

BALANCING PLACE AND SUSTAINABILITY IN METROPOLITAN PLANNING

Robert McGauran

SUMMARY OF

ACTIONS TOWARDS SUSTAINABLE OUTCOMES

Environmental Issues/Principal Impacts

- While continual change and evolution has been an enduring characteristic of the Australian city, the magnitude, speed and complexity of the emerging population and environmental pressures, are challenging the models and methodologies that have traditionally underpinned our urban and regional planning.
- By world standards Australians are a population of homeowners, commuters and city dwellers. The number of vehicles we own per capita and their fuel consumption is among the highest in the world. Our love of the automobile, the large family home and the back yard, and the reliance on the private sector to deliver them, has facilitated the low-density urbanisation model that has characterised much of the post-war growth of our cities.
- Over the next 10 years at least, Australia's population growth is expected to continue at between 80,000 and 120,000 people per annum. In addition, the ageing of Australia's population, delays in marriage and family formulation, increased employment mobility and higher levels of family separation, combined with the increasing number of people either living alone or as part of a couple, have increased the demand for dwellings suitable for small households.

Basic Strategies

In many design situations, boundaries and constraints limit the application of cutting EDGe actions. In these circumstances, designers should at least consider the following:

- Demonstrate an understanding of the special environmental, economic, social, and demographic infrastructure, and cultural characteristics of places and communities and their relevance to design decision making.
- Demonstrate an understanding of the key emerging needs and imperatives affecting places and communities and the likely characteristics of adjacent development to determine a 'best fit' ESD response for new development.
- Determine where key opportunities or constraints exist that might either best facilitate change or protect valued characteristics.

Cutting EDGe Strategies

- Understand the evolution of a place and the indigenous characteristics of landscape and cultural systems and incorporate measures that initiate rehabilitation and repair where appropriate.
- Investigate the unique morphological characteristics of a place and the ability and/or relevance of these characteristics in underpinning future evolution of the place or in developing design strategies.
- Develop and implement a comprehensive plan for the project incorporating built form, building program, infrastructure, landscape, economic and social planning concepts.
- Develop innovative design solutions that both deliver the core project brief and achieve broader community and metropolitan objectives.

Synergies and References

- Burke, T, and Hayward, D, 2000, 'Housing Past Housing Futures. Technical Report 4' in *Planning Melbourne for the 21st Century*, Department of Infrastructure, Melbourne.
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While continual change and evolution has been an enduring characteristic of the Australian city, the magnitude, speed and complexity of the emerging population and environmental pressures are challenging the models and methodologies that have traditionally underpinned our urban and regional planning. This paper identifies some of the key issues facing communities and policy makers and demonstrates how architects and urban planners might respond in their practice to these changes. It highlights, through case studies, mechanisms that can balance valued attributes of our culture and places with the need for change in response to changing community profiles, needs and environmental imperatives.

1.0 PLANNING FOR THE FUTURE

1.1 The imperative underpinning the need for change

Urbanisation and commuting

By world standards Australians are a population of homeowners, commuters and city dwellers. Over 75 per cent of us live in urban areas and around 70 per cent of us are home owners. The number of vehicles we own per capita and their fuel consumption is among the highest in the world. Our love of the automobile, the large family home and the back yard, and the reliance on the private sector to deliver it, has facilitated the low-density urbanisation model that has characterised much of the post-war growth of our cities and continues to account for over 50 per cent of housing starts in some capital cities. Car trips have doubled in the last 20 years and the distance of each excursion has lengthened to a point where our travel in motor vehicles is now more than 20 per cent higher than the OECD average. For many of the residents of these new predominantly fringe areas, access to retail services, community services and employment opportunities is dependent on access to a motor vehicle. For these areas, the motor vehicle is not a matter of choice, but necessity with some outer urban areas such as Casey in Victoria and the outer west of Sydney having commuter travel times to work in excess of one hour per day for nearly 50 per cent of their working population. These often highly mortgaged communities have higher car ownership levels per household than those of wealthier suburbs and with the car often their only transport option they are particularly vulnerable to changing fuel prices. Recent price hikes in petrol have resulted in newspaper reports of families cutting down on food and clothing purchases to compensate.

