

THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

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Professor Peter Newman
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Department of the Premier and Cabinet
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Dear Peter,

RAIA COMMENTS ON THE WESTERN AUSTRALIAN STATE SUSTAINABILITY STRATEGY

On behalf of the Royal Australian Institute of Architects (RAIA), I wish to congratulate you on the work undertaken to date in the development of the State Sustainability Strategy for Western Australia. As requested, please find below the comments of the RAIA on the issues raised and some suggested additional inclusions regarding sustainability in the built environment.

The RAIA believes that the major question to be faced in the development and implementation of a Sustainability Strategy for the built environment is not if it is wanted or needed, but whether decision-makers within the government are brave enough to institute meaningful change.

For example, the current tax system penalises building sustainability, especially in the commercial building sector. As you are aware, inefficient (un-sustainable) buildings with high running costs, can be built for a lower capital outlay (which benefit developers interested only in a short term return). This coupled with tax deductible high running costs (eg for air conditioning and maintenance) provides a tax benefit for owners, while any increase in capital costs required to minimise operating costs receive no tax incentives. Likewise "good" design, using quality materials and workmanship to enhance sustainability, may increase the initial capital cost over lowest standards, but again is not tax deductible. This equates to a tax penalty on good design.

The second major factor mitigating against successful change to incorporate sustainable practices in the built environment is the current structure and organisational arrangements of the building construction industry. Additional training, research and development is required, if the building construction industry is to be able to respond to initiatives to enhance sustainability. The laissez-faire approach which has resulted in unqualified personnel being responsible for much of the design and construction of buildings will also need to be addressed. The current organisational structure of tendering and sub-contracting based on the lowest capital cost, also mitigates against initiatives to reduce long term costs through sustainable design.

The Royal Australian Institute of Architects would welcome the opportunity to work with W.A. State Government to address such issues, and to provide further input if required on the development of the final State Sustainability Strategy.

To assist in the enhancements of Section 6 'Sustainability and Settlements', please find below a list of dot points suggested for inclusion or consideration in the preparation of the Sustainability Strategy.

Issues in Sustainable Construction

Dispelling myths

- The RAIA believes that the public is not sceptical about environmental sustainability. However, many in business (especially dependant investors) and government appear to be sceptical due to economic concerns
- Public benefits in the environment/landscape need to be recognised and protected
- There is no reason why good design ought to cost more to build than poor design.
- Energy efficiency and passive solar design principals add, at most, minimal costs such as providing insulation, improved fenestration and climate screening, and building layout, form and proportions. Generally, these costs can be easily recouped during their life of the structure.
- However, to achieve this outcome, the RAIA believes that it is essential that the building is designed by a competent, well trained professional with the required knowledge and skills in sustainable design.
- The RAIA believes that the choice of construction methods and materials based on criteria of ecologically sustainable sourcing and manufacture, embodied energy, recyclability, waste management, durability and weathering, etc. can extend structural life and benefits including long term profits.
- We believe that for too long, land use planning has been controlled by technocrats and business (developers), and that this process can and should be democratised. Citizens in democracies can be trusted to contribute to good choices when informed.
The RAIA supports this through
 - Education of the Public
 - Education of Business and Government
- Support is required for Research and Development of methodologies for ecologically sustainable development. For example:
 - **Case Study:** Pioneering Serpentine –Jarrahdale Rural Strategy, Landmarc Consultancy, et al, 1992. Sustainable Planning Method based on land capability and land suitability analysis mapping (developed from “Design with Nature” Ian Mc Harg), briefed from community through search conferencing and workshopped with community, council and government.
- As scientific knowledge on ecology improves, methodologies may require adjustment, as is already happening in farming, mining and manufacturing. For example:
 - Geological computer mapping facilities overlay ecological analysis to determine appropriate land use which works with the nature of the landscape/environment
- The RAIA believes that stricter controls are required in the building construction industry if outcomes are to be improved. For example:
 - The majority of building industry personnel/trades are not qualified in the are in which they are working. (A recent paper considered by the building Construction Industry Training Council indicated that in many trades only 20% of personnel are qualified)
 - There are almost no mechanisms for enforcing building regulations and codes in WA other than by litigation.
 - Only plumbers, electricians, builders and painters need to be licensed to use the title of architect requires registration, but anyone is permitted to design buildings.

Temporal Perspectives

- Unfortunately, most Governments and corporations tend to take a short term view of process and outcome in accordance with short accounting and management cycles.
- While it is more profitable and less costly to practice ecologically sustainable development, this often requires longer term ownership or involvement to attain the financial benefits.
- Working with the environment is more profitable because the returns can be sustained for a much longer period of time
- Where we have worked against the environment, damaging or destroying ecosystems, environmental repair may enable ecological sustainability to be re-established over time.
- It is necessary for all aspects of the human-made environment to be considered in terms of sustainability within the biosphere: planning, housing, commercial and civic architectures, together with primary, secondary and tertiary production.

