



Creative Cities

David Yencken

Curiosity about life in all its aspects, I think, is still the secret of all creative people.

Leo Burnett

Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will.

George Bernard Shaw

Human behaviour flows from three main sources: desire, emotion and knowledge.

Plato

If an advertising guru, a famous writer and an even more famous philosopher between them are right, in order to foster creativity we need curiosity about life in all its aspects, imagination to picture what we desire, will to bring it into being, and understanding of desire, emotion and knowledge as the wellsprings of all human behaviour to encourage its widespread adoption. These are, however, personal attributes of creativity. How should they best be supported in a creative city? What principles should guide us and what characteristics can we discern today as fundamental requirements in such cities?

A full and intuitive understanding of the complexity of cities is a necessary starting point. This is a timeless requirement even though aspects of urban complexity are constantly changing. Nearly 50 years ago, in his essay 'A City Is Not A Tree',¹ Christopher Alexander posed two central problems for those who are interested in cities. To illustrate the complexities of

the interactions that take place in cities, Alexander first contrasted the mathematical forms of tree and semi-lattice: the tree a simple structural form with branches bifurcating into further branches, the semi-lattice a form with connections of different kinds between all its parts. He then drew on experiments with complex patterns to illustrate human inability to grasp or retain very complex forms and human propensity to simplify to reduce an overload of information and stimuli to manageable form.

The city is an extraordinarily complex system. Even if we can't fully grasp it, even if we are bound to simplify, we must hold on to that complexity, for it is complexity that gives cities richness, vitality, and, significantly, health. In the same way that ecological variety and complexity give health to natural systems, so variety and complexity give health to social and cultural systems. People in different material circumstances, from different cultural backgrounds, of different ages, or of different temperaments, have different social and cultural needs. We cannot possibly envisage all these needs. They can only be expressed individually and satisfied by a myriad of different responses to them. Jane Jacobs, in *The Economy Of Cities*,² similarly drew attention to the precariousness of cities that become too dependent on a limited range of industries and economic activities. So the first important principle for a creative city is to recognise and encourage variety and complexity.

We can also reach some understanding of complexity in another way, intuitively, by holistic thinking. Western education and logic systems do not, however, serve us well in teaching us how to think holistically, how to respond intuitively and how to work with rather than eliminate complexity. Masao Kunihiro, a distinguished Japanese cultural anthropologist, argues that the system of logic that has dominated Western thinking is based on Aristotle. In its simplest terms, Aristotelian logic, he says, is concerned with the dichotomy 'it is' or 'it is

not'. In contrasting Western and Eastern logic systems, Kunihiro comments that 'in Kant's *Critique of Pure Reason* he poses only one question concerning the limitation of self and the world: Is it finite or is it infinite? Kant's reasoning,' says Kunihiro, 'epitomises that of the west since Aristotle. The Western mind has established clear boundaries between light and darkness, day and night, nature and counter-nature.'³ In contrast, Kunihiro cites the dialogue of Sanjaya in the Sen'yukyō scripture, which finds not two, but four answers to Kant's question: positive; negative; positive and negative; and not positive and not negative. Kunihiro notes that there are now other challenges to traditional Western dualistic logic. The most recent theories in the fields of biology and quantum mechanics, for example, hold that the relationships between different entities are not fixed, but constantly changing. Kunihiro finally points out that the Japanese use both Western and Eastern kinds of logic systems. For Western-type analysis and dualistic contrast they use 'square words'. But when they wish to express their true feelings they use 'round words'. A second principle, then, is to encourage more holistic, intuitive approaches to our cities, using round words alongside the square words.

Through holistic thinking we can more readily find the appropriate balance between order and complexity, for a creative city must also have order. It must be legible, transparent and understandable. But the order must not be destructive of richness and complexity. This is a third principle.

The complexities of cities can be illustrated by looking at some of the more familiar ways in which they are perceived and understood. A city can be understood as an economic system with very intricate networks of economic flows. These can be expressed sectorally, as systems of exchanges and transactions; or spatially and socially, as having particular effects on particular groups in particular locations. A city can also be understood as a political and managerial system, with particular sets of power-relationships, influenced by different groups and individuals. The

analysis of structural changes in ownership and control of capital and their influences on different groups in society is one way of reaching such understanding.