Along with profound impacts on future government expenditure in servicing these dispersed and often disadvantaged communities, the environmental consequences of the low-density, radial city model are evident in the carbon emissions generated by the increased number and length of car trips and the diminished availability of arable farmlands close to urban centres of population. We know definitively that

this current model is profoundly less efficient in terms of energy, resources and time than both the compact city of its origins, or the 'multi-nodal' city models advocated by leading CSIRO scientist in urban systems Dr Peter Newton¹, and adopted within, for example, the Melbourne 2030 model. In this model Newton argues for a hierarchical matrix of mixed-use higher density activity hubs organised around interconnected multi-nodal public transport as the model that is both the most environmentally efficient and most able to provide an equitable and easily accessible range of housing choice and retail and community services as well as employment opportunities for our communities.

1.2 The impact of changing demographics

Parallel to the environmental imperative for change are emerging population and demographic pressures. Over the next 10 years at least, our population growth is expected to continue at between 80,000 and 120,000 people per annum. In addition, the ageing of Australia's population, delays in marriage and family formation, increased employment mobility and higher levels of family separation, combined with the increasing number of people either living alone or as part of a couple, have increased the demand for dwellings suitable for small households.² Whilst the acceleration in apartment development and housing for older communities is evidence of the market responding to these opportunities, there remains a mismatch in many of the middle and outer areas between this emerging need and available stock. Replacement housing in the middle ring remains largely characterised by larger scale townhouses and new development on the fringe remains predominantly the domain of the house and land package provider. Any review of the large scale publicly listed residential developers working on the fringe would see an overwhelming bias remaining for large three-bedroom homes in a variety of configurations. The homes are larger than twenty years ago on average and the densities of development remain generally well

¹ Newton argues that compact cities use 43 per cent less energy than cities based on business as usual and concludes that the choice of urban form does matter.

² Department of Infrastructure, 2000, p8.

below 15 per hectare; a density that makes the viable provision of public transport and community services very uneconomic. In Victoria, for example, household sizes will have halved over the 50 years up to 2021 yet the size of dwellings will have increased.

Middle aged baby boomers and younger well educated higher income earners are, in increasing numbers, seeking an urban lifestyle in the inner city leading to substantial investment in a diverse range of smaller households. Boomers have also undertaken a 'sea change' moving to the coast or country as well as sometimes retaining their urban residence. The beach house, small acreage farmlet or golf course villa, has rapidly become part of the Australian vernacular. The impacts of these shifts in social, environmental and urban form terms are significant with areas such as Docklands in Melbourne, the brownfields redevelopment areas of inner Sydney, Perth and Brisbane, and much of south east Queensland witnessing the impacts of this change. Social planners and scientists report on issues as wide ranging as gentrification of the inner city and increased inequity in access to community services and facilities, deforestation of the sub-tropic and tropical rainforests and consequent impacts on our ecology and biodiversity, and threats to the integrity of our water catchments and food production capacity – all arising from the choices we are making. When presented with the emerging challenges and the consequences of inaction, it becomes apparent that we require well coordinated action and partnerships between governments, the development industry and the communities they serve. As building design professionals we too have important roles to play in terms of advocacy and design.

1.3 Workplace change and the divided city

The hours, permanence, and location of work are changing, with proximity emerging as a desirable attribute of the home/work relationship. New growth service-sector industries have been attracted to the mixed-use areas of the inner city where their 'open collar' workforces can use adjacent cafes for meeting rooms and socialisation. This workforce relies on proximity to their clients for business with knowledge and professional service firms increasingly providing services to our large government, health, education and corporate institutions. The theme is the same worldwide in centres of new business development. In the UK, the rich Victorian industrial heritage of London's Docklands, Liverpool's ports and Birmingham's manufacturing centres have all been the focus of urban renewal for mixed-use development. In Paris the railway yards and infrastructure of Bercy and Austerlitz have been the focus for new knowledge centres and comprehensive town-making. In Portland and San Francisco the United States the old brewery buildings and industrial quarters adjacent to the commercial business centre have been transformed into new mixed-use development. The message is also the same in Australia – Sydney's Pyrmont, Brisbane's New Farm

and Melbourne's Victorian inner city all display similar characteristics. These new industries have less formal workplace structures than their manufacturing based forebears with a trend towards irregular hours, part time employment and longer hours for those in full time employment.

