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**A World in Making:  
Cities Craft Design**  
Edited by Suzie Attiwill



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E P R E S S



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# A world in making

Suzie Attiwill

The call for papers for this issue invited contributions that attend to and address craft and design practices in relation to the urban environment when, for the first time in history, more than half the world's population lives in cities. Titled *A World in Making. Cities Craft Design*, the call played with different inflections of 'a world in making': as an immersion *in* a world of making, of craft and design, of practitioners and practice, of matter and techniques, and an approach to understanding 'world' as something made and always in making — 'a worlding' (Massumi 2002: 128; Murphie 2008: 2).

The in-ness of 'a world *in* making' flags the interests I bring to the topic of craft and design in this issue #5 of the *craft + design enquiry* journal. My practice and research is situated within the discipline of interior design. Through practices of interiorization, the question 'interior' is posed as a contemporary problematic where interior is not defined in advance as being inside something, but is produced through designing. I am interested in interior design as a practice of interior-making, which attends to questions of interior and interiority in relation to habitation (Attiwill 2013).

Urban Interior, a research group with which I am involved, addresses these issues through a focus on the relation between people and the urban condition, and the material, sensory, physiological, cultural and experiential dimensions that create and affect social relations. Questions posed by the group include: What might be the contribution of design disciplines to new modes of urban inhabitation? How can temporary, interrelated design actions in urban conditions mediate the qualities needed to sustain and enrich the increasing inhabitation of urban areas? Within this research group, I am interested in the conjunction between urban and interior in relation to the built fabric as well as people's relation to and inhabitation of the urban environment — physical, psychological and social.<sup>1</sup> I invented a persona for this practice — an 'urban interiorist' — who attends to the conjunction of urban + interior through a range of techniques and experiments.<sup>2</sup>

My interior design practice is also shaped and influenced by craft. From 1996 to 1999 I was the artistic director of Craft Victoria — a craft organisation in Melbourne, Australia — where I learnt the potential of craft. During this time I was the editor of *Craft* — Craft Victoria's magazine — which became a critical

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1 This refers to Félix Guattari's concept of the three ecologies: environmental (physical), mental (human subject) and social (relations) ecologies (Guattari, 2008).

2 Publications include: (Attiwill 2011; 2008).

vehicle for the publication, advocacy and dissemination of the value of craft. In a curious coincidence, Urban Interior held one of its events, *Urban Interior Occupation*, in the Craft Victoria galleries during September 2008.<sup>3</sup>

Plied with an interior design practice, craft works with spatial and temporal concerns to produce a space crafting that is attentive to signs of matter, a privileging of the haptic (a tendency that invites close attention) as distinct from the optic (a tendency towards detachment), a working and reworking that differs from design techniques of abstraction.

The effects and affects of craft in relation to design were invited to be explored in the call for papers for this issue:

Nuances of craft — a practice which values making and materiality — will be foregrounded in the selection of papers for publication. This emphasis on craft does not exclude design so much as bring attention to practices of design which engage ideas of making and materiality, where there is a sense of a hand(s) in making, a valuing of haptic encounters and an attention to the relation between people and surroundings. From small to large-scale projects, from individuals to communities, an intimate approach to the question of how people inhabit and transform the urban environment is invoked.

## In/habitation

Both craft and interior design are practices situated between people and things and/or environments, making relations of closeness and immediacy as lived, live and living relations.

As such, both practices have much to contribute to modes of habitation and the urban environment. Considering this issue now, in relation to the contemporary city, the transformations of cities over the past century becomes apparent in a comparison between Australia's capital city, Canberra, in the year 2013 and the year of its founding, 1913.

Again, from the call for papers:

On 12 March 1913, a naming ceremony took place in an empty paddock on a hill. This rural environment was to become a city, the capital city of Australia, the city of Canberra. The aspirations and the projections of the Griffins' winning design for Canberra are an example of a world-in-making involving the practices of design and craft. This issue of *craft + design enquiry* will be published in 2013 — 100 years after this event and when, for the first time in history, more than half the world's population lives in cities ...

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3 Visit Urban Interior website: <http://www.urbaninterior.net/index.php?action=pdetails&option=35>

The twenty-first century has been called 'the century of the city' (Tibaijuka 2010) due to significant shifts in urban population and the impact this is having, and will have, on cities and urban density, as exemplified in the emergence of meta-cities with populations of 20 million people. Concepts of place and modes of living are brought into question. Precedents from previous centuries have become inadequate as references to work with and address contemporary forces of globalism and mass migration. The world is not coded as it was before; there is a diminished feeling of being in place. 'Globalisation has evicted us from the world we thought we knew'. (Buchanan & Lambert 2005: 7) Relations between environments and people have changed significantly; in particular with regard to spatial relations, such as public/private, inside/outside, near/far. A sense of remoteness and vastness couples with technological immediacy and produces a loss of human scale and proportion. Movement and mobility have produced a mobile subject where 'we are doing the lurching, not the earth'. (Buchanan 2005: 19)

In the midst of these forces, the potential of craft and design practice is posed with a focus on making and attending to the contemporary urban environment of cities. In the call for papers, I used a quote from philosopher Elizabeth Grosz's essay 'The thing'. I return to this text to think about objects and craft as it provokes a rethinking not only of objects but also the question of the subject in relation to making.

Grosz writes:

The thing is the precondition of the living and the human, their means of survival, and the consequence or product of life and its practical needs. The thing is the point of intersection of space and time, the locus of the temporal narrowing and spatial localisation that constitutes specificity or singularity.

The following is an extended quote, completing the abbreviated text that was included in the call for papers:

The thing is what we make of the world rather than simply what we find in the world, the way we are able to manage and regulate it according to our needs and purposes ... The thing is an outlined imposition we make on specific regions in the world so that these regions become comprehensible and facilitate our purposes and projects, even while limiting and localising them. Things are our way of dealing with a world in which we are enmeshed rather than over which we have dominion. ... It is our way of dealing with the plethora of sensations, vibrations, movements, and intensities that constitute both our world and ourselves ...

We make objects in order to live in the world. Or, in another, Nietzschean sense, we must live in the world artistically, not as *homo sapiens* but as *homo faber*. (Grosz 2009: 125, 126, 128)

Here, making involves relations with movement — a slowing down, to coalesce, to stabilise and enable inhabitation through making specific, producing a

‘temporal narrowing’ and ‘spatial localisation’. This is not only a process, say, of making objects and physical space within which social relations can happen, such as eating, sleeping or entertaining; it is also a process that makes subjects. ‘To meld the world into things ... to fit the needs of the living ... making oneself as one makes things’. (Grosz 2009: 130)

The potential with this way of thinking and also as a positioning of, and for, craft and design practice is extended in this issue to jewellers, weavers, architects, interior designers, graphic designers, product designers, service designers, design historians, landscape architects, urban designers, ceramicists, potters, woodworkers, furniture designers, textile printers, knitters and readers. In this issue the potential of craft as a vital practice in the twenty-first century is posed through an attention to the crafting/making of relations, to reconfiguring matter in the making of objects, subjects and spaces. Attending to the human subject in a haptic world, and the kinds of social relations that emerge from this making and the physical environment — the world in making — enables an inhabitation of cities as a counterpoint to the vastness and remoteness of globalism.

Questions posed in the call for papers were:

What are the potentials in ‘this century of the city’ for craft and design practices?

What is the contribution of craft and design to cities and live-ability?

What might a craft sensibility bring to urban inhabitation?

What of an expanded idea of craft practice as a way of working and thinking which addresses spatial and temporal urban conditions?

What of the emergence of new forms of practices to engage in the condition of the urban environment and the social, political and cultural forces of the twenty-first century?

## Worlds in making

Each paper invites the reader in, into a worlding produced through different techniques and matter. The papers are produced through practice, through doing as thinking and thinking as doing (Grosz 2001: 59); where research *through* practice immersed in issues, momentums, interests and forces produces a paper that gathers, brings in close and arranges in a way which enables habitation of a singular world in making.

This issue, too, is a worlding. As a guest editor, I was curious to see what papers might be submitted, what could be collected and arranged. The arrangement of papers alphabetically according to surnames was to avoid a thematic clustering and enable readers and myself to move through the papers and journal in a way that was not predetermined by themes and classification. I was keen for a multiplicity of encounters and different connections to be made with each



reading and re-reading. Some surprising connections are drawn here in the following text as a way of inviting you into each of the papers, to enable a mobility between them: to begin in the middle, from the back, or here with Jacqui Chan's 'Jewellery, the urban milieu and emergence'.

Chan's paper invites the reader into a series of projects connecting jewellery and cities, specifically the cities of Melbourne, Ramallah and Christchurch. Her making process engages with the material flow of these cities to slow down and reconfigure matter into brooches. In different ways, people are then invited to wear a brooch and move through the city — the urban milieu — making relations. This process transforms people's sense of where they are and invites them to notice differently; qualities surface as affects and intensities create feelings of specificity and connection. Her practice also transformed as she 'came to realise that colourising someone's experience, fostering a state of wonderment or provoking interactions with the city was a radical thing for jewellery to do'.

'The generative loom: tapestry in the community' presents a practice of weaving situated within a public space. Woven strips of photographed textile objects from other places are reworked to produce a map of the City of Charles Stuart. People passing slow down to watch Kirsty Darlaston weave and in the process, make connections with their own experiences. Darlaston writes about 'a dance of subjectivity' that takes place between the maker and those watching her weave. Distant times and spaces — Iran, Afghanistan and Australia — are brought close together in this world in making and, in a haptic way, they are made present to produce a new space and time. A world in making; 'a tapestry *in the community*'.

Emergence, a quality in the above two papers, is a focus of Michael Davis's enquiry through his practice as an architect. 'Pursuing a sense of the emergent through craft practices in architectural design' takes the reader into a world in making — Davis's world. It is detailed, rich, thoughtful, precise, evocative, crafty, sensitive, skilful, humorous; the reader moves with Davis through a series of projects to think through how the craft aspect of architectural design practice — the representational practices of drawing and model-making — might become present in architectural outcomes. How through the making of representations, 'the attentive practitioner' can distinguish this crafting experientially; to 'develop a feeling for the implications of the artefact being represented at smaller and larger scales — from detail to context, from the front door step to the city'.

The question of representation carries through into 'Crafting the imaginary: The deteriorating idea and sentimental plan of the ideal city'. Erin Hinton and Craig Bremner bring urban design and planning, the practice of making images and the production of the public imaginary together with craft and a practice of crafting. Here, the abstraction of the city through the plan is seen as one which engages crafting, where the plan becomes matter and is distinguished from the ideal plan as a preconceived idea that is imposed. The crafting process requires a dialogue between practice and thinking; '... craft demands listening to its material.' The process of craft — its 'scale, repetition, and purposefulness

of the process’ — allows for the inclusion of consistent interrogation. Hinton and Bremner propose this practice of crafting as an urban practice where ‘the constant repair of the fabric and image of the city’ becomes ‘the nonstop project of craft’.

Processual and hapticity also permeate the landscape architecture practice of Marieluisse Jonas and Heike Rahmann situated in urban voids, *terrain vagues*, overlooked spaces of cities, specifically in Tokyo and Melbourne. Poised as a dynamic urbanism, the challenge of this practice is to intervene in these incidental and delicate spatial and temporal compositions in a way that does not colonise them and submit them to purposeful designs, but enables encounters with landscape and nature as difference. Many cities within one city become apparent. These transitory, fleeting, contingent and poignant moments continually change and transform — a dynamic urbanism. The scale here is different from that usually equated with urbanism — here there is a focus on the experiential, 1:1 scale between people and their surroundings, an attentiveness to that which usually is unnoticed; fostering and nurturing social relations and subjectivities that value the attentive, curious and caring. A practice of both doubt and reward that involves different ways of valuing from that of predetermined measurable outcomes is produced.

Adjacent to these spaces of *terrain vague*, Matthew Kiem’s paper positions the Griffins’ design for the capital city of Canberra as a project which effects a total designing: ‘(Un)making Canberra: Craft and the designing of settler-colonialism in Australia’. In this paper, we also encounter the idea of the city as plan, however, here, design is coupled with the making/(un)making practice of the historian. Kiem’s history questions the celebration of craft and design via the Griffins’s design for the capital as ‘an evocative communication of an imaginary space’, noting that this making is also an unmaking; that a world in making, unmakes other worlds, here the ‘Ngambri worldhood’. Kiem’s project is a history design — a ‘design towards decolonial sustainment’. In drawing attention to the dynamics of making and unmaking, the emphasis shifts from ‘what’ to ‘how’ and, with this, ethics.

‘Crafting social innovators: Designing collaborative, participative, networked solutions in urban contexts’ details a series of design studios which engage future designers as well as citizens with processes of learning through doing in relation to developing communities, moving beyond an understanding of design as functional and towards design as a process of producing collaborations and networks. These projects and practices produce what Marzia Mortati and Beatrice Villari have termed a *temporary community of makers*: ‘temporary’ around a particular project; ‘community’ as a ‘collective subject’ that is different to the sum of its parts, for example, citizens; ‘makers’ in that ‘the community originates to *make* something that is designing and developing an idea in particular contexts, sharing languages and tools’.

Productions of temporary communities and networks also thread through Mark Richardson, Susie Elliott and Brad Haylock’s paper ‘This home is a factory:

implications of the Maker Movement on urban environments'. They articulate a reconfiguration of the design process as one of distributed making where home becomes factory. The previous separation between industrial and residential — a defining division of cities — is no longer relevant and what we see and experience is a 'conflation of domestic, industrial and retail zones'. There are now "maker-friendly" cities, new objects and subjects, and the role of designer and maker is recombined in new ways to produce a global network of innovators.

## In

The papers in this issue invite the reader into worlds that are in process of making and unmaking, emerging, mobile and changing; producing subjects, objects and spaces; enabling temporal clusters as temporary communities where each person becomes maker and participant in a creative process.

During the process of making this issue, assumptions about craft became apparent as some people struggled to understand the potential between craft practices and cities. The familiar role of craft within the urban context is as a form of public art, however, as you read through the papers, many other practices which connect craft and cities become apparent and, in turn, transform understandings of craft practice and its contribution. The struggle to bring craft and cities together is perhaps due to a perceived disjunction between the intimate scale of craft and the complexity of cities. Yet, it is this disjunction between craft and cities, between different scales, between intimacy and remoteness, that heightens the poignancy and potency of craft practices in this contemporary globalised world. The papers here contribute to grasping the potential of this practice in their detailed forays into cities and practice to produce worlds in making, where craft and design practices are engaged with as vital urban practices, as practices of cities.

While implicit in the call for papers, an attention to 'how', as distinct from 'what', also becomes apparent and, hence, the effect and affect of practices and techniques in making and (un)making come to the fore. And, with this, an emphasis on ethics and the value of what is produced for whom, by who and when. The question of proximity, then, becomes one of the relation between 'the creation of values and the production of subjectivity' (Arnott n.d.).

The word 'intimate' has been used to conjure this value of craft in producing connections of a human scale; a hapti(city), close to hand. There is a further connection with an observed, contemporary view of the modern city as an intimate metropolis 'predicated on the concept of the private individual, and on the sanctity of the individuals; inmost thoughts and feelings' (di Palma et al. 2009: 1). The craft and design practices offered here shift from intimate, as ego, to an idea of connections that are close and haptic; where outcomes are not determined in advance but through doing, through doing as learning, crafting as a particular and singular relation with making and matter.

This issue of *craft + design enquiry* is a vehicle for thinking through the potential and qualities of this practice within the contemporary situation of urban density and globalism in 'the century of the city'. On behalf of each of the papers, as a world in making, addressing cities, craft, design I invite you in ...

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# Jewellery, the urban milieu and emergence

Jacqui Chan

*Abstract:* This paper traces a practice-led enquiry into the question of how jewellery — as a practice and an artefact — can engage the city in terms of emergence. While jewellery is often understood to have a decorative, symbolic or communicative function, this research explores jewellery's immersion in and emergence from the urban context. Coming from a background in architecture, I am interested in approaching the city as an extended site for jewellery: both the lived situation within which jewellery is worn, and a rich material resource for its production; and, where jewellery is sited between mobile bodies and these urban surroundings.

This practice-led research adopts the analogy of the saprophyte — an organism that decomposes organic matter and recirculates nutrients through its ecosystem — as a logic for exploring how making and wearing can feed off and back into the material ecology of the city. This paper shares four projects that respond to specific urban situations — Melbourne, Ramallah (Palestine), Chinatown (Melbourne), and Christchurch — discussing what emerges within each situation, and what these projects offer for thinking about jewellery — as a practice and an artefact — and its relations with the city.

## Introduction

*How can jewellery — as a practice and an artefact — engage the urban milieu in terms of emergence?*

This question has been the focus of a series of projects that explore jewellery's relations with the city. While jewellery is often understood to have a decorative, symbolic or communicative function, this practice-led research explores jewellery's immersion in and emergence from the material ecology of the city.<sup>1</sup> Coming from a background in architecture, I see the city as an extended site for jewellery — both the lived situation within which jewellery is worn, and a rich material resource for its production — with jewellery sited at the mobile interface between bodies and their urban surroundings.

In questioning how jewellery practice might engage the urban milieu I adopt the biological analogy of the saprophyte (which I will introduce below) as a logic for exploring how making might feed off the urban context and feed back into it through wearing. This inquiry is also influenced by the concept of emergence — a concept from complexity theory that describes the unpredicted appearance

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<sup>1</sup> This research is part of a practice-led PhD at RMIT University, provisionally titled 'Jewellery in the Urban Milieu: Explorations in Emergence' (to be completed in 2013).

of new and novel features within systems. This has enabled me to approach practice as a series of relations and processes that encourage unplanned outcomes, and to foster the attitude of not-knowing-in-advance.

This paper begins by introducing the question of jewellery's relation with the city and outlines the concepts of the saprophyte, emergence and the urban milieu that inform the practice. It then charts the emergence of this practice through four recent projects — that respond to specific urban situations: Melbourne, Ramallah (Palestine), Chinatown (Melbourne), and Christchurch; discussing what emerged through the projects for practice and for thinking about jewellery's relations with the city. Through these projects, both making and wearing are explored as processes for engaging with these situations in ways that open up new possibilities. These yield not only jewellery artefacts, but new relations with and experiences of the city, and insights into jewellery's potential to activate relations between bodies and their urban surroundings.

## Jewellery and the city

My thinking about jewellery is influenced by my background in architecture; where I have come to see architecture as a dynamic material and social formation that engages with specific contexts, bodies and forces. Architecture is not merely a combination of form and matter, but is animated by day-to-day rhythms of inhabitation, weather and gradual processes of change over time. This influences my interest in jewellery's relation to specific *contexts*, and how it *performs* in the world — particularly in terms of its sites, mobility and how it forms connections. Furthermore, jewellery's site between the body and the city suggests its potential to mediate relations between people and their urban surroundings.

Coming from Aotearoa / New Zealand, I see my interest in jewellery's relationship with the city as extending a pivotal question within New Zealand contemporary jewellery of how to engage 'the local'. Since the international exhibition *Bone, Stone, Shell* of 1988, contemporary jewellers have looked to the local context of Aotearoa and the Pacific — rather than Europe — in an effort to redefine Aotearoa as a bicultural rather than colonial nation. The tendency has been, however, to engage the local either at an overarching level of ideas of cultural identity, or to depict idyllic natural environments distanced from the realities of urban life. This paper presents explorations of how jewellery practice might actively engage the often less idyllic conditions of the urban context through both making and wearing.

In the context of more recent contemporary practice, the practice that emerges from this inquiry also coincides with what might be described as expanded jewellery practices. With strategies such as street performance, public jewellery installations, alternative modes of distribution, community making workshops, and interviewing wearers about jewellery, such practices expand beyond



contemporary jewellery's traditional focus on the crafted artefact, the studio and the exhibition. Increasingly, jewellers are also concerned with relations formed around or through jewellery between makers, wearers, communities and places, often in connection with current social, political or environmental issues.<sup>2</sup> Within this burgeoning field the projects presented in this paper contribute by developing a practice that both responds to specific urban situations through making, and explores how the experience of wearing might affect relations between wearers and those surroundings.

## The saprophyte

To explore how jewellery can engage the urban milieu, the saprophyte is adopted as an operational analogy. This term refers to organisms — such as some fungi — that live by decomposing organic matter and releasing nutrients to their ecosystems. They embody an embedded and reciprocating relationship with a surrounding ecology based on transformative material processes.

I first encountered the term saprophyte as a proposition for architecture in an editorial in *Domus*, 'In praise of saprophytes', in which Flavio Albanese proposed the saprophyte as a model for a 'truly contemporary architecture':

A crossover, an unstable and impermanent discipline, a saprophytic machine capable of incorporating and metabolising at different levels the physical and cultural materials of today's space, in order then to put them back into the cycle of life reassembled in different sequences. (2008)

Albanese speculated that the concept of the saprophyte might shift architecture 'from production and accumulation (implying the erection of new monuments) to the interception and transformation of objects and concepts already present in our environment ... (where) its aim is to find solutions and contexts not yet thought of or tested' (2008).

I have connected with this proposition in jewellery because it offers a way of linking making practice with an ecological conception of the city, proposing that jewellery might transform things already in circulation and enable their recirculation through wearing. Additionally, by instigating nutrient-cycling, the saprophyte embodies the potential for tiny, seemingly insignificant entities — such as jewellery — to have a significant bottom-up effect on larger systems.

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2 A short, and by no means exhaustive, list of practitioners working in this area of the field include Mah Rana (United Kingdom), Suzanne Pietzsch (Germany), Susan Cohn (Australia), Roseanne Bartley (New Zealand, Australia), Yuka Oyama (Japan, Germany), Gabriel Craig (United States), Caz Guiney (Australia), Areta Wilkinson (New Zealand), Kristin D'Agostino (United States, New Zealand), Marie Erl (New Zealand), Ted Noten (The Netherlands), Ana Cardim (Portugal), Ethical Metalsmiths (United States).

## Emergence

A key feature of the saprophyte is its capacity to produce something new within a given situation and, as a result, the concept of emergence has also been central to how I approach these explorations. Within complex systems, emergence refers to the appearance of new or novel properties and capacities through the interaction of multiple parts or evolution over time.<sup>3</sup> Emergence has been used to describe a plethora of complex interactions, from ant colonies and weather formations to economic markets and artificial intelligence. Although emergence is arguably a feature of all creative practices, actively foregrounding emergence has enabled my explorations in making and wearing to become oriented towards open-ended processes that encourage unanticipated outcomes and unfold through an ensemble of relations. In positioning such a practice as research, the concept of emergence also fosters an attitude of not-knowing-in-advance, where experimentation sets processes in motion to see what emerges for both practice and thinking.

## The urban milieu

Throughout this paper I use the term ‘urban milieu’ to evoke the dynamic ecological dimensions of the city as a temporal-spatial situation in which we are enmeshed. Whereas terms such as ‘the city’ or ‘the urban environment’ emphasise the physical terrain or architectural structures of the city, ‘milieu’ invokes the surrounding or medium in which things are immersed. In biology it names a block of space-time relative to the living organism and is the basis of the organism-plus-environment unit of survival;<sup>4</sup> while, in French geography, the term was introduced by Vidal de la Blanche to study how human groups adapt to and modify their natural surroundings (Mercier 2009). In particular, for this practice, Jakob von Uexküll’s notion of the *umwelt* — the behavioural milieu or bubble-world shaped by an organism’s sensory capacities and functional needs (Uexküll 2001; 2010) — has been useful for thinking about the experiential relations between the body and the city, and how processes and individuals reciprocally are affected by and have the capacity to affect a surrounding milieu. The term ‘urban milieu’, therefore, positions the city as a collective milieu — a milieu of milieus — that is produced and evolves in relation to its inhabitants, while being part of vaster geological and ecological systems.

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3 The notion of the ‘new’ or ‘novel’ refers to the appearance of properties, capacities or a level of coherence not formerly evident in a system or its parts. As DeLanda writes, what is produced is ‘not new in the absolute sense that something emerges that has never existed before but only in the relative sense that something emerges that was not in the interacting entities acting as causes’ (DeLanda 2011: 2).

4 In *Philosophie zoologique* (1809) Lamarck proposed that the environment determines the adaptive evolution of organisms, contrasting Charles Darwin’s later theory that evolution is primarily affected by relations between living things (genetics and natural selection) (Canguilhem 2001: 12–14).

I will now discuss four projects that have explored the analogy of the saprophyte as logic for how jewellery can engage the urban milieu in terms of emergence. The projects have involved phases of milieu-explorations, material-transformations and wearing-projects. I will briefly discuss key aspects from each project in order to convey the overall trajectory of the research.

### ***Urban Metabolism Series, Melbourne, 2009–ongoing***

*Urban Metabolism Series* was an early phase of the PhD, based in Melbourne, where I began exploring the saprophyte as a diagram,<sup>5</sup> or set of procedures, for making. This involved processes of exploring the urban milieu, gathering materials and transforming them into new configurations. This project initiated questioning of relations between jewellery, the body and the city, and explored making as a process of emergence.



Figure 1. *Urban Metabolism Series*, 2009.

Photography: Jacqui Chan

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5 By 'diagram' I mean a set of generative operations that encourage the emergence of new possibilities. For example, in relation to the paintings of Francis Bacon, Gilles Deleuze describes the diagram as a strategy for ridding the blank canvas of clichés through random 'nonrepresentative, nonillustrative, nonnarrative ... asignifying' marks through which 'new possibilities of fact' (and the figure) emerge (Deleuze 2004: 71).

From the outset, the process of retrieving materials from alleyways, dumpsters and construction sites allowed me see the city as a *material ecology*: a continual flow of materials — food, products, waste, construction, demolition, (bodies) — into which practice might intervene, divert, transform and circulate anew. Approaching the city as a material ecology invoked political scientist Jane Bennett's view that 'humans are always in composition with nonhumanity, never outside of a sticky web of connections or an ecology'; describing an ecology as 'a dynamic flow of matter-energy that tends to settle into various bodies, bodies that often join forces, make connections, form alliances' (2004: 365). In *A Thousand Years of Nonlinear History* Manuel DeLanda also highlights a material connection between the city and the human body, on a more evolutionary timescale. He describes cities as 'human exoskeletons' that have emerged as part of the evolution of the human organism: just as their internal counterparts, bones, enable mobility of the body, this external mineralisation of the body (bricks and mortar) enables and controls movements of matter-energy, such as food, commodities and bodies (DeLanda 1997: 27–28).



Figure 2. *Urban Metabolism Series*, 2010.

Photography: Jacqui Chan

Exploring the city on foot also drew attention to the experiential and peripatetic relation between the body and the city, and jewellery's site between them. As Elizabeth Grosz reminds us, bodies and cities are not discrete entities but involve:

assemblages or collections of parts, capable of crossing the thresholds between substances to form linkages ... (whose) interrelations involve a fundamentally disunified series of systems, a series of disparate flows, energies, events or entities, bringing together or drawing apart their more or less temporary alignments. (Grosz 1995: 108)

With respect to these dynamic relations between the body and the city, I was particularly interested in the brooch as one of the most public forms of jewellery, visibly sited/sighted on the body, being relatively free of gender associations; and having a degree of autonomy as a material thing that attaches to the body — without its form being determined *by* it (like a ring or a necklace) — to produce an *encounter*.

In sketching the spatial relation between the body-as-site and the extended-site-of-the-city, the brooch occupied the interstitial zone between the matter of the body and the city, and I was curious to articulate and mediate relations between them. If, as Georg Simmel (1950) might insist, jewellery traces a vector of expression *from* the wearer *toward* the world, I questioned how this vector might be reversed to approach jewellery as a thing through which the materiality of the city becomes expressive on the body, drawing attention towards one's surroundings rather than one's self.

In the making, the saprophyte suggests a set of procedures for transforming materials in a way that explores emergence. The aim was to find processes for metabolising and reassembling materials through which new formations could grow. This began by testing a range of techniques to break materials into components, and the challenge was not to simply aggregate these into new assemblages — as I did with early experiments, where fragments of various materials were connected via a base structure — but to find ways of manipulating the components to transform them into *unplanned* self-supporting structures.

The ongoing *Urban Metabolism Series* developed a self-generating, weaving-like process involving fine strips joined together by a repeated, folded connection. Folding offered a simple action through which the formal, spatial and material properties (e.g., hardness or work failure) of a piece of material could be transformed and reconfigured. This process leant itself to sheet metals — such as commercial cooking oil cans, and off-cuts of galvanised steel and flashings — whose malleability and strength retained the folds and enabled folding to be used as a joining system.



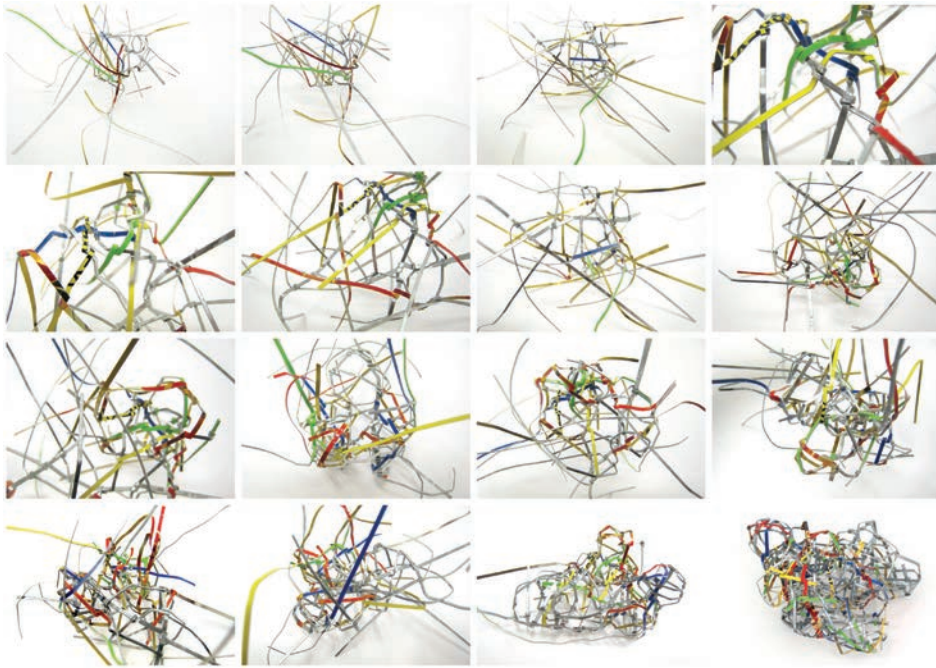


Figure 3. *Urban Metabolism Series*, making process, 2009.

Photography: Jacqui Chan

The process of formation was guided by a simple rule that each strip would be folded to meet another in space, at a precise angle (usually 30 degrees) where it could be wrapped over, down, and back up around the other to be crimped into place neatly beside itself. This repeated action (and the pragmatics of guiding each strip in and out of the structure without damaging its surface) determined where folds were made, which strips could be joined, and the proximity of connections. And, from a chaotic splay of strips, unplanned, nonrepresentational formations gradually crystallised.

What interested me was the process's distinctive relational dynamic where, to allow something new to emerge I needed to relinquish control over the process. As Pia Ednie-Brown observes:

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. (2008: The Pandora's Box of Emergence para. 2)

Rather than coercing materials to fit a pre-defined form or idea, making became a process of *formation* where form emerged through the cooperation of material,

tools, hands and eyes — a dynamic that resembled what John Protevi (2006) describes as *transverse emergence*, where unlike entities form assemblages that enable new properties and capacities to emerge.<sup>6</sup>

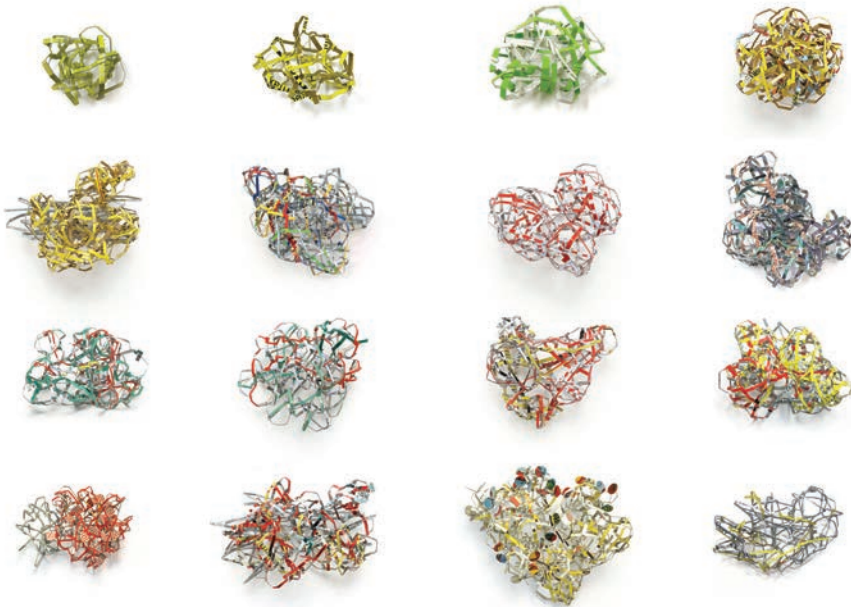


Figure 4. *Urban Metabolism Series*, brooches, 2009–2011.

Photography: Jeremy Dillon and Jacqui Chan

The resulting open-weave structures did not represent the city but indexed their process of transformation from materials of the city, metabolised and attached to the body. Even off the body, the brooches enticed interaction. The repeated folds created an alternating rhythm between the front and reverse sides of the strips, and facets, off which the light glinted, causing it to be turned before the eye to make sense of the form. The potential to peer into their interior also shifted the apparent scale of the structures, evoking multiple associations: graffiti, veins of the body, eco-buildings, subway systems.

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<sup>6</sup> Whereas studies of emergence often concentrate on *synchronic emergence* between like elements — such as flocking behaviour in birds or hydrogen and oxygen atoms behaving as water — or *diachronic emergence* — or evolution — of new forms over time, Protevi adds a third form of emergence that connects with Deleuze's concept of assemblage where connections may form 'transversally' between different organisms, subjects or technologies, as in Deleuze and Guattari's example of horse-man-stirrup assemblage that in sedentary societies enabled agriculture, and in nomadic societies enabled war (Protevi 2006: 28, citing Deleuze and Guattari 2004: 440). This was useful for thinking about both making and wearing as relational processes, through which new properties or capacities might emerge.

## ***Situation Palestine, Ramallah, 2010***

In 2010 my partner took a contract in Ramallah, Palestine. This gave me the opportunity to spend six months there, and to explore this process in a new situation.

This period of work highlighted the relation between practice and its surrounding milieu. The saprophyte offered a logic for working-in-the-midst of this situation as an outsider, welcoming its potentials and constraints as forces on the making. Rather than presuming to understand the situation in advance — to represent or critique it — contingent understandings arose through practice.