A city can be understood as a set of social relationships. Different societies and diverse groups within them are likely to have very different social networks. Understanding such diversity is important. In many so-called slum-clearing projects it has often been assumed that higher-quality physical conditions in new public houses or flats would lead to improvements in social conditions, while the significance of social networks has been ignored. Preserving the social networks has later turned out to be much more important to many householders than physically improved housing in less accessible locations with less scope for social relationships.

A city can be understood as an ecological system. This is the most fundamental of all systems. Increasingly, we are learning how much damage we do to our environment and all our life-support systems by ignoring the ecological relationships — Earth's atmosphere, oceans, land masses, air and water quality, soils, trees and vegetation, and habitats.

A city can be understood as a set of physical constructs: physical forms and spaces and their relationships. Planners, architects, engineers and landscape architects are particularly trained to look at cities in this way. A city can be interpreted as an expression of the past, as the tangible, physical evidence of the evolution of the city and its residents' history. Seen this way, it has strong psychic significance as the roots of common culture. Finally, a city can be perceived as a series of experiential relationships — events, activities, spaces and structures that generate powerful emotions.

When we list these different ways of perceiving and understanding cities, two things are immediately apparent. In some sense we all experience cities in all these ways at different times, in different roles and in different moods. But when we list the different ways of looking at cities we become aware of how little

we are rationally aware of this variety of human responses. So we have to recognise that they are all perfectly valid ways of perceiving cities, and consciously value all of them.

We then need to understand that certain forms of analysis are of prime importance for certain purposes. If, for example, we judge that social justice is our prime objective, then political economy is likely to be one of the most effective ways of analysing the city, but it may not be very helpful in telling us what to do about it. If we are preoccupied with economic growth, we will use quite different forms of analysis. We have to be able to use particular forms of analysis for the limited purposes of the projects and activities that most directly occupy us, without losing sight of the whole. And, very importantly, if we are to have a creative city we must be sure that our notions of creativity extend to all the different dimensions of perception and understanding I have described and to the different systems and networks to which they relate. We have to be creative in every realm.

Another principle concerns our modification of environments. We are constantly modifying our environment, sometimes in very big ways, sometimes in small ways, sometimes well, sometimes horribly. It is not only what we do that matters, but how we do it. There is research evidence that animals and man in natural conditions select and modify, and that both show signs of stress when they are unable to do so. There is further evidence that the human stress of adaptation to a strange environment can be greatly reduced if the individual has some involvement in the initial change and some control over the later development and functioning of the new environment. Choice, involvement and participation are thus important principles.

A further principle relates to stimulation and challenge. A creative city must excite and stimulate, but it must also have other qualities. In our creative city we thus need to balance stimulating environments with oases of peacefulness and calm. Each individual has to find his or her own inner peace or

harmony. Some do it through music, some through meditation; some, the unlucky, never find it at all. But in our creative city we also have to provide places and spaces for sublimation, contemplation and healing.

The difficulty with special places is that they can be very personal. I am reminded of a fine article called ‘Treasure Island’, published many years ago in *Architectural Design*.⁴ Several people were asked to list their magic places. One respondent answered that for him Euston Station in London would always be a magic place since the day he saw a man and a woman walk from opposite sides of the station towards each other and start to waltz. When I think of special places I think of places associated with water, distance, and wonderful harmony. In Melbourne, where I live, I think of the end of parts of the bayside or the Botanic Gardens, or of parts of the river. Are there common qualities in these places? I think there are. We need to ensure that places with these special qualities of peacefulness and harmony are to be found in all localities of the city.

It is also of critical significance that the cultural opportunities we present to people should be relevant to their own lives and experiences. Citizens in different places and in different economic and cultural circumstances have different requirements, which need to be understood, supported and encouraged. This may sometimes require a change in mindset for those involved in cultural administration. It is easy to assume that it is enough to provide opportunities for aesthetic experience through film, music, dance, painting, sculpture and literature and through the encouragement of individual or community creative activities of these kinds. Certainly, the demystification of culture and high arts ought to be a major plank of arts policy — often the initiated would be as grateful for such a demystification as the uninitiated. But we also have to understand that for some people, particularly the most disadvantaged, there may be other priorities. We should, of course, ensure that those groups do have access to as many artistic and cultural experiences as possi-

ble. But when people are preoccupied with burning social issues, racial discrimination, poverty, unemployment, isolation and alienation, we should help them to find creative expression for these concerns because it is likely that this is what is most culturally relevant to them. We should also help them to dignify their local histories, environments and work experiences. And when we create institutions that might help them to do these things, we should not have low expectations.