Purchasing patterns are also changing with a new generation of housing consumers demonstrating either an inability or disinclination to commit to medium term mortgage requirements with implications for an emergent demographic group who will become long-term lessees.

This shift in preference from the fringe and the freestanding dwelling, once seen as a temporary trend, has now been recognised by the development market as a permanent shift. Melbourne, for example, has seen a shift whereby only 50 per cent of new housing starts are now on the fringe down from over eighty percent less than 20 years ago. While this reinvestment in the inner city where infrastructure and services are generally abundant is welcome, it has also resulted in rapid gentrification. There has been a subsequent loss of nearly 75 per cent of affordable housing stock in our major centres causing subsequent changes to the social, retail and employment mix³ of these areas. Correspondingly, there has been a shift of disadvantaged households to poorly serviced outer-ring and regional areas where few of the appropriate support services exist and where even fewer of the emerging employment growth sectors are located.⁴

In the light of these trends it is interesting to observe how different sectors of industry have responded. The solution to rising energy prices by automotive groups is to call on the government to reduce excise and taxes on fuel. The emphasis from these groups is not to double efforts to diminish car dependency but rather to prioritise it. The development industry through the Housing Industry Association and Urban Development Industry Association continues to berate governments in Queensland, Victoria and NSW in particular, for the constraints they are putting on land supply for urban expansion, and for enforcing increased contributions to provide improved initial community infrastructure that is seen as a direct cost to housing affordability rather than an intrinsic requirement for liveability. The development industry has generally been lukewarm about attempts to introduce affordability overlays in brownfield inner city development areas that require an agreed provision of rental assisted housing for lower income groups because it might impact on development margins and the perceived attractiveness of the area for investment. The listed property investment market is largely devoid of development that has a mix of services, employment, housing choice and retail activity to respond to the emerging social and environmental imperatives. This suggests the development industry does not have the long term vision necessary to frame key decisions that

³ Burke, T, and Hayward, D, 2000

⁴ McGauran, 2002

manage the present and future issues facing our cities. In this context, urban development and planning requires the leadership of Commonwealth, State and Local Governments in determining mechanisms to foster ongoing investment in our urban centres and infrastructure, and in making choices about the urban form of our centres addressing social, economic, cultural, environmental and built-form criteria.

Free markets have not seen it as their responsibility to either maintain the demographic diversity in well-served inner and middle ring areas of our cities, or to provide the housing and demographic diversity, social infrastructure, integrated public transport or employment opportunities for a rapidly expanding urban fringe. Melbourne's Docklands has witnessed enormous growth in residential accommodation, entertainment and employment opportunities but, without exception, the area has so far been targeted at higher wealth and income groups. Melbourne's largest growth corridors of Casey and Cardinia and the western expansion in areas such as Caroline Springs have become the province of families, with little diversity in product apart from traditional detached housing and characteristically long commuting times to employment. The absence of public transport investment that is aligned with regional growth has also been identified as a significant issue impacting on the liveability of south east Queensland, in particular the Gold Coast and Sunshine Coast. Both the Federal Government's Parliamentary Committee on Sustainable Cities and the Queensland Government's recent review of infrastructure and urban development have determined an imperative for urgent government action.

2.0 THE CURRENT ROLE OF FEDERAL, REGIONAL, STATE, AND LOCAL AGENCIES AND THE PRIVATE SECTOR

The challenges outlined above define some of the issues which the government and private sectors need to address through formulating a framework of action. Strategic responses for our future urban development are required from:

- A national perspective
- A broad regional perspective
- A local municipality context
- Specific site and building design.

In theory, the advantages for governments in developing a strategically based approach to the making of cities lie in the efficacy, shared vision and resultant momentum. Policy settings and actions can be applied independently of the local politics that influence the priorities and determinations of individual government agencies. For example, it is likely that a state government road agency will be rewarded for the quality of its roads and vehicle commuting times rather than for the reduction of vehicle trips and dependency,

improved air quality and diminished carbon emissions or walkability. By undertaking a strategic metropolitan approach to the development of urban settlements, governments can make best use of the financial, human, cultural, physical, natural and intellectual resources that are available to them.