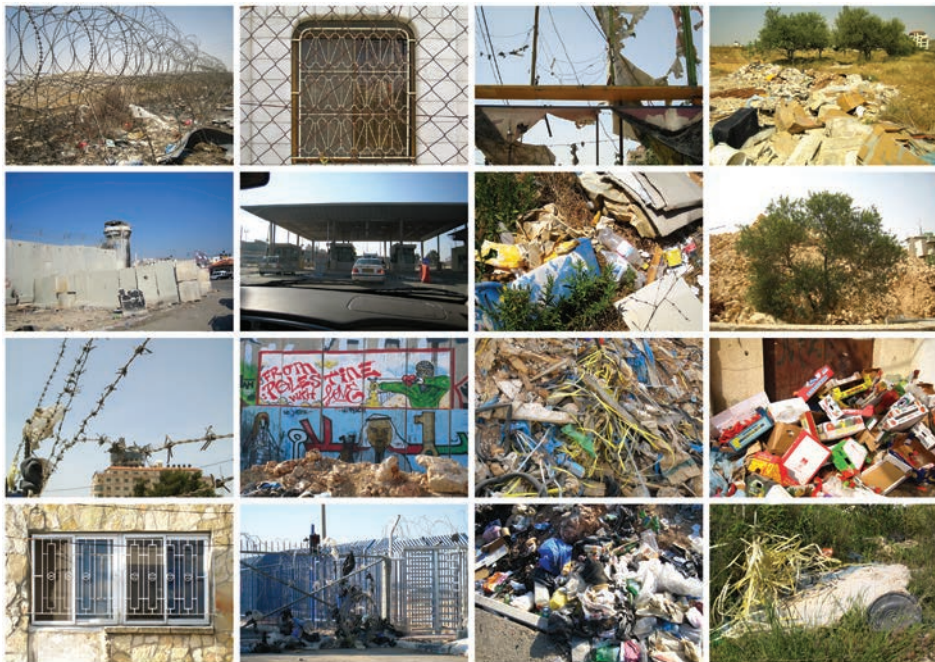


Figure 5. Context photos, Ramallah, 2010.

Photography: Jacqui Chan

Exploring the city and gathering materials, my lasting impression was the contrast between the recurring boundaries, in place to restrict the movement of bodies, and the vibrant and unruly liveliness at the margins. I was attracted to empty sites where the city's flows of materials accumulated and were colonised by rampant weeds, and was struck by the explicit tension between the human and nonhuman aspects of the situation, and the paradox of fighting over the land-as-territory while the environment fell into disrepair.

In relation to the intensely stimulating and often tense circumstances in the street, I became conscious of the spatial divide between the studio and surrounding context. Whereas the logic of the saprophyte suggested full immersion in a



surrounding milieu — for instance, making in the street — in Ramallah, the studio formed a milieu within the extended situation that sheltered a space of experimentation within which selected elements of the situation might be gathered together and processed into something new.



Figure 6. *Situation Palestine*, making process, 2010.

Photography: Jacqui Chan

For the making process, Ramallah presented a new set of constraints, which forced adaptation. The scarcity of ‘quality’ rubbish, for instance, forced an economy of utilising every inch of the found materials to construct the largest possible structures, while being limited to basic hand tools — rather than workshop machinery — allowed for more intricate components; which culminated in a series of brooches woven from olive and vegetable cans.

While making, however, I was caught in a dilemma of exploring emergence in the studio while supposedly trying to ‘engage’ the urban context around me — as the making neither represented the urban context, nor took place within it. But this allowed me to realise that this divide between the making process and the extended situation was *vital*, for it enabled something new to emerge — a *third thing* from this encounter between the saprophytic logic and the potentials of this urban context. Moreover, the incompatibility between practice and this milieu forced adaptation that yielded new possibilities.



Figure 7. *Situation Palestine*, olive brooch, 2010.

Photography: Jeremy Dillon (left) and Jacqui Chan (right)

Surprisingly, despite avoiding representation, the resulting brooches manifest aspects of the surrounding social and political situation. Olives, for instance, are a Palestinian symbol of rootedness to the land, and the cans evoked the struggle to retain land in the face of the encroaching wall and Jewish settlements.<sup>7</sup> They also reflect the contradictions of the political situation, with all the brandnames on the cans being Israeli. The tangled structures also resembled the city's complex, maze-like streets, its undulating terrain and vigorous weeds. This recalls Francis Bacon's diagrammatic approach to painting, where figures emerge through random, nonrepresentational marks, producing resemblance through 'accidental and nonresembling means' (Deleuze 2004: 69).

## Material Migrations, Chinatown Melbourne, 2011

Material Migrations was an opportunity to explore the full life cycle of the saprophyte, engaging the site of Chinatown through *making* and *wearing*. This project grew from an invitation to take part in an exhibition at the Chinese Museum and allowed me to explore how the saprophyte might offer a distinctive mode for engaging Chinatown — beyond its dominant theme of cultural identity.

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<sup>7</sup> The separation wall is often encroaches onto the Palestinian side of the 'green line', and results in the up-rooting of trees or confiscation of whole olive groves. Israeli settlers, illegally occupying hilltop compounds in the West Bank, have also targeted olive crops, either harvesting olives ahead of the farmers, shooting farmers at harvest time or, in some cases, burning the trees.

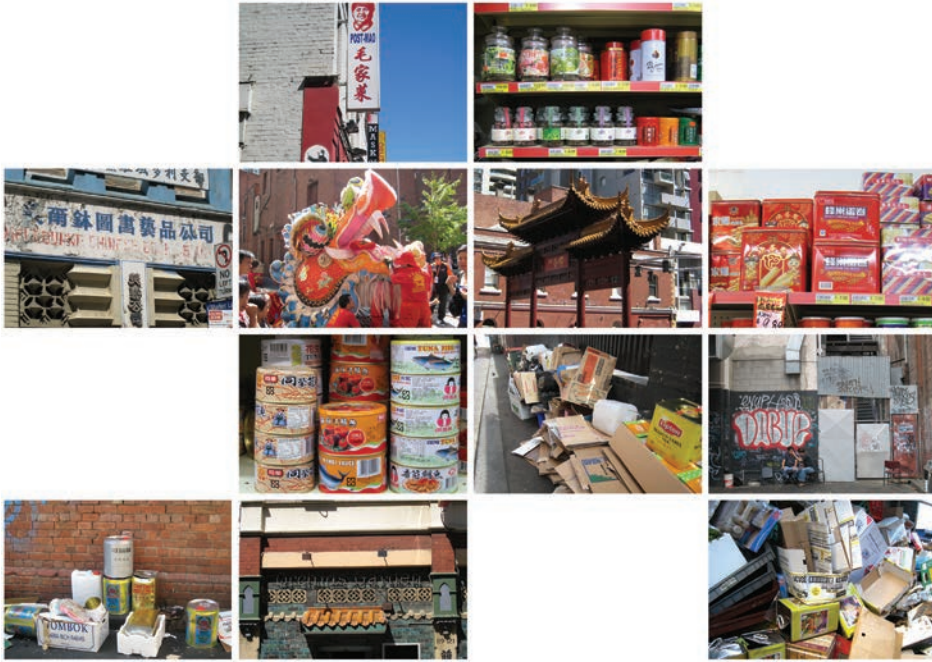


Figure 8. Context photos, Chinatown, 2011.

Photography: Jacqui Chan

The title reflects my desire to engage Chinatown from a material perspective. I noted how materials gathered from restaurant refuse and Chinese supermarkets embodied connections with distant places — through their histories of extraction, manufacture, transportation — as well as the day-to-day flow of products. These trajectories also echoed the routes of migration that have historically composed Chinatown. I therefore came to approach Chinatown as a confluence of flows of materials and bodies linking a network of places: flows into which practice might intervene, transform and recirculate anew.

The project involved making 35 brooches and giving them away to wearers (to keep) in exchange for them wearing the brooches in daily life around Chinatown or further afield, noticing aspects of their surroundings to which the brooches drew attention, and documenting this with photos.<sup>8</sup> The photos were returned by email and added to an accumulating video screened in the museum and on the project blog (<http://materialmigrations.wordpress.com/>).

<sup>8</sup> These brooches were smaller versions of the *Urban Metabolism Series* open-weave brooches, and incorporated more intricate 'blanked' (hand die-cut) components based on the packaging graphics. I specifically wanted to test the affect of this kind of open structure on people's perception of the city, so there was a degree of consistency between the brooches in order to focus on the range of people's responses.

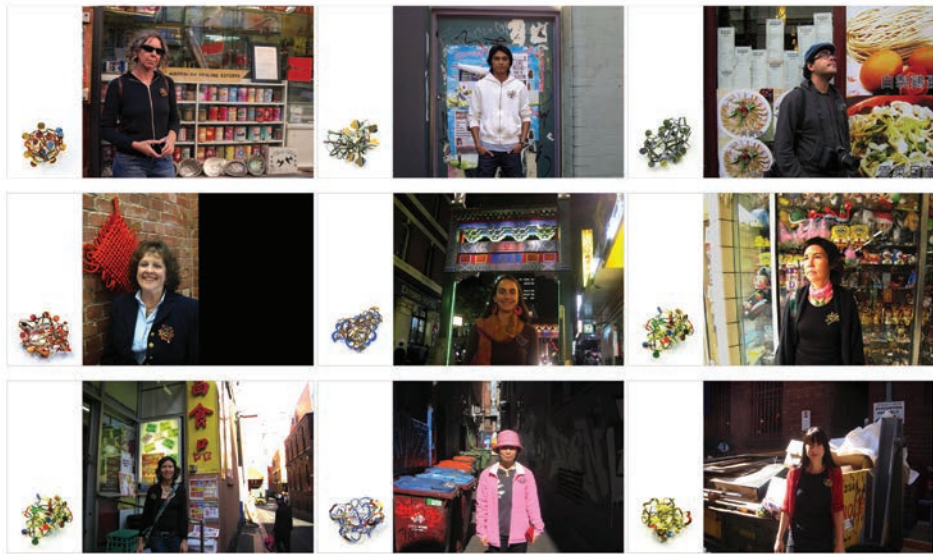


Figure 9. Stills from Material Migrations video, 2011.

Photographs provided by wearers

Like a saprophyte feeding nutrients back into its ecosystem, I was interested in the flow-on effects of the brooches in the *day-to-day act of wearing*. I see wearing as a process of emergence, a coming-together of the brooch, body and surroundings from which new relations or experiences might emerge.

The wearing project made the unusual proposition to wearers that jewellery might activate relations with one's surroundings. On the one hand, the project was shaped to foster an open 'see what happens ...' attitude, to see what *might* emerge through wearing; while, on the other hand, I needed to coax people's attention towards relations with their surroundings — rather than, for instance, continuing to focus on self-expression and identity or social interactions, which are more often associated with jewellery. University ethics procedures also had a positive impact on shaping the project, requiring that detailed instructions be distributed to participants which carefully communicated the central proposition of the project.

The project yielded diverse responses. Many went beyond my own interests in the material ecology of the city, generating new thinking about jewellery's relations with the city and alerting me to challenges of this way of working. Responses ranged from what one wearer described as a lens for seeing a familiar place in a new way, to performative narrative responses.

The project also proliferated a wealth of material (photos, email comments and interviews) that challenged me to find ways to discern and articulate what emerged, in a way that *valued* its *multiplicity* — rather than shaping it to fit





relations as a dynamic relational field through which things emerge and are sustained over time. Rather than starting with subjects that *then inter-relate*, relation is a primary condition through which individuals or things become individuated, both through sets of relations between clusters of pre-individual elements, and relations with other things. Moreover, whereas relational art often concerns relations between people rather than material artworks, this project concerned the capacity of *jewellery-as-a-thing* to activate relations — and relations not only between *people*, but with the *nonhuman* world around them.



Figure 11. Stills from Material Migrations video, 2011.

Photographs provided by wearers

I also learnt that the photo composition I requested shifted people's attention from their surroundings back to themselves. Participants were asked to take photos in landscape format, with the upper half of the body centred in the image, clearly showing the surroundings and the brooch. I hoped this consistency would allow the singularity of the relations within each image to become apparent. This focused attention on a particular scale of the city — architecture, signage, vehicles, dumpsters — however, and maintained a physical distance between the body and surroundings (which became a backdrop). The act of taking this kind of photo also made some wearers feel *self-conscious* or like tourists; once again diverting attention back to themselves.

Compiling the images into the video, I hoped to encourage viewers to also notice connections between the brooch and the urban context, however, the presence of the face in the image, by habit, drew viewers' attention back to the identity and personality of the wearer. These observations showed that to

explore alternative propositions about wearing — such as activating relations with our surroundings — it is equally important to find ways to circumvent people's tendencies to focus on the personal and the social.

## Host A Brooch, Christchurch, 2011

Host A Brooch was an opportunity to expand on these previous projects and work within the post-earthquake situation of Christchurch. This project grew from an invitation to me to exhibit at a local jewellery gallery, The National. At the time, following the September 2010 earthquake, I was intrigued to respond to an urban milieu in a state of transition, and suggested a project that engaged to the city through making and wearing. The major February 2011 earthquake struck, however, leaving the gallery out of action in the 'red zone'. But, in spite of these challenging circumstances, gallery director Caroline Billing was determined to continue, and the project evolved into a more public format.



Figure 12. Gathering materials, Christchurch, 2011.

Photography: Caroline Billing

Initially I hoped to gather materials from demolition sites dotted throughout the city, but this was hampered by a mandate preventing waste materials being taken without permission from landowners. As a result, we followed laden trucks to demolition yards on the outskirts of the city. Encountering vast mountains of debris and rubble, we were confronted with the city's materiality and explicit processes of transformation. Alongside continual aftershocks, this was a reminder of the city's place within wider geological and ecological systems. The giant piles of demolished timber, in particular, evoked multiple timescales: the human stories of former buildings, geological timeframes, and the timber's former life as the region's forests. Here, what previously felt like a loose metaphor, the idea of the city as 'material ecology' was a palpable reality.



Figure 13. Host A Brooch, making process, 2011.

Photography: Jacqui Chan

The saprophytic making process was crucial to this project, dealing with a diverse range of materials: barrier mesh, parts of appliances, burnt floorboards, electrical cabling, road cones and rubble. A group of 16 brooches were made, once again by breaking materials down into components and using connecting systems that allowed them to grow into new and unplanned formations. Within this context, processes of remaking and reassembly pointed poignantly towards the city's renewal. I hoped the brooches would express a process of transformation, rather than destruction, and evoke parallels between the architectural, geological or biological structures of the city.



Figure 14. Host A Brooch, Christchurch, 2011.

Photography: Jacqui Chan



Host A Brooch operated over six weekends from a shipping container placed near the city centre, and it was based on the model of a bike-share system. The public could borrow a brooch for a two-hour unguided wander through the streets, and lenders were briefed to notice what the work drew attention to and take photos. This time wearers were explicitly directed so as to encourage them to pay attention to their surroundings, and the brooches were selected by lucky-dip to eliminate personal preferences or intentions for wearing — which I explained might uphold habitual ways of seeing the city. The bike-share analogy allowed for the pragmatic proposition that, like a riding a bike, attaching this ‘thing’ to your body and wandering into the city might alter one’s experience of the city: through different routes, speeds, or encounters. Afterwards, I downloaded wearer’s photos, and asked them to describe their experience verbally and through written feedback.

Once again, what emerged was different from what I had anticipated. Surprisingly, given the circumstances, people reported uplifting experiences, enjoying ‘finding beauty in what remains’ and having ‘permission to see things differently, and act more boldly’.<sup>11</sup> The brooches produced wide-ranging connections, from earthquake wreckage, road cones and signage, to bare winter trees and spring flowers.<sup>12</sup>



Figure 15. Host A Brooch, Christchurch, 2011.

Photographs provided by participants

11 Participant's written feedback.

12 For full details see <http://www.hostabrooch.blogspot.com>

I had hoped the project might spark thinking about the city's process of transformation, and while it did for some, I was surprised that the majority reported noticing colours, shapes, or materials that correlated to the brooch. At the time, these responses seemed superficial, so I tried to coax more thoughtful insights: What *kinds* of relations did you notice? How did these *affect* your thinking about the city? But, the prevalence of such responses forced me to think further, and I realised these sensory connections pointed to a different kind of engagement with the city.

The comments seemed superficial precisely because — as Erwin Straus observes — sensation is an immersive state of 'being-with-the-world' that *precedes* perception and thinking, and the delineation of self from world. He writes:

In the sensory experience, there unfolds both the becomings of the subject and the happenings of the world ... In sensing, both self and world unfold simultaneously for the sensing subject; the sensing being experiences himself and the world, himself in the world, himself with the world" (Straus 1963, cited in Bogue 2003: 116–17).

I noted myself while 'test-driving' a brooch, it was impossible to *think about* relations while absorbed in the unfolding experience. Rather than prompting *thinking*, wearing induced an immersive nondual experience that intensified awareness of my surroundings, and expanded my habitual *umwelt* or bubble-world.

While most people found such an experience stimulating or enchanting, some found it confronting. For example, one woman described her experience as 'quite disturbing' and filled her with a sense of 'sadness and horror'. She explained that she usually stayed optimistic by only looking at the flowers, trees and standing buildings, but her daughter's orange brooch alerted her to what she ordinarily tried to ignore: orange barricades, road cones and markers of destruction. Another man took the same brooch into the park and had what he called a 'negative experience'. He associated the exuberant brooch with earthquake wreckage and felt it an unwanted intrusion in the happy scene in the park. Their emotional responses were triggered by this shift from their habitual, *self-preserving* ways of engaging the city.

Another unanticipated outcome was the active and performative encounters the project provoked. In order to document connections between the brooch, body, and things noticed, wearers manoeuvred into unusual positions interacting inventively with their surroundings: leaning on or crouching beside things progressed to lying on barricades and machinery, and more theatrical responses.

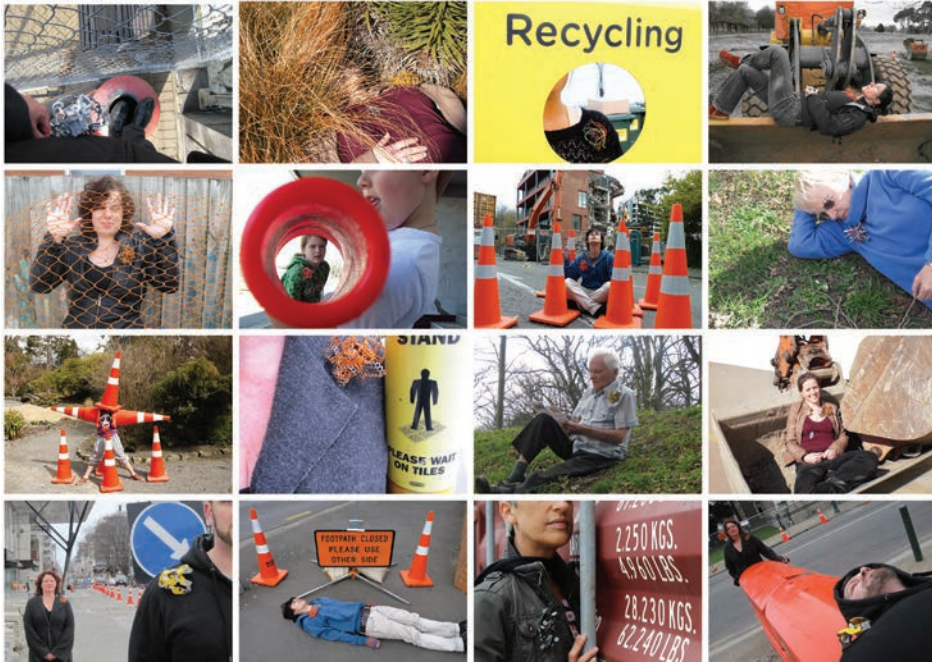


Figure 16. Host A Brooch, Christchurch, 2011.

Photographs provided by participants

This showed that the project evolved from 'testing' the flow-on effects of wearing jewellery in the city, to become a platform for others to reconnect with and reoccupy the changing city. Through this project I came to realise that colourising someone's experience, fostering a state of wonderment or provoking interactions with the city was a radical thing for jewellery to do. Of course, it was not solely the brooch, but the artefact acted as a catalyst for these new experiences.

This wider social effect recalls Jane Bennett's notion of 'ethical energetics', in which she insists that the capacity for enchantment — being captivated by the world rather than fearing it — is a motivating force for facing the painful challenges of a changing and unjust world (Bennett 2001: 160). Although she refers to ethical projects, in Christchurch such motivation was necessary simply to endure the upheaval and participate in the slow process of renewal. Local writer Sally Blundell writes of the contribution such projects make during this time of transition:

These ephemeral interventions precipitate a necessary break from the loss and trauma of the recent past and the wearily insistent issues (insurance, investment, 'horizontal infrastructure') of the present ... In Christchurch we patrol the boundaries of a cityscape made strange in the scale of its architectural erasure, peering, staring, again and again. In tripping this wire of 'catatonic' inertia, however, Gap Filler, Greening

Spaces and Host A Brooch successfully instigate a transformation from the impassive stance of the witness to the more optimistic role of the participant. (Blundell & Banbury 2012: 28)

## Conclusion

By way of a conclusion, through these projects the question of *how jewellery can engage the city in terms of emergence* has yielded an approach to jewellery practice that fosters an embedded and reciprocating relation with the urban context. The logic of the saprophyte has enabled the city to be encountered as the dynamic material ecology composed through continual flows and transformations of materials (including bodies) and exposed not only to human, but ecological and geological forces.

Within this extended site, the analogy of the saprophyte has enabled me to situate my jewellery practice within its materials-flows, diverting and transforming materials and recirculating them anew. This has developed a relation between jewellery practice and the urban milieu that works in terms of emergence, rather than representation, entering into the midst of a situation, processing aspects of its material conditions to produced a *third thing*. The resulting jewellery does not seek to resemble the urban context in its material form, but activates it by re-entering its flows of bodies.

In turn, wearing has become a vital part of jewellery practice, approached as an extension of the saprophytic making processes and feeding nutrients back into the system. The projects allowed wearers to engage in wearing as an encounter and an experience that affects us and connects us with our surroundings. What emerged through the wearing projects exceeded what I anticipated jewellery could do: inciting interactions with the city, activating sensory awareness, and making new aspects of a situation perceptible. This shifted people beyond habitual modes for engaging the city to incite immersive experiences, turning attention to the overlooked and sparking lively participation in the urban milieu. As such, this practice-led research not only enriched thinking about jewellery's relations with the city, but also made a wider contribution to the city.

**Jacqui Chan** is a contemporary jeweller from New Zealand, currently based in Melbourne. She is currently undertaking a PhD at RMIT University exploring jewellery's relation with the city. Her approach to jewellery is influenced by her background in architecture. Her work has been included in exhibitions in New Zealand, Australia and Europe, and is part of public collections in New Zealand.



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# The generative loom: Tapestry in the community

Kirsty Darlaston

*Abstract:* This paper arises out of doctoral research into community responses to a tapestry woven on a loom in the public space of a local library. The research uncovered complex relationships between craft, making and the processes of viewing, all of which were informed by the embodied situated-ness of the people who proffered their insights at the loom. Throughout the conversations at the loom, the gestures and movements of the viewers of the tapestry came to the fore. This article explores some the embodied responses to the tapestry and situates these responses within a form of 'dynamic' interactive subjectivity.

## Preamble

*In 2008 I set up a tapestry loom at the City of Charles Sturt Civic Centre Library in Woodville as part of a doctoral research project. The design for the tapestry came out of a series of consultations with local community groups, such as cultural, sporting and community care groups. The interviewees were asked to bring along a textiles object that had some meaning to them and I photographed them with their object and recorded their stories. The tapestry design that resulted from these interviews consisted of woven strips of the photographed textile objects forming a map of the City of Charles Sturt. Previous community tapestry projects had caused me to be interested in the dialogue with community members that occurred at the loom, and how my presence as a working weaver and community artist facilitated these conversations.<sup>1</sup> I would explain to visitors the process that had been undertaken with community members to come up with the design; as such I became a kind of proxy voice for the community members, imparting the importance of the textiles objects to them, retelling their stories and affirming their place on the map of the community. I began to feel that I was embodying and somehow performing for the public, a 'figure' of a craft maker, and that this figure bought out many memories of making that had threaded through peoples' lives.*

This paper arises out of doctoral research into community responses to the City of Charles Sturt tapestry project. The research focused on comments made to myself, the weaver/researcher, as I wove a tapestry in my local library and it uncovered complex relationships between craft, making and the processes of viewing, all of which were informed by the embodied situatedness of people

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<sup>1</sup> For example: the Moonee Valley Tapestry Flag (2006); The Barbara Community Tapestry Project (1999–2001).

who proffered their insights at the loom. The research held at its core the bodies of the maker and the viewer, the tapestry, and the tools and processes of making, and these were all central to the process of interactive subjectivity that took place at the loom. The research subjects (including myself as the weaver) were a dynamic force in the research. Laura Marks writes of an embodied haptic looking: '... it is less appropriate to speak of the object of the haptic look than to speak of a dynamic subjectivity between looker and image' (2002: 29). This is a form of relationship that does not focus on the boundaries of insider/outsider, but instead allows for diverse knowledge and multiple experiences to cross-pollinate. This dynamism is generative, new possibilities are created by the motion between viewers and viewed, where neither becomes a static object, and both remain in a dance of subjectivity. The movements of making, the gestures of weaving that span time and culture, create this interrelationship. Makers, as well as cooks, launderers and cleaners, in communities all over the world, share similar actions. As Giorgia Volpe states, 'I think we all have an archaic memory of this gesture of weaving' (Volpe & Bouillet 2001: 29). These shared bodily gestures, in all their variations, allow an embodied knowledge that is both individual and communal.

Throughout the loom conversations, the gestures and movements of the viewers of the tapestry came to the fore: one man made the gestures of flatbed cloth weaving, whilst he explained that his sister did this kind of work in Vietnam, another mimicked, moving his hand in waves, the 'under and over' movements that I made as I showed him the technique of weaving; a woman breathed 'beautiful' as she reached out to touch the tapestry. These embodied interactions are informed by textiles and by the processes of making textiles: small, recognisable, human movements. Luce Giard, in her 'Doing cooking' research, also highlights everyday gestures as a way of carving out a space in the world for oneself (1998). Giard lists the gestures that women perform as they shop, measure, chop, and so on, whilst they create daily meals. Food is consumed, intimately taken into the body; cloth evokes wrapping or covering the body. The gestures of cooking and weaving are gestures performed for the body, close to the body. Like Giard, this research was focused on the minutiae of small gestures, fragments of speech and short interactions as a way of working beyond dominant paradigms, moving into a more individualised space, a space where identities are processual and about *becoming* rather than fixed notions of being. This paper focuses on the generative possibilities of small encounters that occur through craft objects, particularly through the processes of making craft objects, by presenting short fragments of the loom conversations as examples of the embodied interactions that took place at the loom. The paper focuses on these small gestures and stories as a source of connection, which create spaces that bring together the multi-layered elsewheres of individual experiences.





Figure 1. Kirsty Darlaston weaving the City of Charles Sturt Tapestry Map at the City of Charles Sturt Civic Centre Library, 2008.

Photograph: Elise De Simoni

## Why do people tell me stories?

Craft is intimately connected with story and narrative, and craft objects are embedded with the idea of sharing and telling. Esther Leslie discusses Benjamin's notions of making, narrative and wonder in her article: 'Walter Benjamin: Traces of craft' (1998). She relates Benjamin's correlation of storytelling with craft making in various ways, in particular through shaping raw matter into pattern and form: 'The story and the pot are formed by a life that has something to tell' (1998: 60). Leslie highlights Benjamin's use of the travelling journeyman and master craftsman in his writing on alienation during the advent of mass-production in early industrialisation. Benjamin lamented the decline of the journeyman during this time and he foresaw a loss of storytelling practices as a result of this waning. In workshops, where travelling journeymen learnt techniques from master craftsmen, stories were told and news of the wider world was shared:

The best listeners, insists Benjamin, are the ones who have half-forgotten themselves, and while their half-conscious minds are engaged in pot-throwing, spinning and weaving, and their bodies seized by the gentle rhythm of work, the stories they hear forego an existence on paper, imprinting themselves into the listeners' fantasy, awaiting retransmissions, after-lives. Storytelling is no simple form of time-passing. It mirrors a mode of processing and reconstituting experience. It intimates how experiences pass into and out of memory. For Benjamin, to reflect on the operations of storytelling, or craft communication and experience, is to ponder the arabesque of labour, experience and selfhood. (Leslie 1998: 5)

Here, the body's memory, the tacit knowledge of the maker as they perform repetitive and repeated tasks, combines with the evocation and reorganisation of memory during the retelling of stories. Research into the brain and memory has found that the brain makes new neural pathways during recollection as the retelling of a memory connects it to the time and place where it is retold (Grenier 2007: 330–31). Although the craftsman may use age-old techniques and designs, these well-travelled pathways also lead to new connections and forms, growing from the body memory of the individual maker. The rhythms of the craftsman working provide the perfect environment to soak in stories, the movements of work combining with the cadence of storytelling in a manner that induces the embodiment of the narrative. Leslie's eloquent phrasing: '... the arabesque of labour, experience and selfhood' (1998: 6) is reminiscent of Roland Barthes' use of the word 'figure' as '... the body caught in movement, rather than contemplated in repose' (Barthes 1977: 3–4): both making and storytelling are active in the construction of selfhood through movement and embodiment, rather than in abstract contemplation.

Sue Rowley discusses the entanglement of narrative and craft in her essay "There once lived ...": Craft and narrative traditions', writing that 'The apparent affinity between stories and objects is by now an integral element in our response to craft' (1997: 80–81). Rowley goes on to chronicle the many ways in which craft and narrative are entwined, as shown through countless fairytales and common language terms that refer to crafted objects. She writes that

the ubiquity of craft objects and processes in these stories are symptomatic of the importance of these objects to the construction of our identities, both personally and collectively. Storytelling and craft making are processes involved in the construction or performance of the self. As in Leslie's writing on Benjamin, storytelling and craft making here are 'mirror' to the mode of processing and reconstituting experience. Rowley sees these stories as subversive of dominant accounts of history:

what can we say about the insistent and recurring presence of craft objects — domestic artefacts, garments, treasures and trinkets — in our cultural stock of stories? Let's begin by noting that the rationalist–utilitarian ideologies and assumptions of modernism — the master narratives of histories of art and technology — are subverted by stories which accord to objects of everyday life a central role in the systems of cultural value and meaning. (1997: 79)

Working at the loom in the Woodville library, as well as on similar craft-based projects, has given me insight into the occurrence of personal stories about craft and making and the desire that people have to keep telling them. The tapestry invoked reactions that are personal, culturally embedded, and emotionally charged. Both storytelling and craft making are complex processes and they elicit complex responses; the loom stories were sometimes laced with pain and loss. The stories that I was told at the loom position textile objects and making processes as a pervasive force in our lives. We live in an information/machine age, but textiles have never been left behind in the race for faster, more efficient production and, indeed, the textiles industry was one of the earliest industries to be mechanised. Homemade crafts, objects made by hand, however, are still a 'common thread', as is shown by the resurgence of indie craft and 'do it yourself' movements in recent years. Crafting continues to maintain a place in our lives and in our constructions of selfhood. The following section focuses on Mahmoud's story,<sup>2</sup> which he told to me at the loom during the weaving process, as well as fragments of other personal stories. These stories highlight the personal, the social, and the cultural meanings that emerge from making craft objects.

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<sup>2</sup> The names of research subjects have been changed for ethical purposes. Please note that the information presented in 'The story of Mahmoud' was collected from my first meeting with Mahmoud at the library and my subsequent working relationship with him on the Craftsouth Traditional Craft Skills Project. This differs from other interactions presented in this paper as it is developed from a series of conversations and interactions over the period of approximately one year. The information that I have presented is collated from my personal conversations and observations of Mahmoud during this time.



Figure 2. The City of Charles Sturt Tapestry Map at the City of Charles Sturt Civic Centre Library, 2008.

Photograph: Elise De Simoni



## The story of Mahmoud

When I first met Mahmoud in the Woodville library I wrote this in my field notes:

A man from Afghanistan came and looked at the tapestry. He was a rug weaver in Iran for 18 years — he moved there when he was 17 years old and learnt the trade. He used to do picture rugs — he made one of Lady Diana. He is going to bring in photos. He showed me how to do the Turkish Knot, one of the knots that he used and said that he will teach me others — we just need the correct hook to pull the wool through. He said tapestry weaving is too easy! [In comparison to rug weaving]. He appreciated the loom a lot. He had to leave all of his equipment behind in Iran. He is a very fast weaver but not very good at the tension [of the weft] as he is not used to it. He says he misses weaving a lot and is very pleased to see the tapestry.<sup>3</sup>

What I didn't write in these notes was how excited Mahmoud was to see me weaving at the loom. He touched the bulk of the tapestry, touched and stretched the warps, picked up cops of wool from the boxes beside the loom and ran the threads through his fingers. At the time of our meeting, Mahmoud had not woven since leaving Afghanistan a few years earlier. Juhani Pallasmaa writes:

I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the façade of the cathedral, where it roams over the mouldings and contours, sensing the size of recesses and projections (2005: 40).

Michael Taussig agrees, writing that we learn a city through using it (1991: 149). When Mahmoud met me at the loom, he began to navigate the tapestry through touch and movement. He tested and measured all of the objects around him — his fingers felt the quality of the wool, the tension of the warp, and he tried to do a little bit of weaving. Through this process of embodied measuring and testing, Mahmoud was matching the knowledge that he had absorbed over his years of practicing rug making in Afghanistan and Iran with the tapestry practice that was before him in Australia — he was bringing his past and present together through the movements of his body. Tapestry weaving and knotted rug weaving are quite different techniques, but there are crossovers; for example, they have a similar system of warping. It seems that the tapestry and the weaver were sufficiently comparable to act as transitional objects into Mahmoud's past. Mahmoud made a further incursion into his memory by teaching me how to do a Turkish knot. Brockmeier writes that:

remembering the self depends not on restoring an original identity, but on remembering, on putting past and present selves together, moment by moment, in a process of provisional reconstruction. (2002, cited in Warin & Dennis 2005: 168)

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<sup>3</sup> Field notes, Tuesday 3 June 2008.



Figure 3. Kirsty Darlaston weaving the City of Charles Sturt Tapestry Map at the City of Charles Sturt Civic Centre Library, 2008.

Photograph: Elise De Simoni

Mahmoud's gestures at the loom echo movements that he would have made when weaving rugs in Iran and Afghanistan.<sup>4</sup> The testing of the tension of the warp and quality of weft wool are motions that are both unconscious and ubiquitous, fingers rubbing wool, pulling cotton warp — a sign of the weaver's sensual knowledge and experience. In some ways, Mahmoud was reconstructing a version of selfhood through making these familiar movements in less familiar surroundings.

