or with other man-made rules of aesthetics."[5]

Biomimicry in current architecture critiques the foundations of Western architecture as entrenched from Vitruvius's *De Architectura* in the first century BC to Andrea Palladio's eighteenth-century *Four Books on Architecture*. The principles of *firmitas, utilitas* and *venustas* (solidity, usefulness and beauty) were firmly embedded in this tradition, as was a cosmic order represented by geometric forms and the three orders of Classical architecture: the Doric, Ionian and Corinthian, as based on the proportions of the human body. Current biomimicry in twenty-first-century architecture eshews the first of the triad of principles, namely *firmitas* (solidity), the box-like structures resulting from the three proportional orders and also the humanist-centred focus on the body.

Figure 3.

In an era of heightened awareness around issues of sustainablity, researchers at Eindhoven University of Technology write: "Why biomimicry? … We are already learning from nature, for instance, how to harness energy like a leaf, grow food like a prairie, build ceramics like an abalone … create color like a peacock, compute like a cell, and run a business like a hickory forest. The conscious emulation of life's genius is a survival strategy for the human race, a path to a sustainable future. The more our world functions like the natural world, the more likely we are to endure in this home that is ours, but not ours alone."[6] Michael Pawlyn concurs where he studies biomimicry as "ways of translating adaptations in biology to solutions in architecture … mimicking the functional basis of biological forms, processes and systems to produce sustainable solutions."[7]

The term 'biomimicry' was first used around the mid-twentieth-century, with a vastly enhanced interest manifesting in the last decade as scientists, architects, artists and designers increasingly question a humanist model in their search for sustainable and poetic alternatives. Writers like Pawlyn cite examples from the past, such as Swiss engineer George de Mestral's innovative Velcro based on the forms and functions of the Burdock burr, or Eero Saarinen's TWA terminal at J. F. Kennedy Airport in New York where he used biomorphic forms to capture the poetry of light. And, of course, we remember Le Corbusier's *Notre Dame du Haut* at Ronchamp, with its heavy roof reminiscent of a rock overhang underneath which a mysterious space unfolds.

The discourse of biomimicry is establishing itself in world architecture and it is in this discourse that Architecture van Brandenburg is situating its own practice. There are many dissenting voices, one example being Joe Kaplinsky who "takes issue with 'biomimicry'" and the idea that nature rather than mechanical solutions is the key to unlocking architecture. He argues that biological language and analogies diminish the achievements of designers. He calls for a "humanist sense of what architecture and engineering mean in the world."[8] These tensions play out in many contemporary practices of architecture, and Architecture van Brandenburg's Marisfrolg project contributes to this discourse.

INTEGRATING

Alongside biomimicry, another discourse is relevant to Architecture van Brandenburg's practice. 'Integrated design' heals the rifts between the architect and other creative practitioners engaged in a project as they all work towards its materialisation. Rifts created through the separation of architects and artists as against master builders and craftsmen – due to the superior intellectual training of the former – hails from the time of the Renaissance and Leon Battista Alberti's intervention in the relationships between these parties. It is interesting to note that Alberti was also the architect who consoliditated one-point perspective as a single master narrative or point of view, one which would be dominant in creative practice for many centuries.

As demonstrated by Architecture van Brandenburg, many points of view can, however, be integrated into architectural design today. We have not only entered the Ecological Era through our heightened awareness of sustainability pressures, but we also now work as productive ecologies wherein a range of roles are fluidly integrated. Branko Kolarevic and Kevin Klinger write that architects are "becoming more directly involved in the fabrication process from the earliest stages …"[9] Elsewhere, Kolarevic writes that "designers who engage design as a broadly integrative endeavor fluidly navigate across different disciplinary territories, and deploy algorithmic thinking, biomimicry, computation, digital fabrication, material exploration … to discover and create a process, technique, or a product that is qualititatively new."[10] Toshiko Mori states: "The age of mechanical production, of linear processes and the strict division of labor is collapsing around us."[11]

Architecture van Brandenburg works as an ecology wherein they are sculptors, designers, architects, builders, painters, ceramicists – whatever the Marisfrolg project needs is paramount at any given point in their process. In an age of digital fusion in integrative design, they retain the handmade, the tactile epistemology of the crafts and the sculptor's sense of the volume and weight of materials, while embracing the digital in all its aspects. Inspired by the work of Antonio Gaudi, Fred van Brandenburg and his team set out to research geometric codices to enable nature-inspired forms to be built in a practical way.