2.1 The national perspective

The importance of the role of federal governments in metropolitan planning has often been understated by the governments themselves. A new report from a House of Representatives Standing Committee on Environment and Heritage titled *Sustainable Cities* (August 2005) offers an encouraging realisation by this joint committee of the role of federal governments in the future. Currently, fiscal policy levers, grants to the states, funding initiatives, taxation strategies, regulations, environmental, transport and housing policies are a few of the levers federal agencies have to impact on the development of cities. These are implemented with limited coordination and focus.

Examples of current federal initiatives impacting on, but not necessarily targeting, urban development and liveability of our cities include:

- The allowance of refunds for loan and operating expenses arising from investment in property (negative gearing) which has prompted many small investors to invest in rental property. The claim allowance is not limited by locality (for example near public transport), energy efficiency of the building (e.g. five-star), or community, social or economic need as identified in local state or federal policy.
- Taxation policy in respect to business consumption is also not aligned with broader policy. Consumption of resources is generally deductible as a business expense, irrespective of efficiency or otherwise, as is the use of motor vehicles for business purposes. Depreciation of equipment is not limited to energy efficient appliances, but is determined on the basis of the magnitude of investment and the nature of the equipment.
- Substantially higher federal funding for our national highways than for fixed rail transport. This has been maintained continuously for 40 years with some at a ratio of 40:1 post WWII to the end of the century. This has facilitated freeway and road expansion and increased road transport and personal motor vehicle use at a cost to alternative transport modes⁵ with few examples of fixed rail expansion evident as a result. (The Darwin/Adelaide Rail is an obvious exception)
- Development of an array of Australian Standards and a National Code of Building Regulations that have significant impacts on the way we make our built environment.

⁵ Parker, 1998

- A range of environmental policies that have consequences for the amount and type of energy we consume, the use of our non-renewable resources, the protection of native habitats, the preservation of built environments of national significance and the quality of our air and water.
- Capping of funding for public housing grants to the states.
- Provision of funding support for first home buyers irrespective of the location and energy performance of dwellings.

2.2 The regional perspective

At a regional level, there are a range of issues which require a coordinated response from government agencies to optimise sustainability. Such issues include managing:

- infrastructure maintenance and development to meet projected demand
- transport network planning, delivery and regulation
- long term sustainability of natural resources such as water catchments, rivers, streams and environmental corridors
- efficient use of land with development matched to need
- development of community capital and provision of social services to maximise opportunity and minimise social disadvantage
- sustainable economic development and employment policy
- housing supply to meet current and future diversity and need
- transformation of urban settlements in response to population growth or decline
- changing economic, capacity and technological contexts and community profiles
- protection and appropriate use of places that have special characteristics.

Examples of tools that are being used to manage these issues include:

- State planning policy frameworks such as the Victorian Planning Policies incorporated in the Planning Act of Victoria and adopted and managed by the Department of Sustainability and Environment (DSE) supplemented by implementation programs, funding strategies and project implementation resources (currently awaiting commitment by Government)
- The development of 'Whole of Government Agencies' charged with prioritising and coordinating state investment in areas of significant change. A notable example was the Sydney Olympic Games Development Authority and its success in coordinating:
 - land rehabilitation and environmental design measures in all new capital works across the project

- major capital works planning and development
- integrated multi-modal transport development
- mixed-use development
- event planning
- appropriate resourcing.
- The development of long term strategies and capital works programs to ensure timely commissioning of new infrastructure and services to meet community need as was achieved in the past through government agencies such as Public Works Departments and Board of Works Authorities, and more recently via special project agencies such as the East Perth Development Authority, VicUrban, the South Bank Redevelopment Authority and City West Housing Pty Ltd. These agencies generally have however a 'precinct' or 'use related' focus which requires integration with broader regional needs, initiatives and potential implying an overall coordinating body is required.
- A plan to manage growth for a region experiencing significant development pressure and/or having special attributes. An example is the plan prepared for the area of south east Queensland (*SEQ 2021 – A Sustainable Future*) where farmlet style low density development and rapid coastline development has lead to deforestation, obstruction of fauna and flora corridors, increased traffic congestion and vehicle trips, as well as inefficient use and high cost per occupant of infrastructure delivery. Among the initiatives in the plan are protection of areas that have special environmental attributes protection of ecological corridors and water catchment areas, focussing growth around established urban settlements to maximise economic benefits and efficient use of infrastructure and service delivery, and the introduction of multi-nodal transport to reduce car dependency. *SEQ 2021 – A Sustainable Future* is a joint initiative of the Queensland Government and the south east Queensland Regional Organisation of Councils.

