Introduction

The first edition of this *Australian New Urbanism – A Guide to Projects* was published in May 2005. It was compiled very quickly and only a thousand copies were printed. Distribution was essentially limited to participants at the August 2005 *ACNU Second Congress*, and at two other 2005 sustainable design conferences.

The first edition has been very well-received, and it quickly became apparent that a new edition was required, to both update material on the first edition projects, and to include a number of new projects. This edition will be distributed widely into the development industry and government authorities.

This edition contains an updated compendium of Australian projects, known to us, which generally manifest the principles of New Urbanism. Many of the projects in this book do not, in our view, manifest *all* the ideal characteristics of Australian New Urbanism. But all the projects in the book head in a positive direction and are instructive as to how real changes to Australian urban development practice can be made.

We have also included a few important vanguard projects, harbingers of hopefully promising new urban directions for Australia, which in our view are important enough to merit inclusion, despite their construction not being imminent. And we have published a few projects perhaps considered at the margins of New Urbanism, but which importantly grapple with some particularly thorny issues, such as rural residential development.

We have organised the projects by state first, and then alphabetically. The projects vary in size from the small but extraordinary Italian Forum, a dense mixed-use infill project within a single Sydney street block, to the Western Sydney Urban Land Release covering 26,000ha for a population of 380,000. The range of projects includes urban centre revitalisations, brownfield redevelopments, new mixed-use town centres, CBD retrofits, public and private sector greenfield urban extensions, growth codes and a couple of new towns.

This Introduction and the Australian New Urbanism Overview (also updated in this edition) reflects only the views of its authors, who are Australian New Urban practitioners. Project designers for most of the projects drafted the writing for their respective pages in this second edition, but ESD did the final editing.

Subsequent editions will update the projects in this book, correct informational errors we surely will have made in this second edition, and hopefully add still more new and exciting projects. We also anticipate including New Zealand projects in the next edition.

If we have overlooked an Australian New Urban project or made an error in describing your project, please contact us. In the next edition the ACNU will endeavour to include your project, and/or correct any errors in describing your project.

Australian New Urbanism An Overview and Update

Chip Kaufman, with input from Wendy Morris, Evan Jones and Peter Richards

For well over a decade, Australian New Urbanism has advocated, refined and been implementing an exemplary vision for Australian urbanism, towards which Australia's governments and even mainstream development are now more and more decisively allied, although New Urbanism is not always referred to by name.

What is Australian New Urbanism?

Australian New Urbanism is a rapidly growing and evolving practice, with strong values and on a steep learning curve. Its basic aim is to improve the urban sustainability, vitality and quality of life for existing Australian towns and cities, as well as for new urban extensions.

New Urbanism advocates:

• a built environment which is diverse in use and population, scaled for the pedestrian, and capable of accommodating the automobile and public transport;
• a structure based on walkable neighbourhoods (400m radius/five minute walk) focussed on fine-grained mixed-use town and neighbourhood centres with a variety of higher density housing in close proximity;
• a well-defined and high quality public realm which is responsive to site features and ecology, and supported by a distinctive architecture reflecting the climate and culture of the region;
• a highly-interconnected street network, with traffic management to support pedestrians, cyclists and transit-users.

When applied at the regional, as well as local scale, Australian New Urbanism provides a basis for comprehensive sustainable growth management.

New Urbanism's primary tools include design, regulation, development and education, at all scales from buildings to regions.

New Urbanism pre-dates 'Smart Growth' but is allied with it. Indeed, Australian New Urbanism coincides with many other allied movements and practitioners, who may not call their work New Urbanism. Australian New Urbanism is keen to expand alliances and to embrace any design principles and methods that advance these basic aims.

Australian New Urbanism is allied internationally with the Congress for the New Urbanism (CNU) based in the United States, with alliances expanding into Europe with the Council for European Urbanism (CEU) and elsewhere. Around thirty Australians are members of the Congress for the New Urbanism, and many have been active participants in the annual Congresses held around North America. However, Australian New Urbanism is distinctly Australian, as we explain later in this overview.

What is the Australian Council for New Urbanism (ACNU)?

The ACNU is a strengthening alliance of Australian and New Zealand practitioners, who are working together to improve the quality and sustainability of our urbanism. We include and welcome urban designers, architects, planners, regulators and government leaders, engineers, developers and builders, financiers and investors, educators and students, as well as citizens who care about their built environment, their resultant quality of life, and sustainability. We are an expanding tent with sometimes divergent and strongly held points of view about how best to achieve our goals.

The ACNU both advocates and practises from committed values about urbanism and Australia's future.   Without committed values, we might be just 'hired guns' working for any agenda.   Without practitioners' 'runs on the board' to demonstrate the feasibility of our values, we might be just wishful thinkers.

The Australian Council for New Urbanism is the name we have given to the practitioners who have agreed to advance this organisation, and to hold Congresses, Study Tours and other initiatives. More information is available on www.acnu.org.

What's New about New Urbanism?

The word 'New' in New Urbanism is misleading for some. American Peter Katz established this term with his book entitled *The New Urbanism – Towards an Architecture of Community*, published in 1994. In that book, 'New' meant a 'renaissance' or rebirth of traditional urbanism to replace suburban sprawl, rather than the imposition of something totally new.   This rebirth of time-tested traditional urbanism, such as that found in the most successful precincts of Australia's inner cities, must continually adapt itself, in response to changing circumstances such as newly recognised ecological and resource constraints, the Post-Industrial Economy, and decreasing household sizes.

Genesis of New Urbanism (including Australian New Urbanism)

New Urbanism owes its existence to many antecedents, is part of a continuum still underway, and is one of many allied strands pulling in the same direction. Like spontaneous combustion, New Urbanism emerged in the late 1980's along with allied movements, as a reaction against suburban sprawl in the countries most affected by it: the US, Canada, the UK, and Australia.

Before the term New Urbanism was formally adopted, a few individuals, including Australians, who would ultimately join forces, were already working independently, without yet fully recognising that they had a shared mission. In the UK some faculty at Oxford Brookes, including Paul Murrain, wrote Responsive Environments in 1984, a key antecedent to New Urbanism.