Ecology

- Human beings are part of the Ecology of Earth, and bound by the same natural laws as all other forms of life.
- Natural systems are not static. They exist in a state of “dynamic equilibrium”. Biodiversity enables long-term viability through change, however, short term change can be catastrophic
- Natural systems have no real boundaries, they meld into one another in transition zones which are commonly biologically rich. All natural environments are interconnected. The Earth is a closed system.
- Economic sustainability may be important for ecosystems of capitalism, but what happens to economics when natural systems collapse or resources run out? (eg., desertification, salination, over-clearing for agriculture, alienation of agriculture lands for urbanisation...)
- In the long term, the species most endangered by human action ignoring natural laws and damaging the biosphere and the ecosystems of earth, is humankind

Economics

- The RAAIA believes that to change the way planning and development happens in Australia, requires a paradigm shift in accounting, management and taxation
- Tax disincentives for environmentally informed planning must be removed
- Tax protection of land use types is needed as opposed to current tax pressures (proximity land valuation raises land taxes) which effectively force peri-urban lands to be subdivided and developed, regardless of their optimum land use/classification {such as prime agricultural, conservation land, networks of ecological corridors linking habitats (“econets”), scenic and recreation reserves}
- A system of land use type classification needs to be developed to counter the value (tax) pressure to develop lands on the basis of their being near land already developed or identified for future development.
- Land speculators are no more entitled to capital gains/profit than any other form of speculation that does not turn out the way a speculator had hoped. Planning changing land use may cause a speculator’s windfall but might just as well cause losses. Compensation should not automatically be payable.
- Heritage preservation needs incentives and public support in recognition of the “public good” obtained
- All costs of development should be assessed and budgeted – at present private land developers are effectively subsidised by the community in terms of Government support and infrastructure

Social

- Human civilisation progresses primarily through co-operation. (Conflict destroys – both good and bad endeavours)
- Community develops through interpersonal relationships, which enable agreement and foster co-operation.
- Community design ought to provide opportunities for relationships between diverse people and neighbours to be enhanced, eg. Local nodes, shared activity

- Communities need a diversity (or variety) of people: “old people everywhere”, scattered learning, local work, exchange
- Sustainable communities require both comprehensive local facilities and convenient interaction with other communities to generate viable economies
- Zoning creates “social monocultures” and has outlived its usefulness as a planning tool. Diversity is a natural law. Diversity, adapted to local conditions, is more viable.
- “Dormitory” suburbs rarely become true communities
- The community needs to have more say over the design of the built environment. It should not be left only to developers to determine how vast suburban tracts are to be developed for future generations. Community consultation should be recognised as a fundamental cost in the development of new suburbs and buildings.
- Communities need a sense of belonging, a sense of place, “Genius loci”, and attribute of place expressed by its local ecosystem, the interaction of life with the land
- Understanding the ecosystem of a place is the beginning of design for human place-making. Once understood, “design with nature” provides the planning framework for building sustainability

Things that Help

- Public transport, especially rail
- The public desire for sustainability. The RAIA believes that the public is generally prepared to pay for sustainability when the benefits are understood (marketing potential)
- Changes to the tax system and provision of tax incentives can support sustainable development and building
- Education, research and development, and prototypes can demonstrate feasibility of planning and building sustainability, including profit for business
- A growing body of knowledge and hopefully leadership in some WA Professional bodies (RAIA, IEAust, MBA) and Institutions (Universities)
- Incentives for experimentation and prototype projects
- Support for evaluation of existing “case studies” and future prototype projects
- Longer term perspective informing choices in planning, design, construction and maintenance
- Government issues of “Bonds” to raise venture capital for sustainable development: research and projects
- Concept of “**triple bottom line**” in assessing the returns on business ventures and government projects
- The interest of architects in creating sustainable solutions
- The ability of architects to think “outside the square” in developing solutions that can enable sustainable building, both in housing and in commercial property development
- The work of RAIA WA Architects is progressively demonstrating sustainable approaches to planning, design and construction.

Hindrances

- A current tax system which penalises building sustainability, especially commercially
- Inefficient (un-sustainable) buildings with high running costs involve lower capital outlay (benefit for developers) coupled with tax deductible high running costs: eg for air conditioning and maintenance, (benefit of owner)
- Good design, quality materials and workmanship towards sustainable building may increase initial capital costs over lowest standards but is not tax deductible. This equates to a **tax penalty on good design**.
- Conservatism of the building industry overall and resistance to change.
 - People like to do today what they did yesterday, and in the same way, without substantial change. Homo sapiens is, by and large, resistant to having to think about each task. Habit is easier.
 - Contractors are wary of novelty which is perceived as a financial risk
 - However, the RAIA believes that business wants sustainable building to generate improved profitability
 - There are fears that new systems and/or regulations for sustainable building will slow the development process, thereby increasing costs

- The building Industry in Australia is almost entirely deregulated
- Subcontracting has distanced actual workers from licensed builder and project owners
- The market focus on minimising costs has comprised all other considerations and fostered intense cost-based competition in the Building Industry. “Never mind the quality, feel the width”. This makes genuine innovation in planning, design and construction of development and buildings appear difficult and dangerous
- The creativity and skill of the architect in designing sustainable human environments and buildings may be constrained by the demands of the client, which must therefore be guided by the community through leadership, research and development, supported by Government policy and incentives.

As outlined above, the RAIA would welcome the opportunity to assist you and your team further in development of the State Sustainability Strategy especially through initiatives associated with the Year of the Built Environment in 2004.

Please contact me by phone on 9381 9877 or by email of w.keerr@hames.com.au should you wish to discuss any aspects of the issues raised above.

With best wishes,

Yours sincerely

WARREN KERR FRAIA
President (WA Chapter)