In addition, governments and regional organisations have a role in determining standards for housing and the quality of public spaces, as well as managing the design, implementation and supply of infrastructure and waste disposal, and planning and delivering integrated public transport, pedestrian, road and bicycle networks. They also need to ensure that regional economies operate optimally and are integrated at both a local level and a broader national level.

2.3 The local municipality perspective

Local government authorities have been given substantial powers and responsibility to both administer state planning policy and introduce policy that deals with specific local issues such as community service

delivery and recreation and open space provision and management. The strategies should, and generally are, written with the objective of sustaining local communities. However, for many local authorities the magnitude of change and the impacts of local political pressures, combined with a lack of control over a broad range of services and infrastructure, diminishes their ability to manage places effectively.

2.3.1 An understanding of local context

Local strategies need to articulate the attributes of a place – those topographical, locational, structural, organisational, cultural, architectural and landscape attributes that are special – and provide opportunities for renovation or retrofitting to accommodate changes in economic and social circumstances. The attributes of place that are not special or significant provide opportunities to accommodate emerging economic and environmental needs. These transformations might include:

- enhanced organisation of uses and new uses that respond to identified need and opportunities. An example is the development of air rights over and around a public carpark in the suburb of Balaclava, Melbourne, to accommodate a new boarding house to combat the loss of affordable housing from the municipality.
- changes and improvements to transportation networks and open space that improve walkability, transportation choice and access. The City of Melbourne's commitment and investment in pedestrian walkways, active laneways, street based hospitality and development of uses above street level (providing informal surveillance) has contributed to:
 - 275 per cent more cafes and restaurants between 1993 and 2004
 - 71 per cent more public space on streets and in squares between 1994 and 2004
 - nearly doubling pedestrian traffic in the Bourke Street Mall from 43,000 people per day in 1993 to 81,000 in 2004
 - increasing night-time pedestrian traffic by 98 per cent between 1993 and 2004 reflecting the growth of bars and cafés and ensuring a safer, more welcoming environment.⁶
- upgraded infrastructure that improves the environmental sustainability of places and the quality of living and working environments. Examples might include undergrounding of carparking, improved public transport infrastructure, facilities and services, inclusion of stormwater harvesting and recycling cisterns etc.
- additional community facilities and services that build community capital

- providing housing diversity to accommodate changing community profiles
- redeveloping built environments that enhance the quality of habitation, improve the energy performance of precincts, and enhance the area's character, safety and activity
- addressing the barriers to change
- regenerating indigenous landscapes and habitats
- enriching the public realm through the inclusion of art and artisanship that celebrates the particular skills, contemporary histories and civic ideals of a community
- designing for flexibility to enable places in the future to adapt to new issues and challenges
- identifying potential collective environmentally sustainable design measures to reduce resource utilisation, enhance efficiency and improve liveability.

In many instances a fear of change has been used as a basis for attempting to develop policy, rather than developing a genuine objective assessment of the strategic significance and role of a building or place. Inevitably, in some instances populist politics and limited access to skills and research limit the appropriateness of responses. Examples of mechanisms for local strategies include:

- local planning policy frameworks
- local housing strategies
- local transport plans (including carparking and walking strategies)
- open space strategies
- heritage strategies.

2.4 Specific site responses

In some instances, particularly in places where substantial urban renewal is sought or anticipated, or where significant sites about places or buildings of high significance, a masterplan or development plan should be developed to guide change and manage communication of intent between stakeholders. This approach has been used to guide important projects including Kelvin Grove Urban Village in Queensland, the Docklands redevelopment in Melbourne and the extensive suite of *arondissement* rehabilitation projects in Paris.

3.0 MANAGING CHANGE

The management of urban change in response to emerging environmental, social, cultural and economic pressures is a responsibility not just of governments, but also for the design professions, the development industry, and communities. The development of cities has to respond to needs that range from the immediate to the very long term.