Megan Warin and Simone Dennis have studied the sensual reconstruction of 'home' through the cooking and embroidery practices of 'Safieh', a woman who emigrated from Iran to Australia as a refugee. They found that through performing the embodied, everyday acts of cooking, eating, sharing food and smoothing embroidered cloths on a table, Safieh was able to recreate, in a new country, the sensuous patterns of her memories of her home. They write:

By including in her home in Australia the items that she has continually, habitually, corporeally and multisensually engaged with in her experiences of home in Iran, Safieh recreates a prior pattern of home place. (2005: 66)

This embodied engagement with her tools, ingredients and materials evoked a sense of home for Safieh in her new country, a process that Mahmoud was undergoing when he engaged with the tapestry — the recognition took place in his body. In Afghanistan and Iran the movements of rug weaving were mundane and everyday to Mahmoud — he spent many hours each day surrounded by the tools, materials, smells and textures of weaving. Rosalind Shaw writes '... there are other ways of remembering the past than by speaking of it ...' (2002: 2, cited in Morton 2007: 161). Habitual memory, or memory of habits, for Mahmoud, reside in his physical relationship with wool, warp, tools and movements of weaving. The gestures that Mahmoud performed in his daily weaving contain a meaning that was recreated when he handled the tools of weaving at my loom in the library. As Christopher Morton writes '... the traces of the past are not just found in our material surroundings, but also in our embodied skills and spatial orientations ...' (2007: 160).

## Conversation

There is an implicit understanding between what I do at the loom and what Mahmoud remembers of his own work at looms in Iran and Afghanistan — a shared knowledge of textiles processes that transcends our backgrounds and experiences and allows us to communicate in a language of which we both have an understanding — to a certain extent. Homi Bhabha writes of the third space that opens up between two parties in the act of communication:

The act of interpretation is never simply an act of communication between the I and the You designated in the statement. The production of meaning

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<sup>4</sup> Mahmoud taught me how to weave rugs in a Craftsouth Traditional Craft Skills Workshops in 2010 and 2011.

requires that these two places be mobilized in the passage through a Third Space, which represents both the general conditions of language and the specific implication of the utterance in a performative and institutional strategy of which it cannot 'in itself' be conscious. (1994: 53)

The techniques of rug weaving and tapestry, during our exchange at the loom, entered into Bhabha's 'Third Space', the space of translation. This is a space of possibilities, where the techniques had already become something else, beyond their context in the rug-weaving industry in Iran, beyond Mahmoud's memories and bodily movements, and beyond community tapestry in Australia and my memories and experiences.

Mahmoud demonstrated rug-weaving techniques on the warps of my tapestry and I taught him how to do tapestry weaving. The process of translation between the two techniques is aided by the translatability of one textiles medium to another — to a certain extent. Both Mahmoud and I possess a textiles 'language', gained through working in a medium over a period of time in, as Katherine Nolan and Victoria Mitchell write, '... the mutually constitutive relationship between body and material, that is the 'action' of the body on the textile and the textile on the body' (2010: 214). Both of us have a sense of recognition of how textiles behave, learnt through working with them with our fingers, arms, and eyes; we know about the stretch and tension of the warps, and how wool behaves. This language, or 'sensibility', allows for the third space that opens up between us to contain signs that we both recognise and can work with. Here, patterns of making translate into new patterns of understanding, as Nolan and Mitchell write:

The intercultural bleeds into the cross-cultural and even the criss-cross-cultural, as textile processes and practices, in partnership with patterns, articulate the fabric of social exchange. (2010: 209)

## Economy

Mahmoud asked why I was doing the tapestry, if it was my job, and if it was possible to make a living working as a weaver in Australia. It was clear to me that Mahmoud had not seen anything like tapestry, or his style of knotted rug weaving, since he had been in Australia. Mahmoud did not perform his weaving as a hobby, or as a professional artist in the sense of an artist having a solo practice and exhibiting their work. He worked for a company alongside other weavers, and clients from around the world commissioned his work; he often interpreted rugs from images that he was commissioned to weave, such as the photograph of Lady Diana and the King of Thailand. Unlike the loss of skill lamented in Benjamin's writing, his temporary exile from his craft is not the slow waning of artisanal work through the advent of industrialisation, but a rapid thrust into a different economy. The rug industry in Iran makes up a substantial part of the economy; there is a very small rug industry in Australia and designers often send their work overseas to be woven. Mahmoud experienced a wrench out of his home (two homes, really — Mahmoud left Afghanistan as a refugee



during the Soviet invasion and he left Iran when the government started to show prejudice towards Afghan people) into a place that has a different economy and where the rhythms and gestures that were the norm in his previous homes do not exist. As Lisa Law writes:

The absence of familiar material culture, and its subtle evocations of home, is surely one of the most profound dislocations of transnational migration. (2001: 277)

Thus Mahmoud's excitement when he encountered my weaving, it was something that similar to his craft, sharing rhythms and time frames. When Mahmoud encountered me weaving at the loom in the library he reactivated what Stephen Lindsay and Don Read call 'prior patterns of activation across entire networks' (1995: 1, cited in Warin & Dennis 2005: 163). These networks, economies of being, are not just about workplace cultural practices, but are about the structure of whole towns and cities, patterns of living as they are interwoven with industry and commerce. For a brief moment, Mahmoud had found a temporary home at the loom — a space where he was still a respected 'master' of his craft. Law, in her study of Filipino domestic maids who meet every Sunday in Chater Square in Hong Kong, writes of the humanising effect of reading letters from home in this vast city:

The letters of overseas Filipino women represent tremendous subjective power, and Tadir has argued that letters represent 'doses of human time, time with subjective value'. As with photos, letters play a role in constituting Little Manilla's perceptual landscape, for not only do letters create human time, they create a *place* of contemplation and subjective meaning where Hong Kong is experienced from another perspective. (2001: 279–80)

The loom also represented a space of 'human time' for Mahmoud, a space where his subjective worth was recognised and a space where the small movements of making are like his home.

## **'They do this in my country'**

A lot of the people who viewed the tapestry mistook tapestry weaving (woven on an upright loom) for another form of weaving — mainly flatbed cloth weaving. One of the Vietnamese library staff members told me that in her country they have machines to do weaving like this. She made the actions of using the machine with her hands — 'like this, like this', her foot stamping down to open the next shed.<sup>5</sup> A man told me that his sister weaves in a factory in Vietnam making large floral fabrics. He mapped out the dimensions of the loom with his hands and arms and made weaving movements fast and high into the air.<sup>6</sup> I was using the technique of Gobelin, high-warp tapestry weaving is distinctly European, however, many people recognised something in the tapestry-weaving

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<sup>5</sup> Field notes, Friday 30 May 2008.

<sup>6</sup> Field notes, Friday 20 June 2008.

process, which points to the ubiquity of weaving techniques — processes that have travelled across continents and over oceans and are deeply embedded in most cultures. David Sutton and Michael Hernandez, in their study of cooking tools, write: ‘The value of an object is the reflection of the actions that people have performed with this object, its history’ (2011: 22). When people saw me weaving, they saw the actions of other weavers reflected in mine — they saw their sister weaving; people from their ‘home’ countries, Vietnam, Afghanistan, England, weaving. Sutton and Hernandez continue:

tools have the potential to become voices in the kitchen, speaking to us of other times and places as they go about the business of preparing our daily fare (2011: 23).

Here, although the viewers were not directly engaged in the making of the tapestry, their interaction with the tapestry spoke to them of other times and places. Embedded in the process of tapestry weaving are other weavings viewers have witnessed around the world. The tapestry, it seems, becomes a space into which ‘elsewheres’ can be projected. When a man approached the loom, holding his heart, and says ‘My country — we do this in my country, I forgot!’<sup>7</sup> — he saw in the tapestry a place that he still calls home.

## Articulation

Nikos Papastergiadis writes:

Most importantly, for people with a burning memory of home that is far away, there is also the knowledge that language can communicate a sense of home. Communication becomes knowledge. Knowing comes from communicating. (2006: 147)

Even though the people who spoke to me at the loom about seeing or doing weaving in their own countries did not speak very much English, and I have very little understanding of Arabic and none of Vietnamese or any other languages, we communicated through short phrases, and through gestures of making — and, in the case of a man from Afghanistan, through gestures of pure emotion (a hand on his heart). Morton, in summarising Shaw’s concepts of memory, suggests that in memory there is a ‘... continuum running between more discursive and embodied forms of memory, rather than the dichotomy that is often assumed’ (Shaw 2002, as summarised in Morton 2007: 161). In the interactions at the loom — the man creating a loom around him through gestures, mimicking the movements that he has seen his sister perform in her daily work, and the woman making the jerking movements of weaving that she remembers from her country — memory surfaces in both gesture and words, in both the discursive and the embodied. Here the body, in many ways, speaks louder than the voice, filling the air with enlarged gestures of making. Based in memory, these communications were part of an emotional landscape. Through

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<sup>7</sup> Field notes, Wednesday 21 May 2008.

these communications a sense of connection, built through gestures and halting words, began to form at the loom; in some ways we were able to communicate profound meanings to each other across languages.

The story of Mahmoud and other people who met me at the loom is a story of communication — of articulating memory and selfhood through word and gesture, all facilitated through the craft object and making process. These small encounters are made intimate through the bodies that hold knowledge of making. Amanda Wise summarises Ghassan Hage:

He describes 'a sense of community as a sense of *articulation* to others, the feeling of connection, of sharing, or recognition' and says that a feeling of homeliness comes from all this. He reminds us that communities are not just imagined; they are 'also so many bodies relating to each other'. (Hage 2002: 162, as cited in Wise 2005: 177)

When people spoke to me at the loom, articulating things that matter through the *matter* of textile making, they were not just speaking of 'home', but were also engaged in creating new communities, a new home — one that Wise calls 'belonging' and Hage refers to as 'homeliness'. In some ways the tapestry loom became a third space — the ubiquity of textile-making processes opened up a space where communication could take place, created spaces where connection could be made by bringing together past experiences with current encounters of craft and making.

**Kirsty Darlaston** completed her PhD, focusing on embodied encounters during a community tapestry project, in 2011. She has worked on a number of community tapestry projects in South Australia and Victoria and was the Project Officer for the Craftsouth Traditional Craft Skills Project. She has lectured in textiles at the University of South Australia and is currently Acting Head of Textiles at The Australian National University.

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# Pursuing a sense of the emergent through craft practices in architectural design

Michael Davis

*Abstract:* This paper focuses on 'craft' (as an aggregation of iterative actions) both as an aspect of architectural design practices, and in relation to the paradigm of emergence. The aim is to reconsider the idea of emergence in relation to everyday design practices, and to examine how the craft aspect of architectural design practices might become present in architectural outcomes.

The paper explores a notion of emergent craft as it pertains to architectural design through a comparison between two of the author's projects: the first while studying at the Architectural Association's Design Research Laboratory (AADRL), London, in 2002 (Kinetetras — a prototype for a flexible, programmable space frame exhibited at the Latent Utopias exhibition in Graz, Austria); and, the second, a small house produced some ten years later at Lang's Beach in New Zealand.

Through a discussion of the design processes of the two projects, craft is explored in terms of Steven Johnson's notion of emergence, and in relation to Donald Schön's notion of reflection-in-action, and further in relation to Peter Downton's notion of knowing-through-making. The paper articulates a difference between knowing-through-drawing and knowing-through-modelling as emergent forms of knowledge. Working through these terms the paper identifies two issues: The first is that knowing-through-drawing and knowing-through-crafting models are complementary ways of knowing-through-making; the second is that they operate in tension. What emerges in relation to that tension is a quality of approach to design which is termed 'craftiness'. It is characteristically collage-like and presents in the architectural outcome as its defining quality.

The paper concludes with a summary comparison between the two projects, and articulates the Lang's project as a re-grounding and expansion of research into emergent complexity in the context of an everyday design practice.

## Introduction

The idea of craft in relation to the practice of architecture is problematic, for while the craft of the artisan concerns the making of an artefact, the craft of the architect concerns the making of representations of an artefact to be made by others. The craft endeavour of the architect, then, would seem to be suspended in the architectural representation — the beautifully made drawing, render or model. Or would it?

This paper focuses on 'craft' (as an aggregation of iterative actions) both as an aspect of architectural design practices, and in relation to the paradigm of emergence. The aim is to reconsider the idea of emergence in relation to everyday design practices, and to examine how the craft aspect of architectural design practices might become present in architectural outcomes. While craft might be identified through its bearing evidence of the hand, might it also be identified in the work as an emergent quality?

Craft will be explored in terms of Steven Johnson's notion of emergence, and in relation to Donald Schön's notion of reflection-in-action and, further, in relation to Peter Downton's notion of knowing-through-making. This exploration takes place through a discussion of two of my projects: the first undertaken while studying at the Architectural Association's Design Research Laboratory (AADRL), London, in 2002 (a prototype for a flexible, programmable space frame exhibited at the Latent Utopias exhibition in Graz, Austria); and, the second being a small house produced some ten years later in New Zealand.

The text is punctuated with notation taken either directly from my sketchbooks or made in relation to notation in my sketchbooks. The intention is to retain immediacy between the workings of the project and the reflection which draws out the issues encountered in the design process.

## Craft

To the Arts and Crafts movement of the nineteenth century, the idea and work of craft stood in opposition to mass-production and the mechanisation of human labour that was brought about by the industrial revolution (Metcalf 2002). *Oxford Dictionaries* online provides a less politicised, more general idea of craft that reaches back to the pre-industrial and connects forward to the present: craft is 'an activity involving skill in making things by hand' (2012). In *The Craftsman* (2008), Richard Sennett writes about craft across a range of creative practices. In contrast with the dictionary definition, Sennett does not position the 'hand' at the centre of craft. In the prologue he presents an initial definition of craftsmanship as 'the skill of making things well' and the motivation of the craftsman as '... an enduring, basic human impulse, the desire to do a job well for its own sake' (2008: 8–9). If this is so, how might we think about craftsmanship and its role if it is understood as a particular kind of behaviour operating across and within the architectural design process?

For me the issue is not industrialisation, rather it is the presumed to be intellectual, cognitive or 'hands-off' role of the professional architect compared to the craftsman (whether industrial or pre-industrial). What this paper offers to this issue of *craft + design enquiry* is a perspective on architectural design as a practice of making (objects, buildings, environments ... cities). Architectural design here might be demonstrated to engage the designer materially, physically,



cerebrally, emotionally, socially and environmentally. Through this engagement particular kinds of embodied knowledge might be seen to emerge. It is through the lens of the paradigm of emergence that this perspective is constructed.

## The paradigm of emergence — geometry and craft

Johnson's paradigm of emergence is an idea about how things happen in the world. It explains the coming-into-being of things not as the result of a single action, or central controlling force, but as the result of an aggregation of multiple, small actions related by simple rules. He writes in relation to self-organising systems:

They are bottom-up systems, not top-down. They get their smarts from below. In a more technical language, they are complex adaptive systems that display emergent behavior. In these systems, agents residing on one scale start producing behavior that lies one scale above them: ants create colonies; urbanites create neighborhoods; simple pattern-recognition software learns how to recommend new books. The movement from low-level rules to higher sophistication is what we call emergence'. (2002: 18)

The formal language of emergence in architecture, as expounded by figures such as Michael Hensel, Achim Menges & Michael Weinstock, might be characterised similarly, where a single geometric cell is extensively repeated and varied in relation to the previous repetition (Figure 1). The aggregate of these repeated geometries, simple geometric units in simple, part-to-part relationships, is extrapolated into a material system that is often described as presenting an 'emergent complexity'.

I found cause to question this.

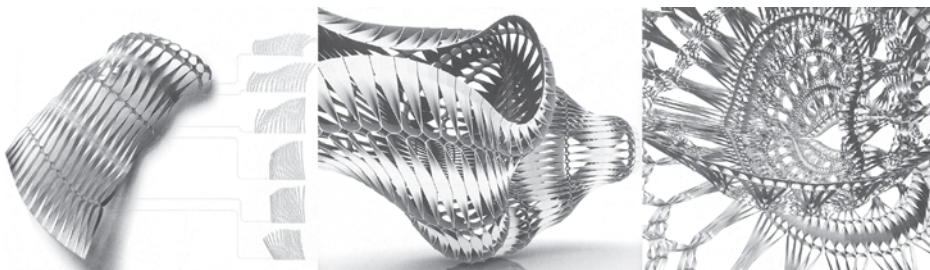


Figure 1. Achim Menges, paperstrip morphologies, 2004–2005.

Source: M. Hensel, A. Menges, A. et al. 2006, *Morpho-ecologies*, London, Architectural Association

My research leading to a Master of Architecture degree at the AADRl contributed to this agenda. The educational environment was intense — many people in a small studio working iteratively and collaboratively to develop and test design propositions. Concerns about the work nagged at me, but any musings had to be suspended for the need to just focus on producing work. That included suspending questions as to how any of the work might be of benefit to me on

my return to the South Pacific. It also included suspending doubt as to the relationship of the formal outcomes of the AADRL to the actual phenomena of emergence — I suspected that we were formally illustrating an idea of emergence rather than exploring the notion.

In August 2002, having been at the AADRL for three terms — working intensively on the development of a flexible, tetrahedral programmable space frame — I was charged with making a full-scale prototype of the system for the Latent Utopias exhibition in Graz, Austria (Figure 2). *Kinetetras* (as it was called) consisted of six steel tetrahedrons, pivot jointed together, which operated across their upper apexes by pneumatic actuators. Attached to the underside of this structure was a surface consisting of 648 vacuum-formed plastic bubbles.



Figure 2. 'd\_rive' (Michael Davis, Steven Hatzellis, Anat Stern), *Kinetetras*, exhibited Latent Utopias, Graz, Austria, 2002.

Photography: Steven Hatzellis

The *Kinetetras* prototype was to be extrapolated into an urban proposition for the Barbican. We had poured time and energy into this larger project, but still had no idea what it was, of how the system might be extended to define it, of what the system would become at a body, building, city scale. And I (again) had to suspend my worry that we had only one term to run before this unseen project was to be completed (Figure 3).

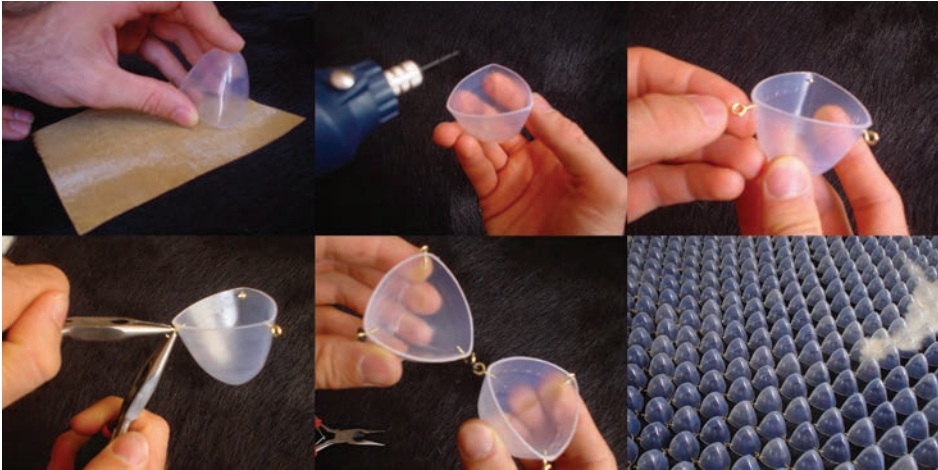


Figure 3. Making *Kinetetras*, Crafting (August 2002).

Photography: Vanessa Ceelen

I am sitting on a cow skin laid over the splintering timber floor of Vanessa's 100-year-old apartment in Amsterdam.

Each of the 648 half-bubbles is to be drilled at each of its three corners and at its apex.

Each corner hole has a brass eyelet turned into it.

Each corner eyelet is prised apart.

Three corner eyelets are connected together by a 5 mm diameter rubber 'O' ring.

The eyelets are closed.

I start ... I finish ten days later ...

... and I know the project.

My notebook contained sketches made in breaks in assembling the surface that directed the project to completion: the sectional configurations of the system; where they were to occur; how those configurations would shift one into the other; the different scales at which the system would be implemented; the performances in each zone; a good idea of the whole they would define, which demonstrated the kind of formal complexity sought (figure 4).

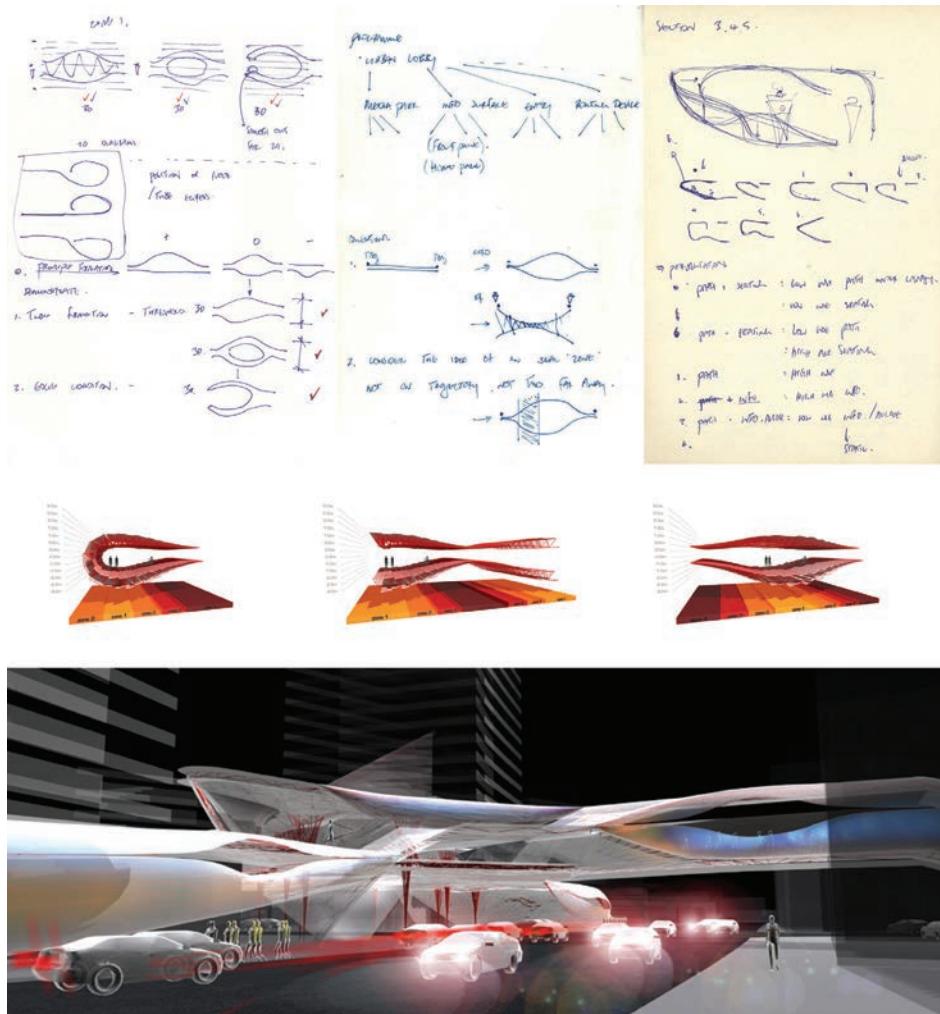


Figure 4. d\_rive, (Michael Davis, Steven Hatzellis, Anat Stern), Urban Lobby at the Barbican, 2003.

Sketches and configuration renders: Michael David, Project render: Steven Hatzellis

John Dewey wrote ‘New ideas come leisurely yet promptly to consciousness only when work has previously been done in forming the right doors by which they may gain entrance’ (2005: 76). It seems to me that Dewey might have been describing what is commonly known as an ‘AH-HA!’ moment, the same kind that I experienced through making sketches in relation to the making of the *Kinetetras* surface. But this wasn’t your everyday ‘AH-HA!’ moment in that it was so profound. It seemed to me that there was a direct link between the new knowledge this experience signalled, and the laborious, iterative work of assembling the surface, and the intensity of the work carried out earlier — that, through the crafting of the surface, fragments of knowledge gained from work prior were made ready, and shifted through to a higher level where they cohered. So, in the *making* of what I suspected might just be a formal, physical illustration



of an idea of emergence, I found a sense (a ‘sniff’, perhaps) of the emergent. That ‘AH-HA!’ moment sits alongside the experience of vacuum-forming the plastic half-bubbles of the surface. In their making, the smell of the plastic over the hot element indicated when the plastic was ready to change state, to be sucked down over MDF molds — a sort of embodied way of knowing that something was ready to go through a change of state.

## The question of a notion of emergent craft

I returned to New Zealand still with a question as to what emergence might mean to a design practice in a South Pacific context. I walked on the beach and found patterns left in the sand by the receding tide. These were familiar but my focus on them sharpened — post-AADRL I understood them as a kind of emergent condition, and my sharpened focus was evidence of having developed an attention to a sense of the emergent, and that sense is what I am pursuing through this paper as I reconsider the idea of emergence and its potential guises in relation to design: might it be that the formal complexity, which emerged from the aggregated self-similar geometries of the *Kinetetras* project (the implicit premise of Hensel, Menges and Weinstock), was but a visible aspect of a wider condition that emerged through the crafting of the project? What if the crafting itself was the issue rather than the formal complexity we were striving for? What other conditions might emerge through crafting?

To begin working through this question, I would like to unpack the design process for a holiday house that was built in 2012 for two of my wife’s cousins and their families at Lang’s Beach, an hour and a half north of Auckland, New Zealand. Subsequently I will compare this project with the AADRL *Kinetetras* project.



Figure 5. Existing house, 2009.

Photography: Michael Davis

The site for the house slopes northward down to the sea and has expansive views out to the Hauraki Gulf. The property has been in the family for four generations and the house that stood on the site dated from the late 1930s (Figure 5). The project outcome is essentially a large timber terrace under a timber pergola, set

on the flat at the top of the slope, on the site of the old house. Set back from the edges of the terrace are two timber clad volumes that are tapered in plan. The larger contains the domestic functions; the smaller is a boat store (Figure 6). The everyday-ness of the project formally and programmatically makes it a useful vehicle to reconsider the idea of emergence in relation to design in a different context.



Figure 6. New house in progress, 2012.

Photography: Sajeev Ruthramoorthy

I wanted to run the project myself, but recognising a certain lack of experience on my part, I asked my father (John), an experienced developer, to partner me in the building project. We became the main contractor. In taking on that role I extended my level of responsibility from design and documentation to the management of people, timelines, finances, materials (and crucially) design opportunities, which emerged as the project unfolded. We demolished the old house.

(7 January 2012)

I have salvaged a lot of material from the old house.

We'll re-edge the old mirrors and use them in the new. Andrea cried when I told her. In my mind there it will be a beautiful memorial moment when her children look into the same mirrors as their grandparents did.

I have de-nailed and transported 600 metres of rimu match-lining and 100 metres of kauri weatherboards (Figure 7).



Why? I don't know what I will use it for ... it feels like treasure.

My wrist has jammed up.

The builders are laughing at me.



Figure 7. De-nailed rimu match-lining.

Photography: Michael Davis

(20 January 2012)

More timber is coming back.

I am spending hours at a time, bent over, under the house, in the dark, kicking cat shit out of the way, stacking salvaged finishing timber on pallets — four of them, hip high. The framing is being turned into flooring, the weatherboards will get the Mike O'Sullivan and go on the ceiling. The builders are keen but wincing at the cost to me — still shaking their heads but not laughing anymore.

I'm still carrying the front end of this project on my own. I'm running around faster in tighter circles. Where is the momentum?

I can hear the kids above. Vanessa puts on the record she brought me for Christmas.

My back hurts.

This is hard (I must be onto something).

## Drawing

The designing of the Lang's Bach project was pursued initially through quick, scratchy drawings (in sketchbooks, on Post-It notes and other loose pieces of paper), AutoCad drawings (datum plans and datum sections), Illustrator

diagrams, Rhino models and renders. They were often made in short but intense periods of focus and appeared in sequences, with successive drawings testing the impact of changing variables in the material systems in play. Each medium was acted within quickly and from each something was taken to move the project on that little bit further. It was a drawing practice which operated across the top of a number of media, rather than through the depths of any one medium.

(2 January 2011)

Make a set of sketch configurations in plan.

Choose one or two or ... eight to test/develop more precisely in a digital drawing.

Load them up with all sorts of constraints and possibilities.

On this basis develop other options. Others will not be tested ... as I work I get a stronger sense of which are worth trying. Tracing over the options by hand helps to make decisions as to what to proceed with.

Look at them all again and ask what the project is about. And then strip it all out again — to reduce the conditions present to those that are core to the project. I know what is core because in the process of loading it up I develop a sense of what works and what doesn't.

I am conscious of a feeling of exhaustion. I am locked in. I close my eyes and I still see the drawing. It is like having played a video game for too long.

## Knowing-through-drawing

Downton picks up Schöns' 'knowing-in-action' (1983). In unfolding a notion of 'knowing-through-making', Downton discusses '... the interaction between the ongoing making of a representation and the evolving knowing of the designer making the (probably partial) representation' (2003: 101). What he opens up, but does not pursue, is the idea that different types of making might yield differing types of knowing: Knowing-through-making-a-model might be different to knowing-through-making-a-drawing.

(4 April 2011)

Andrew Barrie stands at the open door of my office. He points at the version two model.

'It's not quite there', I say.

'Why?'

'Because the plan figure lacks clarity — it is like boxes of space wrapped in Gladwrap.'

‘But you’ll never experience the building as a plan form.’

‘I know, but it doesn’t change the way I feel about it.’

My ‘knowing-through-drawing’ had me resisting the irregularity of a particular plan figure. The geometry wanted to be simple. It wanted to conform to a nine-square grid, but couldn’t do so, despite a protracted struggle. In the struggle it had become bound within itself and in relation to the grid of the pergola above — it made me wince. When I drew a diagonal line across the grid of the pergola I got a flash of a sense of freedom — a sort of small ‘ah-ah’ moment — which I eventually pursued into version three of the project.

What does knowing-through-drawing mean below the level of the complete geometry, at the level of the individual lines which are aggregating? I would like to propose a model of my drawing practice with the benefit of the reflection upon Lang’s project and the work of Schön and Downton: I always have a geometric idea before I draw, but it is a germ of an idea — a line, shape or form perhaps, never a fully formed image of a building. Each line, as it is being drawn and once drawn, is immediately/simultaneously evaluated in terms of both the emotional response I have to it relative to its location, shape, quality, and its subsequent relationship to the initial idea. Is the line good, adequate or bad in terms of the geometric entity that I am attempting to represent? When I draw a line that I don’t like there is a wrestle — is it just that line or the whole idea that is the problem? More often than not I push this micro-discomfort aside in the understanding that it is just that line.

The word ‘understanding’ is important as it implies a shift in the level of consciousness at which these micro-scaled evaluations are taking place — a micro-emergence. For the most part, this evaluation process occurs immediately, in ‘real time’. The slowing, the interruption of the rhythm, the discomfort established in the drawing/evaluation process brought about by the ‘wrestle’ may bring that issue, momentarily, more fully into consciousness.

As I continue to draw, and the idea changes and develops, so too do the evaluation criteria.

As I draw further a more fully formed idea emerges and the lines are evaluated against the growing sense of the whole. At the micro-scale being discussed, there is an immediacy between the geometric idea, its drawing, and its evaluation that feeds back into the idea, the geometry, the evaluation and so on.

So, just as the lines aggregate to define the representation of the whole ...

So, too, do the micro-evaluations aggregate to form a judgement of the whole ...

And so, too, do the feedback loops aggregate to form a ‘knowing’ of the emerging whole.

Knowing-through-drawing is an emergent form of knowing which works on the fringes of consciousness.

## Crafting models

The physical model was the firm, physical statement of intent that the drawings fed toward. Over 12 months, the project ran through three full cycles of scratchy drawing through to a 'finished' (rather than 'final') 1:100 scale physical model.

(17 April 2011 in relation to the completed version two model)

I am noticing the physical symptoms of the strain of making this model. The base of my skull is itchy, my eyes are flicking. It seems I live in a constant state of stress, only the level varies. I only realise this through the moments of relaxation and fun I encounter in the work.

When I make a model of the kind I have just finished I am nagging at myself 'it's taking too long!' — eight days here. But when I make a fast model I lack a sense of certainty, the kind that comes on the basis of a quantity of work. I might project a solution. But if it's not perfect at the outset (and it can't be) an internal commentary of 'that's not it'; 'that's too heavy'; 'how are you going to clad that?'; 'it's over budget ... too expensive ... too indulgent ...', begins. This is judgment, un-bridled self-criticality, self-editing. It is crippling.

Relative to the making of the drawings, modelling was a materially invested, detail-focused, more concerted mode of making and, somehow, more personally introspective ... and it was much slower. As indicated in the notation above, this slower mode of production saw a level of debilitating self-criticality surface.

## Finished models

Escaping that self-criticality becomes a central theme to my practice. That escape might require a sense of humour coupled with a sense of possibility (rather than predetermination) in the work. These qualities present most clearly in the version one model in the scales and materials applied to represent the various elements and in their juxtapositions: the over-scaled red flax relative to the lime green foam relative to the faux, super-green grass; the bamboo skewer trees relative to the blue, kitchen sponge hedges; and, if you look closely enough, the tourist-with-camera and the woman-in-kimono who occupy the model (Figure 8). With this juxtaposition of elements, the version one model works in a very similar manner to a Photoshop collage, simultaneously projecting precision and yet a quality of the provisional: speculation and fun. In doing so, the 'finished' model retains a sense of openness to change.



Figure 8. Version one model.

Photography: Sajeev Ruthramoorthy

## Paper models

The two paper models at 1:200 scale were made after the presentation of the version one model (Figure 9). Perhaps due to a perceived lack of speculative drawings (relative to previous projects) prior to the making of the version one model, I felt the need to test the direction of the project against another viable direction through physical modelling. And I needed to avoid the mode employed in the version one model — it needed to be faster, less detailed and more materially ambiguous. This was an exploration that took me away from the tedious preparation of AutoCad files for the laser cutter, and into a new combination of physical modelling using Illustrator. The significance of the paper models in terms of the research is that, in their making — with the new technical challenges they presented, and with the speed of production they facilitated — the self-criticality abated.

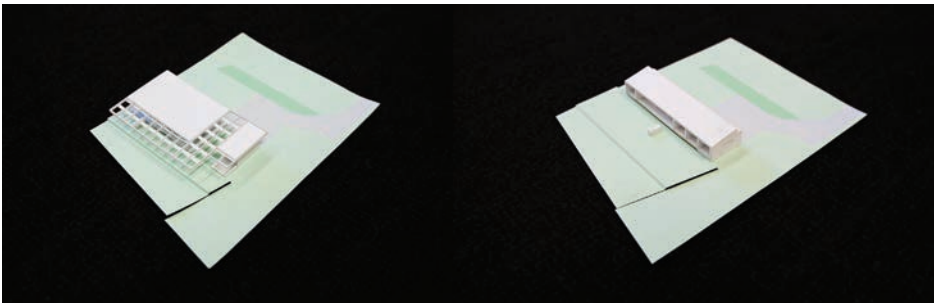


Figure 9. Paper models.