Before the term New Urbanism had gained momentum, important Australian precursors had already emerged. In 1984 Chris Stapleton wrote the book *The Streets Where We Live*, advocating interconnected and narrower more walkable streets.   The Australian Government's AMCORD 1989 (followed by the improved 1995 AMCORD) was a groundbreaker for catalysing smaller lots and more efficient

infrastructure, followed by its advancement in 1992 of the Victorian Code for Residential Development (VicCode 1). VicCode advocated walkable neighbourhoods, interconnected street networks, narrow carriageways to slow traffic, housing variety and energy efficient lot design.   VicCode 2 in 1993 addressed the same issues, as applied to multi-dwellings and context-specific design responses in existing urban contexts.

Sustainability and urban regeneration joined forces in the early 1990's through the Australian Government's program of Better Cities, helping to initiate such important projects as East Perth and SubiCentro in Perth, Newstead-Teneriffe in Brisbane, and Kensington Banks in Melbourne.   Victoria's Urban Villages Program of 1994 strengthened the momentum for transit-oriented revitalisation of existing centres, and is an important precursor to Melbourne's current growth policy called Melbourne 2030.   As allied strands of a shared vision, the above projects manifest the principles of New Urbanism, many without using the term (or needing to).

The decision to form the Congress for New Urbanism in America took place in Davis, California in 1991 during the large Southport Charrette. In attendance were Peter Katz, Michael and Judy Corbett, Peter Calthorpe, Stef Polyzoides and Elizabeth Moule, Dan Solomon, Andres Duany and Elizabeth Plater-Zyberk of DPZ, along with Paul Murrain, Wendy Morris, and Chip Kaufman. The idea was that, if the Congress Internationale d'Architecture Moderne (CIAM) could form itself in the 1920's and so powerfully spawn Modernism, then we should form the Congress for New Urbanism in order to strengthen the growing momentum to replace sprawl with more sustainable urbanism.

The term New Urbanism quickly spread to Australia and elsewhere. In 1995 the Better Cities Program published *Transit Supportive Development – Benefits and Possibilities*, written in part by Chip Kaufman. In 1996 the Queensland Department of Tourism, Small Business and Industry published *Mixed Use Development – New Designs for New Livelihoods* (better known as The Mixed-Use Primer), written by Chip Kaufman and Wendy Morris. Both these books advocated New Urbanism by name.

Moving from strength to strength, the Congress for New Urbanism (CNU), based in the US, will hold its fifteenth Congress in Philadelphia, Pennsylvania, on 17-20 May, 2007 **www.cnu.org**. The allied Council for European Urbanism formed in 2003 **www.ceunet.org** and holds its second Congress this November.   The Prince's Foundation in the UK has embraced New Urbanism, and is now being led by Hank Dittmar, also Chairman of the Board of the CNU. UK Deputy Prime Minister John Prescott keynoted both the 2003 and 2005 Congresses for New Urbanism.

The ACNU has now held two Congresses, one in Melbourne in 2001 and the other in Sydney in 2005, and will host a Perth Projects Tour for this 2-4 November 2006.
What makes Australian New Urbanism Australian? Does the Charter for New Urbanism accurately represent Australian values?

Australian and American New Urbanism are strongly allied and have evolved for similar reasons. In our view, the *Charter of the New Urbanism* (written in 1995 and signed at that year's Congress for New Urbanism in Charleston, South Carolina USA) generally applies well to both America and Australia. With the CNU's permission we have reprinted the CNU Charter after this Overview, so that readers can consider for themselves its applicability to Australia.

What is the purpose of a Charter for (Australian) New Urbanism? In our view, a Charter is needed to clarify our mission and values, and to serve as a criterion for evaluating projects. How else can we, or others, know what Australian New Urbanism means and intends? If this assertion is valid, then it is important for Australian New Urbanists to scrutinise the *Charter for New Urbanism*, in order to decide indeed whether it correctly represents us, and/or whether revisions or a totally new Charter is needed for Australia. The 2003 *Stockholm Charter for European Urbanism* is also worthy of study (www.ceunet.org).

Regardless of whether the *Charter for New Urbanism* applies exactly to Australia or not, there is a marked difference in the outcomes between American and Australian New Urbanism, born of differing contexts. The distinctions we draw below are generalisations; of course, there are exceptions.

Australia generally has more proactive government programs, and a greater acceptance of the importance of planning. As a result, Australian town planning departments, usually at the state government level, have more proactively managed sprawl. Sprawl's negative effects are less pronounced in Australia, because infrastructure is more thoroughly planned, and cities have expanded generally in a more orderly sequence than in the growth areas of America, where instead of suburban sprawl, it is often suburban splatter!

Some Australian states with relatively strong planning agencies have provided a strong basis for a transition toward New Urbanism over the last fifteen years, as public sector planners and designers have joined forces with forward-thinking politicians.

Australia has produced relatively strong New Urbanism-based city and state-wide policies, codes and plans, including the WA Liveable Neighbourhoods Code, Melbourne 2030, the Western Sydney Urban Land Release (winner of a 2005 CNU Charter Award), and Queensland's new SEQ Regional Plan. Over time, Australian New Urbanist urban structuring, integrating all scales from the region to the building, may achieve sustainability gains, which will dwarf gains that can be attained at the scale of the neighbourhood alone, or in the context of uncoordinated or scattered projects so common across America.

Australian redevelopment authorities, some with Better Cities funding, and particularly in WA, have spawned extraordinary redevelopments of large brownfield sites, such as East Perth, Subi Centro, and central Midland.

Arguably, Australian urbanism should look Australian. The *Charter for New Urbanism* seeks contextual identity, and therefore Australian New Urbanism for Australia. While some Australian projects have directly 'lifted' American New

Urbanist styles and forms, others have adapted regional heritage forms and materials for contemporary contexts, thereby evolving our own strains of Australian New Urbanist character. At the same time, it is important to recognize that most of Australia's best built heritage (such as the verandah) indeed has been derived from foreign influences. We should continue to consider external influences and, when valuable to us, import and adapt them to Australian contexts.

