

A view from here, Reconnecting Living & Consumption

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It is no longer adequate to consider the provision of open space in our cities in the absence of embedded thinking in natural systems and without those systems being part of a cycle for the production of energy, water, and food. We have somehow lost our way in our urban and rural environments, misunderstanding the relationships between living and consumption and our expectation surrounding these two factors. We plunder our resources in search of an artificially constructed aesthetic in the complete absence of a holistic approach to energy and production, and we continue to fail to understand the immediacy of the impact this has on our local, regional, and global ecologies.

Absent is the idea of climate mitigation, water management, reclaimed biodiversity, social engagement and exchange, learning, production, and activation. Too often we settle for space rather than place, for the benign in preference to the productive, and for an aesthetic rather than a core social agenda of engagement, interaction, and carbon consumption reduction. It is rather the consideration of a path toward mitigating the effects of environmental degradation, unstable economies, poorly developed social structure, and unmanageable costs associated with high energy-based upkeep and maintenance and intensive and non-productive irrigation and fertilisation.

Historically, communities have bought and sold, laboured and produced, and had their being in their trade and trading relationships. Their key was in localised production, trade, and exchange, resulting in a corresponding developed social structure; where there was a need to know a neighbour as part of daily life and sustenance; where spaces were established as a framework for life's gathering, selling, socialising, and communicating. Can we again capture the qualities so lacking in our contemporary urban environments, not just because of the impending issues of climate change but because we need to do this for reasons of true sustainability and survival?

I am immediately inspired by the idea of a locally-available productive place where produce can be grown, purchased and exchanged and where the community can choose an alternative to the tasteless,

coloured-down food from the supermarket. Where I can take a short walk to peruse what is in season or catch a train for one or two stops to arrive and emerge into a productive, cool, and therapeutic landscape of organic value. Or where, as an alternative, I can ride my bicycle only a short distance to a place of production, trading, and selling; where power for pumping and production is produced through local photovoltaic arrays; where water is harvested and stormwater treated; where overland flow from production areas is cleansed via wetlands prior to capture and reuse or stormwater discharge; and where native frogs, fish, dragonflies, and tortoises are part of the wetland systems.

It would seem we misunderstand and misappropriate the true meaning and opportunity of our public realm. Is it not to be investing personally and publicly in places of re-localisation; where food is produced and sold in-situ; where water systems contribute to a productive landscape of forestry and food; where private space and public spaces are coordinated and available; and where energy is produced and managed as part of the open space network at both block and neighbourhood levels? Can we consider a landscape whose aesthetic is in fact cyclic, based on the systems and timings of the production cycle and seasons?

Increasingly, urban communities need to be planned and designed to be resilient against environmental and consumptive pressures, to be more sustainable, with an emphasis on hard and soft infrastructure that is adaptive to changing physical conditions and community needs. Planning and designing liveable, and environmentally responsible communities involves a holistic approach centred on a clear appreciation of the interconnections between key design elements that affect the ecological footprint of urban environments, particularly in relation to energy and carbon emission, water conservation, environment protection, and biodiversity.

I am referring to a paradigm shift, a move from a structured aesthetic founded on the American (and English) tradition of the grand boulevard and the stroll garden, moving squarely into the space of the productive realm.

In these current and impending times of climate change and environmental degradation, our consideration of integrated and holistic approaches to localised production of energy, water, and food within the public urban realm is critical. In a very practical way, this decentralisation and relocalisation reduces and minimises vehicle transport movements, increases physical activity and therefore the healthiness of a neighbourhood, draws down on what is otherwise wasted stormwater from our streetscapes and aids urban water management, assists with the reclaiming of lost biodiversity (particularly that associated with creek lines and wetlands), encourages and develops social engagement and exchange, provides a place for intergenerational learning, provides an activation, surveillance and safety to open space, and, most of all, yields productive land as part of the urban fabric of place.

Instead, the regularised experience is one where we are confronted with an urban retail centre; a hostile and vacuous urban transit-oriented development; a dense urban environment bereft of anything other than transport orientation, most often completely unrelated to community interaction and exchange.

At the simplest of levels the Urban Heat Island effect is now well documented with urban centres recorded to experience elevated temperatures of 4oC higher than surrounding peri-urban areas with the exception of urban parks and green spaces. Recent evidences of increased likelihood of consecutive extreme heat days have heightened awareness of potential vulnerability of the elderly to heat stress. Designing new urban communities to be micro-climate responsive using simple principles such as keeping water in the landscape, promoting vegetation evapo-transpiration and shading are complementary to WSUD landscape strategies for improved stormwater quality. Opportunities to influence micro-climates and mitigate the urban heat island effect range from building designs of facades (green walls) and forecourts, to streetscape and the public realms.

The Melbourne Urban Heat Island observed at 0100h March 23, 2006 [source: Coutts, Beringer and Tapper, Urban Policy and Research, 2008]

Urban forestry as an essential part of our streetscapes, and particularly our freeway environments, is a viable consideration; where a financial return is achieved on what would otherwise be a cost on cost landscape—cost of installation and cost of management with no return. In the case of roadways, access to and transport of the renewable timber product is always available, minimising the transport costs of the 'raw' material. To further this example, water from the roadways can be used to passively or structurally irrigate trees: irrigation with the purpose of production and productivity as distinct from a purely aesthetically motivated solution. If power is required as part of the functioning irrigation system, then photovoltaics can be installed to cover the energy uptake. This type of forestry system harvests carbon from the air, produces a viable product in the longer term, and can be repeated for multiple crops.

A current example of this multivalent thinking and application is in the carbon neutral city currently being planned and built in the UAE, Masdar: a pedestrian oriented (not transit oriented) car free urban environment, complete with localised energy and waste management, localised food production, and urban form determined by the need for liveable and occupiable places rather than vehicle turning circles and movement patterns. This is a complex matrix and weave where all considerations are interconnected and non linear. Yes it is experimental, yes there will be mistakes, but we must explore what our urban futures might be beyond that to which we have become overly accustomed and reliant on, an outmoded system developed on a post industrial fossil fuelled platform