Some years ago, I travelled halfway across Sweden to see a workers' play. Why? Because we had read an excellent review about it in a major Stockholm newspaper. That's equivalent to *The Australian's* theatre reviewer writing a rave review of a workers' play in Port Pirie. A major principle is thus the encouragement of relevant cultural experiences for all people in the city.

Furthermore, we must enrich all experiences. We cannot assume, for example, that it is sufficient to offer rich recreational opportunities in compensation for very poor working environments. There is now overwhelming evidence that the quality of work experiences colours — controls might not be too strong a word — the quality of leisure experiences. In 1979 a pioneering six-nation UNESCO study, *Culture and Working Life*,⁵ eloquently documented the fact that a person with monotonous, repetitive or stressful work experiences is likely to have limited and relatively impoverished recreational experiences. Leisure opportunities cannot fully compensate for poor work conditions. The study's findings have been echoed many times since.

We are in a time of accelerating change. While for some people change is exhilarating, for most it is threatening and stressful. There is a deep psychic need for constancy in the midst of change. That is one reason for preserving the old and familiar in our cities — not only the best aesthetically, but also representative examples. In the older parts of the cities are found the physical evidence of the past, our cultural roots. Here are forms, structures and spaces that we cannot or would not build today.

They add variety to the physical experience of the city. Once they are destroyed, we will never replace them. Thus a further principle is the need for conservation of our civic and architectural heritage, of the old and familiar and well loved.

Another principle is that of fitness and local character. At Leinster, a mining township in the Great Western Desert, Marion Blackwell, a Western Australian landscape ecologist, was responsible for a landscape master plan involving town orientation, landform analysis, and site planning for all parts of the town.⁶ She sought to show how such towns can be 'of the desert', planned and designed to fit into and echo their natural surroundings rather than towns 'in the desert' that ape the ways, commodities and habits of their urban counterparts and alienate their residents from the surrounding countryside. She first carried out detailed surveys of vegetation in the locality. She then collected seeds and cuttings of appropriate local species and used them in all her designs. She also prepared an educational booklet, 'Gardening at Leinster', which aimed to promote respect for arid landscapes and promote the use of Australian native plants, arguing that this was at the one time practical, environmentally appropriate, and emotionally satisfying.

She also took an active part in encouraging other educational programs to open residents' eyes to the grandeur of the landscape, to show them the delicacy of the desert wild-flowers and the uniqueness of the wildlife and to suggest ways in which deserts can be enjoyed. When programs of this kind were developed at Leinster, not only was personnel turnover reduced, but people were also given experiences that some expressed as being among the most memorable they had had in their lives.⁷

Such towns can be planned and designed to fit and echo their natural surroundings rather than reject them. Careful education programs can be devised to open residents' eyes to the grandeur of the landscape, to show them the delicacy of the desert wildflowers and the uniqueness of the wildlife and to suggest other ways in which deserts can be enjoyed. At Leinster, a

nickel-mining town in the western arm of the Great Victoria Desert, when a program of this kind was developed, not only was personnel turnover reduced to a fraction of that in other mining towns, but people were also given experiences that some expressed as being among the most memorable they had had in their lives.

A project with similar aims was that initiated in 2011 by Ray Green, Professor of Landscape Architecture at the University of Melbourne.⁸ Green took a group of planners, architects and landscape architects to a site in Patagonia planned for the construction of five controversial hydroelectric dams. The students were asked to design the temporary workers settlement to house 4,200 workers so that they would blend in with the natural environment and then be able to be dismantled in 12 years time at the end of the project. The idea that productivity and worker morale could be increased by better design — by integration with the outstanding natural landscape setting — was central to the brief.

Natural England's 'Landscape Character Network'⁹ has recently come into being to foster broad adoption of these ideas. One focus is on Landscape Character Assessment as an important tool for enhancing local distinctiveness and promoting sustainable development. The second focus is on the European Landscape Convention as the first international agreement on landscape, devoted to the protection, management and planning of all landscapes in Europe. The network is open to anyone with an interest in landscape. All these three approaches are as relevant to major cities as they are to smaller settlements and their surroundings.