Figure 4.

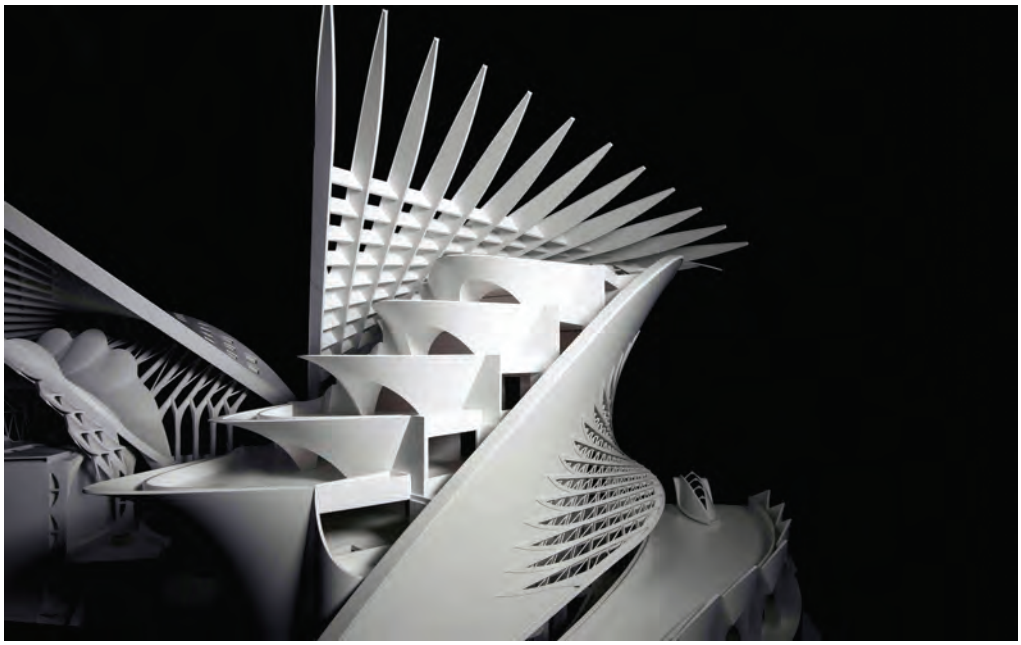

Figure 5.

CRAFTING

In the Marisfrolg project, the Architecture van Brandenburg way combines soaring lightly, like a bird on the wing, with grounding the building in the material and crafted properties of brick, stone, ceramic tile elements and painted detail. Following on from Rosalind Krauss's seminal article "Sculpture in the Expanded Field" published in 1979, Anthony Vidler responded with his paper on "Architecture's Expanded Field" in 2013. The notion of an "expanded field" critiques traditional boundaries between disciplines and materialities. Sculpture in an expanded field interfaces traditional techniques with the digital, with earthworks, with the filmic and so forth in order to respond to our time and its particular issues. Architecture has been more reticent, maintaining its autonomy far longer and understandably so in the light of its particular socio-economic responsibilities. Even recently, Vidler argued against the conflation of architecture with the other arts.[12]

Another tension thus reverberates around the practice of Architecture van Brandenburg: not only the ecological versus the humanist; but also the expanded versus the autonomous. Their focus on biomimicry places them firmly in the ecological camp; and their interest in the craftedness of their buildings aligns them with the recently expanded field of architecture. In the background one remembers Gaudi's organic forms and his ceramic details, but also Le Corbusier's interest in the crafted details achieved through his use of coffered concrete.

UNFURLING

Architecture Van Brandenburg is currently channeling their range of interests and alignments towards the realisation of the Marisfrolg project in Shenzhen, comprising 120,000 square metres of building consisting of a giant catwalk, a research and development area, spaces for manufacturing, warehousing, offices, a boutique hotel, restaurants and

other amenities for workers and visitors, underground parking areas, and project spaces. This ambitious project is made more so through Architecture van Bandenburg's insistence on the creative interplay between the haptic experience of touch and the visual integrity of the complex; between biomorphic inspiration and the practicalities of built forms; between integrative design in the expanded field of architecture and the architecture-specific demands of the project; and between immense scale and the crafted details provided by artists.