A Progress Report on Australian New Urbanism

In the early 1990's, when New Urbanism emerged in Australia, many Australians already understood the problems of sprawl, and appreciated the inherent common sense of New Urbanism and the improvements it proposed. However, widespread scepticism and the inertia of conventional planning and regulations held New Urbanism back at first. Sceptics believed the market would reject higher densities outside of city centres, mixed use developments or mixed-use main street-based town centres, actively-fronted arterial roads, rear lanes or an end to extensive cul de sac residential subdivisions. Sprawl practitioners in the design and development industries resisted change.

Yet the quality, breadth, size and number of projects in this new edition suggests that Australian New Urbanism is surmounting these obstacles. Some key reasons for this progress may be:

* Increasing problems with, recognition of and opposition to sprawl, with resulting market and political/regulatory pressures for change toward the principles of New Urbanism (often without formally recognising New Urbanism)

* Global warming, climate change, and the global oil production peak, as documented now by Jim Kunstler in *The Long Emergency*, by Tim Flannery in *The Weather Makers*, and by Al Gore in *An Inconvenient Truth,* which are intensifying Australia's recognition of the importance and urgency to respond to the global and local solutions that Australian New Urbanism has been offering now for well over a decade.

* Leading projects that have advanced Australian New Urbanism by means of market performance (such as Wellard or the Mandurah Ocean Marina in WA and Beacon Cove in Melbourne), and/or by establishing new or improved urban structures (such as Shellharbour City Centre);

* Design and consultation processes that have produced better outcomes (such as Charrettes and Enquiries by Design);Codes that have produced better project outcomes (such as Liveable Neighbourhoods for WA);

* Implementation mechanisms that have improved or probably will improve project outcomes (such as the successful East Perth Redevelopment Authority or the hopefully successful new Growth Centres Commission for the Western Sydney Urban Land Release).
* Allied movements and organizations, such as WA's Planning and Transport Research Centre (www.patrec.org.)

Groundbreaking Directions and Vanguard Projects

We note here a few groundbreaking directions, projects, processes, codes and implementation mechanisms that have particularly advanced and expanded New Urbanism's various means of improving Australian urbanism.   We organise these initiatives into project types. In so doing we hope to shed some light on how progress has been made. Refer to the main body of this book for more information on these projects.

Main Street-based Town Centres

Gungahlin, Rouse Hill, and Point Cook are main street-based mixed-use town centres being implemented or constructed. Gungahlin is the most advanced and has enjoyed remarkable market success.

Central Business Districts (CBDs)

While Australian New Urbanists have been at work revitalising town and regional centres such as Midland in WA for a decade, some cities are now following suit with their central business districts, such as the City of Wodonga and Maroochydore CBDs (not yet fully public).

Retrofitting and/or Revitalising Existing Urban Centres

The negative impacts on urban sustainability of enclosed stand-alone shopping centres and big box retail in seas of carpark have been profound. Shellharbour City Centre has broken important ground by establishing a mixed-use three-storey main street linking the existing enclosed Shellharbour Square to a group of big box retail outlets, in order to form a much more urban and sustainable 'city centre'.

The revitalisation of Cleveland's town centre in Greater Brisbane began in 1986 and shines today as a mature demonstration that a mixed-use main-street centre can be revitalised to successfully compete against larger stand-alone private shopping centres within the same primary retail catchment.

An Enquiry by Design in 1998 for a well-located Council-owned carpark spawned the now fully occupied multi-storey mixed-use award-winning Kogarah Town Centre. Gosnells Town Centre in Greater Perth has set an important and bold precedent by successfully linking the catchments either side of a highway and railway, by means of a new at-grade railway crossing and the introduction of a new main street which has re-invigorated the town. An older smaller stand-alone shopping centre on one side of the freeway through Helensvale on the Gold Coast is now responding to a new 45,000sqm Westfields on other side of the freeway by morphing into a mixed-use centre.

Brownfields Inner Urban Regenerations and Infills

East Perth, Subi Centro and Midland in Perth, together with Lynch's Bridge/Kensington Banks and Beacon Cove in Melbourne have demonstrated the efficacy of public sector-initiated brownfield redevelopment projects, which, often as public-private partnerships, have triggered much larger private sector investments to complete the projects with many positive spin-offs nearby.

Small to Medium-sized Urban Infill Projects

Multi-award winning Hunterford in Sydney has demonstrated the urban amenity and profitability of designing and coding for a New Urban infill of diverse housing actively fronting parks, with the extensive use of rear lanes, at a density of 22 dwellings per gross hectare. The Italian Forum in Leichardt, Sydney, demonstrates the feasibility and amenity of quite dense mixed-use development in the inner city, able to support multiple residential storeys around a public courtyard with basement parking, and to fit seamlessly into a dense existing urban context.

Transit-Oriented Developments (TODs)

Wellard in Perth, and Discovery Point at the new Wolli Station in Sydney, are both exemplary new TODs along railways.

Greenfield Urban Extensions

Sustained market performance of projects like Ellenbrook in eastern Perth and Brighton in Perth's Northern Growth Corridor have substantially redirected market expectations and the development industry, at least in Western Australia. Tullimbar Village, whose first stage just went on the market, may become a key New Urbanist exemplar for the urban fringe of NSW.

Regional Growth Strategies

Perth's North West Growth Corridor, the Western Sydney Urban Land Release, and the Southeast Queensland (SEQ) Regional Plan (including projects in this book as diverse as Ripley Valley and the Wynnum CBD Urban Renewal) are demonstrating government commitment toward the principles of Australian New Urbanism.

State Growth Codes

The WA Liveable Neighbourhoods Code is now in its third edition, with an updated version now being considered to become a mandatory development control across the State. It demonstrates a highly effective and comprehensive code, popular among developers and regulators, which integrates the key performance criteria necessary to deliver well-structured New Urbanism in greenfield contexts and large infill sites. The WA Code won a Congress for New Urbanism Charter Award in 2001, and is now widely used across Australia and internationally.

University and Town Centre Integration

Recent research demonstrates the benefits of university integration with town centres (Richard V. Knight, Knowledge-based Development: Policy and Planning Implications for Cities, 1995, and other sources). The projects of Kelvin Grove, Mawson Lakes and Sippy Downs (all under construction) and Northwest Wodonga (indicative plan approved in principle) are demonstrating these objectives, as they progressively integrate campus-based universities into mixed-use university towns.