Photography: Sajeev Ruthramoorthy

## Knowing-through-modelling

Modelling is a particular kind of making and a particular kind of knowing-through-making might be expected to emerge. Modelling concerns cutting, folding or otherwise manipulating material, and the subsequent assembly of pieces. Cutting card, for instance, involves the holding in my left hand of a retractable, snap-off blade knife at a particular angle, with a particular pressure; holding with my right hand a metal ruler with a non-slip rubber strip on the back — my thumb and first two fingers pressing down along its length. My right wrist, elbow and upper arm define a 'Z' shape, my right shoulder is down; my left elbow is shoulder is high and shrugged, my arm relatively straight, my forearm tense through holding the knife. The twist in my body starts at the tip of the knife, runs through my arms, is exaggerated through my shoulders runs down my back into my hips. My right hip is drawn forward, my weight bears over my slightly bent right knee. The ball of my left foot balances me, my left heel is raised. My position changes, the twist is exaggerated as I bend my arm, as I pull the knife toward me through the card. One cut is made. The number of cuts made in this embodied manner in the production of a single model may well be comparable with the number of lines drawn across that part of the design process which defines the model to be made.

(April 2011)

Resonance is a feeling. When I am modelling in a faster manner resonant conditions present more quickly, not quite in an instant, but in ways and at speeds which tend to surprise. They produce mild excitement — I smile, I get itchy in my hamstrings, I have to move around, I sit back, I stretch. I get keen. I work for these moments.

When I am making in a more focused, singular, slower manner, perhaps focused on resolving a single issue, resonance presents itself as an absence of the agitation that builds in me when I work this way. This is a calmness. It dawns. It is relief. I get it when the pieces I am concerned with are set in relation to each other in a way that is good, pleasing, consistent with each other and/or the whole.

Just as the lines aggregate, are evaluated, and micro feedback loops established, so too are the cutting actions of the modelling craft. The difference is that the role of my body, the material and the tools are perhaps more pronounced in the actions of making a cut relative to drawing a line. The opposite might be said of my level of conscious thought. The 'wrestle' described earlier in relation to drawing a line is less likely to occur in making a cut as it is following a line that has already been drawn. The result is that knowing-through-modelling occurs more in my body — I catch myself smiling and have to ask 'Why? What just happened?' It seems that, as my bodily activity increases and the worry diminishes, conditions become more primed for emergent realisation. This emergent, embodied knowing might also be termed 'sensitivities'.



Beginning with the drawing of lines, and the clicks of a mouse, with the cutting of card, I make.

Through the making I develop sensitivities to the project.

This extends my knowledge of the project at larger and smaller scales. My capacity to contribute to the project through my making across these scales is thus extended.

... with the drawing of lines, ... (this is self-perpetuating)

In the making of a drawing or model I engage with the project beyond simply representing a building. In the case of the version three model for the Lang's project this involved, for instance, not merely drawing and assembling a timber pergola post at 1:100, but through drawing and assembling the post, I developed a sense of what the material was, the machining of the timber, the excavation required to accommodate it, where the spoil would be located, the time and labour involved, its structural performance and the load it would endure in the wind, and its effect upon the space it would define and upon the occupants that would inhabit that space.

This investment in the project through my craft practices reached through the finished models into the world to yield a base of knowledge about the project upon which decisions as to what was good, bad or indifferent were made. Crucially this sense was not dependent upon the actual experience of machining or founding a timber pergola post. But it was dependent upon my willingness to engage with the material world across scales and differing environments through making drawings and models. The resulting emergent sense of empathy with the labour and material consequences of the design was subtle but persistent.

## **A productive tension**

What the preceding accounts provide is evidence of emergent conditions and knowledge in the design process: 'Knowing-through-making' (Downton 2003) is an emergent condition — a macro-aggregate of micro-actions, micro-evaluations and micro-feedback loops established in the making of a designer. This aligns 'knowing-through-making' with Johnson's notion of emergence. Following on, two issues are becoming clear: the first is that knowing-through-drawing and knowing-through-crafting models are complementary ways of knowing-through-making. They differ in terms of the tools and materials and the level of bodily engagement involved in each; the second is that they operate in tension. It seems that central to the development of the project are two objectives related to this tension: Escaping the self-criticality that comes with slow craft; and maintaining a sense of speculation and openness in the project as it develops. Micro-responses to this tension, whether they present in my body (in a smile or a wince, for instance), or whether they be in my material decisions (foamboard over timber, for example), also aggregate to yield an emergent quality of approach to design–craftiness.

## The site model

(8 April 2011)

Problem: The Lang's Site Model. I am sketching in my book, trying to think of a way to make it. It must be light, easy, fun, (most importantly) something I have not done before.

Solution: Black foam board profiles. Top side covered in black fabric and varnished (Figure 10).

Excellent! The site model (the most mundane element perhaps) has me excited about the project again. The task of making a FINAL model — the demand for the perfect, predetermined, fully resolved patterns that the laser cutter demands — is excruciating. This site model task is new and the quality of the outcome is not predetermined — it is a material experiment.



Figure 10. Site model in the making.

Photography: Michael Davis

(13 April 2011)

The slot together structure of the base is related to how the rafters slot over the beams in the version one model. I am nearing the end of the work for the day — it's midnight. I am hesitating. How do I treat the edges of the cloth so that it covers the top edge of the site frame? How to treat the ragged edges? All this hesitation in spite of already having decided how to do it — by pinning the edge provisionally, cutting it to leave an even surplus, folding the edge back onto double sided tape and pinning through into the edge of the foam-board frame.

This is not craft. If it was I would not be using foam board but timber, it would take eight days to make and I would drive myself insane. My desire to make well is extended by a desire to develop new ways of doing (ordinary) things. It is tempered by a concern that the entity I am to make contributes to the wider design process it is a part of rather than becoming the focus — it is an end but more importantly it is a means. Holding it in this role is a tactical issue, in this case actioned by material selection — the cloth over the foam board rather than timber.

This temperance perhaps also allows the model to open up new ways of thinking.

Craftiness is a craft-informed, collage quality of approach to design: through it I escape the crippling self-criticality that comes with slow craft either by employing faster modelling techniques, or by introducing new modelling techniques that draw focus away from the slowness. It also brings a quality of openness and speculation by projecting provisional relationships through the juxtaposition of techniques (in the process) and components (in the outcome). The relationship between the escape, speculation, and the collage-quality here is circular and tightly bound. While their hierarchy, therefore, is not entirely clear, I suspect that the desire to escape self-criticality lies at the core. The effect of craftiness in juxtaposing the differing material components in the models is to resolve an apparent paradox, where the models (as described earlier) simultaneously project a quality of precision, and yet a quality of the provisional and speculation.

## Tracking craftiness

Might craftiness be tracked into the architectural outcome?

The brief presented an ambition for a four bedroom, two bathroom house with a large shared living space — one that would comfortably accommodate the two sisters and their growing families simultaneously. The budgetary means were smaller by comparison. The compromise was to ally an entry with a combined kids' sleeping, AV area and playroom to the rear, and to run this parallel to a larger scale living, dining, kitchen space on the seaward side of the building. The result is a problematic programmatic/spatial adjacency which warranted sharp focus in the design process.

(7 April 2011)

I packed up the Lang's work and relocated it to UoA.

I ran across the first 'quilt' drawing (Figure 11).

It shows a concern for occupying the site in multiple ways.

Even if, or perhaps because these are shown somehow compartmentalised, the interesting bits are the lines, the interfaces between these pockets of program/space.

What is the nature of each spatial division?

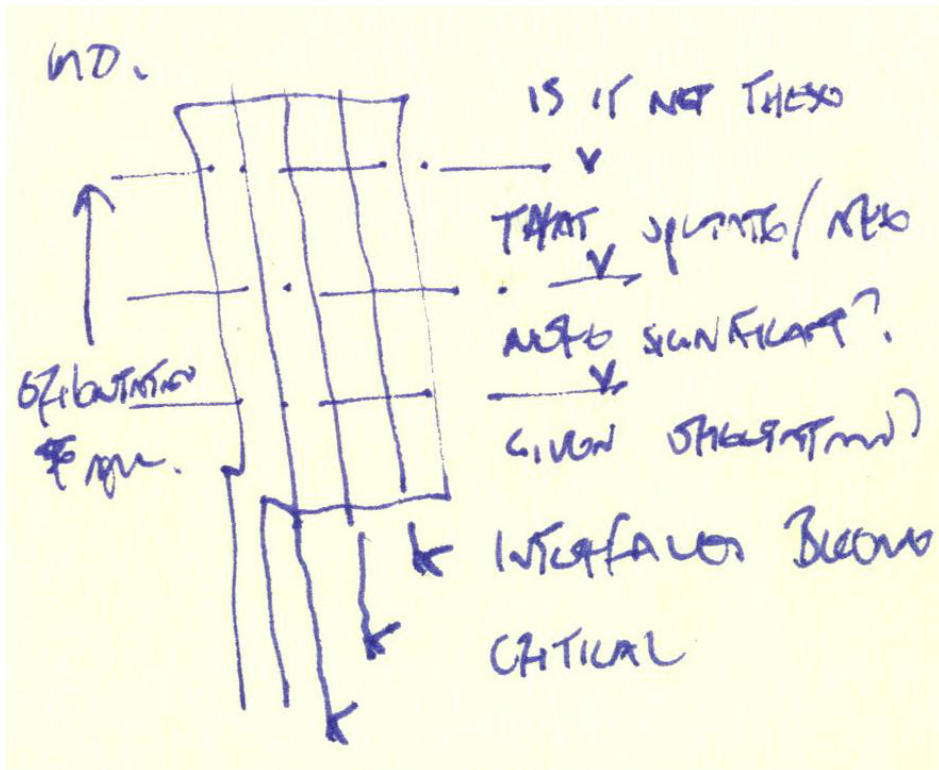


Figure 11. Quilt drawing.

Sketch: Michael Davis

Delineation between the zones is established by a 140-millimetre (mm) step up into the kids' zone. The timber doors are each 2.1 metres high by one metre wide. They run along the edge of the step, which is paralleled by a bulkhead above that holds the track from which the doors are hung. Perpendicular to the doors is a cabinet that separates the entry space from the remainder of the kids' zone. It slides apart to lengthen the entry space, focusing movement through the entry into the adult living space and simultaneously closing the corner of the children's zone to reveal the AV gear within. The cabinet corresponds to the height of the doors but is open above. It slides along the floor to butt into the face of the first door, just creeping under the bulkhead to do so (Figure 12).



Figure 12. White cabinet versus recycled rimu match-lining to doors.

Photography: Sajeev Ruthramoorthy

The cabinet took on the same white of the plasterboard-lined walls, but in a low gloss lacquer rather than a matt. To the children's zone, this was juxtaposed with the recycled rimu timber flooring and the existing paint colours of the recycled rimu match-lining to the sliding doors — stripes of peppermint green, French Vanilla cream, matt grey, muted turquoise blue, and flaking white. The sense of provisionality and fun that emerges from these juxtaposed elements pervades the space — it is its defining quality. It bears a strong resemblance to the 'Photoshop collage' sensibility of the finished models and the version one model in particular. It is a point where craftiness bursts through into the final outcome — it changes state from being a quality of approach to being a quality of outcome.

## Tracking craftiness further

The sliding door system had persisted and had been adapted through shifts in the project informed by client preference, encounters with technical constraints, and the gradual revelation of the availability and type of timber salvaged from the old house. My commitment to the door system from the outset is illustrated in the version one model through their highlighting in the zebrano timber pattern. What began in that model as two sets of two 2.4-metre-high by 3.6-metre-wide exterior, wide-slat timber shutters became, in the built outcome, six 2.1-metre-high by one-metre-wide interior hollow-core doors, faced in 12 mm recycled rimu match-lining to both sides, and with a CNC relief milled into one of those (Figure 13).





Figure 13. CNC relief to recycled rimu match-lining to doors.

Photography: Sajeew Ruthramoorthy

To explain what this has to do with emergence: earlier in this text I outlined a quandary I had about the discussion of emergence in architecture that I was engaged with at the AADRL, and what it might mean in the everyday-ness of practice in New Zealand. I recounted a moment walking on the beach, seeing patterns left in the sand by the receding tide, and understanding them (post-AADRL) as an emergent condition. What I developed at the AADRL was an attention to a sense of the emergent.

One particular photograph of one particular sand pattern informed the CNC relief to the doors. In setting the relief within the larger project, what was achieved was a juxtaposition of an image-of-emergence with an (actually) emergent behavioural condition (craftiness), emergent relationships (between components), and emergent qualities of outcome evidenced in the project. That juxtaposition was the seed for this paper.

The 600 lineal metres of rimu match-lining that I extracted from the old house and de-nailed was machined down so as to line both outer faces of a hollow-core door leaf. Consideration of the direction of the flooring and the ceiling (which articulate the 'grain' of the space) informed the horizontal direction of the rimu strips to the doors. My friend and research assistant Sajeew Ruthramoorthy and I took 120 photos of sand patterns. I reviewed the photos, reducing the file count to ten. Sajeew developed a 3DSMax template file into which the ten images were dropped. Each was scaled and a displacement map was generated on the basis of the relative light-dark ratio to produce a digital model. We reviewed the outcome, looking for the most compelling — that which would produce the



clearest, most consistent model relative to the sand pattern. Five were selected. Depth and blur variables were manipulated, and renders made in elevation and perspective to determine settings for the final models (Figure 14).



Figure 14. Sand pattern & 3DSMax test renders.

Photography: Sajeev Ruthramoorthy

We tested a 450 mm square portion from one file in foam. The six mm bit with a two mm step over produced a surface that was too coarse and, at the same time, not detailed enough — the six mm bit would not go into the depths the file projected, as the tip of the bit was too wide. So, while we had a nine mm depth available to us, the cut depth was limited to around four mm. Next we ran a six mm rough cut with a two mm step over, followed by a two mm fine cut with a 0.5 mm step over. With a feeling for the settings developed from the foam tests, we ran a test in the timber. From the tests we were able to go back into the 3DSMax model, and further back into the Photoshop file to fine tune ... and this process continued into the production of the doors.

There is an immediacy afforded by the narrow gap between the representation and production technologies. That immediacy facilitates a feedback loop in the reciprocal relationship between the image, the model and the 1:1 prototype at a detailed level. The speed of operation between these technologies, and the superficial use of each to progress the project, is a similar ethos to the drawing practice outlined earlier in this text — it is a crafty collaging of techniques in the production and detail to achieve a sense of openness and speculation at this level.

Craftiness is an emergent collage quality of approach to design that issues from the tension between two forms of knowing-through-making: drawing and modelling. Compositionally craftiness holds the Lang's Beach house project together across the process of designing it through into the detail of the outcome — from the quilt drawing into the production of the doors. Craftiness emerges as the key quality in the project.

The craft of the architect is concerned with the making of representations of an artefact to be made by others. But it is *through* the making of those

representations that the attentive practitioner may also develop a feeling for the implications of the artefact being represented at smaller and larger scales — from detail to context, from the front doorstep to the city.

What the Lang's project (also) shows is that the qualities we strive to draw forward through crafting a drawing or model have the potential to find their way into built outcomes and to distinguish them experientially. Our craft practices matter to the world to which we contribute.

## Juxtaposing projects

The AADRL *Kinetetras* project and the house at Lang's Beach are half a world and ten years apart, but they each provide a perspective as to how the other might be understood. What I experienced at the AADRL in making the *Kinetetras* prototype was a 'sniff' of emergence. But it is evident that emergent conditions also presented across the Lang's Beach project.

The type of craft processes involved in making the surface for the *Kinetetras* project were vastly expanded across multiple dimensions in the Lang's Beach house project. They worked not only into and through my body in the making of models, but into the de-nailing of the timber recovered from the old house, into the making of the doors, and into running the contract; they ran through the varying types of reflection captured and presented here; and they ran into my family as both co-contractor and client — I was deeply involved in many ways. The AADRL was intense, but it was not as intense nor as protracted as Lang's Beach. While *Kinetetras* was a small part of a system consisting of a few component types and relationships repeated extensively, Lang's Beach was a whole building consisting of multiple types of components and processes and relationships played out with limited repetition in relation to specific circumstances (around a programmatic adjacency in the case of the doors, for instance). While it did not pursue the language of formal complexity, which the *Kinetetras* project did overtly (even prescriptively), it was vastly more complex relationally.

In terms of a sense of the emergent, the phase shift that *Kinetetras* went through was singular and pronounced — one big 'AH-HA!' moment — perhaps due to the extensive repetition of the very limited types of components and relationships involved. With Lang's Beach, that phase shift was substantially more protracted and was much less pronounced. It consisted of much smaller ('ah-ha') moments, such as the diagonal line in relation to the pergola grid, or the decision as to how to make the site model. Each signalled one of a raft of relationships coming into being and, yet, each had to be held provisionally as others came into being (as each new relationship may have effected further shifts in existing relationships) and were drawn into the emerging whole. To provide an analogy: it was similar to the formation of carbon-based polymers — link to link; chain to chain ...

slowly, gradually they fit together, the relationships become firmer, and the mix becomes more viscous as the polymer (design) emerges. Each little ‘ah-ha’ moment was a point where some sort of relationship congealed.

The Lang’s Beach doors might be understood as a project that parallels *Kinetetras*, but one that offers a critique of the formal agenda pursued in the name of emergence to which *Kinetetras* contributed. The geometry for the doors was extracted from patterns in the sand — an everyday occurrence for me — and imprinted into a material to provide a surface effect. On their own, they were illustrative of an idea of emergence, just as *Kinetetras* was, but in the context of the project, that meaning was subsumed in the emergent raft of relationships that presented in its making. What the doors do in the building is punctuate the complexity of that raft of relationships.

My research into emergent complexity in design began at the AADRL with the *Kinetetras* project. The Lang’s Beach house re-grounds that research in an everyday context, and the pursuit of a sense of the emergent through embodied craft practices, I now see, is an everyday aspect of design.

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# Crafting the imaginary: The deteriorating idea and sentimental plan of the ideal city

Erin Hinton and Craig Bremner

*Abstract:* The characteristics of the relationship between a city and its plan are not generally depicted as products of craft, nor are they discussed in terms of sentimentality. Despite the heroic modelling of the city based on illustrations of utopia, when looking at Walter Burley Griffin's claim for the Ideal city that became Canberra, there is evidence, however, that both craft and sentimentality might be important vectors shaping both the perception and projection of cities. This paper presents the case that the contradictory temporal vectors of the city and its plan (preservation versus projection) are paralleled in the notion of the sentimental (attachment to a past that will be misrepresented in the future). A similar temporal shift occurs in craft where mastery does not begin with ideas, rather it produces ideas. These shifts in time produce conditional cognitive and imaginary experiences of cities that differ from their planned conditions. The deteriorating image of the plan and its ideals produced by the dissonance between the actual and imaginary city, presents the possibility to apply the lens of sentimentality to its practices of representation. So, while the future city will no longer be depicted in reproductions of utopia, it will always be reproduced in plan as image and the city as imaginary, both in varying states of repair and (mis) representation. The signs of human activity (the crafting of micro-utopias), connections (cognitive maps), and experiences (the public imaginary), are experiences that craft the imaginary city in which, we speculate, it is possible to imagine people will want to live.

## Introduction

The city of the future is no longer an ideal project (which shapes it as satire), but it can be a sentimental project (which shapes it by craft). The sentimental city captures the emotional and processual happenings, encounters, movements, and transitions of everyday life (the urban imaginary). Given the plan of the city is now a digitally reproduced object, and reproduction is the basis of accumulating skill, then the city of the future can neither originate from an idea nor generate ideas (hence the historic appeal of the ideal city). In this paper, however, we present a case that the future city might be crafted.

In this paper we speculate whether the practice of 'craft' might be used to give us a way to view and advance the urban project. If so, it opens the city to the lens of sentimentality as both a form of nostalgia (remembrance of things past, preservation, and the production of a view of the city future based on the past), and a method of production (conventional urban material in low volume production). Sentimentality, as a method of production, is a conscious process

at the same time that it is a default product of the emotions — decisions are made about what to create with a view to the future, while keeping an eye on the reactive and the visceral. This sentimental duality (method + emotion) is then given a definition, logic and structure that permits outcomes to be evaluated in reference to the shaping of the city. From this notion of sentimentality, from the material and method, craft might be an urban practice and also a ‘by-product’ of everyday urban experiences.

We conclude by clarifying that, while the future city can no longer be depicted in faithful reproductions of utopia, it can be crafted revealing signs of human activity, connections, and experiences, and it is these experiences that craft the public imaginary of the city.

## **Plan and city as synonym**

Before the city was planned it was lived in. And then, to imagine the city as the sum of lived experiences, the imaginary, it had to be mapped. Almost instantly the map and plan became interchangeable; to show the way became the way to show. So the plan and city have developed a certain synonymity. Clearly, they are not the same and, while the plan maps a city, the experience of the city does not require a plan, although it might require a map.

The notion of the sentimental city is derived from a temporal polarity; nostalgia for a past that cannot be retrieved substituting for a future that tries to preserve a past. This causes a problematic relationship between the plan and the city because the apparently opposing temporal vectors of the sentimental still need to be mastered. It is easy to see what happens over time in the city but not so easy to see what happens over time to the plan. The project of the plan to abstract a possible future for the city is evidence of its temporal persuasiveness over its spatial authority. But it is the temporal and not the spatial that determines the life of the plan — its constant revision is caused by the steadily deteriorating image of what was a representation of the real city at one point.

And when we talk about craft and the city we imagine the city as alternately traditional material (we know it well) and nonstop project (constant repair of its fabric and image) (Sennett 2008). The disparity in scale, however, between the city and practice of craft would normally preclude the two things being considered together, if it were not for the abstraction of the city through the plan. As an abstraction of the city, the material of the plan is constantly being reworked, revised, and repaired, in a manner similar to the material practice of craft as it endeavours to master its medium. Somewhat paradoxically, while craft supposes mastery at some point in the future, the plan proposes the future will validate its mastery of the city. To achieve this the plan is totally reliant on the image.



## Plan as misrepresentation

From historical agendas of flourishing agriculture, military defence and spiritual power, to modern ideals of movement, sanitation, and aesthetics, the history of city planning has presented itself as a rational paradigm defined by heroic ideals of power and social transformation, best captured in the numerous influential illustrated urban utopias. The utopian image of the city was long exalted as an embodiment of an ideal future plan (Solinis 2006). The inevitable loss of collective faith in the ideals of the modern movement, however, and consequent rise of a newly recognised pluralist society, brought with it criticism of the rigidity of the 'contractual' promises of the utopian city, as embodied in the modern plan. In addition to this criticism, then, came more damning evidence in the form of increasingly rich global data on cities, populations, ecologies, economics, and other flows illustrating the discovery of limits of both the utopian image and the project of the city: spatial and social; imaginary and contractual; *telos* (end) and *topos* (place) (Frye 1965: 323).

The design response to this evidence has been mixed, and a possible reason for this is captured in Thierry de Duve's essay 'When form has become attitude — and beyond' (1994), in which he outlines three stages of transformation in art (and design) education in the twentieth century. According to de Duve's outline, in the original academic educational model, talent resided in the few and required skill, whereas Bauhaus replaced talent with universal creativity that just required a medium for its expression. Hence, since Bauhaus, everyone can be an artist (Borer 1997), or now, a designer, as Donald Norman (amongst others) suggests (Norman 2004) and, by extension — a city planner — keeping in mind the Bauhaus educational model has been applied almost universally to the disciplines of art, architecture and design, including urbanism since it spawned from these disciplines. In the academic model, skill dealt with the mastery of a medium that would permit the skill to be continuous. In the 'modern' Bauhaus model, however, skill is replaced by invention, which has since been reduced to producing continuous novelty, epitomised in early modern critiques such as Cedric Price's Fun Palace (1961), Guy Debord's *Society of the Spectacle* (1967), and Ettore Sottsass's Planet as Festival (Di Castro 1976). Superseding the Modern was the Postmodern, in which 'critical attitude' replaced creativity, but rapidly degenerated into artistic 'pose', and simply required a 'signifying practice' to convey its form in a soup of referentiality and replication. Ultimately, as creativity was replaced by pose, art and design could simply be willed into existence. Now digitally derived flows ensure that everything is imitated. Even the scale of a city can be readily understood to be simply 'willed into existence' and, in its case, suspended in a cloud of digitised representation (Rodgers & Bremner 2011).

Following de Duve's critique on the impact of the Bauhaus on art and design education, the Bauhaus also encoded a linear design formula where *idea* originated the development of the *object-type* which was then *imitated* to produce a better world, (or the *telos* of the plan) in which a single public interest

was assumed, generated, and propagated. By the late 1960s, this was censured as reductionist and oversimplified, and denounced as lacking in 'the complexity of life' (Jencks in Calinescu 1987: 282). What emerged subsequently was a pluralist, desire-based production formula, in which the value of homogenous objectives (ideal conditions) and innovation was superseded by an overwhelming interest in the generation of heterogeneous projects (conditional ideals). This shift away from adherence to a collective interest acted to dislocate the encoded design method from any notion of *idea*, and instead generated a circular dialogic between the *object-type* and its *imitation*, from which the originating *idea* was absented then, eventually, not even necessary.

It is no surprise, then, that planning defaulted to imitation as the origin of design at a time when it has become apparent that the relationship between the project and the production of the city has been changed by digital technology. And this scenario is also driving change over the terrain of thought and action about urban design. Where once ideas drove change, urban change now appears to be split between two projects whose temporal dimensions govern the city future. One is the 'prosumer' busily sharing the world-as-found, and the other, and counter to their digital reconstruction of the here-and-now, is the revival of projections of what-might-become depicted in ideal future locations that are visible in the boom in digital imagery of fantasy cities. In order to now imagine the city it is necessary to navigate time, not space, and competing time frames at that — addictive cataloguing of the past and seductive schemes of the future. Instead of projecting 'what-might-become' (the city future) the digital is generating the design of an 'other' world where, under the weight of digital flows, the project has become to archive 'what-was' trying to sustain the unsustainable sentiment of the city. Imitation also appears to be the means of contributing to (and taking guidance from) this project forming a reassuringly derivative loop. Coincidentally, the derivative also happens to be the most influential 'product' of global capital. Functioning as a financial medium of insurance against change the derivative generates the capital flows on which cities depend for their continued existence in the era of the production of nothing.

Over time, each technological change has enhanced the propagation of the plan and served to further alienate the notion of *idea* from the Bauhaus design formula. By accepting the plan of the city as a readily reproduced object, and given that reproduction is the basis of accumulating skill, the future of the city became an artefact that could neither originate from an idea nor generate ideas — it regressed into an image of the image of the project. The plan became little more than a reflection (misrepresentation) of nostalgia for the past and sentimental visions of an ideal future. The process of coding and decoding (repairing) that was once perceived as real was now exposed as a filter that eliminated aspects of reality as quickly as it invented others. Ideal spatial conditions were equated with ideal social conditions and, rather than a map of the city as a projection, the image of the plan conditioned the project. Now devoid of the *idea*, what had

originated as an image of the 'real world' (a concept in itself misguided by the assumption that propagated imagery as real or absolute) was rapidly reduced to an endless cycle of imitation.

## **Plan as deteriorating image**

The proliferation of the digital project and its defining 'ease of re-productivity' additionally compounded the reduction of the plan to not only a set of simplistic concepts but moreover, a mere image. And digital reproductivity has serialised the plan into an image of inescapable distended perspectives in which the issue of urbanism and its civic project (projecting cities for citizens) appears to have been lost.

The positive attitude to technology formulated by Reyner Banham's revision of the modern project in 1960 invested in the machine the expectation, and then the capacity, to reproduce/edit/copy the image to any selected scale in any given quantity. It removed the image of the plan from the notion of context, and instead generated a montage of fractured imagery into which the public, and indeed the greater social condition, were required to adapt. Here the plan emerges as author representation (narration), as images of possible futures predicated on ideals of the city plan as transformative of social conditions and, in this way, it constitutes misrepresentations of the world driven by sentimental indulgences of our feelings about being together (Midgley 1979; Jefferson 1983).

In the case of the developing urban condition, the ubiquity of the digital initially acted to transform the 'idea' into an image of itself, reducing urban visions and ideals to a reflection of the digital's own essence, constraints, and design. In this way, the digital itself both determined and created the dimensions of the static environment and the resulting social condition. In another (perhaps more sinister way), the reproductive capabilities of the digital acted to transform the plan into a diluted representation or deteriorating image of itself, with each consecutive reproduction generating an increasingly extraneous derivative of the original (albeit transformed). In this sense, the deterioration of the image was not only occurring in the digital sphere, but also in the physical, with each reproduced artefact — plan and city — deteriorating from the moment its physical form became tangible (Antin 1966; Smith 2011: 7).

The increased reliance on the technology of the digital image, and the impact of the same technology on the production of the image, simultaneously brought about a change in the role of the plan. What was once a project that engaged visionary ideals and the pursuit of ideal vistas, now involved the constant repair of the deteriorating image, and deterioration on a digital 1:1 scale.

## The sentimental plan

To accept that the reality of the urban future acknowledges the plan as an image and a reproduction removed from reality and, in this, a misrepresentation, then the notion of 'sentiment', as deeply embedded in this misrepresentation, must also be acknowledged.

It is generally agreed that there is something unwholesome about sentimentality. Whilst the term began life as an admirable attribute, its currency rapidly deteriorated to signify a brand of culpable naivety (Jefferson 1983: 519). Mary Midgley notes that the most abhorrent offence in sentimentality is its 'dishonest distortion of reality' in order to fulfil the desires of an emotional indulgence (a projection upon the world of a type of unreality) (Midgley 1979: 385). In this way sentimentality can be paralleled with the distortion of reality and/or misrepresentations associated with the ideals of utopia (Bauman 2003); one misrepresents to critique the here and now (embodied in satire) while the other misrepresents to indulge our feelings.

The influence of the sentimental on the plan recast the linear causal program that once existed between plan and public, and initiated a temporal correlation between the author of the collective experience (the planner), and the author of the individual experience (the public). In the case of the planner, we see sentiment evolve as a type of nostalgia — as an attempt to imagine the city by preservation of images from previous eras while projecting possible futures. Here the public are asked to imagine the city 'as if' — as the projection of a set of images — in contrast to 'as it was', and this practice binds society even more tightly to an imaginary past being laid out in the continuous present. The urban context, and indeed the image of the plan, emerges as a concept driven by temporal rather than spatial dimensions.

From the point of view of the public, the notion of sentimentality takes the form of 'the generalised mental picture of the exterior physical world that is held by an individual' (Lynch 1960: 4). This image is the product of both immediate sensations and memories of past experiences, and is the result of personal transactions from the contextual environment of the city. In navigating the city the context suggests distinctions and connections (both experienced and to be experienced), and the public, driven by individual perceptions, desires, and purposes, link the image to their personal project. The resulting image is 'being tested against the filtered perceptual input in a constant interacting process' (Lynch 1960: 6) which both limits and emphasises what is seen. That is, how we see and experience the city is how the city trains us to see and experience it.

Rather than locate us in a continuous past, the sentimental view reinvigorates the analysis of representation (the cognitive map), but on a more complex level than the mapping of city form (Lynch 1960). What emerges is an interesting convergence between the representation of city space, and the 'representation of the citizen's *Imaginary* relationship to his or her *Real* conditions of existence'; a methodological enrichment in the cognitive mapping process that positions

the situational representations of the individual subject within the more vast and properly unrepresentable (or misrepresented) totality which is the image of the city (Jameson 1991). The total image in this context emerges as the 'public imaginary' — a collection of images made in minds by the imagination (that are not the stuff of fantasy). To reside in minds as a collection, the images have been moderated by experiences or the results of observations and encounters with the city. The public imaginary contains visual indications of how it feels to live in the city and describes the mental space in our relationship with the city. The public imaginary is the sum of representations formed by the mental images of the city and the cognitive map transforms this mental picture from unrepresentable to representable. Therefore, the nature of our relationship to the image — i.e., how we see and reproduce it — forms the basis of how information is interpreted and action is guided; 'The images we make of the world change our perception of the world and thus change our sense of reality of it' (Merleau-Ponty 2010: 19). In this way, the image, be it individual or collective, sensitises itself, and any plan attempting to capture the public imaginary can only be a sentimental misrepresentation of the everyday experience of the city. The influence of the sentimental on the thoughts and actions of the public may, however, begin to inform what could be termed 'a new emotional economy'; a re-investment in expenditure on emotional episodes, with a view to how these may reshape the future: 'It suggests that one's emotional responses to the world are typically determined by how one sees the world. And how one sees the world — our beliefs and the desires they inform — is central to how one shapes the world' (Jefferson 1983: 526). Therefore, the case we are assembling in this paper contends that understanding the view of the city as plan (a cognitive map) is very different to the experience of the plan as city (the public imaginary), and this difference opens the city to the lens of sentimentality as both a form of nostalgia (remembrance of things past) and a means of production. Sentimentality, as a means of production, is a conscious process at the same time as it is a default product of the emotions — decisions are made about what to create with a view to the future, while keeping an eye on the reactive and the visceral. This sentimental duality (means + emotion) is then given a definition, logic, and structure that then permits the evaluation of outcomes in reference to the development (shaping) of the city. To accept that the reality of the urban future acknowledges the plan as a misrepresentation, and this misrepresentation acknowledges the inclusion of the sentimental, then the future city might benefit from engaging with the process of how it might be possible to employ the means of craft through the lens of sentimentality to (re) locate (and possibly generate) ideas from derivative and disintegrating images of the plan.



## **Canberra as sentimental city/deteriorated image/ misrepresentation**

I have planned a city that is not like any other in the world. I have planned it not in a way that I expected any government authorities in the world would accept. I have planned an ideal city — a city that meets my ideal of the city of the future.

Walter Burley Griffin on Canberra, 1912 (Birrell 1964: 189)

Canberra is a city accustomed to critique and debate. As a planned city conceived on utopian ideals, the impulses that informed the design of the national capital are, in reality, as unresolved as they are unloved. The foundation upon which the plan for the city was designed was premised on two ideological assumptions that we would now call sentimental misrepresentations, 'The first was that a vigorous Australian national identity existed ... and that it could be symbolised in the layout of a capital city. The second was that city planning could create a better and healthier society' (Taylor 2005).

The first assumption (misrepresentation) embodies a sensitivity to the landscape that was based not on the realities of lived experience or cultural condition, but on picturesque representations, which were, by nature, bound up in objectification and idiosyncratic interpretation (Rigby 2006). Although the Griffin's (Walter and Marion) city layout follows the contours of the topography, the notion of the 'bush' in the 'bush capital' is ultimately demoted in favour of a 'quasi-spiritualist geometrical arrangement of circles and triangles' (Smith 2008: 80). This seemingly sentimental dismissal creates a tension in which the relationship of the plan to the physical environment, and indeed the presumed embodiment of a national identity, is no more than symbolic (Duggan 1998).

The second, and perhaps more prominent ideal, that of the creation of urban environments to engender new forms of community life, seems equally as misguided in its contradictory notions. As Ruth Eaton notes: 'the spatial models that are projected are indissociable from the social arrangements to which they are believed to correspond. Their production is guided by a long-standing conviction that the physical form of a city can both reflect and condition the workings of a society and the behaviour of its citizens' (Eaton 2001: 11).