⁶ Kennedy, 2004

3.1 Key principles

There are some key principles that should underpin all metropolitan strategy decision making against which all policy development should be measured. They are:

3.1.1 'Whole of Government' approach

Consistency of approach by authorities, or rather the lack of it, can determine whether agencies can effectively implement environmentally responsible metropolitan strategies. The ability of agencies to develop and implement policy within a common set of metropolitan objectives is essential to effective metropolitan strategy. Likewise the timely commitment by government to key elements of infrastructure provision, land consolidation, research and innovation, and effective economic management will be critical to delivering sustainable planning outcomes. For example, the ability to deliver a less car dependant, transit-oriented community, is severely undermined if there is not a commitment to public transport. Increasing patronage is undermined by public transport services that aren't integrated, that have inadequate resourcing for safety and surveillance, and where frequency of service is unreliable. Patronage is also hindered by the development of low density suburbs. To be effective, the agencies that are responsible for implementing metropolitan strategies need to be as free as possible of local, departmental and regional political interference. Some examples of efficient processes for major change projects include the South Bank Development Authority in Queensland, the Docklands Authority in Melbourne and the East Perth Development Authority in Western Australia. These agencies are usually given planning powers and capital works budgets commensurate with the program expectations.

3.1.2 Strategic advocacy

Design professionals have a key role to play in achieving more sustainable outcomes. They can:

- be an independent advocate for sustainability because they are not constrained by local conflicts or lobby groups. This is often critical as it allows discussion about options and issues to occur without political repercussions for stakeholders. Often the design professional can, as the independent agent, test and debate issues that would be extremely risky for incumbent government staff or elected representatives to advocate.
- offer professional disciplinary skills often not employed within local government to resolve issues.

3.1.3 Anticipating and optimising the implementation process

It is essential that strategic planning policy be informed by the following:

- the planning community and development industry's skills and resources
- the role and capability of the key stakeholders i.e. do the authorities, agencies and key land owners have the necessary skills to implement the project

or do specialist skills need to be employed to ensure success

- the land ownerships and the ability to assemble them in a manner that can be aligned with both the configuration and capital required to implement the project
- the social and physical context of the area in question and the possible constraints on resources, property values and costs.

The policy also needs to be supported by having an appropriate budget, adequate resources, political independence and timely and effective development facilitation. A metropolitan strategy written without sufficient regard to one or more of these issues has invariably been ineffectual.

4.0 CASE STUDIES

4.1 International examples

4.1.1 Rive Gauche, Paris

The redevelopment of extensive brownfields sites on the banks of the Seine in central Paris has been underpinned by a comprehensive development strategy incorporated in a *Zone d'Aménagement Concertée* (ZAC), which defined public and private sector development areas. It also provided an operational framework for government agencies and the private sector. The project incorporates the consolidation and undergrounding of a national, regional and metro rail network, the new National Library of France, a new campus of 200,000 square metres for the University of Paris, as well as one million square metres of commercial and residential development at some 600 inhabitants per hectare. The mixed-use development incorporates public, rent assisted and private housing, targeted studio housing for artists, community and cultural facilities, parks, bridge and pedestrian linkages, new boulevards, theatres, cinemas and workshops. The framework established in the early 1990's has underpinned the funding and implementation over the past 10 years.

The Government of France and the City of Paris engaged major projects development agency SEMAPA to act on their behalf to coordinate the development of land holdings controlled predominantly by the rail authorities and the City. SEMAPA provided upfront funding of key initiatives, notably the consolidation of the rail network and decking of the rail areas to provide a new ground plan for development. A master plan concept for the overall development was conceived and retained through all stages. The key lessons we can learn from this extraordinary successful project are:

- The early commitment by government to the funding of major infrastructure limits risk for the development industry and enables governments to more easily achieve sustainable futures.
- In this instance, the government recognised that the nature of the buildings in the historic core of Paris no longer suited the needs of

larger corporations. Redevelopment enabled significantly larger building footprints to be established generating employment in the centre of Paris, well serviced by an integrated national regional and metro rail network. Early provision of employment and public transport enabled greater community diversity.