New Towns

The low-hanging fruits of very large scale close-in greenfield properties suitable as urban extensions are mostly gone now across Australia. Large development companies wanting to affect economies of scale through larger landholdings must either assemble closer-in properties, concentrate on smaller scale urban regeneration instead, or look further out and try to develop 'new towns'. Such prospects raise thorny issues of regional structuring and infrastructure provision, car-dependence and long trips back to existing services and jobs, impacts on existing urban areas left behind, and on rural and natural environments.

The world's population is concentrating for generally good reasons into larger cities. Trying to start up smaller new towns, an approach which previously worked for centuries in more agrarian economies, is now more difficult to justify. Debate grows about the minimum population and urban infrastructure thresholds for new towns, required to ensure their eventual sustainability. Can governments risk approving a new town that claims sustainability on paper, but which does not offer to construct public transport and other infrastructure up front? Is it good enough for such projects to claim to be "transit ready"?

We have included a few 'new town' projects, some under way and others seeking regulatory approval, in order for readers to consider this urban development type.

Alternative Approaches to Rural Residential at the Urban Fringe

Urban consolidation is fundamental to sustainable urbanism. However, relatively affordable private transport, telecommuting and accommodating regulations continue to stimulate exurban development. The normal result is conventional rural residential development, which incrementally degrades natural and rural landscapes, spikes infrastructure costs *per capita*, and limits the feasibility of efficient urban expansions later. If low-density exurban development cannot be stopped altogether, then two projects in this new edition, Currumbin and Tooradin, demonstrate important and more sustainable approaches to avoiding conventional rural residential development.

Outstanding Impediments and Weaknesses

Australian New Urbanism has some outstanding impediments and weaknesses, which we need urgently to address.

A Misunderstanding of Town and Neighbourhood Structuring

A difference of understanding among New Urbanist practitioners about town and neighbourhood structuring risks dysfunctional urban structures on the ground for some New Urbanist projects, and this problem urgently needs to be resolved. New Urbanism is structured around the walkable neighbourhood. It is imperative that we address the challenges of achieving viable neighbourhood centres. A resolution is needed.

In the author's view, the urban structuring problem is currently manifesting itself in certain designs shown in this book for 'neighbourhoods' without feasible centres, and oversized and/or badly structured towns. Such structuring needlessly limits walkability, public transport, local jobs and social interaction.

Other projects in this book, including WA's Liveable Neighbourhoods Code, the Western Sydney Urban Land Release, North Leneva and its Public Transport Plan (Wodonga), West Dapto in NSW and Molonglo in the ACT, manifest a consistent and optimal urban structuring, and what this essay recommends.

This part of the Overview will explain urban structuring at the scales of towns and neighbourhoods.

Urban centres have always capitalised on custom by locating at intersecting trade routes. This applies to all urban centres, including smaller neighbourhood centres. However, mid to late twentieth-century sprawl road network planning concentrated vehicular traffic into oversized trunk roads instead of providing for more dispersed, smaller-scale and direct street networks. This relatively coarse movement network planning has spawned oversized shopping centres at oversized intersections, capitalising on oversized more car-dependent shopping catchments. Neighbourhood centres within these oversized catchments, deprived of custom by an overly coarse movement network that bypasses them, will wither and never be able to deliver the vibrant social and commercial interaction that the local community and economy deserves. In our experience, such urban structuring problems come from an insufficient understanding of the 'Movement Economy'.

'Movement Economy' is a term ESD has coined to describe the relationship between an urban centre and the combination of its location within its catchment, and how well the street network 'feeds' that centre. A beneficial Movement Economy will optimise the position of its centre between being central to its walkable catchment, and locating the centre to maximise 'capture' of custom flowing through it daily, en route to and from a larger destination such as a city centre. Structure planning that isolates community or neighbourhood centres away from the Movement Economy will deny such centres of crucial commerce (as well as public transport), which should also bring people to such centres.

Any informed observer of sprawl and/or post-war English new towns will recognise this systemic planning error, where neighbourhood centres were systematically isolated from the Movement Economy. Those centres continue to struggle because their community facilities alone cannot attract enough custom or activity.

Community and Commerce are compatible and interdependent, as they always have been. Urban structuring can and should combine the two, to their mutual benefit.

We should not be perpetuating English new town or sprawl problems in Australian New Urbanism. As with English new towns, the town and neighbourhood structuring in certain plans in this book separates the neighbourhood centres (see circles on plans), where community will supposedly take place, from the Movement Economy. On the other hand, urban structuring, whose Movement Economy feeds all centres including neighbourhood centres, will optimise their sustainability.

The following diagrams clarify the assertions of this essay. The circles indicate walkable neighbourhood catchments, with radii from their centres of about 400m, which is generally about a five-minute walk. The finer-grained street networks are not shown, but neighbourhood connectors and the arterial network are.

Diagrams 1A and 1B show how a neighbourhood centre can be fed by or deprived of the Movement Economy.