Inspired by Ebenezer Howard's Garden City movement, the Griffin's design for Canberra endeavoured to create spaces that would promote the development of harmonious communities (Smith 2008: 81). This type of 'architectonic utopianism', however, brings with it questions of 'whether architecture and design in itself can be expected to effect socio-political change' (Rigby 2006: 175) where the rigidity of the utopian plan promotes a conceptual authoritarianism at odds with the diversity of human activity that it is supposedly designed to engender (i.e., an ideal community stripped of its communitarian idealism) (Smith 2008).

In creating a plan for the city driven by the ideological forces of 'utopia', the Griffin's, inspired by the new century's transcendentalism, inadvertently set the plan up to fail. Under the direction of unachievable ideologies, the plan immediately became a utopian diagram — a non-place (as may be suggested by the term itself — the ancient Greek *topos* = 'place', and the prefix *u* = 'not'); a model that could, in theory, be placed anywhere, but was, in practice, nowhere (Duggan 1998).

It is important to understand that another dimension of the legacy of the Griffin's is not necessarily the shape of Canberra, but the plan as visual residue of the pervasive narrative utopia; in particular the legacy of the 'transcendental' writers of the second half of the nineteenth century in America — Walt Whitman, Ralph Waldo Emerson, and most importantly Henry David Thoreau. It's an interesting coincidence that Canberra transformed itself through the addition of freeways in the 1970s at the same time as America revived transcendental literature. Typified by Jack Kerouac's 1957 novel *On the Road*, the freeway led the depiction of a new self-reliance that was embodied in the motorcar.

Instead of an ideal city, Canberra is a city wholly preoccupied with its plan, as evidenced by the National Capital Authority's dutiful *Griffin Legacy* (2004). This tendency finds expression in the static monuments of urban planning and architecture that have come to define the city, each standing faithful to the ideals of a modernist utopia that created them (deteriorating image, misrepresentation, and sentiment), with little evidence of the aleatory compulsions that truly shape cities — the piecemeal planning, retrospective policy, and ad hoc adjustments that shape from within, despite the legacy. Existing in a state of temporal inertia is the real legacy for Canberra; a cultural repository driven to produce the future city through totalitarian adherence to an unvarying historical paradigm. What was a visionary project has become a city of the nation's past; a failed exemplar of the egalitarian ideals of the nation it is supposed to represent (Smith 2008); no more than an archive in an illegible and ever-deteriorating narrative/image of the city. Then what of the public? The proud and loyal find themselves existing in a living museum, a city that did not (and could not) deal with the way the projected life might engage with the plan and the surrounding landscape;

On the floor of a tranquil valley, almost encircled by the blue wall of the Australian Alps, across the brown and silver paddocks watered by the Molonglo, architects with compass and set square had laid down the design for a city. It was to be the perfect modern capital, rootless, blameless, minutely regulated, of a partyless unsectarian beauty ... it was a shame that human beings should live there at all. (Barnard & Eldershaw 1947: 94)

## Crafting the imaginary

What is now commonly called the Global City is currently the subject of a vast research exercise, resulting in the fact that we know more about its future than

its present. What this research tells us is that the future Global City requires the re-imagination of its processes and all forms of production. It requires a shift from the idea of the City of Capital (how the city has been shaped) to the City of Lived Experience (how the city is imagined), using the Sentimental City (how the city is seen) to produce ideas. As we have explained, the Sentimental City captures the emotional and processual happenings, encounters, movements, and transitions of everyday life.

In this paper we are proposing that crafting the plan doesn't produce the city, crafting the deteriorating image that is the plan sustains the idea of the plan in the hope that it might reveal ideas for the city. And this is important. As we explain, the idea appears to be locked in a derivative loop, imitating its objective under the influence of digital reproductivity. By contrast the scale, repetition, and purposefulness of the process of craft includes the consistent interrogation of its results, and eventually generates ideas from the objects that it shapes — that is, the idea is derived from the process. In the manner of the authors of 'Non-plan', the repair of imperfect, incomplete, deteriorated imagery, and the application of the sentimental imaginary, requires talent and improvisation, resistance and ambiguity as instructive generators (Barker et al. 1969). So, unlike planning a city (derived from the ideal), crafting a city is a different process (an ideal production process from which to derive ideas) through which an understanding of materiality and technique is combined with the acknowledgement/generation of a new set of material values — social and cultural. In this way the gradual generation of a city and its plan are derived through a process of small improvements, movements, additions, alterations, insertions, repairs — tireless material derivation — something akin to the crafting of micro-utopias (Wood 2007). While it is impossible to resile from the utopian concept of the future city (as the already mentioned boom in digital fantasy cities attest), the known limits to the same future negate its plan (the macro-view) leaving only micro-actions that we equate to craft. As such, the crafting process does not require a plan, it requires skill. The idea of the city results from the non-stop repair of the image of the city, in much the same manner Archizoom and Superstudio cartooned in the late 1960s (Branzi 2006; Lang & Menking 2003), and Rem Koolhaas satirised in *Junk Space* in 2002. The crafting of a city adapts it to its setting, and expresses climatic conditions and its program and material essence, producing its political and aesthetic dimensions. The crafting of a city progresses through a process of micro-utopias as tireless material derivation in search of the idea of the city (Wood 2007).

Craft conducts a dialogue between practice and thinking (thinking in action, as Richard Sennett calls it); this dialogue evolves into forming habits, and these habits establish a rhythm between problem-solving and problem finding (Sennett 2008). Craft also develops specific relationships between thought and making, idea and execution, action and matter, learning and performance, self-identity and work, pride and humility. As ritual, craft does not require a concept — it produces concepts that circulate in its own processes to produce things that require mastery before new ideas emerge. Therefore, the iterative 'circularity'

of craft produces questions, never answers. Craft relies on collaboration with method and material. Instead of imposing a preconceived idea, craft demands listening to its material. To paraphrase the earlier quote from Merleau-Ponty — ‘The images we make of the world change our perception of the world and thus change our sense of reality of it’ — instead of the image sensitising itself, in this case, the material sensitises itself.

In the manner of craft the method of the plan reacts to the medium of the plan, it questions its own representation, and the plan does this because both craft and sentimentality reveal that the image is unreliable and misrepresents the idea of the city. The idea, therefore, as driving concept, can no longer be imagined to be the initiator of progress, as in the modernist program, and, if it is not at the beginning of the project of change, it must be located somewhere else. The question now, is where?

By perceiving sentimentality as a notion that frames understandings of emotional and processual happenings and experiences, then what is intrinsically founded in reality is characteristically sentimental, informing a new way of seeing the accumulating images of the city. Here sentimentality and planning are perceived as forms of nostalgia (remembrance of things past), and images of a future (charged with preserving the past). From this notion of sentimentality, from the material and method, craft might actually be an urban practice and also a by-product of everyday urban experience, producing ideas that the plan cannot discern.

## Conclusion

We argue that the future city is no longer an ideal project; it is a sentimental project. The way the planner views and projects the city is through the lens of sentimentality as both a form of misrepresentation and a possible means of production. The resulting Sentimental City, then, becomes a digitally reproduced misrepresentation, so its future cannot originate from an idea (or an ideal), but the actions caused by the need to constantly service its digital image may perhaps be crafting ideas — and one of the tasks ahead is learning to locate these ideas.

To imagine the city as the sum of lived experiences — the imaginary — it has to be mapped, so the plan is synonymous with the city even though, in most cases, the city precedes the plan. Canberra is the exception that opens up this relationship to the speculation presented in this paper. But it is not easy to see the real relationship between the plan and the city because it is time, and not space, that determines the life of the plan. The changes to the spatial city proceed slowly, while revisions to the plan are constant and instantaneous. The constant revision, partly due to the steadily deteriorating image of the plan, turns the project of the plan into an abstract representation of continuous, anonymous, possible futures. If it were not for the demands produced by the abstraction of

the city in the plan then the disparity between the city as a practice of planning and the practice of craft would normally preclude their comparison. As an abstraction of the city the material of the plan is constantly being reworked, revised, and repaired, in a manner similar to the material practice of craft. And the constant repair of the fabric and image of the city is the non-stop project we equate to the practice of craft.

Presenting a way of viewing the city, and in particular Canberra, as a sentimental project has been argued in order to present the case that the city demands the reimagining of its processes of reproduction (as image). It requires a shift from ideal, as characterised by its plan, to process, as characterised by experience. We argue that the misrepresentation inherent in its reproduction (sentiment) and the ongoing need for repair (craft) can be used to generate alternative methods of enquiry and discourse through which the city can be reviewed and re-advanced as a civic project (projecting cities for citizens) as opposed to a project of capital. To achieve this, instead of designing the plan, the plan should be to shape the city, project by project, through a process akin to craft, and because the image of the city will be constantly reworked, if it is crafted then it just might generate ideas for its future plan.

As the paper explains, while the future city can no longer be depicted in reproductions of utopia, it will always be reproduced in plan, and it can be crafted involving a sense of ‘the hand’ and revealing intimate, meaningful, tactile, haptic, everyday experiences. This is the future role for the planner — to consider the plan as image and the city as imaginary, both in varying states of repair and (mis)representation. In order to do this, and not reduce the results to fantasy, the city needs to be elevated from the plan in the manner presented in this paper — the ideal needs recalibrating (what is and is not possible) and the idea needs relocating (from novelty to skilfulness). Movements across transitions, boundaries, thresholds, and their by-products (even debris) are signs of human activity (the crafting of micro-utopias), connections (cognitive maps), and experiences (the public imaginary), events the plan cannot illustrate, and it is these experiences that craft the imaginary city in which it becomes possible to imagine people will want to live.

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# **Void. Interstitial practices of doubt and reward**

Marieluise Jonas and Heike Rahmann

*Abstract:* As products of urban growth and decline, urban voids are spaces in transition from one stage of development to another. Their interstitial existence portrays a non-classifiable resistance and freedom to social and ecological conventions of the city.

This paper outlines our practice and approaches to working with the natures of urban vacant spaces in the context of growth and transformation in two cities with distinct socio-economic and cultural drivers that are mirrored in urban form and fabric: Tokyo and Melbourne.

Our practice in working with urban voids through mapping, design interventions, design strategies, virtual agency and writing are discussed alongside topics of appropriation, informality, design strategies and ecological processes. We argue that urban voids can serve as testing grounds for an idea of dynamic urbanism and a context-driven design practice in landscape architecture.

We also continue to negotiate our roles as landscape architects in relation to questions of program and the value of the role of design in the activation of these voids. Hence the positioning of our practice as an interstitial one where both doubt and reward are the outcomes.

In our view urban voids hold a promise: they offer a capacity to contribute to urban design strategies, and form urban ecosystems; and they operate as catalysts for creative practices if — as we argue in this paper — they are recognised and utilised in a practice that is context-based.

We discuss urban voids through two focus areas in our research: Melbourne and Tokyo. In both cities, void spaces are situated in a context of transformation and growth. This paper sets out to describe our research practice over the past ten years and to illustrate how this specific condition of the ‘urban void’ within these two cities has led to developing approaches and methods that include a wide range of responses, their failures and successes.

## **Urban Voids and Urban Transformation — defining the ground**

The twenty-first century is the urban age: in 1900, only ten per cent of the world’s population lived in cities while, in 2007, the urban population increased to 50 per cent. By 2050, 75 per cent of the world’s population is expected to live in cities (Burdett & Sudjic 2007). Urbanisation is rapidly transforming Asia, where 17 of the world’s 25 largest urban agglomerations can be found (AECOM

2010). The trend in rapid urban growth can also be seen in Australia, where Melbourne, as one of the most rapidly growing capital cities in 2009–2010, recorded a population growth of 79,000 people, approximating a population increase of over 1,500 people each week (Australian Bureau of Statistics 2011). This accelerated growth poses immense challenges to the development of sustainable urban environments: securing clean air and water resources, preserving cultural heritage as well as the provision of open green space, and maintaining social balance and equality in publicly accessible spaces. While developing urban regions face severe infrastructural challenges, industrialised metropolises suffer the loss of cultural heritage, social disintegration as well as consumption- and emission-related problems in the rapidly changing urban environments. Facing these challenges, an urban agenda has been called for that matches the pace and intensity of the urban age.

On the other hand, urban transformation processes produce temporary urban voids: Spaces in transition from one stage of development to another. These spaces possess a capacity to counter perspectives on homogenised urban landscapes, to contribute to sustainable regeneration and growth. Yet temporary vacant spaces are not understood well enough in these capacities. In addition, the dynamic processes of transformation, which produce these spaces, are viewed as an obstruction rather than an opportunity in urban development to take vacant spaces into account. For example, recent European (Overmeyer 2002; 2007; Müller, Schmitt & Selle 2003) and North American discourse (Oswalt 2005; Berger 2006; Gissen 2009) in relation to urban voids and their relative socio-economic and cultural context remains largely focused on and nuanced by conditions of urban decline.

In the mid-1990s the Catalan architect, writer and philosopher Ignasi De Solà-Morales ignited discussion in relation to these spaces through a phenomenological reading of voids as expressions of strangeness, coining the term ‘terrain vague’. These vague spaces are vacant, unkempt, unused with no defined function, between stages of formal development and sometimes indefinitely waiting for future use. Even though these non-places have been eroded or closed down and are caught in a state of uncertainty, however, they may possess potential as the vagueness of the spaces’ availability and function limits their attractiveness for formal planning, design and development processes. The traditional identification of urban space by status — legal, economical and functional — is challenged by this complex ambiguity of vagueness.

This relationship between the urban fabric and socio-economic as well as cultural context that is being exemplified in the research we have undertaken in Japan and Australia is one where conditions are determined by growth rather than shrinkage and this leads to questioning the causal relationship between voids and decline. It also suggests and invokes considerations of a dynamic urbanism.

Intertwined with buildings in the urban structure, voids are ubiquitous and form an integral part of a landscape of constant renewal. Urban voids are inseparably

connected to the organic structure of becoming, maturation and decay: bleak illogical emptiness, colonised by patches of spontaneous vegetation, rainwater collecting on an abandoned pavement, reflecting the humming air-conditioning units. They can be read as transmitters of the ephemeral; as transient spaces that often serve no productive purpose, other than carparking. They offer the possibility of accidental discoveries and non-productive activities, experiences which are unplanned and momentary. They offer, maybe, just a glimpse of the unfinished.

In considering the contextual and cultural dimensions of urban void spaces, the concept of a dynamic urbanism emerges. How might this might be defined? What might be potential alternative scenarios of critical spatial practice for both a large urban scale and an immediate small-scale context?

## Opportunity

If we consider void spaces in our compendium of urban sites, there is a need to search for a new paradigm of functions, occupation and activity; there might even be the potential for these small spaces to induce their very own typology.

Through our practice, we speculate that small urban voids offer the potential of forming networks of interconnected spaces that have the capacity to offer sequential, simultaneous and diverse types of uses or levels of interaction. These small spaces are often found randomly and dispersed in the urban fabric. This condition creates small spaces in close proximity to residences and other types of urban infrastructure. This occurs in areas that are faced with an increased demand for open space and variability in form, size and nature. We can further speculate on the possibility of a network of spaces that combine the practice of informal or creative uses, widely in place in Australian cities, with the necessity to address the lack of open and green space and a perspective of the incomplete. In this context, ownership and stewardship become relevant considerations. Melbourne, for example, has a number of sites that exemplify how an alliance between owners and creative appropriation is framing the potential of an active use. In Tokyo, on the other hand, formal and informal practices play out differently.

In this paper we reflect on our ongoing practice as a critical spatial practice working with urban voids through projects and investigations that we have undertaken between 2001 and 2012. In this we show how the subject matter has informed the methodology of our research — involving failures and achievements, doubt and reward — and is now beginning to inform a specific context-driven idea of dynamic urbanism.

The Sankey diagram illustrates the flow of research and creative outputs from 2001 to 2013, categorized into six main areas: site writing, site mapping, site design, site agency, site interventions, and site experiments. The flows represent the progression of ideas and projects over time, with specific events and publications labeled along the paths.

**2001:**

- site writing:** + 2001 Tokyo Metropolis Expressway Vacant Sites - Design Studio
- site mapping:** + 2001 Tokyo Void Site Mapping
- site design:** + 2001 Tokyo Void Site Mapping
- site agency:** + 2001 Tokyo Void Site Mapping
- site interventions:** + 2001 Tokyo Void Site Mapping
- site experiments:** + 2001 Tokyo Void Site Mapping

**2005:**

- site writing:** + 2005 Urban Voids Philadelphia - Design Competition
- site mapping:** + 2005 Urban Voids Philadelphia - Design Competition
- site design:** + 2005 Urban Voids Philadelphia - Design Competition
- site agency:** + 2005 Urban Voids Philadelphia - Design Competition
- site interventions:** + 2005 Urban Voids Philadelphia - Design Competition
- site experiments:** + 2005 Urban Voids Philadelphia - Design Competition

**2006:**

- site writing:** + 2006 FLA Future Landscapes Design Competition
- site mapping:** + 2006 FLA Future Landscapes Design Competition
- site design:** + 2006 FLA Future Landscapes Design Competition
- site agency:** + 2006 FLA Future Landscapes Design Competition
- site interventions:** + 2006 FLA Future Landscapes Design Competition
- site experiments:** + 2006 FLA Future Landscapes Design Competition

**2009:**

- site writing:** + 2009 Tokyo Void site tags
- site mapping:** + 2009 Tokyo Void Site Mapping
- site design:** + 2009 Tokyo Void Site Mapping
- site agency:** + 2009 Tokyo Void Site Mapping
- site interventions:** + 2009 Tokyo Void Site Mapping
- site experiments:** + 2009 Tokyo Void Site Mapping

**2010:**

- site writing:** + 2010 Tokyo Void Design Studio and Study Tour
- site mapping:** + 2010 Tokyo Void Site Mapping (Google Map)
- site design:** + 2010 Tokyo Void Site Mapping (Google Map)
- site agency:** + 2010 Tokyo Void Site Mapping (Google Map)
- site interventions:** + 2010 Tokyo Void Site Mapping (Google Map)
- site experiments:** + 2010 Tokyo Void Site Mapping (Google Map)

**2011:**

- site writing:** + 2011 Melbourne Void Urban Laboratory Teaching
- site mapping:** + 2011 Melbourne Void Urban Laboratory Teaching
- site design:** + 2011 Melbourne Void Urban Laboratory Teaching
- site agency:** + 2011 Melbourne Void Urban Laboratory Teaching
- site interventions:** + 2011 Melbourne Void Urban Laboratory Teaching
- site experiments:** + 2011 Melbourne Void Urban Laboratory Teaching

**2012:**

- site writing:** + 2012 Tokyo Void Site Mapping (Google Map)
- site mapping:** + 2012 Tokyo Void Site Mapping (Google Map)
- site design:** + 2012 Tokyo Void Site Mapping (Google Map)
- site agency:** + 2012 Tokyo Void Site Mapping (Google Map)
- site interventions:** + 2012 Tokyo Void Site Mapping (Google Map)
- site experiments:** + 2012 Tokyo Void Site Mapping (Google Map)

**2013:**

- site writing:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces
- site mapping:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces
- site design:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces
- site agency:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces
- site interventions:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces
- site experiments:** + 2013 Void Potential: Spatial Dynamics and Cultural Manifestations of Residual Spaces

Diagrams: The authors



Figure 1 positions the projects we have undertaken on a timeline and draws out the methodology and shifts in how we approached the thematic of urban voids.

Starting out in 2001, with what we now understand as an implicitly European view of Tokyo's small voids, we worked to activate these spaces using a traditional understanding of site design. Making the spaces accessible and furnishing them was an early approach in designing a series of spaces adjacent to the Tokyo Metropolitan expressway in Setagaya-ku in Tokyo.

Through this first project we moved on, in a second design project, to evaluate the capacity for these spaces to form networks. We speculated that if the spaces were to be seen as a collective, they could change individually while the overall network of voids would remain a resource for active use by locals. With this understanding we developed the idea of a space agency that would sit in between the owners of the sites and the users and would manage the uses of spaces as they became available.

In the following sections we expand on the projects in Tokyo and Melbourne to discuss our practice and its research into, and negotiation with, the conditions of 'the urban void'.

## Tokyo Void

Tokyo, synonymous with extreme urban density and lack of green space, together with a cultural practice of strict maintenance regimes, produces very few spaces of vegetation, even fewer of remnant or quasi-natural weed vegetation. Tokyo's 14.6 million inhabitants have access to less than five square metres of open space per capita on average (Tokyo Metropolitan Government 2011). In 2011 the total number of parks, urban plazas, gardens and other open space in Tokyo amounted to 6.3 per cent of the total city area. In comparison, New York recorded 24 per cent of open green space in the same study. This figure includes most vegetation such as street trees and vegetated river embankments, cemeteries, shrines and temples and agricultural land. The average plot size in Tokyo of 150 square metres for a single facility dwelling reduces private gardens to centimetre wide strips of vegetation — if they exist at all. Informal roadside flowerpot gardens form the only green spaces in many parts of the city.

In this context, urban voids are valuable spatial resources. The activation of temporary urban void spaces, currently 3.1 per cent of Tokyo's urban area, has the potential to immediately increase the total amount of open space by 50 per cent (Tokyo Metropolitan Government 2011: Urban Land Use Statistics).

Tokyo's Urban Land Use Statistics classify open space as non-built-up areas, such as parks, gardens, bodies of water, forest and agricultural land. This figure has been stable at around 2.9 – 3.1 per cent over the past 20 years. Utilising existing and available land — urban voids — offers the possibility of creating a flexible network of small and large open spaces that accommodates a range

of uses and functions, including public open space, disaster prevention for earthquakes, natural habitat functions, energy production, recreation or event spaces.

The Tokyo Void research project (ongoing) started out to investigate utilisation strategies for vacant spaces, particularly in light of Tokyo's specific urban conditions, including issues of density, rapid transformation and urban growth. Throughout the project we have explored various appropriation strategies, such as on site occupations, and installations (i.e., formality, informality and hybrid forms of appropriation), we have tested their interrelation with various forms of ownership, levels of engagement and responsibilities. One of the key ambitions of the Tokyo Void project is to ascertain the distinct qualities of the typologies of temporary vacant spaces, while considering the distinct morphological and temporal qualities of the temporary vacant urban spaces in development and design. Understanding what the functions that urban voids possess is a vital to their activation.

## Observations — between the virtual and the real

Five areas in Tokyo were selected as case studies, covering a wide range of neighbourhoods with distinctive demographic, economic and spatial configuration. The areas included Yanaka (historic district marked by recent gentrification), Ginza (central, high-class retail district), Komaba (residential district), Jujo (district of post-World War II rapid urban growth) and Odaiba/Toyosu (district of land reclamation and urban renewal). Since 2009, we have mapped and revisited the Tokyo voids in yearly intervals in each of the case study areas. Through the mapping we found that approximately 85–90 per cent of the voids remain vacant for several years. Many vacant lots function as informal car parking space and often support a distinct type of vegetation of low grass and moss in damp areas. Other vacant lots are hidden behind construction fences and remain inaccessible to the public. Their sizes vary between a few square meters to large tracts of land in halted urban redevelopment schemes, such as the artificial island of Odaiba. Only a few construction developments take place while some vacant lots are transformed into coin-operated parking spaces.

As part of the project, we seek to make this information available to potential users of the sites through the [tokyovoid.com](http://tokyovoid.com) website. There, potential users are able to see the pool of available sites in their neighbourhood. One of the key challenges, however, has been to facilitate this link between owner and potential user of the sites.

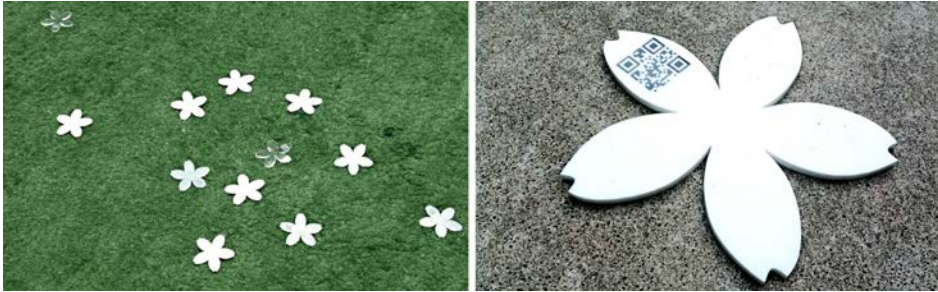


Figure 2. Mapping vacant spaces in Tokyo, 2009–ongoing.

Photography: The authors

In order to test a suitable link between owner and potential user, we have conducted urban interventions using digital technology. The concept involved designing and distributing labels across a number of vacant sites. Each label carried a Quick Response Code (QR code) that can be scanned and decoded through smartphone technology, linking to the project website. The tagging involved two interventions with individual strategies and a design process.

The first intervention concentrated on the tagging of void spaces that were already recorded in our previous mapping. This strategy was intended to initiate discussions about those sites by bringing owners, potential users and other interested people to the web platform. As the intervention was conducted in spring, the Sakura (cherry flower) was selected as a suitable shape for the markers while various materials (e.g., MDF, plexiglass) and production processes (e.g., laser cutting, engraving) had to be tested for their performative qualities in the field in relation to durability and legibility of the tags.



3a. Testing of Sakura tags, 2010.



3b. Space Ambassador, 2010.

Figure 3a and 3b. The tagging interventions encourage the public to participate in the mapping of void spaces.

Photography: The authors

The second intervention — Space Ambassador — focused on engaging the public in the process of mapping new vacant sites and thus testing spatial connectivity, networks and interrelations of temporary vacant spaces. The Space Ambassadors are a series of markers, consisting of small plant containers that connect three vacant sites in Tokyo. First, plant material is collected from a neglected vacant space — some weeds are removed from the site and are replanted into small, custom-made containers. Each container forms a unique assemblage in which the plant is decontextualised from its former situation. New associations are created as they transform into almost domesticised artefacts: while the plants previously represented the marginalised existence of weeds, the flowerpots convert each plant into an individual specimen. Secondly, each flowerpot is equipped with a small flag inscribed with a QR code that contains information, a link to the [tokyovoid.com](http://tokyovoid.com) website and instructions for an audience to participate in the next steps of this project. The containers are then taken to a new vacant space in a lively neighbourhood in Tokyo's historic district. As this new site is largely free from vegetation, the Space Ambassadors transform the site temporarily into a weed installation to attract engagement with the public. In the last step, the Space Ambassadors are used as new markers and catalysts for spatial and social interaction. People are encouraged to take the flowerpots and to transport the plants to a vacant space that they have identified in their

communities. Since each plant becomes a marker for a new site, a multitude of new places that spread across the entire city will be identified. While the location and condition of the new site is initially only known to the person carrying the marker there, the carrier can upload the geospatial data to the project website through accessing the QR code. Thus, the technology allows us to reveal the exact locations of individual vacant spaces across the city while simultaneously outlining interconnections and larger networks of spaces.

Unfortunately, no interactive response was generated through these mapping interventions. While testing the material, the size and the shape of the Sakura tags, we paid attention to the craft quality of the objects, so that they would not be seen as an act of vandalism. It is possible that the tags did not contrast sufficiently with the surrounding conditions in order to invite attention. The interrelation between the site location and the selection of communication devices play a significant role in engaging the public with this intervention: the dependence on mobile technology in neighbourhoods with predominantly elderly populations also may have resulted in a low response rate.

In contrast, the Space Ambassadors attracted attention from passers-by, who were intrigued by the fragility and cuteness of the objects. The plants, although classified as weeds in their natural context, were presented in a unique format that resembled spatial and material qualities that can be found in Ikebana (traditional Japanese flower arrangement) and thus resonated well with the public. In addition, the white of the plant containers was in stark contrast with the dirt and gravel cover of the site on which they stood and, therefore, they attracted attention. Despite appreciation of the marker's visual appearance, the public participation in the project was different than originally anticipated. Instead of taking a flowerpot and volunteering to place the marker into a new vacant site, people offered to buy the Space Ambassadors, and would resist taking the plants if they were not for sale. While people who did engage with the vessels developed specific cultural code words and phrases for this project to reflect the appreciation of smallness (i.e., *kai-haku-tan-sho*) and cuteness (i.e. *saiku*), we can retrospectively say that it was this quality of a perceived cuteness and fragility of the flowerpots that compromised the success of this intervention. Responses and inquiries received through the website were mainly generated through other web-based platforms and unrelated to the on-site spatial interventions. In addition, the inquiries came mainly from foreign residents of Tokyo, which suggests a further cultural divide in engaging with and speculating creatively about appropriation strategies for urban vacant spaces. New avenues emerged from the mapping approaches, however, and have been since developed in more depth.

## Appropriation — between designing, material and community engagement

Through the mapping process we uncovered localised approaches that pragmatically use vacant spaces for the benefit of the community. Situated in



the quiet area of Yanaka in Taito ward, the case of Kasu Harappa ONDI (lit. rental vacant space ONDI) is one example of a community-driven intervention. While the owners were undecided what to do with the site, they deliberately dismissed the opportunity to transform it into a financially lucrative car parking space. Instead, they decided to contribute to the creative atmosphere in the neighbourhood by providing an outdoor gallery space that local artists, performers and other creative people could rent for events and exhibitions. Although the concept of a gallery space perfectly fits into Yanaka's character, ONDI is anything but an ordinary gallery. Only a few simple rules outline the terms of use, enabling prospective users to take responsibility for their event while also providing maximum freedom as to how the space can be used. This offers the possibility for a diverse mix of events, ranging from performances, demonstrations, art exhibitions, and cultural celebrations to market events and student workshops. The idea behind ONDI is to provide a space that supports conversation and invites everyone to participate. The site transforms into an open stage, without walls and roof, exposed to the elements. The street turns into a theatre where strolling residents and visitors become part of the audience — participants in the event, not just spectators.



Figure 4. A vacant space turned into a participatory outdoor gallery, Kasu Harappa ONDI in Yanaka, Tokyo.

Photography: The authors

In addition to its unconventional conceptual framework, ONDI opens discussion about the physical qualities of Tokyo's vacant spaces. The name Kasu Harappa



ONDI plays with the association surrounding the word *harappa* (literally, a vacant area and a word often used as a nostalgic reference to childhood, such as play that involved roaming the unused spaces of the city); here the word is used to signify a space for appropriation, full of potential, and nostalgic childhood memories. The word ONDI (音地), meaning sound of soil, reflects the beauty of the site, exposed to the natural elements. It is precisely this quality of depth and openness in the unsealed surface that offers real momentum for unpredictable, serendipitous activity in Tokyo, a city dominated by concrete and asphalt.

Since ONDI's inception in 2006, the number of activities on the site has increased significantly. The popularity of ONDI is reflected both in the increasing number of hosted events and in the increasing interest among ordinary Tokyoites, showing the immense potential of this alternative concept for inspiring creative action and bringing people together.

## Provocations — linking site and potential

Taking the opportunity and freedom that ONDI offered for new ways of working with and thinking about void spaces, the site became for us a testing ground for appropriation strategies. While addressing the spatial and temporal conditions of the site, our interventions raised questions about larger urban issues, specifically neighbourhood engagement and responsibilities of the designer.

In 2010 a group of students worked with ONDI to test design interventions for urban voids on-site as part of an RMIT University design studio in landscape architecture. Student design responses ranged from projections and abstract physical tests to concrete programmatic designs. At a final exhibition on the site, Japanese landscape architecture practitioners were invited to discuss with the students their views on the potential of urban voids. The specific experience of an on-site intervention triggered varied responses between professionals and residents, who disapproved the activities on site, which in their view disrupted the quietness of the neighbourhood. Yet, local design professionals, architects and landscape architects, as well as members of the creative community in Yanaka, responded positively, as evidenced by the increased use of the site and greater recognition of the project.

Sakura — a poetic provocation. This intervention utilised associative narratives and played with the material quality, the meaning, and the appropriation of vacant sites. The sakura was selected as an overarching theme for the 2010 site interventions of which the use of cherry blossom petals was one part and the cherry blossom-shaped site tags formed another part. Conducted in spring 2010, the intervention covered the ONDI site that normally exposed the barren, naked ground and gravel surface with a thin veil of fragile and soft cherry blossom petals, moving in the wind. The act of covering attempted draw the focus to the site via a micro cosmos of leaves, rocks, and flowers, to internalise the site and to give it its own infinity.

The cherry blossom petals were gathered from the nearby Yanaka Cemetery, one of the most popular places in Tokyo for Hanami (lit. flower viewing). The petals were dispersed over the vacant site and they remained for a few days. Hanami celebrates the ephemerality and transiency of life, symbolised through the fragility of the cherry flower. Blooming for only one to two weeks each year, the aspect of the blossom that is regarded as the most beautiful is when the petals fall and disperse with the wind.



Figure 5. Sakura — a provocation, ONDI space in Yanaka, Tokyo, 2010.

Photography: The authors

Playing with the poetic notion of the cherry blossoms, the pink carpet transformed the barren site and attracted positive attention from passers-by and the wider community. The blurring of the site's boundaries, the drifting of flowers, the dirt, the ephemeral notions of the cherry blossoms can be read as metaphors for how we choose to view voids. It seems that if a strict boundary of program, a temporal situation, is drawn around a site, then the definition of opportunity in voids becomes limited.

The reaction of immediate neighbours, however, was not as appreciative. The installation was dismissed as problematic, because the cherry blossom petals that were dispersed by the wind were seen as dirt that had to be cleaned up. In working with what we view as the potential of vacant spaces, it is necessary to understand the blurring of meaning and boundaries, as well as messiness and the material quality as parts of appropriation processes. The questions that arose for us from this experience include: if neighbours are not the actors, who is? What conflicts are likely to arise and how can they be managed productively to enable the realisation of potentials?

## Melbourne Void

Obviously, many of the observations and findings outlined above are grounded in Tokyo's unique cultural and spatial circumstances, and thus cannot be transferred to any other urban context. The Tokyo Void project does, however, allow us to reflect on the potential and relevance of vacancy in the context of broader urban issues, such as population growth, urban transformation, and

scarcity of space. As outlined above, Melbourne faces increasing challenges to provide accessible open and green urban space in the future. In this environment, vacant spaces may become a viable spatial resource, similar to the condition in Tokyo. Concurrently, unique possibilities for the research emerge in Melbourne. Initial ideas for the Melbourne Void project were developed over 2010–2011, at a time when the quest for appropriation strategies in Tokyo was less rewarding.

The first opportunity that arose in Melbourne was the accessibility of vacant spaces in prime real estate locations and the approachability of landowners. A paradox in this city is that, despite Melbourne's rapid urban growth, inner-city development sites remain vacant for a long period of time, often for several decades, which creates a strong visual presence of vacant sites in prominent CBD locations. As development proposals are boldly advertised on billboards and hoardings, landownership and contact details, usually of big property development corporations, are also clearly displayed.