And when we seek to apply these principles in creative cities, we need to aspire to quality in its many dimensions in everything we do.

What specific characteristics should we look for in creative cities in the 21st century?

Smart cities

Cities of the future have, firstly, to be smart cities for economic reasons. A critical way of improving economic productivity and performance is through digital connectivity. Productivity is of special concern in Australian cities because it has been consistently falling across the economy. But productive cities need to be more than just digital cities; they also need to be smart cities and communities. Smart cities not only offer scope for creativity in economic activities but in managing the environment, supporting social interactions and more. A smart or intelligent city is one in which the digital interaction is not confined to the computer but becomes embedded into buildings and infrastructure of the city and becomes linked to people and clusters of knowledge intensive activities and forms of social communication and collaboration. It forms a communication infrastructure with knowledge and management tools. In this way it provides the creative scope to innovate and solve problems.

Such a city should have the capacity to support a smart economy, to encourage smart mobility, to find new ways to monitor, manage and improve environmental performance, to help citizens to become smarter performers, to give them support in every aspect of their lives, and to greatly improve the effectiveness, accountability and cost of governance of the city.

As an illustration, in November 2012, the organisation Digital Communities announced the results of its 12th Annual Survey of Digital Cities. The release observed that:

Top ranked cities in the survey reduced overtime with the new technology, embraced BYOD (Bring Your Own Device) to reduce hardware costs, and developed an app that will keep track of what users are doing to reduce power and fuel consumption. The highest ranked cities in the survey also showed that consolidating and enabling shared services created huge cost savings and new citizen engagement tools increased citizen feedback and improved services.¹⁰

These are only some of the potential benefits to be gained from the development of smart cities in Australia.

Green cities

In 2012, the United Nations Environment Programme published the report *21 Issues for the 21st Century: Results of the UNEP Foresight Process on Emerging Environmental Issues*. It was the product of an extensive expert consultation. The first-ranked issues were all cross-cutting ones such as ‘Aligning Governance to the Challenges of Global Sustainability’, ‘Transforming Human Capabilities for the 21st Century’, ‘Moving to a Green Economy’ and ‘Reconnecting Science and Policy’.

Among the more specific issues, ‘Boosting Urban Sustainability and Resilience’ ranked highly. The report notes that there are two important aspects of environmental sustainability in cities. First, poor environmental quality affects the lives of those who live in them, sometimes very severely. Even more significant is the contribution that the concentration of people, industry, infrastructure and energy in cities makes to environmental pollution and degradation outside the boundaries of urban areas. Whereas cities contain about half of the world’s population they consume about 60 to 80% of its energy and emit about 75% of its carbon dioxide emissions. Moreover the percentage of the world’s population living in cities is predicted to increase greatly in coming decades so these impacts will continue to grow unless urgent action is taken to reduce energy use, cut greenhouse gas emissions and improve other aspects of urban sustainability. As the report notes:

As urban areas become the home of a larger and larger percentage of humanity, the sustainability agenda will become increasingly intertwined with cities. The question then becomes: how can cities become more sustainable and resilient within their boundaries and reduce their impact on the outside world?¹¹

Green cities therefore need to do more than improve environmental quality within the city itself and reduce their outside impact. They must also be resilient, especially to cope with climate change with its likely increase in the frequency of heat waves, droughts and river and coastal flooding.

Among the report's listed options for action are increasing compactness of the city, the encouragement of mixed use settlement patterns, urban greening for its many benefits, providing many different low energy transport opportunities, renewable energy production such as the increased use of solar panels, and urban planning as an essential tool for protecting vulnerable natural areas and fostering needed changes.

Social cities and social connection

Good social connection is increasingly being recognised as a fundamental requirement for cities of the 21st century. To Jane-Frances Kelly:

Social connection refers to our relationships with others. More specifically, social connection is meaningful, positive interaction between people. It makes us feel that we matter, that we are engaged with others and that we are embedded in networks of mutual appreciation and care.¹²

We form connections at three different levels: intimate personal and family relationships; links with a broader network of friends, relatives and colleagues; and collective connection — our feeling of belonging in our communities. All these levels of connection are important, from the close regular contact with loved ones to incidental interactions on the street.