Diagram 1A shows a neighbourhood centre fed by the Movement Economy and bus transport via 'Neighbourhood Connectors', which can usually be just two-lane streets when the regional movement network has a filigree of such connectors spaced at about 800m and passing through each neighbourhood centre. In this context, and with at least 800 dwellings, most neighbourhood centres should support the synergistic co-location of a corner store/café/deli, childcare centre, bus stop, and possibly other small businesses and home-based businesses.
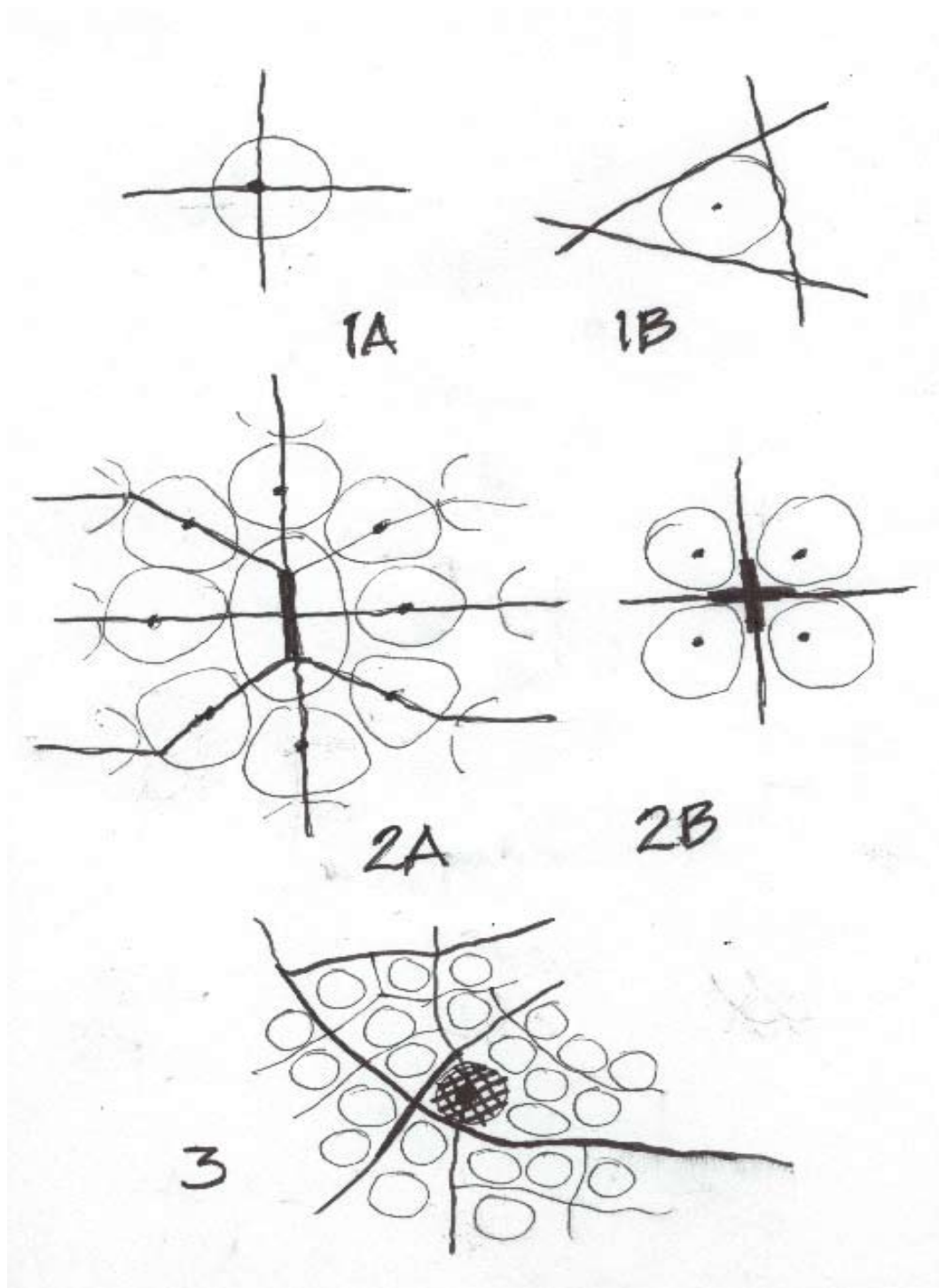
Diagram 1B shows a neighbourhood centre deprived of the Movement Economy and with little hope of a bus passing through its centre, because bus routes generally follow the larger movement network that links major destinations most directly. All that these deprived "neighbourhood centres" can hope for is a small park and maybe a community centre of some sort, which is likely to struggle for users because most users are out on the main movement network heading to other important destinations. This is not, in our view, really a neighbourhood centre, within the principles and objectives of the New Urbanism.

Diagrams 2A and 2B show neighbourhoods clustering to form towns, the first with a more viable structure, size and Movement Economy than the second.

Diagram 2A shows a town centre that is its own walkable catchment with a 400m-long main street, which has eight neighbourhoods clustering around it to form a town. At 15 dwellings per gross hectare, this catchment can support about 18,000 people, which is generally enough population to support two competing supermarkets and a wide range of businesses and community facilities at its town centre. Of course, when applied to real sites, such a diagram needs to adjust to fit its context.

Diagram 2B shows a town and neighbourhood diagram promoted for two decades by Duany & Plater-Zyberk in Miami and its followers. Its four neighbourhoods are separated from the main Movement Economy, which passes between them to serve the town centre. But this town centre, with its stronger attractions, creates its own *de facto* walkable catchment, and thus starves the neighbourhood centres located about 500m from the town centre, of custom and purpose. At 15 dwellings per gross hectare, this may support a population of only 8,000 people, which may barely support a small supermarket centre, plus relatively limited businesses and community facilities because of its smaller catchment.

Such a small town centre has little chance of competing against the larger usually stand-alone single-use regional shopping centres, which have proliferated across much of Australia and the Western World. Diagram 2A has a much better chance of competing against stand-alone regional shopping centres, because with its larger population it can offer a wider shopping choice, co-located with other business and community destinations.

The plan for the Western Sydney Urban Land Release, the Public Transport Plan for the Leneva Valley (Wodonga), and the plan for West Dapto all show how these towns will occupy and serve their own catchments, complementary with and efficiently feeding public transport into the single regional centre or city centre. Located to optimise the regional Movement Economy, the regional centre or city centre is the same structure as Diagram 2A, but it has more population density and a higher concentration of higher level services, jobs, government and culture.

Diagram 2B has further structural shortcomings in the author's view. It is impossible for a bus route efficiently to serve both the neighbourhood centres and the town centre, without a very circuitous route. The urban structuring of

Diagram 2B needlessly cripples both its neighbourhoods and its smaller town centre, in comparison to Diagram 2A.

