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Tumbling to small-city sustainability – a story from Maryborough, Queensland

An ageing Maryborough storekeeper methodically locks up the shop at number 64 Lennox Street. The shaded fanlight over a pair of patinated front doors conveys the spare moniker 'G. Geraghty'. Inside, yellowing grocery advertisements festoon the walls. Amongst the trousseau of merchandise loading the shelves is a tin of curry powder from 1890 and toilet paper from the 50s.



By DAVID PRONGER, Antanas Procuta Architects Ltd, Hamilton

To retail groceries and other homestead supplies, cousins Martin Geraghty and Patrick Brennan had built this Lennox Street shop in 1871. A wonderful example of nineteenth century commercial architecture, the single-storey timber building has a rendered brick façade with an ornate parapet and a veranda awning supported by delicate cast iron columns. (01) The cousins Martin and Patrick also owned a three-storey factory close by where they made wines, vinegar and pickles. Martin's wife and then his children carried on with the shop after his passing.

On a day in 1972 when sole surviving son – 88 year-old George Geraghty – hung up the front door key for the last time, a window on a century of colonial merchandising was encapsulated for posterity. Now under the auspices of the National Trust of Queensland, the store at Number 64 Lennox Street known as 'Brennan and Geraghty's' that had traded continuously from those same premises in town for 101 years, is now an idiosyncratic archive. (As is the town itself in many ways).

As a repository of nineteenth and early twentieth century vernacular architecture, Maryborough has one of the most appealing collections of 'timber-and-tin' of any city in Australia. Founded in 1847, 30



kilometres above the mouth of the Mary River, Maryborough was proclaimed a town in 1861, when it was primarily a wool-shipping port. At its zenith in the last half of the 1800s, it was Australia's second-largest port and a gateway for 23,000 immigrants.

Post World War II and into the early 1950s, Maryborough had a population just under 18,000. As newspaper columnist and author Lawrie Kavanagh remarked, reflecting on growing up in the place (in his foreword to 'Maryborough: A Rare Old Town') "Maryborough was a poor town in those days; I can't remember knowing any rich kids or even halfway well-off kids. None of my friends' parents had a car. Still, who needed a car when you could ride a bike in Maryborough?"

"But if most of Maryborough's citizens were not well-off they were rich in one respect – their little city's heritage, its history, its old buildings."

Alias 'Heritage City,' Maryborough is the Whanganui of southeast Queensland. With a population now approaching 28,000 (the equivalent of Timaru or Blenheim) Maryborough is a town which has had its share of mixed fortunes: from its ebullient days as the alternative port to Sydney in the late nineteenth century, to homeostasis in the mid-twentieth, a becalmed working class town. Quite serendipitously the town sidestepped the

urban sprawl and architectural outrage of the 1960s, 70s and 80s, to its advantage. Without pressure for redevelopment, Maryborough succeeded in preserving its historic urban fabric in a way that many places bungled.

The Ark of the (Sustainability) Covenant

In the quest for precedents for what 21st century sustainable urbanity might comprise, the resilience, lifestyle, identity and competitive advantage of small cities like Maryborough are being held up as the linchpins.

According to urban designer and chair of Maryborough Urban Renewal, Professor John Hockings, whose architectural research and practice is focused on appropriate and sustainable design for tropical and sub-tropical regions, Maryborough has the potential to create a new paradigm for sustainable sub-tropical cities.

But what is 'urban fabric' if it is not a symbiosis of community, infrastructure and architecture, and how resilient is Maryborough's weave? Even Hockings laments the fact that despite two centuries of occupation Australians still tend to build mostly inappropriate housing for the prevailing climate and landscape.

Lightweight architecture?

The high-set house has long been regarded as a peculiarly Queensland phenomenon.

Whether the primary function was to escape mosquitoes, white ants, heat or flood waters, the high-blocked house has yielded both practical advantages and when petticoated by timber panels, quite decorative possibilities. (02) Wherever they have been built their unique form and character enables them to stand out prominently in what can be a drab and monotonous suburban landscape. More prosaically, it provided an economical way of doubling the available covered floor area – most useful for drying clothes, sheltered play and household storage and ultimately weather protection for the Holden.

The traditional Australian homestead had its origin, observes Balwant Saini, a former professor of architecture at the University of Queensland, in the British colonial architecture of such far-flung places as the Indian sub-continent, Malaysia and the West Indies, where design responsibility typically befell the adjunct military officers. These buildings had the characteristic of deep verandas circumnavigating the principal rooms, providing valuable shade and insulation from the external heat.

Certain of the early Indian structures in particular, Saini reflects, were pleasantly cool in summer as they had a thatch roof, in some places topped off by a layer of mud. But for some reason this and the tradition of courtyard living by the local people never appealed to the colonists. →



Maryborough is located in the sub-tropical warm humid zone generally characterised by wet summers and attendant small daily temperature fluctuation. Here, where diurnal temperature range is small, thermal mass has conventionally been considered a disadvantage. This is argued on the basis that the cooling-off process on a typical summer's night is so slow that the indoor temperature is kept too high for comfortable sleep.

In some groundbreaking work in the 1960s Saini led research into the suitability of the traditional homestead design for the tropical and sub-tropical environment. Housing provided for Commonwealth Railways employees was the subject of his investigation. Not surprisingly, the study affirmed the clumsiness of such a house for hot humid conditions.