Kelly argues that personal relationships are a fundamental source of happiness and wellbeing and that research shows that social connection is crucial to wellbeing. Field work she quotes carried out by the Young Foundation caused its former chief executive, Geoff Mulgan, to conclude that the human need for connectedness outweighs 'almost everything else'. Lack of social

connection and the loneliness with which it is accompanied is a source of constant pain, unhappiness and ill health.

We must therefore make our creative city one that fosters social connection in as many ways as we can imagine: by the way we plan, the way we design, the way we manage and support, and the way we connect.

Emotionally satisfying cities

While creative cities need to be social cities with strong social connections, they need to be something more too. They need to be emotionally satisfying cities.

Why this final emphasis on the emotional and experiential? One answer might be ‘Because it is an area that is most often neglected’. Another is the influence that such cities have on human health.¹³ There could be few more significant objectives for a city than that of creating emotionally satisfying environments for all its citizens. We know well we will never achieve such a lofty goal. But it is an objective to which we all intuitively aspire and towards which we should address our finest endeavours. Emotionally satisfying and stimulating environments (and in such environments I include events and activities as well as the places and structures) also work very well at every level — economically, administratively and politically.

There are five groups of observers and performers who take special interest in the experiential: the scholars and commentators interested in changes in perceptions of space, structure, landscape and heritage; the environmental psychologists, scholars and commentators interested in human environment relationships; the marketers and the retail developers; the artists; and the architects, engineers and landscape architects. There are other groups — sociologists and psychologists, for example — whose work crosses into these areas, but the five groups I have chosen are perhaps the main ones concerned with the emotional experience of the city.

There is a rich tradition of study of historical and landscape perception. Different scholars have sought to trace changes in landscape perception in different times and different cultures. David Lowenthal, one of the most distinguished, has drawn attention to the changing attitudes to mountains and mountain scenery in European culture — from threatening and oppressive some hundred or so years ago, to grand expressions of nature today.¹⁴ He has also shown how, in the United States, historical environments were neglected in favour of nature and wilderness and how that has been changing. Some scholars have sought to find constants in human perception and valuation that can be isolated and used for classification of landscape values. Others, including Lowenthal, question whether there are such constants and argue that responses to environments are related to culture and background.

Others hold that there are different kinds of responses to environments — some genetically programmed, others culturally conditioned. One theory suggests that there are initial ‘hard-wired’ responses, lightning-fast initial appraisals, that are survival related. For man in natural conditions, as for animals, these responses were a matter of life or death. There is then a slower, secondary review during which the environment is surveyed according to learnt cultural criteria.

Environmental psychology is another major field of study. It is concerned with human behaviour in different environments: how physical environments affect feelings and behaviour and invite or inhibit choices, and how people modify and affect their environments. Particularly noteworthy are the recent attempts to assemble the conclusions from this research and translate them into useful guidelines for practitioners. One piece of work of this kind is Joan Nassauer’s ‘Messy ecosystems: orderly frames’.¹⁵ Another pioneering work, *Housing As If People Matter*,¹⁶ summarised all the literature on behaviour and satisfaction related to medium-density housing available at the time and drew from it a set of principles for planning and designing

environments that work for people. The authors were Clare Cooper Marcus and Wendy Sarkissian. Vischer and Cooper Marcus also carried out a delightful review of an architectural awards program in British Columbia.¹⁷ They used criteria somewhat different from the architectural judges — for example, whether people actually liked living in the places — and arrived at dramatically different conclusions from the judges.

The third category of observers includes the developers and marketers. As we all know, the study of emotional and subliminal responses is a primary concern of advertisers and marketers, a concern on which billions of dollars hinge. But it is not only advertisers who are concerned with emotional responses. The most capable retail developers often have a superb understanding of the way people behave in different spaces. I recall a meeting with the US developer and philanthropist James Rouse, founder of the Rouse Corporation, builder of Columbia new town and creator of the Festival Market concept. He took me on a walking tour of Baltimore harbour. At each step he explained the ideal dimensions of waterfront boardwalks, plazas or interior corridor spaces to achieve certain kinds of people responses. ‘I am concerned with detail,’ he said, ‘because it is the detail which makes the places work.’