- With jobs came the basis for neighbourhoods. SEMAPA and its design team advocated a mix of public, rent assisted and private housing, all to be delivered by the private sector.
- The precinct features a broad age group and profile of residents that integrates with surrounding areas of Paris.
- Historic elements of the precinct, including the Austerlitz station, corner bars and old mills were retained. The mills are now the central student building in the new university campus.
- The employment infrastructure, housing, open space, cultural, retail and educational infrastructure has been successfully integrated.
- Walkability is an essential attribute with all facilities in easy walking distance from employment, transport and the national library.
- Critics condemned the proposal in its early days as non viable but the redevelopment has been embraced by the private sector with private investment now fully compensating SEMAPA for its initial investment. The project has achieved a handsome return for the government partners both economically and in terms of liveability.
- The project draws on the attributes of Paris, with boulevards, a subdued palette, communal gardens and street activity.



Figure 1. New boulevard abutting commercial development, Paris

4.1.2 Portland, Oregon

In Portland, Oregon, metropolitan planning targeted the over-dependence on car usage and aimed to further develop the city as a creative centre. The strategy included:

- Providing a new light rail bisecting the city from the north west to the south east, linking the airport, expo centre and housing areas in the north with downtown and other areas such as Orenco to the south. This enabled a network of transit oriented villages to be developed along this spine at higher densities as well as the development of new commercial hubs. The newly redeveloped airport connects to downtown in 14 minutes.
- Providing rentable bike lockers at most stations along with free bike storage facilities on all bus, light rail and tramcar networks as part of a 2040 transport planning strategy aimed at facilitating real options to car utilisation. In 1995 the city was awarded the most bicycle friendly status of all cities in the US by *Bicycle* magazine.
- A new streetcar service threads its way through redeveloped industrial areas to the retail and services hub of NW 21st Street, and links a group of important cultural and educational icons within the city including the Gallery, and University. Within the downtown area the service is free rising to \$1.25 at its maximum.
- Pricing control of carparking around the town centre to ensure there is a financial incentive to utilise alternatives to car use combined with continuing expansion of pedestrian, bicycle and public transport services and facilities. The city has been able to contain growth in private vehicle use while experiencing significant economic growth. This growth has been attributed to the city's commitment to liveability, infrastructure and cultural development.
- Fostering of creative industries and culture through:
 - providing high quality public spaces and linkages
 - providing high quality cultural facilities including theatres, museums, galleries, and education facilities
 - rehabilitating inner urban industrial areas
 - retention and adaptive reuse of historic building stock
 - preservation and adaptive reuse of heritage buildings and sites to anchor key areas of the city.



Figure 2. Converted warehousing for mixed use, Portland

4.1.3 Birmingham, England

The rebirth of Birmingham was intrinsically related to creating a paradigm shift where the city shed its image as a social and environmental basket case using culture, consumption and entrepreneurship to drive its rejuvenation. 'Motor city' became 'walking city'. Birmingham's regeneration commenced when an international gathering of design professionals articulated the key issues facing the city, notably its lack of coherence and identity. The 19th century historic core of the city was surrounded by the infamous bull-ring of perimeter freeways, feeding cars into the city centre choking available space for walking and street-based commerce and capping the expansion potential for commerce. A masterplan was prepared for regenerating the city and it has been pursued relentlessly.

The design solution was multi-faceted and included a focus by the City Council on the following:

- Celebrating the fine Victorian buildings of the city with a £1.5 billion commitment to redeveloping the city centre, including renovation of major iconic industrial buildings and investment in public arts programs.
- Creating a high quality network of car-free places-for-people places (Kennedy, 2004). This pathway network links the New Street station to the main street, the gallery, museum, concert and convention facilities to the canal across which the pathway is anchored at its furthestmost point by the new development zone of Brindley Place, a major new employment zone for the City.
- Rehabilitating unique elements of the industrial city, notably the canal network, with the focus on pedestrian activity. A creative mixed-use

redevelopment of industrial areas for retail, hospitality and higher density residential and office development has rapidly been developed, largely funded by the private sector.

- Closing and redirecting roads and making the main historic shopping street pedestrian friendly.
- Acquiring land adjacent to the canal, then rezoning it and offering the area to the private sector as a new commercial precinct for the city. This has underpinned a resurgence in investment and employment in the city.
- Consolidating land parcels and, in partnership with the private sector, developing the new Brindley Place commercial precinct, an area now housing a number of major national and international companies, as well as tourism and retail facilities, galleries and theatres.