For the tropics and sub-tropics, orthodox wisdom has for a long time dictated that natural ventilation is the primary mechanism for heat transfer in passively designed buildings. But some recent research carried out in Samoa has now confuted this approach. Data reported on by New Zealand engineer Neil Purdie, convincingly demonstrates that shaded mass in a building is a vital key to passive design, not only performing as an efficient heat sink but also because of its hygroscopic properties, discomfiting humidity.

Personal detail

And now: a serendipitously sustainable, singular mid-century shelter: the Pronger house

In the archetypal 'Queenslander' a sheet of 'corrugated iron' overhead and twenty millimetres of tongue-and-groove boards suspended internally on exposed, sparsely centred 100mm timber framing may be all that separates the occupant from the vicissitudes of the environment. In a town of timber and tin, brick was an anomaly in early-to-mid 20th century domestic architecture, despite the presence of brick-making clay in the neighbourhood, a productive brickworks and a small number of fine early Maryborough brick houses.

With walls around 290mm thick, the Pronger house¹ at 131 Tooley Street couldn't be more removed from the Queensland vernacular. Two leaves of brickwork, separated by a 50mm cavity comprise the outer walls. Internally, partitions are plastered single-leaf brick. The roof comprises Marseilles-pattern terracotta tiles. A pale roof colour and insulation would have helped, but nevertheless in its modest way the house is an obvious early contender for the Purdie's Samoan exemplar.²

Sustainable synergies: urban structure

A successful and sustainable local neighbourhood is substantially a product of the distances people have to travel to access daily facilities and the presence of a sufficient range of such facilities to support

their needs. Our Victorian and Edwardian suburbs exemplify these and were built on the assumption most movement would be pedestrian. The time-honoured way of achieving connections was to create a grid.

In his plan for Maryborough, colonial surveyor Hugh Labatt had in 1849-50 laid out the town in typically 5-acre (2 ha) blocks on a double-square (200m by 100m approximately) grid along a north-east/south-west axis. With only minor interference this grid persists today. It has provided the ability to change and adapt over time and sustain a variety of building types and uses.³

Restoring, retrofitting or refurbishing: Nurturing a sensitive species:

The twin-spoke blue-collar pedaller was once a common sight around Maryborough. Fifty years ago, around five o'clock in the evening, sightings down the main street of, characteristically, males in strings of up to one hundred were a daily occurrence. A depleted food satchel balanced in front or secured behind across a strong shoulder – these discreet, nimble pilgrims could be observed trundling with rhythmic periodicity home to their rectangular congregation of elegant wooden roosts.

Maryborough is a low-density urban settlement of characteristically detached houses. Being able to commute to work on a bike is one cornerstone of a sustainable settlement, agrees Australian green visionary and academic, Ted Trainer (Design for Sustainability, 2002). But in a town like Maryborough, this must go hand-in-hand with embracing the existing building stock.

For thermal comfort and energy efficiency the 'Queenslander' is unremarkable. The proliferation of energy-eviscerating air-conditioners attaching leech-like and beggaring the symmetry of the fenestration makes this all too obvious. Retrofitting the light timber-framed house with thermal mass Samoan a la mode is clearly both architecturally and economically impracticable.

Saini maintains that simply insulating roof spaces is a very efficient means of improving thermal comfort. That together with maintaining the integrity of open verandas onto which habitable rooms access and providing adjacent shade-giving lush vegetation would seem to be the most appropriate non-invasive architectural response for the warm humid climatic condition.

Wash and wear, or wear and tear: what are the prospects for Maryborough?

To a large part, Maryborough's phoenix has been the reinvigoration of its manufacturing base.⁴ But 'green-change' is also fuelling Maryborough's renaissance. Its coveted built environment and sense of small town community seems to be the sine qua non.

'Green-change' has fomented growth in some of Australia's most beautiful places such

as the Blue Mountains in New South Wales and the Margaret River in Western Australia. In Queensland –Maryborough – less than 300 kilometres from the state capital Brisbane, seems also to satisfy the desiderata.

Resilience is a term entrenched in our management and sporting jargon but it is equally applicable to our urban environment, to our towns; implying survivability, tenacity and infrangibility and the capacity to absorb disturbance and reorganise while undergoing change and still retain identity.

'Community will always be Maryborough's strength' is a local axiom. But a cost of growth and development (and green-change) is gentrification and class differentiation and demands a degree of caution and circumspection. Urban identity is not wash-and-wear. Maryborough 2009 is not Lawrie Kavanagh's Maryborough c.1959.

Nevertheless Maryborough's urban fabric is still well-placed to face the 'wear and tear' promises of this century. **U**

FOOTNOTES

- 1 Built 1947-8 by the author's parents.
- 2 It was a comfortable house; I learned that from 18 years of childhood occupation. The thermal mass did significantly contribute to evening-out the peaks and troughs of indoor temperatures.
- 3 In the neighbourhood of the Pronger house, for example, some block splitting is evident with typically a cluster of just eight houses making up the half-block.
- 4 The main industrial company in Maryborough today is EDI Rail, formerly Walkers Limited, a heavy engineering business building rolling stock and locomotives for the likes of Queensland Rail and Perth's Metro Rail, and in past years shipbuilding.

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