## 567 Collins Street

567 Collins Street, an urban void of 30 years duration, is a relict from a period of urban restructuring following the decline of Melbourne's manufacturing industry in the mid-1970s. The name of the site indicates both the address and the title of a proposed development managed by the real estate development corporations APN Property Group and Colliers International. Evidently, the developer's interest lies in the profitable transformation and re-integration of the site into the productive urban landscape. As considerations for the development are largely driven by profit and efficiency, and are thus dependent on the economic market, the global financial crisis in 2008 further postponed work beginning on the development. In cases of long-term vacancy, the developer's interest lies mainly in securing the property to prevent dilapidation and value loss, clearing and fencing the property is standard practice. Approached by the Melbourne Void research team in 2011 with the idea to transform the site temporarily into an urban laboratory as part of ongoing research on urban voids, APN Property Group generously offered unrestricted and unconditional access to the site.

For one semester, the educational design research project provided landscape architecture students with a unique opportunity to actively work on-site in a dynamic urban context. Investigation into microclimatic conditions and their impact on vegetation through site mapping, interventions and 1:1 design experiments were conducted by 130 first year students from RMIT University. In this, the concept of an urban laboratory for landscape architecture emerged: students were invited to test landscape qualities such as climatic conditions and vegetation in a site specific plant experiment that they monitored over a period of 12 weeks. Simultaneously, a group of students from the University of Melbourne performed design interventions that captured the ephemeral nature of the site conditions.

While the developer asked all activities to cease in late 2011 due to an imminent development plan, construction has still not begun and the site remains vacant until the present (November 2012).



Figure 6. Urban Laboratory at 567 Collins Street, Melbourne, 2011.

Photography: The authors

## Transient Gardens, MoreArt Show

Another observation of the Tokyo conditions that inspired a translation into the Melbourne context was the exploration of the distinct material nature of vacant sites. During the mapping process in Tokyo, we discovered a large number of plots that remained undisturbed by human interference for many years, and which consequently formed an impressive habitat for plants, birds, insects and small mammals. In these instances the value of the undisturbed and the forgotten becomes evident, providing an opportunity to speculate about the capacity of remnant vegetation on vacant sites to contribute to the larger urban ecosystem.

The *Transient Gardens* installation gave us the unique possibility to explore these issues as part of the MoreArt Show 2011. Initiated and curated by Moreland City Council in cooperation with VicTrack, the MoreArt Show is an example of a temporary activation strategy for urban voids. For a period of four weeks, the free public exhibition seeks creative responses to numerous vacant spaces in the municipality. Providing both indoor and outdoor sites along an urban railway corridor, the curators invited artists and designers to engage with the ephemeral and temporary qualities of the sites that respond to Moreland's unique urban



landscape and character. The creative works were largely sculptural and installation-based, as the sites remained closed to public access and no direct interaction with the site was possible.

*Transient Gardens* worked with an outdoor site and carefully transformed the existing wild growing vegetation into a striking show of the *other* nature of urban spaces. The design response was site-specific and interactive to bike-path users by manipulating the existing vegetation on site. We saw the project as a chance to highlight the ephemeral nature and beauty of urban ecologies. Recognition of the biodiversity of urban voids became a focus point for the project. French landscape architect Gilles Clément states that 'Biodiversity is dependent on us, and we are dependent on it. Such diversity not only needs to be safeguarded, it needs to be established and looked after' (Mathieu 2011). Taking this as a starting point, *Transient Gardens* introduced small gestures that celebrated the biodiversity of urban voids. We identified the existing plant species on site and provided each plant with a pseudonym and a short piece of writing that questioned the notion and classification of weeds. The plants and their new identity were then displayed in a portrait gallery on the fence surrounding the site.



Figure 7. Transient Gardens, VicTrack Railway corridor at Moreland Station, 2011.

Photography: The authors

Through this action, the 27 identified plants offered a striking contrast to the low biodiversity in planned and highly maintained parks and public gardens in Melbourne. Clément discusses weeds and remnant vegetation in the idea of *jardin planétaire*: 'the planetary garden, a non-defined, leftover space that

allows for the existence of weeds and becomes a biological time capsule for the future' (Clément & Rahm 2006: 92). This biological time capsule often maintains a greater biodiversity than the low maintenance, maximum efficiency green spaces provided by municipalities. If we consider the small pockets of urban voids that have been undisturbed by human interference for years or, in rare cases, decades, the potential of this biological time capsule manifests itself in the vegetation. Considering the effects of urban vegetation on carbon dioxide absorption, air quality, and water filter capacity, the *Transient Garden* project subsequently raised critical questions about the currently predominant practice of clearing remnant vegetation from urban vacant sites.

## Doubt and Reward

Reflecting on our practice, further questions emerge, together with a sense of both doubt and reward, failure and success. By way of a conclusion, we unpack these and consider further the potential of a context-driven design practice in landscape architecture in relation to the idea of a dynamic urbanism:

- What is the role of the designer in the context of urban voids?
- In our practice the role has shifted from designing for a site, to reading a complex problem and using the site to communicate and test this problem.

We have come to an understanding that urban voids offer multiple readings that might include activation strategies on one end of the spectrum and passive eco-functions on the other. This requires the designer's role to be equally multifaceted. Consequently, a clear position on scale and scope of the project is required when working with urban voids. Are they seen as testing ground? Are they being designed specifically? In positioning a practice around these types of questions it is possible to define the role of the designer.

In merging ownership with design intent, as demonstrated by ONDI, the role of creative action is passed to the public, which redefines spatial uses through its own practice.

## What drives the practice and underlying concepts?

Questioning the role of the designer leads to more pragmatic issues: How can a practice be developed that is flexible, but formal enough to respond to the requirements of an owner and a site in transition? How does formal design practice respond to temporal and monetary limitations? How does the practice respond to an absence of clients and a design brief?

The reward of working with non-commissioned projects lies in discovery and communication of distinct and experimental approaches. In working with the site as a laboratory, a free experimentation is possible that, in turn, allows for new and site-specific insights to emerge, informing a more theoretical reading of the site processes in relation to commissioned design practice. Through this



we see the need to define an idea of dynamic urbanism that allows for a holistic view on processes of growth and decay, renewal and abandonment on an urban scale in the context of design practice.

## What is the role of *the* site?

Void spaces may function as small-scale microhabitats, buffers for urban heat island phenomena and mitigation of other extreme climate events. Thus, it can be suggested that through vegetation, void spaces offer the capacity to contribute to sustainable urban regeneration and to the provision of ecosystem functions on a larger urban scale. So, how can the opportunistic nature of urban voids be used to inspire uses that lie outside of cycles of consumption and offer up engagement with types of urban natures?

Urban micro natures can serve to form a landscape pattern that maps human interference — or rather — non-interference. Weeds, uncontrolled and unproductive invaders are subtly defining a pattern of urban ecosystems.

The reading of these patterns leads to doubting an approach that seeks to activate the sites — to fill the sites with program, i.e., design. A non-interference strategy contradicts an ambition of uncovering potential through activation, yet forms a key step in looking at voids: it is not what they do, but how they are, that informs how we read and think through them. — This is both rewarding and challenging.

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# **(Un)making Canberra: Craft and the designing of settler-colonialism in Australia**

Matthew Norman Kiem

*Abstract:* This paper examines how practices of craft and design are involved in making and unmaking worlds. Specifically, it draws attention to the role of craft and design within settler-colonialism, understood as a structural condition in which a colonising force seeks to appropriate land from indigenous inhabitants. While the topic of settler-colonialism implicates questions concerning sovereignty, biopolitics, and coloniality, this paper demonstrates how these issues can be studied as both designed and designing effects. This is done through an analysis of the colonial history of Canberra, Australia's capital city and home of its federal parliament. Following an account of how the traditional world of the original indigenous inhabitants was displaced through the material and symbolic interventions of early settlers, this paper argues that the first design proposals for the city bear out key characteristics of the relationship between craft, design and colonialism.

The whole of Australia is an Aboriginal artefact.  
(Bayet-Charlton 2003: 174)

Craft is an empire.  
(Greenhalgh 1997: 21)

## **Introduction: History against the (un)making of colonial defuturing**

Using Canberra, the federal capital of Australia as a case study, the broader intention of this paper is to present a critical counterposition to those discourses and practices that sustain the 'durabilities of duress' that persist within a settler-colonial context such as Australia (Stoler 2008: 192). As Ann Stoler has argued, virtually all colonies, and as I would argue here, all settler-colonial societies, 'are artefacts of deliberate and concerted design'; that is, conscious material interventions in the 'subjunctive mood' whose shifting impact over time conditions the socio-political topology of domination and resistance (Stoler 2011). In doing so, this paper presents a rudimentary sketch of relations between histories, futures, craft and design, and coloniality. It is worth acknowledging that my experience of writing this paper — a task which marks the beginning of a longer term project — has been one of way finding within an inchoate theoretical territory. This is not to suggest that there is no literature that bears on the relations I am trying to articulate, but such material

is almost exclusively produced in other disciplines. As a consequence, the historical agency of craft and design tends to be disclosed in diffuse, indirect or unintended ways. Work that directly problematises the role of craft and design vis-à-vis enduring conditions of colonial domination is scarce.

That said, there has been recent work done in the history of planning, architecture and housing that provides a valuable point of departure for this paper (Banivanua-Mar & Edmonds 2010; Pieris 2009; Veracini 2012), some of which also examines the spatial politics of Canberra (McGaw, Pieris & Potter 2011; Pieris 2012). Much of this work either emerges from or draws upon the critical framework of settler-colonial studies (Bateman & Pilkington 2011; Veracini 2010; Wolfe 2006), a strategy that is continued in this paper. To this I bring a perspective developed in my work with Tony Fry's concept of defuturing, a term that names both the designed autodestruction of futures and a mode of reading that looks to disclose its agency (Fry 1999). The result is an analysis positing colonial violence as a designed effect that continues to design, rather than as a bounded event or period of the past.

More specifically, my aim here is to demonstrate that there are consequences of the kind of histories we produce that are reflected in, and amplified by, acts of making.<sup>1</sup> This point is not meant to imply that making simply receives, in a passive way, the authoritative interpretations of historians. Rather, as the philosophical thinking of Martin Heidegger suggests, making is an active part of our being-historical (1962; 2008). This point speaks to the hermeneutical structure of making, a phenomenon cogently described by Anne-Marie Willis as 'ontological designing' (Willis 2007).<sup>2</sup> In short, ontological designing acknowledges that the understanding that allows making to happen, an understanding that always includes an historically conditioned sense of its own temporality, tradition and direction, is itself changed by what is made. Clocks and war memorials, for instance, are each, in their own ways, both products and mediums of the temporal rhythms of imagined communities (Anderson 1991; Davison 1993). 'The made', understood here as the combined effect of 'the designed' and 'the crafted', is, therefore, the condition in which histories are written, just as the historical understanding reflected in written histories conditions what is made.

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1 In a work that parallels the interests of this paper in various ways, Paul Carter has characterised imperial history — a term he applies not to writers of a past 'imperial era', but to more contemporary historians such as Manning Clark and Geoffrey Blainey — as a '*defensive* appeal to the logic of cause and effect' that 'demonstrates the emergence of order from chaos' (Carter 2010: xvi). As Carter's argument intimates, the meaning of 'order' and 'chaos' is always perspectival, that is, dependent upon whether you are, say, the coloniser, the colonised, or the historian who disciplines the contingencies of events into a coherent narrative. Again, the chaos caused when one 'worldview' (often obviously) dominates an Other, is a violence that continues to play out today. For a current Australian example, see Tess Lea's account of the bureau-professional anarchy of the Northern Territory 'Intervention' (Lea 2012).

2 The significance of ontological designing has been most extensively demonstrated in the work of Tony Fry (2009, 2011, 2012). A theoretically similar approach was used by Terry Winograd and Fernando Flores' in *Understanding Computers and Cognition* (1987).

The issues at stake here — including what, how, or why we make; our understanding of what designs a city and what a city designs; and how we, as historical agents living in the present, engage with what consequences past actions have determined for ‘us’ and ‘our’ futures — are all questions that are either confronted or obscured by the histories we choose to write. In this sense, the politics of this paper is based on the idea that historical enquiry is always a more or less futural (re)interpretation of our historical understanding, in that it either aids or hinders a confrontation with defuturing, rather than ever being an ‘objective’ account of the past (Fry 1999: 60–63).

Therefore, against any interest in celebrating Canberra as an achievement — architectural, cultural, national or otherwise — this paper proposes that Canberra should be read as a designed instrument of, and for, the ethnocidal destruction of indigenous people (Clastres 1988), and the biopolitical production of compliant subjects (Foucault 2007; 2008). While what follows can only be a single and provisional sketch of a much larger project — design towards decolonial sustainment — it is nevertheless grounded in an explicit cultural politics, one that argues that histories either annihilate futures by legitimating the defutural present, or challenge us to mount a serious response to the designed durability of duress.

## **Dwelling as (un)making worldhood**

Craft and design are world-making practices. As Fry (1994) and Willis (2007) have argued, both craft and design are essential to being-in-the-world — the term coined by Heidegger to describe the ontological structure of ‘our’ existence (Heidegger 1962: 78–90). This ‘being-in’ names something that is different from either a physical or abstract sense of location, such as being ‘in the house’ or ‘here on the map’. These descriptions are too Cartesian, too caught up in discrete notions of cogito and extension that conceptually distinguish ‘me’, as a thinking subjectivity, from the ‘objective’ world ‘outside’. Being-in-the-world, on the other hand, acknowledges that we never encounter ourselves as a discrete subject, that we are essentially a being whose existence is its worldhood. In other words, we are a being who always finds itself thrown amidst a meaningful context of equipment, people, and practical choices that matter to us. As the later Heidegger would describe it, being-in-the-world has something more to do with dwelling; with having a body, temporality, language, and skills; with being on the earth, under the sky, amongst other mortals, and in the presence of the gods (Heidegger 2008). Following Heidegger, this paper takes up the idea of dwelling (by craft and design) as a precondition for building (by craft and design).

The ethics of world-making, however, is never a given, due to the fact that craft and design are always equally involved in world-unmaking.<sup>3</sup> It is through these practices that weapons are produced, plans are laid, and campaigns that entail the destruction of people and cultures are waged. At one level this dialectic between destruction and creativity is unavoidable and necessary (Fry 2004). Making something always requires the destruction of something else. Destruction is, therefore, the basis upon which all making is possible, and the only means we have of sustaining ourselves. The world-making of Western, ethnocidal modernity, however, has come to represent a way of being that radically departs from the principle of only creating things that are more important than whatever is destroyed in the process. Rather, modernity has come to represent a way of being that progressively destroys the ability to sustain anything at all (Fry 1999).

## Knowledge, power, and the colonial academy

In 1995, Murri scholar Philip Morrissey wrote a briefing essay for a craft exhibition. In what he describes as a pessimistic but strategic piece, Morrissey provides a poignant reaction to the politics of colonialism:

*The invasion of Australia:* I realise something is happening when I read these words again, offered without qualification, in another post-Colonial essay. An intellectual — two steps ahead of the community — at least in the area of naming. Australia wasn't settled — it was invaded. 'Not by me' is the epistemological ground of this statement — part of an enlightened academic rhetoric which intersects with resentment Aboriginal politics (a querulous politics, predictable and conformist which serves a liberal status quo) and Federal government race discourse. The underlying supposition being that White Australia will change when educated (or taunted with evidence of its racism) enough. (Morrissey 1995)

For academics seeking to engage with the question of Australia's coloniality, this quote, in part, articulates the power/knowledge problematic described by Michel Foucault (1980). In simple terms, because a claim to knowledge constitutes an imbalance between those who are 'in the know' against those who are not, the conditions under which knowledge is produced, stolen, legitimated, shared, imposed, received, and deployed, is always constituted by relations of power. Morrissey highlights this precise point when he describes his dissatisfaction with the socio-political effect (not the factuality) of (white) intellectual politics, namely, the self-absolution of gestural challenges.

In Australia, this relation between knowledge and power has an acute and tangible edge. As a non-Aboriginal or a Torres Strait Islander person, I am four times more likely to have a bachelor degree and 14 times more likely not to have been imprisoned (Australian Bureau of Statistics 2010; 2012). The asymmetry

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3 As a key concept in this paper, the inseparable relation making and unmaking is given dual presence through the term '(un)making'. Precedents for thinking making in these terms can be found in the work of Fry (1999: 22, 277) and Tony Birch (2003).



that determines whose knowledge is more likely to be used against whom is stark, and has been since ever since European settlement began. Over this period, the academy has been implicated in scientific efforts at ‘dealing with’ Aboriginality, that ‘excluded inclusion’ which persists as a residual problem for (and consequence of) settler-coloniality (Wolfe 1997: 59–60). In this light, it is worth noting that my own ability to write and publish this paper is predicated on privileges conferred by an institution whose historical *raison d’être* is indivisible from the project of colonisation.<sup>4</sup>

Nevertheless, this paper is written with presumption that a decolonial design history not only is possible, but, in a settler-colonial context such as Australia, it is a necessary part of understanding the devastation that endures, not only for indigenous peoples, but all socially-marginalised groups, including refugees.<sup>5</sup> With this in mind, and following Patrick Wolfe’s warning to ‘reluctant invaders’, the objective of this enquiry is a politicised understanding of Canberra’s design(ing), not another way of knowing (as power over) indigeneity (Wolfe 1992).

## The biopolitical designing of settler-colonial sovereignty

The term ‘settler-colonialism’ distinguishes those societies — such as Australia, New Zealand, North America and Israel — that are built and maintained through processes of displacing pre-existing indigenous people (Wolfe 2006). David Day has proposed the similar concept of ‘supplanting societies’ in reference to the way in which a colonising force deploys a variety of techniques across different fields of activity to achieve, maintain, and naturalise its territorial dominance (Day 1998: 6). The integration of a territory into the invaders’ economic, juridical, and cultural world — which could also be thought of as their way of integrating themselves into the land — reflects a desire to suppress any competing claim to the territory, including any anterior form of economic, legal, or other cultural practices that link the previous culture to the land. Thus the prevailing logic of the invading force becomes the ethnocidal elimination of the native (Wolfe 2006).

Day’s argument suggests that supplanting is a devastating, but otherwise normal and repetitive occurrence throughout human history. Following Walter Mignolo,

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4 ‘Academic knowledge about Aboriginal knowledge can never be innocent. It is too deeply enmeshed in a historical relationship through which one’s power is the other’s disempowerment. From the outset, authoritative pronouncements on Aboriginal mentalities have been central to the invasion and expropriation of Koori people — *terra nullius* was, after all, a discourse on rationality.’ (Wolfe 1997: 83). See also Linda Tuhiwai Smith’s *Decolonizing Methodologies: Research and indigenous peoples* (1999).

5 Given the upheavals expected to flow from the consequences of climate change, it is fair to expect, in the short term at least, that these conditions will get worse well before there is any improvement. It is not inconceivable, for instance, that Australia will one day face its own internal refugee crisis. Even more troubling, however, is the recognition that a politics that can humanely address these prospects does not yet exist (Agamben 2001). For more on the concept of design futuring and its relation to decolonial knowledge see Tony Fry’s *Design Futuring* (2009), particularly chapters 6 and 7.

however, I believe it is reasonable to view the colonisation of the Australian continent as one part of a unique historical phenomenon, namely, the globalisation of Western power. While Western dominance has waxed and waned at certain times and in various places, globalised colonialism continues to sustain itself through what Mignolo terms the 'colonial matrix of power': the interrelated domains of economy (capitalism); authority; race, gender and sexuality; and knowledge and subjectivity (Mignolo 2011: 1–24).

Together, the work of Mignolo and Wolfe characterise colonialism as a form of active structuring by means of a variety of state-mediated, biopolitical (governance of life) regimes (Morgensen 2011; Wolfe 2006: 388). Importantly, as Foucault argued, this power is as much a productive, or for our purposes, a designing force, than anything simplistically restrictive or repressive (Foucault 2003: 2008). As such, while 'elimination' does indeed involve cases of killing — from frontier wars to deaths in custody — it also operates through the ontological designing of lives that are amenable to the logic of settler-colonialism. The elimination of the native, therefore, is not simply matter of eliminating a certain kind of biological life. Rather, settler-colonialism is just as interested in the creation of healthy, compliant populations, as it is in the destruction of any cultural life that challenges its sovereignty.<sup>6</sup>

The ontological designing of settler-colonial sovereignty can, therefore, be characterised as not only distinct from, but also structurally hostile to Aboriginal sovereignty (Graham 1999; Moreton-Robinson 2007). Aileen Moreton-Robinson, for instance, argues that whereas Western constructs of sovereignty are based on 'the social contract model, the idea of a unified supreme authority, territorial integrity and individual rights',

Our [Aboriginal] sovereignty is embodied, it is ontological (our being) and epistemological (our way of knowing), and it is grounded within complex relations derived from the intersubstantiation of ancestral beings, humans, and land. (Moreton-Robinson 2007: 2)

As Moreton-Robinson and others have argued, the effect of sovereignty is not (just) a juridical matter (Moreton-Robinson 2007). Because it is concerned with how the political body is constituted (as individual and as polity), sovereign power works to exert a shaping (designing) effect upon the socio-material conditions of space, ownership, education, home-making, and the representation of national-historical mythologies. As the symbolic home of settler sovereignty, the city of Canberra represents both a unique and representative case of settler-colonial designing at work.

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6 From this paragraph onwards, Foucault's account of biopolitics has been simplified in the way that it blends what are otherwise important distinctions between sovereign, discipline, and security techniques of power. To correct this economical misrepresentation see Foucault's *Discipline and Punish* (1991) and *Security, Territory, Population* (2007). For a wider reading of Western sovereignty see Alain de Benoist's 'What is sovereignty?' (1999), Giorgio Agamben's *Homo Sacer* (1998), and Tony Fry's *Design as Politics* (2011). For more on Aboriginal sovereignty see Aileen Moreton-Robinson's (ed.) *Sovereignty Subjects* (2007).

## From Ngambri to Canberra

The city of Canberra is built on land that was a site of world-making long before the arrival of Europeans. When Europeans began colonising the district in the 1820s, they interrupted the world of the Ngambri, a people who embodied a mode of dwelling that had sustained them and their ancestors for tens of thousands of years. The 1820s Ngambri were a distinct group with their own language and complex relationships with neighboring groups. My account of this history relies mostly on Anne Jackson-Nakano's (2001) study of the Ngambri experience of colonial settlement,<sup>7</sup> as well as relevant sections of Bill Gammage's (2011) thesis on Indigenous land use.

The colonial record suggests that the pre-invasion Ngambri used sophisticated fire techniques to shape the landscape to their advantage (Gammage 2011: 275–80) and there are still trees today that bear the marks of bark harvesting for canoe construction. Settler accounts of Ngambri ceremonies and trials indicate autonomous practices of law and social regulation, revealing that, like any other culture, the Ngambri mode of dwelling involved practices of making that were embedded in a complex socio-material ecology that integrated land and artefacts into law, kinship, and traditional story telling. The first sheep stations, which were built on nearby ridges, overlooked 'grass-forest templates, springs, swamps, fords, camps, and ceremonial grounds' that were both the work and the world of Ngambri. Considering the time and care embodied in both land and people, as well as the ignorance of the colonisers, in both senses of the phrase, the first white station masters 'overlooked the work of generations' (Gammage 2011: 280). These initial constructions of the grazier's gaze signal the first moves towards Eurocentric world-(un)making in Ngambri country.

While relations between individual Europeans and Ngambri were complex — at times brutal, at others benevolent, even friendly — the course of events followed the colonial logic of elimination. This trajectory was set decades earlier when, in 1770, Captain Cook laid claim to the eastern part of the continent in the name of the British Crown. At that point, Ngambri country became a *de jure* part of the British empire — even though it was unknown to Europeans other than as a 'theoretically there' indication on a map. The *de facto* claiming began years later, with the creation of the first sheep runs, and official acts of surveying and mapping (see Figure 1). These acts were part of a cultural process of repossession, whereby the territory was literally (un)made into something that was available to colonial administration and exploitation by capital. Mapping, for instance, allowed for the parcelling of land under the peculiarly individualist, and productivist regime of European property law. The ontological designing of this process has been described by Willis (2012):

what's going on is induction into a particular way of knowing and being in the world — one that, as it gathers momentum, becomes 'indispensible',

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7 That Jackson-Nakano titled her book *The Kamberri* is some indication of how the recovery of Ngambri culture, language, and identity is still a work in progress.

displacing other ways of knowing and being in the world. ... The traditional survey map conceals time. It plots out locations in space, as if time is of no consequence; as if what it describes always existed and will always exist. Yet, as argued, spaces are mapped as a precursor to change, thus maps were (are) catalysts for ending the time of one thing and inaugurating the time of what is to come.



Figure 1. Section of a 1837 map of the Colony of New South Wales 'Exhibiting the Situation and Extent of Appropriated Lands' southwest of Weereewaa (Lake George), designed by Surveyor Robert Dixon and engraved by J. & C. Walker. Published in London, this map served to indicate the availability of land to prospective immigrants (Brock 2006: 7).

Source: National Library of Australia, <http://nla.gov.au/nla.map-rm831>, viewed 4 Oct. 2012

In the face of this destructive momentum of colonial (un)making, the response of many Ngambri was to retreat into nearby mountains. Local camps were maintained and, during the period of 1830 to 1845, various Ngambri became increasingly familiar with the white settlers. Bartering over goods and services started between the two cultures and some Ngambri began working for the white settlers. This was also the period in which Europeans distributed blankets and clothing to Indigenous groups — an act of charity that helped to 'domesticate' a potential labour force, and provided an opportunity to record and monitor populations.

Increasingly dispossessed of their traditional means of sustenance, some Ngambri joined other groups on a circuit between the Christian missions and state reserves that were established in and around the region. This movement

was halted in the 1890s, when officials decided that Indigenous peoples must be made to settle down. While the missions and reserves kept many alive, they also functioned as a means of culturally destroying Aboriginality. The bureaucratic designing of Aboriginality was facilitated by the scientific discourse of miscegenation, with white officials taking it upon themselves to decide at what point a person of 'mixed blood' was no longer Aboriginal. To be designated 'half-caste' signaled that one was an 'able-bodied' European who ought to be removed from the company of 'pure' Aboriginals and integrated into the settler labour force.

As the population of settlers increased, so did white border anxiety about camps set up by Indigenous people on the fringes of towns. Indigenous groups took to dividing their numbers across the area, a tactic that would have helped to quell white retaliation, but may also have contributed to the popularity of the extinction myth. This reached its zenith in 1897, with the death of elder Nellie Hamilton. Hamilton's passing prompted declarations that the 'Queanbeyan tribe' — an imposed title — was no more. While Ngambri descendants continued to live and work in the area, they were not considered 'Aboriginal' enough to challenge settler conceptions of Aboriginal demise.

While the damage to the culture at this point was extensive, contemporary Ngambri are able to trace their ancestral connections through the written record. Of the few Ngambri voices that survived this period, Hamilton's response to a white man's claim that 'our law punishes thieves' provides a rare sense of the Ngambri experience of pre-Federation colonialism:

Your law! I no tink much of your law. You come here and take my land, kill my 'possum, my kangaroo; leave me starve. Only gib me rotten blanket. Me take calf or sheep, you been shot me, or put me in jail. You bring bad sickness 'mong us. (Gale 1977: 123)

In 1911, the recently established Commonwealth took possession of the Australian Capital Territory after the land was formally surrendered by the New South Wales Government. On 12 March 1913, an outdoor ceremony was held to name 'Canberra' — an anglophone derivation of 'Ngambri' — as the site for the new capital city. The Ngambri of course had no say in either the transfer of ownership or the use of the name. Far from being an act of respect, the appropriation of 'Canberra' into a European tradition of place naming represented a further means of naturalising colonial dominance.<sup>8</sup> As Tony Birch has described it, this was yet another example of how Europeans "'make" and "unmake" Indigenous people' (2003: 153).

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8 'Attaching names to landscapes legitimises the ownership of the culturally dominant group that 'owns' the names. Indigenous names themselves do not constitute a threat to white Australia. Houses, streets, suburbs and whole cities have Indigenous names. This is an exercise in cultural appropriation, which represents imperial possession and the quaintness of the 'native'. For colonisers to attach a 'native' name to a place does not represent or recognise an Indigenous history, and therefore possible Indigenous ownership.' (Birch 2003: 150)

## Crafting the modern-colonial capital

The building of Canberra was delimited by its historical conditions. Its formation was always going to reflect an imposed version of Western sovereignty and its regimes of biopolitical governance. The particulars were to be influenced by the dominant planning theories of the Western world at the time, namely the City Beautiful and Garden City movements (Vernon 2006). The way in which craft and design played a role in materialising Australian settler-colonialism is, however, significant. This section examines how craft and design progressed the modernist-colonial agenda by focusing on the ontological designing of the city plan produced by Marion Mahony Griffin and Walter Burley Griffin. While this analysis leaves out what has occurred since this time, it does provide a sense for how the construction of Canberra, as place and image, has always implied the ongoing structuring of settler-colonialism.

In April 1911 the competition for the design of Canberra was announced. The brief stipulated that ‘the Federal Capital should be a beautiful city, occupying a commanding position’ and submitted designs should embody ‘all recent development in the science of town planning’ (Department of Home Affairs 1911: 6). Packages were assembled that included a variety of maps, and two panoramic paintings of the landscape. Housed in wooden boxes, these packages, along with a topographic model of the site, were sent to locations across Australia, New Zealand, South Africa, Europe, and North America. Given the technology at the time, these artefacts would have been produced through various processes of drafting, painting, printing, and modelling. The total effect was a crafted mediation of Ngambri country that rendered the land as a radically different kind of object — a blank canvas for the gods-eye-view of the white, urban designer.<sup>9</sup>

In May 1912, Chicago architect Walter Burley Griffin was declared the winner of the competition, although his success had much to do with the contribution of his wife, Marion Mahony Griffin, as well as a team of assistants. Beyond helping with the design, Marion directed the process of rendering the perspective drawings (Figure 2). The production of these drawings was a complex exercise, which not only required its own planning, but, also, the deft touch of a skilled hand:

[Marion Mahony Griffin] was making drawings on the silky Japanese vellum with a crow quill pen and brown ink. The hairy surface would catch the pen unless it barely skimmed the surface, in which case BLOT and finish for that sheet — start all over again. (Reid 2002: 45)

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9 ‘The architect’s procedures of coding and decoding through drawing seem to be transparent but in reality act as filters, eliminating some aspect of the site as they invent others.’ (Duggan 2009: 87)





Figure 2. 'View from the summit of Mount Ainslie', a perspective drawing of the Griffins' 1912 design for Canberra, rendered by Marion Mahony Griffin.

Source: [http://en.wikipedia.org/wiki/File:Canberra\\_plan\\_view-WBG.jpg](http://en.wikipedia.org/wiki/File:Canberra_plan_view-WBG.jpg), viewed 4 Oct. 2012

In the context of what the Griffins' were trying to achieve, this account demonstrates how craft skill was deployed as a force of modernity — in this case, as an evocative communication of an imaginary space. The ontological designing of this work, as it expresses and shapes the worldhood of the (un) maker, has been eloquently described by Laurie Duggan:

For the builder of 'model cities', like the more modest builder of model ships, indulges a nostalgic desire to control every aspect of production; a desire (in the model ship builder's case) to exercise 'craft' rather than simply to perform, as alienated labourer, a task on a production line. This nostalgia may (in the architect's case) result in an attempt to recover the imagined city of a previous era or, at least, produce a 'modern' (or modernist) city — even a 'city of the future' — from a set of unexamined concepts which will, in practice, bind a society even more tightly to the real or imaginary past. (Duggan 2009: 87)

The beauty of the artefacts produced by the Griffins, however, belies its conformity with an ethnocidal biopolitics. In his explanation of the proposal, Walter Burley Griffin outlined how each domain of modern life was provided for within his plan. Beyond physically separating the functions of government (given a position of visual and moral authority), civil society, and marketplace, Walter also described how, and to what end, the city would produce a modern domestic subject:

[T]he segregated sections ... comprise social units for ... the neighbourhood group, with one handy local district school ... local playground, game fields, church, club, and social amenities accessible without ... encountering the disturbing elements or temptations of business streets, since these family activities may best be directed internally toward the geographical centres of their groups ... In other words, the adult and independent industrial social activities may be considered typically directed centrifugally, whilst the domestic social efforts are assembled centripetally for effective control and co-operation. (Department of Home Affairs 1913: 13)

While Walter imagined the domestic sphere as a place free from the 'interference or encroachment of business life', its role was still, primarily, to produce a

healthy and disciplined labour force that was ‘everywhere handy to industrial employment’ (Department of Home Affairs 1913: 12) (for more on the relation between suburban forms and settler-colonialism see Veracini 2012).



Figure 3: A map of the Griffins' 1912 design for the city of Canberra overlaying the topographic map supplied in the competition package.

Source: [http://en.wikipedia.org/wiki/File:Canberra\\_plan-WBG.jpg](http://en.wikipedia.org/wiki/File:Canberra_plan-WBG.jpg), accessed 4 Oct. 2012

The Griffins' design is often lauded for how it integrated the city into the landscape. Historians celebrate, for instance, the way in which 'the natural world is not something to be altered to fit the design, but the design is a response to the particular place it is in' (Vernon 2002: 19). Such romantic rhetoric, however, works to obscure the enduring violence of colonial place-(un)making. Specifically, it fails to acknowledge that 'nature', 1) is not natural, but, rather, a cultural concept that is materially, visually, and rhetorically constructed within socio-material relations; 2) it is a designed imaginary that designs; and

3) in Australia, the ability of settlers to picture 'nature' as an aesthetic object is necessarily premised on the destruction of Indigenous worldhood, people, and place.

Paul Carter's study of early settler place-(un)making provides support for these three points. Before settlers' could write, paint, or talk about 'nature' as a picture of serenity — rather than something 'wild' and threatening — the work of clearing and enclosure, symbolic and physical, had to occur.<sup>10</sup> This (un)making established the necessary (in)security<sup>11</sup> of place from which a romantic 'outlook' could develop. Within these spaces, home-(un)making could unfold as a 'proliferation of symbolic boundaries' that were defined and policed through further acts of (un)making. A good example is the case of furniture that was said to look "nice and comfortable" ... because the wilderness of the wood has been tamed, covered in cretonne' (Carter 2010: 153–54). Regarding one settler's recollection of an early morning landscape, Carter comments that, 'the pleasure she takes in the view depends on trespassing there: for home does not shut out the forest, but transforms it into a cultural object, a wilderness into a kind of beauty' (2010: 155).

If we take Carter's point regarding the construction of wilderness as a cultural artefact from the context of the settler home and extend it to that of an entire city, the ideological function of the notion that the Griffins' design did not alter the 'natural world' becomes clear. By ignoring the (un)making of place that constituted the conditions for what a desirable or beautiful 'natural world' meant — a concept that frames 'world' as picture, over and against worldhood as being-in-the-world (Heidegger 1977) — such a history legitimates the violence that was inherent to settler conceptions of natural beauty, as well as the ongoing (un)making that such concepts continue to produce. This legitimisation effect functions with a logic similar to that of the naming ceremony. The significance of place has been decontextualised from Ngambri worldhood, mediated through the mechanisms of Western place-(un)making, and deployed as a means to consecrate settler dominance.