On the other hand, the neighbourhood centres in Diagram 2A are at least 800m from its town centre, and they are fed by the Movement Economy and public transport, meaning they will be more viable economically, and thereby also better for community interaction.
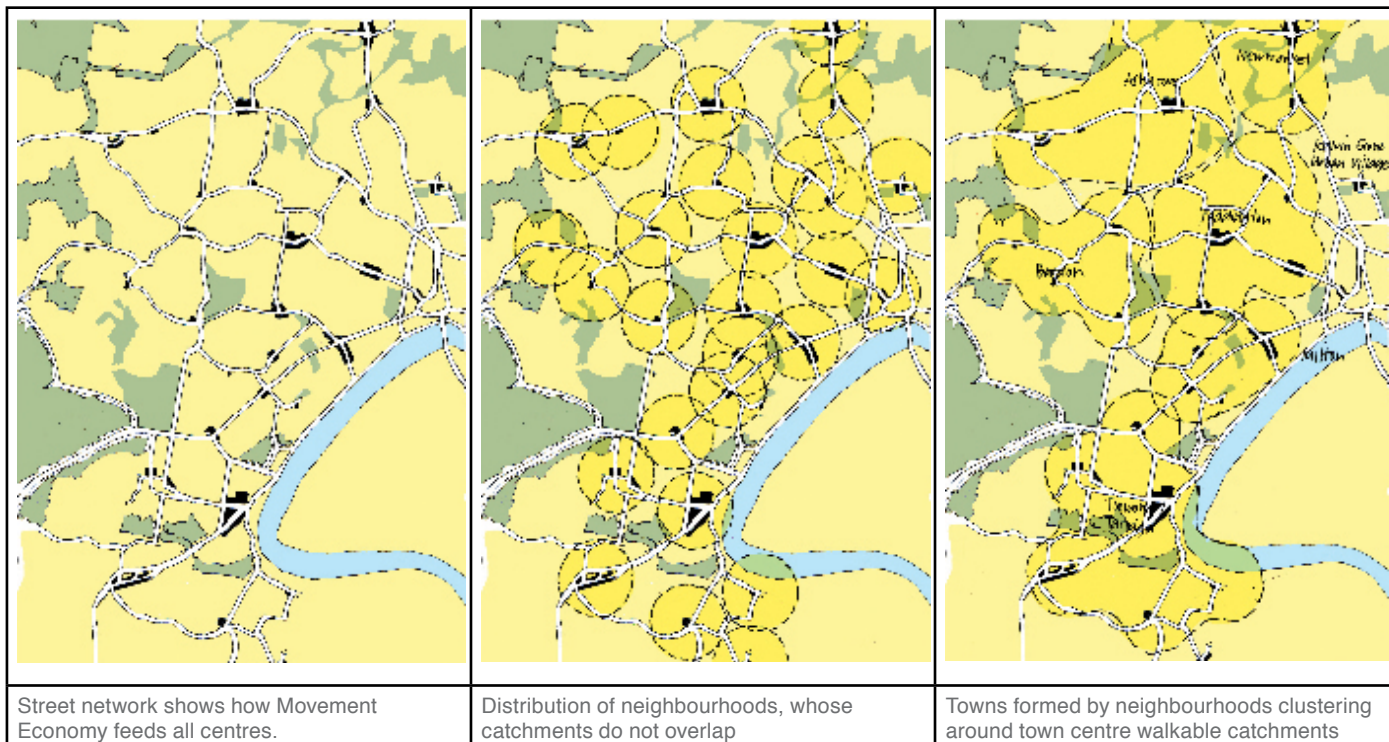
Diagram 3 shows an overly large grouping of over 20 neighbourhoods, with one very large town centre with a population at 15 dwellings per hectare of 40,000 or more. Large supermarkets, discount department stores, bulky goods and other car-based retail will jump at the chance to locate in that town centre, exactly because it is has a very large and car-dependent catchment. Of course, the downside of this model is that all the neighbourhoods outside the inner ring around the town centre are doomed to travel a needlessly greater distance to reach daily needs and jobs. Plus most public transport will be travelling along the main movement network, which bypasses and deprives all these neighbourhood centres of custom and resultant viability.

It is important to tune the movement network to disperse traffic (custom) to feed neighbourhood centres, town centres, regional centres and city centres. To help ensure economic viability for neighbourhood centres, each neighbourhood connector should carry from 3-5,000vpd and the movement network should at least accommodate public bus transport from commencement of development. This volume of vehicular traffic can quite feasibly deliver high pedestrian/cyclist amenity and safety.

To deny this traffic volume from the neighbourhood centres is to deny their economic viability, and in turn will needlessly force too much traffic onto larger arterials, increasing vehicle kilometres travelled, car dependence and retail gigantism. Well-tuned slow-speed traffic dispersion through the neighbourhood centres will also reduce the prevalence of giant intersections in coarse movement networks, and the resultant need for such measures as dual couplets to accommodate the needlessly high traffic volumes.

The following three diagrams, provided courtesy of Peter Richards of Deicke Richards in Brisbane, document the existing urban structure of Inner Brisbane, which demonstrates the urban structuring advocated here. This part of Inner Brisbane has withstood the test of time and will continue to flourish because its urban structure feeds all centres with good Movement Economy.

Hopefully this section of the Overview will clarify what the 'neighbourhood' circles on plans in this book should mean, and the need for continued debate on this issue, which is so pivotal to urban sustainability. Australian New Urbanism needs to and can structure the complete hierarchy of vibrant and complementary urban centres, including neighbourhood, town, regional and city centres.

| Street network shows how Movement Economy feeds all centres. | Distribution of neighbourhoods, whose catchments do not overlap | Towns formed by neighbourhoods clustering around town centre walkable catchments |

Dysfunctional Fragmentation of both the Natural and Urban Habitats

We urgently need to improve the currently flawed approach to dividing up the natural and urban habitats in areas of urban expansion.

Stakeholder alarm over the loss of natural habitat and biodiversity over recent decades is well founded. Unfortunately, that alarm has been driving public pressure, government policy and built outcomes, which are meant to protect biodiversity, but which often result in dysfunctional fragmentation of both the natural and urban habitats. Just as natural ecosystems have species-specific spatial requirements to enable their long-term viability, so too does sustainable urbanism. Lately, when the two vie for the same territory (often on the urban fringe), generally both are losing.

Along with usually being too fragmentary, the conserving of land to protect biodiversity or bush is often not accompanied by sufficient budget and/or expertise to proactively manage it to ensure a resurgence of its natural ecosystem/s. Problems of insufficient land area are often exacerbated by configurations whose edge ratios are too high for the area conserved, or whose interfaces with urbanism are not designed to minimise habitat degradation.