The fourth group are the artists. Just as we need a judicious blend of stimulation and repose, so we also need the left and the right hemispheres, square and round words. Artists are the experts with round words. In a short essay called ‘A Narrow Escape From Poetry’, Anatole Broyard tells of an experience in Paris:

I was ... on my way to dinner ... the light was fading ... through the gloom a man appeared ... He seemed to want to speak to me so I slowed my pace ... when he spoke it was in a light murmur ‘La poesie, monsieur, ça vous interesse?’ [Poetry, Sir, does it interest you?] For a wild moment I felt that I had come to Paris expressly to meet this man with his poems and his umbrella. How embarrassing poetry is I thought, like a blind date ... ‘Bien sur,’ I said, ‘Poetry interests me very much. But

as you will notice, I am not at home in your language. Also I am still suffering from jet lag.’

In other words I excused myself, as most people excuse themselves from poetry, out of cowardice, with one rationalisation or another. What difference did it make that his poems were written in French? The difficulty would hardly be increased, for poetry itself is a foreign language. And one always feels jet lag in its presence — one has to travel so far, through such vast, threatening spaces.

Here was an opportunity and I had missed it. Even if his poems had been bad, his faith was good. We could have spoken of faith, for that’s a kind of poetry too. We could have exchanged elaborate misunderstandings, which are perhaps the most poignant of all cultural transactions. To approach poetry you must start somewhere — in the dark, in the rain, in the shadow of a building, ... on the way to some place else. You may not even need an umbrella.¹⁸

Artists invest ordinary things with special meaning. So Bruce Dawe’s poem ‘Abandonment of Autos’ begins with the news item: ‘The City Council is reported to be concerned about the number of old cars being abandoned in city streets.’ In Dawe’s poem, the act of abandonment is transfigured:

It is the urban Arab’s Farewell To His Steed,
Down to the final affectionate pat
On the near mudguard before turning away
To shoulder a passage through the indifferent crowds,
Made free in the moment of loss, the one true test,
Only the licence-plate which he carries with him
Into the new life stating as clearly
As any letter of recommendation:
‘Here is one who senses the fitness of things.’¹⁹

You see, there is no escape from poetry. We need the poets, painters and sculptors, the writers and musicians. We need the experiences and the challenges they offer us, as it is through the collision of their worlds of imagination with the patterns of our daily thinking that we gain new insights and understanding.

The final group includes planners, architects, engineers and landscape architects. They also bring very special skills and understanding to the making of the city. They are, indeed, the prime shapers of the city's forms. The best of them can also rightly claim to be artists. Their insights and intuitions about human responses are often very sharp. But sometimes they are not. Many years ago when I was in Toronto, Michael Hough told me of a colleague who regularly took his master's degree students at the beginning of the year to a natural stream in an unspoiled setting and asked them simply to describe it any way they chose. Each year he has found how much the engineers, surveyors, architects, landscape architects and other professionals have become the prisoners of their professional disciplines in the way they perceive and react to environments. One year he took one other person, a laboratory assistant without professional training or a degree. He found that the laboratory assistant was the person who gave by far the most complete description of the river and its setting.

My purpose in describing each of these five groups is, first, to draw to your attention how much each can contribute to the development of creative cities and, second, to stress the extent to which each has an incomplete understanding of human and emotional responses to places and situations because the understanding is intuitive only, because it is limited in its scope, or because it is coloured and constrained by the way professionals have been taught to think. It is not hard to draw the obvious conclusion that much more often they need to bring together their collective insights and abilities.

It takes great skill to create emotionally satisfying environments. Both analysis and intuition are required. The work of Jan Gehl on 'Cities for people'²⁰ and the way he has combined research with powerful graphic, written and spoken presentations of his findings in his books and lectures is an outstanding example. Many different kinds of environment are needed in a city; the designer/creator has to think carefully about the

emotional experience he or she wishes to generate and for whom it is being created. Some environments will work in ways quite contrary to our expectations or preconceptions, so in our creative city we also have to be open, humble and willing to learn.

The state of Australian cities

Each year the Australian Government releases a 'State of Australian cities' report. It is a valuable series. The 2012 report contains much information relevant to creative cities.²¹ There is no space to do more than mention a few key points and to draw some conclusions.