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10 A similar point is made by Deborah Bird Rose: 'The right hand of conquest can be conceptualised as beneficent in its claims: productivity, growth, and civilisation are announced as beneficial actions in places where these purportedly had not existed before. The left hand, by contrast, has the task of erasing specific life. Indigenous peoples, their cultures, their practices of time, their sources of power, and their systems of ecological knowledge and responsibility will all be wiped out, and most of the erasure will be literal, not metaphorical. The left hand creates the *tabula rasa* upon which the right hand will inscribe its civilisation.' (Rose 2004: 62)

11 These particular practices of making oneself secure through place-(un)making are relative to the perspective of settlers, as they equally imply the displacement and terrorisation of Indigenous people. These early acts of enclosure can also be read as part of a genealogy of settler Australia's own displacement anxiety (Curthoys 1999). As a final thread in the multivalent theme of 'security', these practices of home-(un)making can be read in defutural terms, as the cultures of ecological destruction they founded delimit the future of settler culture itself (Fry 2007).

A further characteristic of the 'response to place' discourse is that it appears to wilfully misrecognise how the dominant(ing) logic of the Griffins' plan was one in which the 'natural' was made explicitly subordinate to the unfolding sway of modernity:

The hills, where practicable ... are *utilized* as the elevated foundations for the utilitarian buildings of dominating importance. ... Elsewhere in the lesser remaining instances, hills are in general avoided by the geometrical avenues and streets and *allowed* to crop through only in places where they least *interfere* with the traffic and can be *utilised* for informal recreation or large residence sites, sanatoria, Hotels, etc. (Griffin 1912: 9–10, my emphasis)

The claim that the Griffins' plan 'is a response to the particular place it is in', is further troubled by an incoherent conception of 'place'. Certainly the Griffins' plan took into account various geographical features of the site, but this could only occur on the basis that 'the place' had already been constructed as a capital city site, through the work of surveying, mapping, modelling and painting. The Griffins' designing, therefore, was in no way a response to a 'particular place' to which they could have had any 'direct' access. Their designing was based on a sense of place that had been deliberately designed and crafted by the settler-colonial administration. The fact that they produced their submission on a different continent is one thing.<sup>12</sup> The much more substantial point, however, is that, regardless of any empirical 'where', the worldhood of the Griffins, the mode of dwelling that they shared with their white, antipodal peers, meant that they could only ever have produced a Western interpretation of a mediated representation, of a place that had been culturally (un)made into a site of settler occupation since at least the 1820s. Against the rhetoric of 'imperial history',<sup>13</sup> the achievements of the Griffins can be seen, therefore, as a contribution to the ontological designing of the same matrix of colonial power that continues to threaten the worldhood of Indigenous people today.

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12 While Griffin would eventually adapt his designs to what he saw 'on the ground', he would never see 'it', the place, 'as such'. His vision would always be mediated by a cultural imaginary, particularly as it was ontologically shaped by how the space had already been represented and imagined. For instance, the following description speaks to the gap that existed between Griffin's idealised spatial imaginary and a referent whose ontology always exceeded its various representations: 'Although impressed with the beauty of the capital's site, [Griffin] found the future city's precincts were not pristine. In fact, as he discovered on his first Australian visit, the valley had been extensively grazed, the river banks eroded and the once forested slopes now largely denuded.' (Vernon 2002: 21)

13 For more on what is meant by imperial history see note 1.





Figure 4. Canberra, 2005, showing Lake Burley Griffin (foreground), Old Parliament House (middleground), and Parliament House (background).

Source: <http://en.wikipedia.org/wiki/File:Lake-ParlHouse.JPG>, accessed 4 Oct. 2012. Photography: Adz

## Conclusion: (Un)making (de)colonial futures

In 1834, a Polish naturalist prematurely declared that the ‘natives’ of the Ngambri country were ‘now no more!’ (Jackson-Nakano 2001: 49). Like the case of Nellie Hamilton’s death, this claim was one of many instances in which an author would attempt to erase the existence of the Ngambri. This effect continues in writing about the design of Canberra, albeit in more subtle ways. In his account of Canberra’s planning history, for instance, Christopher Vernon describes the transformation of the site from an ‘obscure inland plateau’ to Australia’s ‘greatest achievement in landscape architecture and town planning’ (Vernon 2006: 130). While obviously ethnocentric (the land was and remains significant to the Ngambri), the coding of this description conveys more than was intended. ‘Obscure’ derives from the Latin *obscurus*, denoting ‘hidden’, ‘secret’ and ‘dark’. The implication is that Canberra was singularly unveiled as a place by the intervention of Western modernity; it was through the disciplines of craft, planning, engineering and architecture that the region was imbued with (colonial) significance. That the mythical home of settler sovereignty in Australia would be depicted as having emerged from place of darkness is both ironical and hypocritical. As Mignolo, has observed, designating places of ‘darkness’ is ‘part of the rhetoric of modernity (geographical racism) hiding the logic of coloniality’ (Mignolo 2011: xx).

What I have tried to show here is that this kind of discursive erasure is an expression of the elimination logic that animates the socio-material designing of the city. I am attempting to counter this effect by writing a history that recalls what has been unmade by settler-colonial making. In doing so I demonstrate how representing the artefacts of settler-colonial designing as benign objects of beauty, progress, or otherwise, obscures the degree to which the ontological designing of settler-colonialism is both defutural and ethnocidal.

This is a reading of settler-colonialism as designing force that includes craft as part of its material culture. While my focus has been the period from 1820 to 1913, I argue that this history depicts an effect that persists into our contemporary condition (see also Pieris 2012). While Australia now celebrates its 'multiculturalism', this liberal ideology continues to frame the settler state as a neutral mediator amongst equivalent claims to identity, even as it continues to exercise the power to condition relations between people and land. In doing so, it continues to encourage capitalistic, colonial, and unsustainable modes of dwelling.

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# Crafting social innovators: Designing collaborative, participative, networked solutions in urban contexts

Marzia Mortati and Beatrice Villari

*Abstract:* This paper addresses the potential of design as a driver for social innovation in urban contexts in relation to an educational approach engaged with an idea of crafting social innovators. The focus is a masters studio where the idea of crafting social innovators as an approach to learning is explored in terms of learning through making, through doing — and, then, how this approach extended into the actual design propositions of the studio. In this paper, six projects are presented that explore the topics of creativity, neighbours networks, and local craft in urban contexts. These detail both the idea of *crafting social innovators* and the results of the work as *makers of social innovation*. In particular, the solutions also extended further into an idea of what we have called ‘a *temporary community of makers*’; i.e., groups of people who share objectives, tools, and resources to collaborate for a limited time and describe a way in which design can enable urban regeneration through participating in a learning process that is based in practice.

A new role for design emerges that is concerned with: looking for co-created collective meaning and action (networking); focusing on the participative process that builds a solution (participating); and centring the design activity on the active collaboration of stakeholders (collaborating).

## Introduction

Design is currently considered a cross-functional and multidisciplinary innovation activity, capable of making sense of social challenges while devising strategic and holistic solutions to support competitiveness. It is considered a fundamental ingredient in business innovation through its ability to shape ideas and translate them into practical and appealing propositions for users, while improving national performance. Moreover design practices include issues of social, and non-technological innovation (EU 2009), devising relationships, citizen participation, companies/institutions cooperation, and organisational transformation.

In this nuanced relationship between design and innovation, this paper explores in particular the meaning of educating social innovators from the perspective of design. This is paralleled with the apprenticeship model typical in craft, and applied in a masters studio, to understand the implications of the idea of

*crafting social innovators*. Moreover, this provokes reflections on the evolution of the methods for educating future designers, and on the new professionals emerging from this.

We argue that social innovation applied to urban contexts is not only one of the most interesting contributions of design to innovation processes, but also a promising field to experiment on the idea of *crafting* people who become capable of enhancing places through a learning process based in practice. *Crafting* is chosen over *designing* to signal a specific approach to education, an approach centred on learning by doing, through making. This identifies a peculiar attitude to innovation, a way of thinking and solving problems, a way of expressing ideas that is critical to humanity, and a specific set of characteristics of the solution produced.

We start by reconnecting the meaning of social innovation to craft practices and how these are influencing urban contexts. Here, craft is a specific way to answer to social innovation issues, and to create product-service systems. Moreover, cities are a great testbed for research as they are defined by a mix of socio-economic challenges and the presence of a mix of users with contrasting needs. We filter this focus by applying a framework that links the method used to guide students, and the results obtained in the class through the assets of collaboration, participation and networking.

To develop the discourse we use the field experience of a six-month masters studio in product/service system design at the Design School of Politecnico di Milano, where we have led students to look at social innovation in urban contexts with a craft approach — through crafting.

Finally, we reflect on the method used to craft social innovators, on the people crafted (the makers of social innovation), on the results of the people's work (the product/service systems designed). A series of characteristics/capacities of makers of social innovation emerge, as well as the idea of a temporary community of makers as the collective subject that realises and promotes solutions for social innovation.

The paper concludes by putting forward reflections for the future exploration of the topic as research area to define the new role of design in implementing transformation and growth.

## **Social innovation and craft practices in the urban context**

Social innovation focuses on improving social outcomes and creating value for people, places and organisations. In particular, it relates to new ideas that — successfully implemented — provoke a positive transformation for society and its infrastructure (people, relationships, collaborations), thus improving society's capacity to act (BEPA 2011). Social innovation relates to design at multiple levels, as it concerns solutions that integrate new products, services and



systems that respond to social needs. Citizens are engaged directly to promote their empowerment and provoke action and change, as they have an active role in the design, production, and distribution of goods (Cottam & Leadbeter 2004; Botsman & Rogers 2010). This is also happening in production/distribution systems, and in governmental processes, where public administration is increasingly interested in experimenting with user-centric processes and tools, and in considering citizens not only as targets but as active agents of change (Bovaird 2007; Lukensmeyer 2007).

In the design field, the attention to user involvement is highlighted by participative and collaborative approaches (e.g., user-centred design, participatory design, co-design, emancipatory design, community-centred design, human-centred design) increasingly looking at new ways to support collective creativity and collaboration between designers and everyday people (Sanders 2006). These argue for the importance of involving users and citizens during the whole design process with different roles (e.g., to give feedback or to become co-decision makers) and with slight differences in the stages and techniques for engagement (Holmlid 2009; Bradwell & Marr 2008; Sanders & Stappers 2008). In addition, more systemic approaches have recently been promoted, such as Transformation Design (Burns et al. 2006; Sangiorgi 2011), the focus of which considers both the engagement of users, and the impact of the intervention, to point out that a good solution should leave behind tools to keep adapting to the situation. The user involvement is a process to democratise design activities while listening to the needs of a wider audience; at the same time, it is also a way to engage people in a learning process. People learn and share their skills and their knowledge with other people contributing in defining new tools and languages. These activities are related to practices that are often strictly related to a specific context and to specific skills. This connects to the 'craft' activities and the 'crafting' process, in which learning by doing is fundamental.

These examples highlight design as especially suited to intervene in social innovation, looking for the most appropriate tools to devise solutions that are relevant both to meeting social needs and to creating new relationships and collaboration.

Social innovation is relevant when applied to urban contexts, where both economic and social needs are present, and where a multiplicity of actors participates in generating growth. Cities are key places where social, cultural and entrepreneurial change happens. They are laboratories for experimentation, where innovation and transformational activities are devised from citizens, organisations, and public administrations, by networks of interacting projects, information, goods, people, and hubs of knowledge exchange (Landry 2000; 2006). Cities are the core of current economic systems where flows of ideas, people, and resources can be variably connected and intertwined, and offer the opportunity to experiment on governance systems as well as on new ways to acquire skills and improve techniques (Bonomi & Bruzzese 2004).

Some cities have recently undergone the transformations needed to answer to the changing nature of jobs and human life, as well as to the new challenges society and economy are facing. For example, as jobs have increasingly shifted from hardware to software — that is shifted from a close concentration on manual skills to an attention to knowledge and immaterial goods — cities have also evolved towards modifying their infrastructures. In the twentieth century, manufacturing moved increasingly out of urban systems to privilege the immaterial nature of virtual networks for the exchange of knowledge and information. As a result, cities have become intertwined and intricate systems designed especially for those parts of the population with high educational levels and high income, thus leaving little space for manual labour and lower classes. At a certain point in the evolution of globalisation, we registered an increase in the disparity between higher and lower classes: rich people were becoming richer, and poor ones were being further confirmed in that condition.

With the environmental and financial crisis, we are registering a counter trend: social innovation and collaboration are becoming buzzwords to awaken the spirit of citizens. These are stepping forward to encourage communities to renew the places in which they live, envisage sustainable and socially viable innovations, and suggest new ways to make things capable of putting people and local resources at the core of the reconstruction needed to devise alternatives to the current situation. Initiatives like Breakthrough Cities (<http://creativecities.britishcouncil.org>), Collaborative Cities (<http://collaborative-cities.com>), San Francisco Made (SFMade — <http://www.sfmade.org>) signal the importance that citizens place not only on participating in the life and construction of their city, but also to the possibility of making things with their hands to contribute to creating a thriving local community. For example, SFMade aims at supporting the renaissance of a vibrant manufacturing sector in San Francisco through sustaining companies that produce locally. The overarching objectives of such statements include encouraging entrepreneurship and innovation, creating new job opportunities for local workforces, contributing to establishing a sustainable local economic system, offering diverse educational opportunities, and raising public awareness on the importance of local craft practice and of the role of craftspeople in the local community. Collaborative Cities is a series of documentary films on cities in North America and Europe (among them are New York, Toronto, Helsinki and Paris) depicting how people are reshaping agriculture, transportation, housing, finance through valuing craft and locality. These solutions are examples of successful social innovations, and of the revived importance of craft in cities. As Richard Sennet argues (2008), craftsmanship is the skill of making things well, but mostly it is the basic human need of doing a job well. It goes beyond skilled manual labor, because the craftsman focuses on the special connection between hand and head. This is a dialogue between thinking and practicing that becomes concrete in learning by doing that is typical of the workshop situation in which apprentices learn from masters. The same mechanism is being adopted and reinvented in the cities of the twenty-

first century to give life to new creative communities (Florida 2002; Thackara 2005) based on the strength of relationships, on the importance of manual work, on the value of local resources, small numbers and excellence.

These values connect social innovation and craft practices, and are a gateway to reshaping urban contexts for the future. When talking of education, this statement has a double perspective: on the one side it means educating people to become capable of working with such values, on the other it means instilling the same values in the final solutions. For designers in particular, it means re-educating the future generation to think through materials and skills, to learn to use a tool and to then modify it or invent a new one. Learning is the process of understanding and answering challenges, building on existing skills, and discovering new ones. This is the starting point for our idea of *crafting social innovators* — by design as a means to going beyond the functional accent of products, while seeking to shape relationships and collaborations.

## **Research path and framework: Participation, collaboration and networking**

Purposely applied to cities, social innovation refers to the capacity of kickstarting collective and collaborative actions that reflect on new scenarios and promote solutions to enhance places and create value for people (Manzini 2011). These are centred on: citizens and communities that promote new local activities and share interests (services like [heyneighbor.com](http://heyneighbor.com), [connectaid.com](http://connectaid.com), and [sharesomesugar.com](http://sharesomesugar.com)); municipalities and governments that activate participatory processes to involve the public in urban planning and improvement of public services (initiatives such as Collaborative London); organisations and projects that leverage on territorial capacities to create new jobs (initiatives like [progettokublai.net](http://progettokublai.net) and [innovetionvalley.com](http://innovetionvalley.com)).

Generating these kinds of solution is a task that requires craft, in terms of the ability of learning by using the connection between hand and head. This means, for example, getting to fully know a place and its resources before engaging with its transformation, learning through experimenting in reality, recognising and valuing local excellence.

The aim of the research presented here — started in 2011 and still ongoing — is understanding how to educate people with such skills and capabilities, working through three phases:

1. exploring, based on mapping and collecting interesting cases and people
2. experimenting, through a real educational project to extend on the initial findings
3. testing, through a design research project in which students are directly involved to define new urban services.

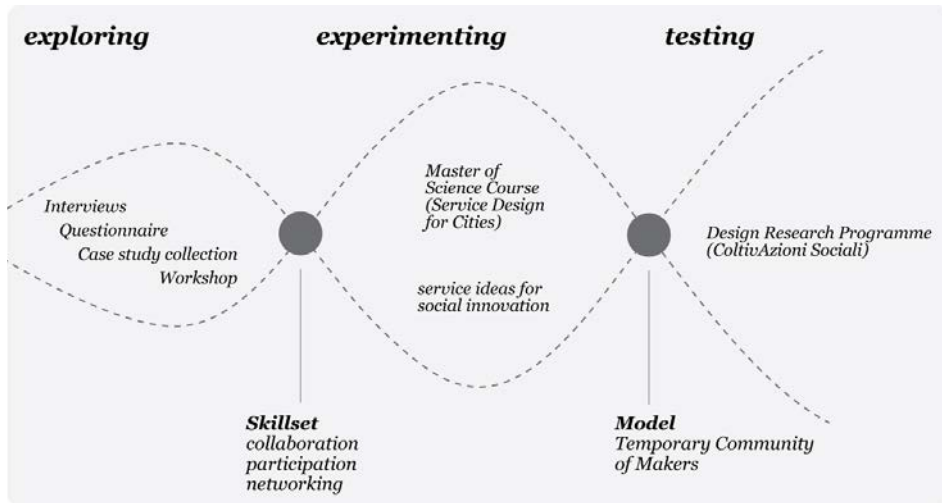


Figure 1. Process of crafting social innovators.

Diagram: Marzia Mortati and Beatrice Villari

The output of the first phase is a map of interesting cases in the Italian context, and a comparison with international best practices. A series of interviews with experts from diverse fields (service design agencies, government bodies, universities, policy advisors, and design practitioners) has also been carried out, aiming at pinning down the different viewpoints concerning practical approaches and tools, research areas and methodologies, and political concerns. This has generated an initial empirical understanding of the topic, further developed through an expert workshop held at Politecnico di Milano in March 2011.<sup>1</sup> The workshop investigated the connection between design, social innovation, and craft practices in three main areas: *individuals* — connecting people for social change, *companies* — connecting small and medium enterprises (SMEs) and design for innovation, *places* — connecting and collaborating for sustainability. An online knowledge repository was created from the work that was developed and discussed.<sup>2</sup> This shares the elements of the workshop as well as mapping and promoting promising cases at national and international level.

The explorative action has been useful in defining the appropriate skillset for crafting social innovators, referring mainly to the three assets of collaboration, participation, and networking. This was then transferred to the *experimenting* phase in a concrete action for testing the model built around the idea of *crafting social innovators*. This was embodied in the design studio, which explored in practice three different levels of the model:

1. The educational action/method to transfer the above capabilities to young designers.
2. The peculiarities of the solutions that emerged from students.

<sup>1</sup> The workshop was organised in collaboration with the British Consulate General in Milan.

<sup>2</sup> <http://www.designhub.it/designingconnectivity>

### 3. The viability of these solutions as social innovations.

The results of the above have established the basis for the *testing* phase. This has just started and foresees the development of a research project aimed at *crafting* service solutions for local communities through crafted social innovators. ColtivAzioni Sociali<sup>3</sup> is an action-research project based in Milan that aims to enhance social cohesion locally by activating new services at the neighbourhood scale.

In the remainder of this paper we focus on the educational experience, as the first stage of this ongoing project to reflect critically on the hypotheses of the paper — the idea of crafting social innovators.

## The skillset of social innovators

As reported above, the first important output of the explorative phase has been a description of the appropriate skillset for social innovators. This set of skills refers to the three assets that emerged as the central focus in social innovation solutions:

- *Collaboration*: the need and ability to use creativity as the stimulus for connections between local actors, and to provoke growth through negotiating growth.
- *Participation*: the ability to empower local stakeholders, and support learning through opening up solutions and engaging citizens directly.
- *Networking*: the importance of thinking systemically through understanding and maximising relationships and connecting all material and immaterial elements in a context (people, places, infrastructures, history, tradition, knowledge, know-how).

Each of these assets was then translated into a set of connected skills:

*Collaboration*, translated into the skill of *leveraging collective creativity to address social needs* — designers have tools and methods at their disposal that are useful in stimulating shared creativity as well as fostering co-production of meaning and solutions. For example, they are good at focusing on human experiences and on the human scale of solutions. They foster conversation to co-produce meaning in the social world by asking '*what are we doing in this room right now, what are the objects, what are the human interactions?*' (APDIG 2013). Designers consistently care about people, and about crafting interactions from the beginning.

*Participation*, translated in the skills of *enabling co-created solutions and actions, and achieving the emancipation of users through owning the solution*. This means triggering engagement, and developing social sharing platforms. Designers give particular attention to user involvement, and actively look for new ways to support collective creativity and collaboration with citizens (Sanders, 2006).

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3 <http://www.coltivazionisociali.org>

*Networking*, translated in the skills of *rearranging organisational processes to regenerate/adapt solutions*, and *building effective relationships (between all elements of the system) for resilience* through creating interdependence and links between ideas and meanings. Designers create systemic and holistic visions due to their tendency to consider problems more broadly. Charles Owen (2007) signals design as a profession capable of treating problems as systemic challenges calling for systemic solutions that involve a mix of hardware, software, procedures, policies, organisational concepts and whatever else is necessary to create a holistic solution.

## The educational framework for crafting social innovators

The skillset described has been the basis for developing a teaching approach to craft social innovators. This is also seeking to apply two fundamental principles of crafting, adapted from Sennet (2008) and Christopher Frayling (2011) and the idea of the craftsman, Donald Schön (1983) and the characteristics he attributed to the reflective practitioner, Etienne Wenger (1998) and his theory of learning developed around the concept of communities of practice. In particular, these authors argue in diverse and complementary fields for the need to closely link practice and reflection for certain kinds of practitioners. This is central both to understanding problems and to learning, creating a direct link between sharing experiences, devising communities, and making through manual skills. We have organised this approach into two main principles:

- the *learning by doing* approach, signalling a focus on practice-based learning which engages young designers in developing their attitude to learning through making (objects, relationships and services). The importance of the apprenticeship model is thus revived based on sharing knowledge between expert and trainee through participating in contextualised workshops activities.
- the *thinking by prototyping* attitude, which means solving complex problems through testing, examining, and reflecting on prototypes. These are models of the real world that help make visible and tangible abstract ideas to refine them and experiment with their real constraints.

These principles suit the complexity of social innovation solutions in urban contexts, where problems need to be investigated and experimented directly in the field, in a continuous process of learning by doing. Iterative cycles of diverging and converging phases merged with action and reflection are needed, typical of a *designerly* way of solving ill-defined problems.

According to this framework, students deployed iterative cycles of qualitative research — in particular contextual analysis in the assigned urban context — to identify opportunities and to involve directly local people. Each analysis was conducted in a specific area of the city (Milan), to include and consider its ethnic groups, culture and resources, jobs and business characteristics (tourism, commerce and culture). Students were prompted to look also for existing cases



to test ideas. They described, visualised, and detailed concepts through testing the service ideas and business hypothesis, and gathering feedback. In the final part of the process, they built a simulated prototype to define also the intangible qualities of a design solution, while detailing all levels of the service organisation: system map, technical aspects, offering, touchpoints, user experience, service storytelling and business model. The prototyping phase was a critical part of the process, because students engaged in a verification of ideas in context, and shifted from an abstract understanding to a real simulation.

The learning model that emerged is strongly linked to the skillset proposed: collaboration was represented by the use/creation of collaborative tools and processes aimed at co-designing and co-producing solutions; participation was reflected in the involvement of people in the design process, and in the *embeddedness* of participatory mechanisms in the final solutions; networking concerned the inclusion of enabling platforms to support and improve daily life, people connections, new enterprises and public services.

## **The social innovation solutions crafted through the experimentation**

In the following section we describe in more detail the solutions that emerged through working with students — engaging with our idea for crafting social innovators. Focused on social innovation in cities, students were asked to look for new scenarios to enhance the territorial and social capital of Milan. Six product/service system proposals were developed in relation to three topics: city and creativity, city and neighbourhood, city and local craft. Following is a discussion of these topics and the connected solutions developed by students.

### **City and creativity**

This topic explored issues connected to new urban manufacturing and jobs for creative practitioners. Personal manufacturing is impacting on urban contexts through the emergence of new types of mini factories (Lipson & Kurman 2010), while jobs are being rapidly transformed due to the increased need for flexibility and mobility in a blurred market. Many platforms/services (Quirky.com, garagedesign.it, etc.) have emerged that support co-working and urban making, where design has moved to the forefront of the industrial/business process — from idea generation to technical development and distribution/sale.

Two solutions developed by students addressed this topic:

- *3Dealize*: this proposed an urban laboratory that empowers the creative capital of Milan through 3D printing. It envisions new technologies as the means to reconnect cities and manufacturing, and has designed the stimulation of creative encounters between designers and citizens through making workshops and an equipped urban laboratory to promote learning

through practice. As with the apprentice, the service enables learning through the practical exchange of experience. It also proposed a catalogue to collect the ideas of all participants to the community — the 3Dealize community.

- *Studio on Demand*: a service for collaborative curriculum building within universities. It is based on the connection between urban facilities, academia, and local businesses. Studio on Demand involves students and firms collaborating on specific design issues, allowing a mix of skills and people. A new way to enter the job market is experienced by students within the university, where loyalty to a single organisation is overcome by flexibility, adaptability and experience.

## City and neighbourhoods

This topic addressed the possibility of enabling local networks to create better solutions for their daily problems. Different organisation models based on sharing, exchanging and participating within neighbourhoods are emerging to regenerate the social fabric, and create meaningful interactions between social actors, such as purchasing groups, networks to barter/swap/trade/lend objects and skills. These all aim at creating a longer cycle in the life of goods while improving the quality of human life (Mulgan 2007; Murray et al. 2010). For example, local resources are key elements for reviving urban assets, and food systems represent one of the most important *medium* to give new value to territories (for example, the Slow Food Movement, the idea of short chains, the ZeroMiles label).

Two service design propositions addressed this topic:

- *Tatà*: a neighbourhood-based and family-based service that connects citizens to support each other in daily needs. A community of families helps each other and networks to improve day care services for children. The final goal is to amplify participation and trust starting from a single building, and enlarging it to a neighbourhood, and a community. Families are asked to subscribe for mutual exchange of time, sharing needs, behaviours and activities. The Tatà community is thus able to support users in scaling, arranging, and customising the solution to respond to their own needs, collaborating and participating for short or long periods of time.
- *Yummi*: a network of local producers (cascine) and travellers interested in understanding the local culture for producing, transforming and preparing food. It creates a one-to-one relationship: with no intermediaries, *urban farmers* propose guests to witness in flesh a day in a Milanese farm. Yummi gives new value to local resources by transforming them into *hubs* for knowledge sharing and craft learning. This process is based on teaching and sharing local food tradition from farm workers to travellers. The networks and the connections between local producers and travellers changes constantly and the service experience is reinforced by the creation of strong interdependence between farmhouses, local producers and service providers.

## City and local craft

This topic is related to connecting local experts in traditional knowledge (the craftspeople) to design networks for generating new ways to experience tradition. Craft is one of the most important resources for the Italian economy, as it characterises a good portion of the national socio-productive culture. The ability to make something with one's hands remains a distinctive trait of the Italian socio-economic system, which is looking for new development in the face of the current economic crisis. On the other hand, Italy has an important cultural industry linked to tourism, museums, cultural heritage, traditions and history, which can be considered one of the privileged assets to strengthen city resources (Landry 2006), by adding value to both new and traditional goods and services.

Two services have addressed this:

- *Rinnovami* connects artisans, designers and citizens to give new value to the craft knowledge diffused in a big city like Milan. It offers furniture renovation where designers are the facilitators of the process, while the network of artisans guarantees the high quality of the results. This service underlines the idea that building effective connections is fundamental to enable mutual help in neighborhoods — here, through an intervention on surfaces and small components such as furniture — and how this also increases the visibility and accessibility of urban networks.
- *Italian Job* proposes a new way to access the city through experiencing traditional craft shops, quality and tradition, and through providing customised travel packages for an exclusive journey into traditional tailors, leather artisans and barbers. Starting from the perspective that local knowledge is a key resource of the urban capital and a lever for innovation, the service creates new business and job opportunities for strengthening the local craft community based in Milan. It defines a 'tailored' way to experiencing traditional knowledge through craft practices. The community of artisans and users strengthens the local tacit networks and reinforces links with a wider group of people and competencies.

## The description of crafted social innovations: the temporary community of makers

Analysing the above solutions, some common elements emerge that characterise a design solution for social innovation. These include a focus on the collective dimension, on human interactions and co-creation; on mutual learning processes characterised by exchange of ideas and knowledge; on the design of trust, reciprocity, negotiation, and conversation, and on the link with the resources of a place to devise complex systems based on collaborative platforms online and offline.

All projects address specific challenges proposed by social innovation, namely they aim at empowering people in *designerly ways*, thus enabling citizens to improve their current practices. People and their needs are at the centre of all solutions, thus applying a systemic approach to innovation, where collaboration, participation and networking are *designed for*. In particular, each solution stresses the centrality of a collective subject to trigger and to own the action and the process of change. This is especially interesting, because it represents the central focus for enabling/crafting social innovations. We have called this collective subject the *temporary community of makers* (Mortati & Villari 2013), basing it on three characteristics:

- *Temporary* as the group that promotes the solution is formed around a common project and shares some interests. These remain in common following the evolution of the initiative. Once goals are achieved, the community is transformed into something new — participants become the *enzymes* for future actions.
- *Community* as it contains all of the characteristics of a community of practice (the members are interdependent and support each other in a mutual learning process — Wenger 1998). The collective subject is also the main actor in the process, and is different from the sum of its parts (citizens, local institutions, professionals, amateurs, and so on).
- *Makers* as the community originates to *make* something that is designing and developing an idea in particular contexts, sharing languages and tools.

The idea of a temporary community of makers emphasises also the extreme complexity of a solution in which social and economical needs must all be satisfied, and where different strategic aims need to be combined. We argue that these kinds of communities are the central focus for designers wanting to impact on social innovation: they represent the people to *design for* and *design with*.

The temporary community of makers is based on sharing practices and on the mutual engagement of people, who help each other in improving skills. In the process of designing such community, the objects ‘crafted’ have a different nature; i.e., through doing/making. They can be services, enterprises and policies. The members of this community can perform varying roles, such as designer, practitioner, citizen and policy maker; activities are bottom up and self-organised. Moreover, solutions are applied at small scale and are not always able to be replicated in other contexts; they are complex interventions specific to a place, and emerge from collective processes.

## Discussion

In this paper we have reflected on how design can be a driver for social innovation in urban contexts by describing a two-year research path from a theoretical perspective to an on-field experimentation developed during a six months masters studio.

Reflecting on the set of skills identified during the first phase of the project (skills to provoke collaboration, to foster participation, and to enable networks), we have built a teaching framework to educate social innovators. This was based on the principles of learning by doing, and thinking by prototyping, and has accompanied students in iterative cycles of qualitative research that are particularly focused on prototyping.

We have argued that design is relevant to promoting social innovation as both enabler and participant to the collective subjects that can foster transformation. We have called this a temporary community of makers, as it is born around a common objective, to *make something*, and evolves following the life cycle of the initiative. These collective subjects can be *designed for* through the filters of collaboration, participation, and networking.

The discussion developed throughout the article opens new and relevant research areas for design that we are exploring further on two levels: with design students, by looking into a twofold application concerning products and services; and, with local administrations and communities to explore specific design tools for social innovation. The expected outcomes will aim to reinforce the understanding of the framework proposed and the role of temporary communities of makers in creative strategies for enhancing places.

Finally, the paper identifies a contemporary connection between design and craft, not only in the approach for producing a final good (designed object), but also through extracting and applying skills and attitude for educating future designers. We thus propose to researchers within educational contexts, such as masters studios, to further reflect on the idea of *educating and learning as crafting*, as an effective approach to renovate design education, and to further nuance the connection and potential between design and social innovation.

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# This home is a factory: Implications of the Maker movement on urban environments

Mark Richardson, Susie Elliott and Brad Haylock

*Abstract:* This paper considers the matter of sites of production in view of recent technologically enabled trends toward the intersection of designing and making. These changes have been conceptualised as ‘open design’ or as ‘consumer-as-producer’ and they are specifically manifest in accessible and inexpensive 3D printing. We argue here that these developments reactivate the Arts and Crafts notion of personalised domestic-scale production in newly technologised and globally connected ways. Akin to the ideals of the 1970s Punk movement, amateurs can become agents of change as the open-source Maker movement provides individuals with the ‘source code’ to make, adapt and disseminate individualised products via information and communication technology (ICT) channels. This paper discusses the possible impacts of distributed making on our urban landscapes, with the increasing conflation of domestic, industrial and retail zones and what some have described as ‘maker-friendly’ cities.

## Introduction

We want one man to be always thinking, and another to be always working, and we call one a gentleman, and the other an operative; whereas the workman ought often to be thinking, and the thinker often to be working, and both should be gentlemen, in the best sense. As it is, we make both ungente, the one envying, the other despising, his brother; and the mass of society is made up of morbid thinkers and miserable workers. Now it is only by labour that thought can be made healthy, and only by thought that labour can be made happy, and the two cannot be separated with impunity. (Ruskin 1903–1912: 201)

This paper considers sites of production in view of recent, technologically enabled trends toward the intersection of designing and making. These changes have been conceptualised as ‘open design’ (Vallance, Kiani and Nayfeh 2001; Kadushin 2010) or as ‘consumer-as-producer’ (Gunderson 2004) and they are specifically manifest in accessible and inexpensive three-dimensional (3D) printing (Bowyer 2011).

With strong continuities with the Arts and Crafts movement of the late nineteenth to early twentieth century, particularly William Morris and his Kelmscott Press (Peterson 1991) and, more recently, with user-generated digital media, particularly in the music industry (Gunderson 2004), and the emergent category

of small-press book publishers (Haylock 2011), there is evidence of a rejoining of the roles of designer and producer. Products developed organically in an open-source digital environment and printed by 3D digital fabrication tools can be modified, ‘mashed-up’, evolved and manufactured within domestic, studio and public environments according to personal needs and taste. The process of independent production figures strongly in all of these examples. On account of developments in FAB tools — small form factor 2D and 3D printers, laser cutters, computer numerical control (CNC) machines and vinyl cutters (Gershenfeld 2005) — small spaces, including domestic environments, can become sites of production. Consequently, factories of the future do not need to be sited in vast industrial parks, but can, to some extent, be distributed across thousands of homes and small, collective workspaces in the urban environment. We are already beginning to see the impact of this new manufacturing on cities: with the revival of the local in new manufacturing communities that utilise global, digitised technology, and with these communities networking in and across zones of production that form nuanced areas of specialisation. In this, we are also seeing the collapsing of industrial and non-industrial spaces, and of sites of leisure, community, design, manufacturing and training.