Simon Smith, Deputy Director-General of the NSW Department of Environment and Conservations, says "the present system of case-by-case development approval is not working, with threatened species in continual decline and no incentive to build up conservation, only mitigate incremental loss. We are trapped in the tyranny of small decisions. It's death by a thousand cuts. We haven't found a practical way to grow or provide for growth in our urban areas while successfully reversing the trend towards extinction."[1]

1 Inquirer, the Weekend Australian, October 14-15, 2006, page 27

Spatial requirements for sustainable urbanism are equally as important, but very often compromised by the conservation of fragmented areas of natural habitat. As Evan Jones has noted, urbanism can't be treated like toothpaste, where environmental conversation areas push the urbanism into little crevices between them.

For example, passenger rail corridors generally require up to 3km of relatively contiguous urbanism on both sides to support sufficient infrastructure and passenger numbers. And city, town and neighbourhood centres need most of the land within their differently sized walkable catchments to be occupied by urban development of sufficient densities and continuity to enable exchange, walkability and viability for those centres and the public transport systems that serve them.

Peter Newman and Jeff Kenworthy's research have amply documented the *per capita* performance toward sustainability of such cities as Paris, a city with a vital economy, dazzling cultural assets and loved by so many. Yet most environmental advocates would never accept Paris' hard-edged treatment of the Seine River, or its relatively small amount of intra-city natural habitat preservation, if they were attempted today.

Thus we have a situation where the competition between nature conservation and urban sustainability is often resulting in bad outcomes for both. Several factors fuel this predicament across most of the Western World.

Well-meaning environmental advocates often demand conservation of almost any habitat, including that within present or future urban areas, without appreciating the impacts on urban sustainability (eg overall sustainability)...and vice versa.

- Guardians of conservation lands often cannot afford to maintain the threatened natural habitats even to stabilise them, much less to enable their resurgence.

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And many natural habitat guardians (public entities or not-for-profits) may not have the expertise to manage this land for the resurgence of natural species.

- Planning processes generally do not engender sufficient understanding across stakeholders for them to appreciate the balance required between the natural and urban habitats.

- No better approach (for design or process) has stablished itself yet to address this systemic fragmentation of both natural and urban habitats.

However when both urban and natural habitat advocates are induced to cooperate in a place-specific holistic Enquiry by Design at a large enough scale, such as with the Western Sydney Urban Land Release and the Third Edition of Western Australia's Liveable Neighbourhoods Code, then win/win situations may be achieved. But sadly so far, such approaches are few and far between. We need to find more ways to deal with lose/lose battles between urban and natural habitats in the trenches of urban expansion.

The author wishes to introduce a nascent possibility, inspired by the Australian Wildlife Conservancy www.awc.org.au. Key success factors for the AWC thus far have been to acquire several sufficiently large tracts of land, quite remote from urban development, with broad representation of Australia's endangered species, and to actively manage those areas to enable an extraordinary resurgence of endangered species populations. *This is a successful natural species repopulation program*, not a holding use in a losing battle, which so often takes place with generally fragmentary and dysfunctional conservation in relatively urban contexts. While the AWC's programs are costly, those costs are dwarfed by the costs incurred on the urban fringe by developers, governments, end users and natural species, caught up in the lose/lose dynamic described above.

What if the AWC's practices were to be expanded to include conservation areas closer to the interface between the natural habitat and urban development, conservation areas with habitats able to support the same species being impacted by that urban development? What if the AWC were to work with Government and developers to acquire sufficiently large tracts of land, with sufficiently similar ecosystems and/or habitat contexts to those being impacted by urban development, and to proactively manage those tracts to enable the resurgence of the species being impacted by urbanism? Could such a transferral and/or repopulation of impacted species in these larger, more viable and better-managed conservation areas enable more effective and sustainable urbanism in return where it needs to concentrate such as along passenger railway corridors? Would developers and governments not willingly devote comparable moneys to what they are currently dispersing toward the above-noted lose/lose dynamic?

This notion may not be as far-fetched as it may at first seem.

"The NSW parliament is considering radical legislation that is, in effect, trying to put a price on nature. The Iemma Government's Threatened Species Conservation Amendment (Biodiversity Banking) Bill 2006 would allow development on many of these sites if the owner pays for the protection of an equivalent site somewhere else in the state, effectively creating a network of privately funded national parks."

"The idea is that it is better to protect native habitat where it is of greatest value – often adjoining existing national parks and other reserves – than it is to have thousands of small stands of bush whose biodiversity value is being continually eroded."[2]

Such approaches will not work everywhere. For example, there will be some fragmentary ecosystems within logical paths of urban extension that are far too precious and rare and non-transferable. But even one or two large-scale applications of the above proposal may justify broaching this idea. A case in point might be the new Perth to Mandurah Railway, where natural conservation and sustainable TOD priorities compete for lands 3km either side of this passenger railway, putting at risk the efficacy of this $1.6 billion infrastructure investment about to be completed.

Systemic Impediments within Government Administration of Planning

Whilst there have been a few important advances in the delivery of New Urbanism at State and local levels, many systemic impediments remain for most of Australia's urban development.

Planning is a part of the organisational bureaucracy that is linear process-oriented (sequentially reactive and/or dealing with one topic at a time), and believes in some systems and policy that seem to us to have become somewhat detached from the real world.

The 'management approach' of conventional planning relegates places to become the residue of the various inputs – from agencies following their own agendas to the vested interests of developers, and other powerful groups. Plan-making is by its nature a political act, and power is a crucial element of making better places.

Design-led public sector entrepreneurship that incudes strong participatory, negotiation and mediation skills is required to achieve widespread buy-in to a vision for a place and the commitments to make the vision happen.

Governmental planning reform has become more difficult, as too many government planning staff have progressively devolved from being skilled and visionary strategic planners to just well-meaning administrators.

A further problem is that many state planning agencies lack the necessary skill-base needed to tackle urban structuring at regional and local levels. By urban structure we mean the spatial organisation of elements that determines the function and character of places. Too often the plans that are produced are in the form of vague diagrams or simply words. For example, many plans simply include a call for increased density, but density devoid of context may well offer an inferior outcome.

A New Urbanist approach would be to seek to deliver a place with vitality by producing a physical setting, in which cultural amenities and other social and economic functions integrate with the higher density housing.