Spaces open to the elements, natural forms unfurl like leaves or protect space like a shell, a central space soars in oblique reference to medieval cathedrals created before the rifts between architects and others involved in the building process – Architecture van Brandenburg's work creates the 'qualitatively new,' which is more than the sum of the parts discussed. And: it's not just the product which is qualitatively new, but also the ecologically inspired direction in international architecture to which Architecture van Brandenburg is creatively contributing from New Zealand.

EXHIBITING

During 2014, Architecture van Brandenburg shows its handcrafted models for its Marisfrolg project in the rooms of the Museo Diocesano di Venezia Sant' Apollonia in Castello near the Doge's Palace and St Mark's Square. In these spaces, the pieces act as sculptures between which the viewer can draw architectural connections before finding the model of the whole project near the exit. The biomorphic forms incorporated into the models sit inside the elaborately arched interiors of the museo – inspiration from natural forms translated into geometric solutions across centuries: earlier for architectural purposes in a confident era; now performing a new direction for survival in our era of understandings around the fragility of our world.

When asked about his ambitions, architect Rem Koolhaas is quoted as saying: "It is to keep thinking what architecture can be, in whatever form."[13] Architecture van Brandenburg is participating fully in the discourses prevalent in architectural conversations today, adding their own unique voice to international discussions and to how these are being deployed in our time.

Leoni Schmidt is head of school and a full professor in the Dunedin School of Art at Otago Polytechnic in Dunedin. She oversees staff research and postgraduate studies, supervises candidates in the postgraduate programmes and oversees academic quality in the School. Her own research focuses on contemporary drawing and its political agency. In 2011 she recieved the Award for Sustained Excellence 2011 by the AKO Aorearoa National Centre for Tertiary Teaching Excellence.

1 In this city, Architecture van Brandenburg interfaces through public seminars with Otago Polytechnic, specifically with its School of Design and its Dunedin School of Art, and a number of Otago Polytechnic alumni are employed by the firm.

2 Boris Groys, "Art in the Age of Biopolitics: From Artwork to Art Documentation," in *Art Power* (Cambridge, Mass.: MIT, 2008), 64.

3 Leslie Sklair, "The Transnational Capitalist Class and Contemporary Architecture in Globalizing Cities," *International Journal of Urban and Regional Research*, 29:3 (2005), 485-500.

4 Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (New York: John Wiley, 2005); idem, *Encounters: Architectural Essays* (Helsinki: Rakennustieto, 2005); idem, "Hapticity and Time: Notes on Fragile Architecture," *Architectural Review* (May 2000), 78.

5 Quoted from email correspondence with the author dated 1 April 2014.

6 Ir. A D C Pronk, Monique Blacha and Anne Bots, "Nature's Experiences for Building Technology," in *IASS-SLTE Book of Abstracts: New Materials and Technologies, New Designs and Innovations*, ed. J G O Salinas (Acapulco: Ajusco Coyoacan Grupo Editorial Formato, 2008), s.p.

7 Michael Pawlyn, *Biomimicry in Architecture*, 2011, http://www.ribapublishing.com: 1-2 (accessed 13 April 2014).

8 Joe Kaplinsky, "Biomimicry versus Humanism," *Architectural Design*, 76:1 (2006), 66-71; see abstract.

9 Branko Kolarevic and Kevin Klinger, eds, *Manufacturing Material Effects: Rethinking Design and Making in Architecture* (London: Routledge, 2013).

10 Branko Kolarevic, "Architecture in the Post-Digital Age: Towards Integrative Design," *Architecture in Computro: 26th eCAADe Conference Proceedings*, Antwerp, Belgium, 17-20 September 2008 (Antwerp, Belgium: The Higher Institute of Architectural Sciences, Henry van de Velde, 2008), 653-58, at 653.

11 Toshiko Mori, ed., *Immaterial/Ultramaterial: Architecture, Design, and Materials* (New York: George Braziller, 2002), xv.

12 Anthony Vidler, "Architecture's Expanded Field," in Krista A Sykes, *Constructing a New Agenda: Architectural Theory 1993-2009* (New York: Princeton Architectural Press, 2013), 318-331.

13 In an interview with Jennifer Sigler in *Index Magazine*, 2000, http://www.indexmagazine.com (accessed 13 April 2014).