Figure 3. Brindleyplace commercial precinct, Birmingham



Figure 4. Design innovation – Selfridges, Birmingham

4.2 Australian examples

4.2.1 Southbank, Brisbane

The development of Southbank and the extensive network of paths for pedestrians and cyclists along the river, linking the city centre with neighbouring suburbs, have changed the way the city relates to the river. The banks of the river are linked by the Goodwill Bridge, a pedestrian/cycling bridge that joins the southern end of the Southbank precinct to the QUT campus. On the north bank, there is a link between QUT, the Griffith University College of Art, the South Brisbane TAFE, the Southbank station and the Bus-way station. Along this spine and intermixed with these institutions is new higher density mid-rise housing with retail and hospitality at its base which ensures the networks of public space are full of activity making them safe, secure places to visit. A public beach and swimming area ensures a broad demographic of visitors.



Figure 5. Path network – Southbank, Brisbane

4.2.2 Melbourne 2030

Melbourne 2030 is a strategic planning document developed by the Victorian Government aimed at sustainably accommodating an additional one million residents in the city. The document promotes urban consolidation with a strong emphasis on mixed-use intensive development around public transport and activity hubs. Key objectives include:

- accommodating a continuing demand for smaller households and demand for increased housing choice in activity centres, so private car trips can be reduced and access to services optimised
- revitalising areas of the inner city where previous industrial uses have become obsolete and where opportunities exist to accommodate the needs of a

growing service sector and a workforce that enjoys a more urbanised habitat

- development of improved permeability through sites, and enhanced walkability, safety and security of transport linkages
- promoting the development of energy efficient development
- promoting co-location of live/work/play environments.



Figure 6. Melbourne's revitalised city laneways

The plan has been well received by the development industry and some very fine examples of design have been developed. However the government has been criticised for its failure to commit appropriate and timely funding to the necessary investment in enhanced public transport and shared spaces and for not committing the necessary statutory and funding support to local government to properly communicate the anticipated changes. The plan has also come under bitter attack from various sectors of the community who want to maintain the existing character of their neighbourhoods. However, at the same time it should be noted that the community also wants the government to reduce congestion and improve services.

4.2.3 Pentridge, Melbourne

The former Pentridge Prison occupies a significant 25 hectare site in the inner Melbourne suburb of Coburg. The closure of the prison in the mid 1990's meant the site was available to the private sector for redevelopment. The development proposal incorporates housing for nearly 5000 residents in an array of apartments, warehouse conversions, townhouses and houses. The housing is built around a series of park and street networks, public squares

and lanes. In addition the project incorporates neighbourhood retail that promotes walkability, office development, childcare, aged care and primary, secondary and tertiary training facilities. More than four hectares of the site are given over to predominantly car free areas that link and integrate the precinct into surrounding streets and parks that are characterised by high levels of informal surveillance and ground floor retail and community activity. Stage 1 has been completed. The project incorporates a strong commitment to social and cultural development by:

- retaining and adapting the heritage buildings
- incorporating social housing
- developing a comprehensive heritage interpretation strategy and an integrated art plan
- establishing a new prison museum
- providing of a range of spaces, places and facilities for people of all ages to meet and interact
- integrating a new bus service and upgrading tram facilities into the development
- incorporating ESD features including stormwater harvesting and re-use, 5-star energy rated dwellings and commercial facilities, naturally ventilated apartment towers and waste minimisation.

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BIOGRAPHY

Rob McGauran graduated from Melbourne University with a Bachelor of Architecture (Hons) in 1982 and a Bachelor of Arts (Fine Arts) in 1998 and completed a Postgraduate Diploma in Business Management at Melbourne University in 1994. In 1985 he established with Mun Soon, the award winning practice McGauran Soon. Eli Giannini joined them in the practice in 1989 and the firm became McGauran Giannini Soon (mgs) in July 2002. In 2001 he was awarded the RAlA Sisalation Research Prize to prepare a new journal 'Take 1 – Propositions for the Future Australian City' and was convenor of a National Symposium on the topic in Melbourne in 2002 and has subsequently presented papers on the topic at conferences in the US and Italy. He has been a member of numerous government advisory committees and review panels, consulting on the development of planning policy, urban renewal strategies, design advocacy for major redevelopment sites, and urban design and public facilities planning for local councils.

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