2. Inquirer, the Weekend Australian, October 14-15, 2006, page 27

There are many agencies involved in the planning process at a State Government level that affect the quality of places, many of which operate in their respective 'silos' without sufficiently understanding how their own priorities need to dovetail with others to get a sustainable outcome. Agencies outside planning often have little if any understanding of what it takes to make good places and have their own responsibilities and priorities that may work against good places.

It is also difficult to get the high-level coordination necessary to make good places when agencies have competing priorities. As has been noted by John Mant, current government administrative systems do not facilitate the clear allocation of responsibility and accountability for the quality of places and the cohesion of local communities.

It takes very significant projects such as metropolitan strategies to achieve a 'whole-of-government' approach in which agencies are mandated by State Governments to work cooperatively on an urban project. The challenge is to find a way for this coordination to be available for regular places and projects. The resources are available in the planning system, but much of them are wasted on reactive statutory planning rather than proactive strategic planning.

Bureaucratic fiefdoms can set the agenda according to their own needs. For example, the *Warren Centre Sustainable Transport in Cities Project: Report on Community Research 2001* found that there was strong support amongst residents for improving public transport, even at the expense of the road budget – but the decision makers consistently down-played this support (the public didn't really mean what it said).

The professions have become both specialised and compartmentalised and provide arbitrary and artificial barriers to making good places. Transport planning has only recently emerged from the giant shadow cast by road engineering with its preoccupation for cars and efficient (read high volume high speed) roads.

Promising Ways Forward

All is not lost. There are several very important initiatives at State Government level that are starting to overcome these barriers.

The *Western Australia Liveable Neighbourhoods Code* is proposed to move from its 'optional' status to adoption as mandatory policy for its third edition. It sets out a complete kit of parts and explains how the parts work together. This synthesises both professional and agency inputs to the design of suburban extensions. Key design elements include how to structure towns and neighbourhoods, street and lot layouts, activity centres, school design and related matters such as planning for employment and urban water management. Combined with the regional planning framework and State-level subdivision powers available under the Western Australian Planning Commission, *Liveable Neighbourhoods* continues a statewide systemic transformation away from conventional suburban development to Australian New Urbanism.

The *South East Queensland Regional Plan* was developed through a sound regional planning approach. While it may not

consider itself New Urbanist, nonetheless, it is a significant advancement in providing a supportive planning framework in which New Urbanist initiatives such as the recent Enquiry by Design for the Ipswich Ripley Valley Master Plan and the Wynnum Urban Renewal Charrette can be undertaken.

New governance arrangements have also been developed in New South Wales – the Growth Centres Commission and Victoria – the Growth Areas Authority to achieve the land use planning and infrastructure coordination for metropolitan urban extensions that has been lacking in Sydney the past few decades. Importantly, the Western Sydney Growth Centres Commission plans are underpinned by a New Urbanist regional structure of neighbourhoods clustering around town centres. This will support the efficient delivery of infrastructure including public transport and the road network. The key challenge for the Growth Centres Commission is the preparation of a Development Code that will guide the detailed design of land release precincts.

The Melbourne Growth Areas Authority sees its role as working in partnership with local Councils, developers and State agencies to ensure development in Melbourne's growth areas are well planned, and new communities are provided with essential services and infrastructure as soon as possible. However, much of the Melbourne fringe already has approved structure plans based on conventional planning models, and there is a danger that the current expansion will simply deliver a new crust of more sprawl. The key challenge for all involved is to develop New Urbanist approaches similar to the *WA Liveable Neighbourhoods Code* or the Western Sydney Growth Centres, including revisiting out-of-date plans so that better outcomes can be achieved.

At the local government level, initiatives at Wanneroo, Newcastle, Lake Macquarie and Wodonga Councils also show a way forward towards sustainable urban development at the municipal level.

The Subiaco, East Perth and Midland Redevelopment Authorities have all delivered stellar urban outcomes, demonstrating the efficacy of this approach for existing large and seemingly intractable urban problem areas.

The importance of all these initiatives is to be concerned with the quality of places and to set a physically based vision, towards which private and public sectors can work. New Urbanist processes such as Charrettes and Enquiries by Design are now readily available and being used across Australia. Administrative systems within Councils need to focus on place, through individual place managers and the breaking down of departments in isolated 'silos'.

The examples mentioned above of the *Liveable Neighbourhoods Code*, the Western Sydney Urban Land Release, Perth's redevelopment authorities, and the Growth Centres Commission and other programs such as Transit Cities in Victoria, indicate that some State Governments have begun to successfully grapple with the challenges of integrative place-making.

The big challenge and opportunity now is to learn from these few relatively successful major projects, and to apply those lessons and approaches systemically to all the regular and smaller projects across Australia.

The Author and Contributors

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Wendy Morris is an urban designer and town planner and a Director of ESD along with Chip Kaufman. Before joining ESD in 1996, Wendy was an urban designer with the State of Victoria for twenty years. Wendy has written several books and codes, has run numerous Charrettes and Enquiries by Design, and manages design and implementation of a diverse range of urban projects.

Evan Jones is a town planner and urban designer, who has worked at the most senior levels in State Government Planning agencies across Australia. He catalysed Liveable Neighbourhoods in Western Australia and led the land release program for Western Sydney, culminating in the new Growth Centres Commission. Evan is an Adjunct Professor in the Institute for Sustainability and Technology Policy at Murdoch University.

Architect and urban designer Peter Richards is a founding director of Deicke Richards in Brisbane, with numerous projects up and down the Australian East Coast. He is particularly interested in design processes and methods, and combines practice with research and university teaching.

Charter of the New Urbanism

THE CONGRESS FOR THE NEW URBANISM

views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment.

We assert the following principles to guide public policy, development practice, urban planning, and design:

The region: Metropolis, city, and town

1. Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.

The neighborhood, the district, and the corridor

1. The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
2. Neighborhoods should be compact, pedestrian-friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
3. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
4. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
5. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
6. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
7. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
8. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
9. A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

The block, the street, and the building

1. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
2. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
3. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
4. In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
5. Streets and squares should be safe, comfortable, and interesting to the pedestrian.Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
6. Architecture and landscape design should grow from local climate, topography, history, and building practice.
7. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
8. All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
9. Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.