In Section 1, we outline the rise of 3D printing within the broader context of the Maker movement and open-source file sharing, and its situation in domestic and community spaces. In Section 2, we address the implication of these developments with respect to questions of community and urban space. And in the final section we offer a brief example of such spatial shifts by examining 3D printing and the Maker movement in the city of Detroit in the United States.

## **Domestic-scale production, Open Design and the Maker movement**

A reorganisation of the sites of production can be seen in a range of activities that previously might have been considered separate industries, but are now part of an overarching Maker movement — a broad association of individuals and groups, in the United States and around the world, who are said to ‘passionately engage with objects’ in making activities that often involve digital tools and new technologies (Dougherty 2012: 12; see also Monitor 2011; Stangler and Maxwell 2012). Foundational in this reorganisation is the ability to translate digital data into physical artefacts. As we discuss, the proliferation of 3D printing demonstrates the effectiveness of the conjoined functions of the ‘democratisation of technology’ (Burgess 2006) and internet connectivity as a conduit for a new and formidable type of cultural production. It fosters what might be described as utopian impulses engendering a culture of DIY artisans utilising Web 2.0, social media and creative software tools, who are enabled to make and disseminate products outside normal corporate–consumer channels (Gunderson 2004).

Similarly, 3D printing gives designers and makers the ability to produce one-off and limited-run batches of three-dimensional products in domestic locations and studio environments, bypassing the need for the expensive tooling that is used in traditional manufacturing. Sometimes referred to as Additive Manufacturing or Direct Digital Manufacturing, 3D printing is a rapidly maturing industry. With a 29.4 per cent growth in 2011, it eclipsed its own collective historical growth (26.4 per cent) in one year (Wohlers Associates 2012). Many believe that it will transform the future of manufacturing and become an integrated part of everyday life (see for example; Bernard and Fischer 2002; Gershenfeld 2005; Bowyer 2011; *Economist* 2012; Anderson 2012; Quirk 2012). 3D printing technologies are now coming to be widely used for the batch production of parts, which is a radical departure from traditional mass manufacturing. Set-up costs are relatively low, determined primarily by the equipment purchased, and ongoing costs can be minimised due to inexpensive raw materials, easy maintenance, small spatial requirements and limited power usage (Harris 2012).

Since the mid-2000s, technological developments have seen the costs of 3D printing technology reduce and accessibility increase markedly. Importantly, these developments have not come from industry, but stem from the activities of academic researchers and enthusiasts whose primary aims are to democratise technologies for making artefacts. They are based on open-source platforms and designed to be hacked, innovated and distributed by and amongst communities.

Open Source Hardware (OSHW) has sparked the Maker movement, which comprises online communities of individuals who freely exchange information about how to make things (Monitor 2011; Dougherty 2012; Stangler and Maxwell 2012). Akin to the punk movement of the 1970s, which rested on the presumption that amateurs might become agents of change (Hebdige 2002, as cited by Mason 2008), the open-source platforms of OSHW 3D printers reflect the underpinning of an Open Design methodology — a process where the design information of core constituents of physical artefacts are made accessible to end users regardless of geographic, social and economic standing through internet connectivity (see for example Vallance, Kiani and Nayfeh, 2001; Kadushin 2010; Troxler 2011). It is an adaption of open-source methods which have been used in software development for a number of decades — where the source code of computer software is made freely available for anyone to innovate, modify and improve. This methodology allows designs to rapidly flourish because development is open to a global network of innovators rather than a select few within an organisational structure. It is an intrinsically participatory process, providing the opportunity for designers to maintain a closer relationship with the end user: individuals are given the opportunity to generate content, adapt and personalise products, and be involved in the making process. Since the 'hacking' of 3D printing technology by open-source users, the price of non-open-source, commercially available machines have fallen dramatically, with some available for the price of a mid-range domestic 2D printer.

The practices of distributed manufacturing and the conflation of the roles of designer and maker represent a clear departure from Fordist labour division and mark a progression on the post-Fordist trajectory of flexible means of production: the distribution of which has moved beyond interconnected organisational structures and into a rhizomic network of globally dispersed individuals. The Maker movement works to collapse the disparate mode of designing and manufacturing, instead returning the role of making to the hands of the designer, and perhaps more importantly, the end user. The designer's role in this case moves away from developing products as singular, finite artefacts, to establishing a meta-system within which the product mutably resides (Saakes 2011; Vasser, Stippers, Kistemaker 2011; De Mul 2011). Further, the trend towards 'consumer-as-producer' (Gunderson 2004) provides a framework for user-generated design, development and production. This new type of actor may or may not be formally trained but has access to a wealth of knowledge and manufacturing precedents via a network of similarly minded individuals, and has access to the tools to produce their designs via shared spaces. These spaces are both online (blogs, wikis and repositories such as SourceForge, Github, Codeplane and Bitbucket) and physical (Fablabs, hackerspaces and 100K Garages).

The notion of the meta-design requires an inherent degree of product incompleteness — i.e., the design itself is never final but becomes one possibility among many in the course of a perpetual development cycle (Garud, Jain and Tuertscher 2008). Designing products for incompleteness also means that they can be retailed in various states of completion and can be customised by the end user when they have the means or inclination to do so. Products can also be updated, reconfigured and upcycled to take on different forms rather than remaining static in their embodiment. In a new, digitally enabled frontier of networked society, 'designs are like dynamic jigsaw puzzles in which multiple actors assemble pieces within templates that change as a result of the actors' engagement' (Garud et al. 2008). Collectively, these design templates and small-scale digital tools, coupled with internet connectivity, mean that sites of production can be situated almost anywhere with internet connection — but most commonly in the home or studio environment: this is sometimes referred to as desktop fabrication, or what is termed in this paper as domestic-scale production.

This new form of designer-consumer manufacturing has led to the ongoing establishment of networks of distributed, digitally enabled, small-scale producers in domestic, workshop and studio environments. A broad customer or end-user base can be intrinsically involved in the processes of both the design and making of artefacts. As a consequence, feedback loops are both rapid and integrated, thus allowing batch manufacturing of products en masse, but with high levels of potential product variability and the continual updatability of parts and sub-assemblies. Artefacts can also be manufactured on demand in close proximity to the end location of the product, which vastly reduces product



miles. Local materials can be sourced, which can stimulate local revenue streams and create new business opportunities within community groups. The manufacturing workforce is also fluidly variable according to demand.

The precedent for distributed, domestic-scale, digital manufacturing is growing. In 2009, for instance, Makerbot Industries called for community contributions from a global base of home fabricators to manufacture pulleys to be included in 3D printer kits (Pettis 2009). More recently, a request was made for global contributions to a project to manufacture connectors for an open-source geodesic dome (Nirmal 2010). Precedents such as these demonstrate a new way of thinking about the location and operation of production. Rather than relying on single-source manufacturers for sub-assemblies, manufacturing can be undertaken from multiple locations and from a variety of contributors, providing opportunities for siting it in the home.

## **Impact on urban landscapes: Community and spatial consequences**

Our discussion here acknowledges that economic and productive activity is (necessarily but not sufficiently) fundamental to urban development, while allowing for a range of human behaviours and values that determine the dynamics of urban life (see, Scott 2006). With this in mind, perhaps the most obvious shift brought about by the new potential of domestic-scale manufacturing is the return to the co-location of the range of activities associated with manufacturing, drawing them back into the cities, communities and landscapes of consumption. This is in contrast to the twentieth century global approach that sees manufacturing as capable of enormous volumes but that has processes that are fragmented, depersonalised and resource-intensive. With both the 'inputs' and the 'outputs' of domestic-scale distributed manufacturing localised in terms of individuals, resources, customised knowledge and technology, it is arguable that these dynamics have been and will continue to profoundly impact urban life.

These changes are compelling in that, in one sense, they involve a seemingly retrograde move back to a reinstatement of the local, particularly in involving the individual craftsperson or producer situated within a regionally based community. While we acknowledge that more conventional manufacturing and economic activities have always been grounded in the local to some extent, there remains a recent, decided move in post-Fordist global production to the revived phenomenon of co-location (Scott 2006). This type of shift, as demonstrated through Maker culture, can have profound economic and social benefits:

Economists and others have long realized that the benefits of co-location — when engineering, design, and manufacturing jobs exist in the same geographic place — go well beyond job numbers. Spillovers and returns to proximity matter; moreover, when manufacturing jobs leave, the innovative

potential of the remaining workers is undermined and, hence, the skills and knowledge level of the surrounding area go untapped. (Strangler and Maxwell 2012)

In this sense, this new wave in manufacturing reinserts the human element into productive enterprises, particularly with its potential to 'grow' the urban community. As distinctive relationships are emphasised and technology is democratised, certain populations can more ably choose to 'stay put' rather than uproot in the pursuit of employment. These towns and cities could come to reflect an at least partial restoration of the social grounded in the geographical as an enduring value — what Lipietz (1994) is gesturing to when he says:

emotional and familial relations are the main component in the conditions for human development and happiness, and they require material conditions: stability of communities, linked to territories. The compromise should therefore embrace not only the 'right to work', but also the 'right to live and work in one's own region'. (Lipietz 1994)

Critically, however, this return to the local is overlaid by a community-governed and digitised 'wiki culture' that makes use of a sophisticated, globalised reservoir of manufacturing and design know-how. Distributed manufacturing relies on a large volume of knowledge transfer across individual, organisational and national boundaries, and thus in the 'wikinomics' described by Tapscott and Williams (2006), such economies remain decidedly global in their use of mass collaboration, such as the open-source cooperation outlined above.

This dual process of the personalised local with the digitised global has the potential to breathe some new life into the 'ghost towns' that have been impoverished by industrial collapse, as our example in the next section illustrates. While the impact of this collapse is formidable and not to be underestimated, we can see the creation of some new productivity, creative expression, social economy and urban identity where it was previously waning.

Allen Scott's description of 'creative cities' of the 'new economy' was written at the birth of the Maker movement and argued that urbanisation around the world was well and truly on its way to reflecting the productive dynamism described by Florida (2002) of 'the new creative class' (Scott 2006: 3–4). Scott argues that the city's physical make-up has come to reflect new, organic networks of reciprocity that form between producers — both sole operators and corporate operations that have increasingly taken on the new economy's values: of flexibility, specialisation and rapid adaptiveness (2006: 5). Scott notes that cities have been reforming on the basis of 'articulation of specialised agglomeration': both small, niche geographical groupings and larger, more diffuse cities that possess zones of specialised production (2006: 9–10). In the latter, dense local development is likely, but so too is the teasing out of sub-regions across a wide area beyond the boundaries of a central business district. According to Scott, these larger cities have been adopting nuanced distinction of their various 'mini'-industrial quarters while maintaining overlapping spaces (2006: 9). From this description we might extrapolate a Maker city (such as Detroit, see

Section 3) that has regions of specialisation spread out and away from the CBD and conventional industrial areas, each with a determinable specialisation, with shared spaces among them and perhaps certain continuities in each (distributed domestic-scale facilities in most regions, for example).

Similarly, Dale Dougherty (2012) describes 'maker-friendly cities' whose new style of commerce moves things away from last century's large, centralised shopping/consumption complexes (the city of sensory spectacles described by Debord 1994) towards smaller shops, associations, studios and domestic craftspeople. A culture that is less promoting of passive consumption and activities, like shopping for its own sake (Birtchnell and Urry 2012), and more of active involvement by 'prosumers' in both making and/or customising goods (Toffler 1980) would suggest a decline in demand for public spaces like shopping malls and high streets towards multipurpose sites scattered within and around residential areas that function as manufacturing hubs, print shops and sites of association for networks of micro-communities (Birtchnell and Urry 2012). We could also assume that there would be less need for vast industrial parks and suburbs as retail and manufacturing sites converge.

Scott posits that all new economy cities possess a distinctiveness of identity and output that is a key component of their survival (2006: 9). Communities require more than the mere promise of creative opportunities to ensure their long-term durability, which is his contention regarding Florida's ideas on creative communities, and so a critical aspect of maintaining and growing a citizenry is the city's unique style of material and cultural production. A powerful tool in developing this distinctive identity is the 're-branding' of its architecture as renewed history and identity of place, and with greater optimism on the quality of life in its society (Scott 2006: 9–10). In this light we can see inner-city and inner-suburban industrial spaces that have in the past 30 years been redeveloped as residential dwellings and retail outlets again being activated as sites of production. Thomas Birtchnell and John Urry (2012) describe this blurring of domestic and manufacturing spaces, wherein the suburbs and apartments of cities and towns become productive spaces for the goods consumed in daily life. An example might be retail spaces printing on-the-spot products sourced from a digital repository, rather than customers choosing from off-the-shelf products (see 3D photo booth as a precursor example, Wainwright 2012).

Another important urban feature, according to Scott, is the facilitation of 'the smooth habituation and socialisation of workers, easing their circulation through regional structures of employment and helping to maintain the idiosyncratic advantages of the local production system' (2006: 7). This would require not just a localised production system, but also training and local learning facilities (Scott 2006: 9–10). One of the intrinsic elements of the Maker movement is the notion of collectively run, open workshops akin to the principles of the Fab Lab. These not only provide access to training but are sites of manufacturing, thus again collapsing the space between these activities. Fab labs are often embedded in community settings and, due to the small physical size of the tools and the networked and distributed connectivity, they can be located in domestic and

inner-urban contexts. Two examples of this trend are Hackerspaces and 100K Garages, both of which provide the means to conflate activities associated with labour, community and leisure; i.e., individuals working in a community setting during leisure time on projects that, in many instances, have commercial value. Hackerspaces are a global collective of physical meeting spaces that provide a means for 'creative expression plus community'. The concept, founded by Mitch Altman in 2007 at the Chaos Communication Congress in Berlin, provides spaces around the world for hacking — that is, 'taking what is, improving upon it and then sharing it'. This process involves input from people from all walks of life with the focus on the production of things that perform specific, many and varied functions. Many projects involve electronics and digital fabrication; they are not, however, limited to these processes. Given the initiative's focus on community, the spaces provide free education that is based on peer-to-peer learning, and outcomes that are often open-source in nature. Over 1,100 hackerspaces are now in operation worldwide. (Altman 2012)

100K Garages (Shopbot Tools, Inc. 2012) is a website that connects designers (anyone who has designed something to be made) with fabrication facilities (Fabbers) that are located nearby. As the title suggests, these facilities are sometimes located in domestic environments and include digital manufacturing tools such as 3D printers, CNC machines and laser cutters. Negotiations of price and allocation of tasks — i.e., what contribution the designer makes to the making process — is dealt with on a one-to-one basis.

## **Detroit 2.0 (Or Lemonade Detroit)<sup>1</sup>**

An obvious case in point is the city of Detroit, Michigan in the United States, the largest boomtown in North American history that has, in recent decades, been crippled by its self-declared financial emergency of widespread poverty, high unemployment and evacuation of the city's downtown and expansive industrial zones (two-thirds of the city is classified as industrial) (Proulx 2013). Some estimations are that up to 80,000 buildings have been abandoned (Dawkins 2011). This has largely been due to the collapse of the automobile industry and, therefore the economy of the 'Motor City'. More recently, however, there has arisen a strong subculture of artist, maker and entrepreneurial networks that have reclaimed the abandoned spaces of the city's industrial past, with a new emphasis on collaborative reuse (see for example Ryzik 2010; Dougherty 2010; Dawkins 2011). These micro-enterprises are occupying the architectural symbols of twentieth century megalith industry and other social relics and have converted them into sites of technologically advanced, yet decidedly human, micro-enterprises plugged into an expansive network of like-minded enterprises (see also, Dawkins 2011). While the extent of the economic and political potential

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<sup>1</sup> The title is taken from Erik Proulx's independent film *Lemonade: Detroit*, online at <http://www.lemonadedetroit.com/>.

of these communities, which often present optimistic, even utopian messages, is complex (see, Dawkins 2011), their presence is nonetheless significant in Detroit.

For example, Dearborn in Detroit's metropolitan area was the nucleus of the automotive manufacturing industry and notably the Ford Motor Company's manufacturing sites and suppliers. In the industrial premises adjacent to Ford's product development campus, the fabrication workshop, TechShop, has opened:

a prototyping studio on a mission to democratize access to the tools of innovation [with] cutting-edge tools, equipment, and computers loaded with design software featuring the Autodesk Design Suite. Most importantly, TechShop offers space to make, and the support and camaraderie of a community of makers ... (TechShop 2013)

Ford actively encourages its employees to use these facilities while seeking to forge commercial relationships with makers in general (see, TechShop 2013). The once-industrial giant says it hopes to 'spark imagination that could be the solution to problems that we couldn't solve before, or develop all new ideas that are answers to questions we weren't even asking ...' (Coughlin, cited in Gansky 2012)

Closer to the centre of town in Near-East Detroit, a growing community of artists, urban farmers, teachers, activists and builders has taken over abandoned buildings for communal activities such as gardening, sidewalk stalls, art installations and theatre performances (for example, see the Yes Farm website 2013). In the same region is a fab lab and training facility, the Mt. Elliott Makerspace (MEM). The MEM operates out of a nineteenth century Episcopalian church to provide workshop facilities and training for carpentry, electronics, crafting and knitting, among other activities (MEM website 2013). The area presents a good example of a dense residential and semi-corporate sub-region that collapses studio, leisure, retail, training and manufacturing sites.

The 'granddaddy' of these activities is the Midwest Maker Faire in Detroit, the largest of a range of craft and maker fairs in the city, which is held in the Henry Ford exhibition centre in Dearborn in the heart of the old automotive manufacturing precinct. Since it began in 2010, the Faire has drawn 65,000 DIY enthusiasts: crafters, tinkerers and hackers sharing their projects (Hass 2013). At a Maker Faire event in 2010, K. Venkatesh Prasad, senior engineer with the Ford Motor Company, described the potential of the new movement in this way:

What if Detroit's capacity of factory spaces, automobile proving grounds, specialized manufacturing equipment and enormous intellectual concentration could get re-purposed and re-wired and be made available to auto 'makers', not just the Big-3 or the Big-6, but the 'Small Millions'? ... Detroit 2.0 is the re-making of the Motor City to become the cradle of a new generation of creativity built on shared space, shared toolkits, shared platforms and most importantly shared human intelligence, energy and zeal to create ... (Hass 2013)

## Conclusion

The developments in design and manufacturing practices examined here recombine the roles of designer and maker, which have been mostly separated for more than a century by the industrial organisation of production. Recent moves in post-Fordism to highly distributed, small-batch and one-off production, enabled by new manufacturing technologies, will have a discernible impact on urban life with potential economic and social benefits. This has importantly involved a revived notion of co-location and the conflation of labour roles, and sites of production. We draw on Scott's view of 'creative cities' in the early twenty-first century, and changes taking place currently in Detroit in the United States (among other cities), to argue that alternative Maker networks, which form in sub-regions spread throughout urban populations, are taking up and transforming the architecture of industrial-era corporatism to reflect a new wave of maker values. These values incorporate virtual collaboration, open-source knowledge sharing, material reuse and, in some cases, more durable artefacts.

Emergent developments in 3D printing represent a democratisation of technology and the production of objects. Despite requiring qualification, not least because there are still some financial barriers to entry (an egalitarian ideal of designing-making cannot yet be celebrated), much significance can be ascribed to developments in open innovation. OSHW stands to positively affect the richness of collective knowledge-building and sharing, whilst also driving the cost of technology to a more accessible price point. Significantly, these enabling technologies provide new means for shifting practices of making from the domains of industrial parks and locations around the globe to the homes, studios and fablabs of designers and end users. This has the capacity to in part reinvigorate cities suffering economic and industrial slow-downs and, further, that by dispersing sites of creative production throughout the community, greater amenity and resilience can be achieved.

Future research in this area might address the particular benefits of these emergent practices with respect to education — either higher education or community education programs. Further, much might be learned from empirical sociological analyses of communities of designer-maker-users, or from design practice-based research in this area, which might be concerned with technical innovation, or with systems of community-building.

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## Current calls for papers and announcements

### Announcing the *craft + design enquiry* blog site

Readers and contributors are advised that further online information about *craft + design enquiry* is now available on the *craft + design enquiry blog* at <http://craftdesignenquiry.blogspot.com.au/>

### Next issue — *c+de*#6 (2014)

The next issue of *craft + design enquiry* #6 (2014) is *Craft • Material • Memory*, guest edited by Anne Brennan and Patsy Hely. Due for publication August 2014.

### Themes for future issues of *craft + design enquiry*

*craft + design enquiry* is open to proposals from readers on ideas for future themes for the journal. Theme ideas should be submitted in writing, including why the theme would be interesting to the craft + design sector (two-page maximum). These submissions may also include suggestions for an editor with appropriate expertise. For further information contact [jenny.deves@anu.edu.au](mailto:jenny.deves@anu.edu.au)

### Calling for papers for *c+de*#7 (2015)

*craft + design enquiry* is now calling for papers for issue #7 (2015) for both the *Open Section* and the *Themed Section*. Contributors should follow the steps outlined below to submit their papers.

#### Steps to submitting a paper for *c+de*#7

This issue of *craft + design enquiry* will be published by ANU E Press in mid-2015. The call for papers closes on 30 June 2014. For both the Open Section and the Themed Section of issue #7, contributors are asked to follow these steps:

**Step 1** — Kay Lawrence (Guest Editor) asks contributors to submit an abstract (1 A4 page) from now until 30 April 2014. She will respond promptly to contributors. On the basis of these abstracts, contributors will be invited to submit full papers. Send your abstract to [jenny.deves@anu.edu.au](mailto:jenny.deves@anu.edu.au).

**Step 2** — If invited to submit a full paper, contributors are required to complete and submit their final papers by 30 June 2014. Email to [jenny.deves@anu.edu.au](mailto:jenny.deves@anu.edu.au). Papers must be accompanied by a Lodgement Registration Form.

**For further information** — A Lodgement Registration Form and Author Guidelines is available from [jenny.deves@anu.edu.au](mailto:jenny.deves@anu.edu.au) or, view the *c+de* blog <http://craftdesignenquiry.blogspot.com.au/>

## Open Section — call for papers

From issue #6 (2014), *craft + design enquiry* will include an *Open Section*. Contributors to the Open Section may submit papers exploring any aspect of contemporary craft and design. All papers in the Open Section are peer reviewed and selected for publication in accordance with established *craft + design enquiry* procedures. The submission process is outlined above.

## Themed Section — call for papers

### ***Landscape, Place and Identity in Craft and Design***

#### **Guest edited by Kay Lawrence AM**

*craft + design enquiry* welcomes Kay Lawrence as the Guest editor of issue #7 (2015). Kay provides this outline and invites submissions on the theme — *Landscape, Place and Identity*:

The words used to describe the physical environment and our relationship to it, are always nuanced. The concept of 'place' refers to a particular portion of space that may or may not be occupied by people, while also encompassing the idea of dwelling, of living in a particular place. The word 'landscape', on the other hand, suggests a slightly different relationship of humankind to the environment. Derived from the 16th century Dutch word 'landschap',<sup>1</sup> signifying a unit of human occupation, that is, places shaped by human intervention and use, the contemporary meaning of landscape, 'natural or imaginary scenery as seen in a broad view', conceives this relationship in terms of human vision, of looking *at* a landscape rather than dwelling *in* a place. These words posit different relationships to the environment; landscapes encompassed by the gaze or places known through the intimacy of bodily sensation. Both words are culturally inflected. Our understanding of both landscapes and places is shaped by sensory experience as well as by memory and myth, and are thus bound up with complex questions about human identity.

If we accept that 'identity' is not a given, but constructed in response to an intricate array of social, cultural, economic and physical forces, then how we think of ourselves as individuals, communities or even nations, will be shaped in part by the places and landscapes where we live, and

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1 S. Schama, 1995, *Landscape and Memory*, New York: Alfred A Knopf, p. 10.



mediated through language. 'Language' here is interpreted broadly to refer to the codified systems of representation used in the practices of craft and design as well as written and oral language.

Craft and design practice, even when speculative, is engaged with the physical world, as practitioners work with its visual, material, spatial and temporal qualities to create objects and environments. Recently Glenn Adamson advocated the usefulness of considering craft as process as well as product. Craft is 'an approach, an attitude or an action ... a way of doing things'.<sup>2</sup> So craft and design in this context can also be considered as *processes* underpinned by particular ways of thinking and making.

This issue of *craft + design enquiry* invites papers that explore and reflect upon these ideas about landscape, place and identity in relation to both Indigenous and non-Indigenous craft and design practice in Australia and globally. Or, to put it another way, writers might wish to consider how craft and design practitioners have employed the visual, material, spatial and temporal processes of their disciplines to interrogate questions of identity in relation to concepts of place and landscape.

These questions are further elaborated below.

The Western landscape tradition is predominantly graphic and, although craft can be pictorial (like woven tapestry), craft also affords meaning through the actual materials used. How does craft reflect or interrogate ideas of landscape (or place) through the use of its physical substance; plant, sand, clay, timber and rock?

Representations of landscape can take on ideological ramifications in the formation of identity. In white Australia, for example, the land has been variously constructed in the popular imagination as beneficent or lacking, dangerous and hostile, sometimes with gendered connotations as a nurturing or devouring mother. The concept of 'wilderness' has also been used to construct an understanding of the natural environment as untouched by people, separating humankind from the natural world and effacing the long history of Australia as a peopled land cared for and shaped by its Indigenous inhabitants. Writers might wish to consider how such tropes of landscape or place have been employed in craft and design to formulate or question concepts of identity, whether individual, community or national.

In Australia, the term 'country', with its many associated meanings that pertain to territory, nationhood and the rural, has taken on additional meaning to signify 'traditional, Indigenous land and sea with its embedded cultural values relating to the dreamtime'.<sup>3</sup> The anthropologist Deborah Bird Rose tells of Indigenous elder, Daly Pulkara from the Victoria River district in far north Australia, speaking sadly and heavily of 'wild' country; country that bears the devastation of misuse and neglect of the introduced pastoral industry. He compares 'wild' to 'quiet' country 'in which all the

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2 G. Adamson, 2007, *Thinking Through Craft*, Oxford: Berg, p. 4.

3 Bill Arthur & Frances Morphy (eds), 2005, *Macquarie Atlas of Indigenous Australia*, Macquarie University: Macquarie Library Ltd, p. 262.

care of generations of people is evident to those who know how to see it'.<sup>4</sup> While craft practices have historically been used to express human connection to place through use of traditional processes and local materials, writers might also wish to consider how the idea of human *obligation* to place, implicit in Indigenous use of the word 'country', is being addressed in contemporary craft and design.

*craft + design enquiry #7*, invites papers reflecting upon these questions from practitioners, researchers and scholars across the broad field of contemporary craft and design practice and theory.

**Kay Lawrence** AM is a visual artist and writer and Adjunct Professor in the School of Art, Architecture and Design at the University of South Australia. She has an internationally recognised textiles practice with work held in many public collections including the National Gallery of Australia. Through her art-making she critically engages with matters of personal and community identity in relation to place, exploring ideas of loss and connection through a practice centred on hand-making and grounded in the materiality and meanings of textiles. She has completed a number of significant commissions for public spaces, and was made a member of the Order of Australia (AM) in 1989 for her work designing and coordinating the making of *The Parliament House Embroidery*. Her scholarly writing on contemporary textiles practice has been published by Berg Publishers, Cambridge Scholars Publishing and Melbourne University Press.

Contributors to the Themed Section of *c+de#7* should follow the **Steps to submitting a paper for *c+de#7***. Submissions close on 30 June 2014.

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4 D. Bird Rose, 2004, *Reports from a Wild Country*, Sydney: UNSW Press, p. 4.

# About *craft + design enquiry*

## Focus and scope

*craft + design enquiry* is an open access, peer-reviewed, online journal promoting and disseminating the research excellence generated by and about the craft and design sector. *craft + design enquiry* investigates the contribution that contemporary craft and design makes to society, establishing a dialogue between craft and design practice and cultural, social and environmental concerns. It interrogates and expands the international recognition of Australian craft and design.

*craft + design enquiry* welcomes submissions from across the field of craft and design including artists and practitioners, curators, historians, art and cultural theorists, educationalists, museum professionals, philosophers, scientists and any others with a stake in the future developments of craft and design. Issues of *craft + design enquiry* are published annually.

*craft + design enquiry* is published by ANU E Press. Specialist guest editors are appointed to each issue of *craft + design enquiry*. Calls for papers are announced once a year on specific themes and research areas for future issues. Submitted papers are peer-reviewed and selected papers are published in *craft + design enquiry*.

## Peer-review process

*craft + design enquiry* is a peer-reviewed journal. The *craft + design enquiry* Editorial Advisory Panel is composed of internationally recognised experts and academics, who provide reviews in the fields of their expertise. Each paper is reviewed by at least two peers. The process uses a double-blind, review process where contributors and peer reviewers remain anonymous throughout the review process. Reviewers may request changes to papers.

Contributors are asked to ensure their identities are not revealed in any way within their paper and that the paper is not submitted to other publications during the review process with *craft + design enquiry* and Craft Australia. (See Submissions/Author Guidelines.) If favourably reviewed, and at the discretion of the *craft + design enquiry* editorial team and Craft Australia, the paper will be published in *craft + design enquiry* e-journal.

## Open access policy

This journal provides immediate online, open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

## History

Established as an initiative of the Craft Australia Research Centre, *craft + design enquiry* was developed in 2008 by Craft Australia and personnel from The Australian National University and first published by Craft Australia in 2009. In 2012 *craft + design enquiry* moved to The Australian National University, where it is hosted by the School of Art and published by ANU E Press.

## Editorial Board

The *craft + design enquiry* Editorial Board membership is currently drawn from The Australian National University, other member institutions of the Australian Council of University Art and Design Schools (ACUADS) and the Australian Craft and Design Centres (ACDC) network organisations. This membership covers a broad range of expertise in training and professional practice in craft and design.

The Editorial Board is responsible for defining the policy and objectives of *craft + design enquiry*, for determining themes, appointing guest editors and overseeing the management of the e-journal. The current membership of the Editorial Board is:

Anne Brennan, School of Art, The Australian National University

Louise Hamby, Research School of Humanities and the Arts, The Australian National University

Patsy Hely, School of Art, The Australian National University

Peter McNeil, University of Technology Sydney

Kevin Murray, RMIT University

Avi Amesbury, Craft ACT: Craft and Design Centre

Suzie Attiwill, RMIT University

Jenny Deves, Managing Editor — *ex-officio*

## Guest editors

Each issue of *craft + design enquiry* features a themed section overseen by a specialist guest editor appointed by the Editorial Board. Guest editors to date:

Amanda Ravetz, Editor, Migratory practices in craft and design, Issue 1, 2009

Louise Hamby, Editor, Cross cultural exchanges in craft and design, Issue 2, 2010

Kevin Murray, Editor, Sustainability in craft and design, Issue 3, 2011

Peter McNeil, Co-Editor, Relational craft and design, Issue 4, 2012

Rosemary Hawker, Co-Editor, Relational craft and design, Issue 4, 2012

Suzie Attiwill, Editor, A World In Making: Cities Craft Design, Issue 5, 2013

Anne Brennan, Co-editor, Craft • Material • Memory, Issue 6, 2014 (forthcoming)

Patsy Hely, Co-editor, Craft • Material • Memory, Issue 6, 2014

Kay Lawrence, Editor, *Landscape, Place and Identity in Craft and Design*, Issue 7, 2015

## Editorial Advisory Panel

The Editorial Advisory Panel provides advice to the guest editor/s of each issue and to the Editorial Board through provision of reviewing services. *craft + design enquiry* relies on the specialist expertise represented by the Editorial Advisory Panel. The Editorial Advisory Panel, building with each new issue, currently includes:

Keith Armstrong, Queensland University of Technology, Australia

Patricia Brown, Kingston University, United Kingdom

Grace Cochrane, Australia

Kirsty May Darlston, The Australian National University, Australia

Pippa Dickson, Australia

Steven Dixon, Manchester Metropolitan University, United Kingdom

Mick Douglas, RMIT University, Australia

Peter Downton, RMIT University, Australia

Julia Dwyer, University of Westminster, United Kingdom

Pia Ednie-Brown, RMIT University, Australia

Harriet Edquist, RMIT University, Australia

Helen Ennis, The Australian National University, Australia

Tony Fry, Griffith University, Australia

Paul Greenhalgh, University of East Anglia, United Kingdom

Eugene Keefer Bell, University of Canberra, Australia

Janice Lally, Flinders University, Australia

Kay Lawrence, University of South Australia, Australia

Virginia Lee, University of Melbourne, Australia

Roger Leong, National Gallery of Victoria, Australia

Andrew MacKenzie, University of Canberra, Australia

Margaret Maynard, University of Queensland adjunct, Australia

Greg Missingham, University of Melbourne, Australia

Andrew Montana, The Australian National University, Australia

Gail Nichols, Australia

Sharon Peoples, The Australian National University, Australia

Amanda Ravetz, University of Manchester, United Kingdom

Jo Russell-Clark, University of Adelaide, Australia

Simona Segret Reinach, Istituto Universitario di Architettura di Venezia, IUAV, Italy

Michael Trudgeon, University of Melbourne

Soumitri Varadarajan, RMIT University, Australia

Laurene Vaughan, RMIT University, Australia

Soumya Venkatesan, University of Manchester, United Kingdom

Malte Wagenfeld, RMIT University, Australia

Liz Williamson, University of New South Wales, Australia

Diana Wood-Conroy, University of Wollongong, Australia

Ross Woodrow, Griffith University, Australia



## ACDC network and NAVA

*craft + design enquiry* works with the member organisations of the ACDC network and with NAVA (National Association for the Visual Arts), a visual arts peak body, in communicating with the professional craft and design sector across Australia. The ACDC network is a group of peak organisations from all states and territories in Australia that represent the professional craft and design sector.

Artisan (Brisbane Qld) <http://www.artisan.org.au>

Australian Tapestry Workshop (Melbourne Vic) <http://www.austapestry.com.au>

Canberra Glassworks (Canberra ACT) <http://www.canberraglassworks.com>

Craft ACT: Canberra Craft and Design Centre (Canberra ACT) <http://www.craftact.org.au/>

Craft Victoria (Melbourne VIC) <http://www.craftvic.org.au/>

Craft South: Centre for Contemporary Craft and Design (Adelaide SA) <http://www.craftsouth.org.au/>

Design Centre Tasmania (Launceston TAS) <http://designcentre.com.au/>

Form (Perth WA) <http://www.form.net.au/>

JamFactory: Contemporary Craft and Design (Adelaide SA) <http://www.jamfactory.com.au/>

Object: Australian Centre for Craft and Design (Sydney NSW) <http://www.object.com.au/>

Sturt Contemporary Australian Craft (Mittagong NSW) <http://www.sturt.nsw.edu.au/>

Territory Craft (Darwin NT) <http://www.territorycraft.org.au>

NAVA, the National Association for the Visual Arts <http://www.visualarts.net.au/>

## ACUADS network

*craft + design enquiry* works with ACUADS, the Australian Council of University Art and Design Schools, in communicating with the tertiary sector across Australia.

ACUADS, the Australian Council of University Art and Design Schools <http://acuads.com.au/>