The proportion of the population living in the capital cities of most states and territories has steadily increased over the past 40 years. As at December 2011, more than 75% of the Australian population lived in our 18 major cities — cities, that is, with more than 100,000 people. These figures illustrate the degree to which Australian cities need to be creative on every count.

The report notes that the social and economic geography of Australia's major cities is undergoing some of the most fundamental changes since the end of World War II, caused by the increasing concentration of high-growth industries in city centres. This is a reversal of the forces that drove the outward spread of cities for 60 years. Business growth in the largest cities in particular is increasingly being concentrated in CBDs and large centres. These changes have many implications, not least for transport services.

A second major change is that of temperature and rainfall patterns linked to climate change. The urban heat island effect associated with larger cities is of particular concern as city temperatures rise. Bushfires and flooding of increasing severity are other major problems facing cities. More fundamentally, there is the need to reduce greenhouse gas emissions from cities. The report lists many promising environmental initiatives, such as a recent carbon neutral building in Melbourne, the City of Sydney

Green Infrastructure Plan, and the Townsville solar city project and its successful piloting of various ways of improving the efficiency of energy use.

The 2012 report notes the increasing international and national attention being paid to the liveability of cities. The chapter in the report on liveability pays welcome attention to the many different facets of liveability needing constant attention, including that of social connection and loneliness.

Does the report give us cause for celebration that Australian cities are well along the path to becoming smart cities, green cities, social cities with strong social connections and emotionally satisfying cities? There are some notable successes such as the City of Melbourne's campaign to create a vibrant compact city, which has helped to increase the residential stock in the central city from 800 in 1985 to over 20,000 units by 2002. Other real achievements include the liveability rankings given to Australian cities, Adelaide being rated most highly by its citizens and Melbourne being ranked first in the world for liveability two years in a row by the *Economist* Intelligence Unit, with other cities not far behind. But we need to know what criteria are being used in all the different surveys seeking to measure liveability to be sure that the ranking criteria cover everything that needs to be covered. It is helpful that the section on liveability surveys does report some of the different conclusions reached by different surveys. When, for example, liveability is combined with ecological footprint, Australian cities' high score on resource consumption drops their combined liveability and footprint rankings. Other cities that may not rate as highly for liveability may have lower than average ecological footprints.

But there are noticeable gaps. While there is real benefit in focusing on environmental initiatives that can be used as models for others to emulate and surpass, in the section on green cities there is no sense of the gravity of the environmental problems we face; above all, no sense of urgency related to the need to reduce energy use and greenhouse gas emissions. This is in

marked contrast to the way that climate change is increasingly being presented as a global emergency by UN Secretary-General Ban Ki-moon and to the urgency with which it is being treated, not just by the climate science bodies such as the Intergovernmental Panel on Climate Change, but also by international bodies of all kinds.

The second major gap in the report relates to smart cities. There is a single reference to the National Broadband Network. There is half a page on smart grids as a means of monitoring and helping to reduce greenhouse gas emissions, and two or three pages on the phenomenon of working at home and by implication its dependence on web-based resources. But there is no evident recognition that if Australia is to have creative cities in the future they must become smart cities able to support a creative economy and enable a very high level of ecological performance, enhanced mobility, improved governance and citizen engagement. There is no emphasis that in such cities we must help to develop smart people with broad horizons and give all our citizens greater opportunities to live good lives.

In future State of the Australian Cities reports, the topic of 'Creative Cities' needs a chapter of its own, with a significant discussion of smart cities.

Endnotes

- 1 C Alexander, 'A city is not a tree', *Design*, no. 206, 1966, pp. 46-55.
- 2 J Jacobs, *The economy of cities*, Jonathan Cape, London, 1970.
- 3 M Kunihiro, 'The Japanese language and intercultural communication', in Japan Center for International Exchange (ed.), *The silent power: Japan's identity and world role*, The Simul Press, Tokyo, 1976, pp. 51-73.
- 4 K Cranham, 'Euston Station Discourse', in 'Treasure Island', *Architectural Design*, no. 7/6, 1969.
- 5 B. Heurling, ed., *Culture and working life: experiences From six European cultures*, UNESCO, Paris, 1979.
- 6 A Saniga, *Making landscape architecture in Australia*, NewSouth Publishing, Sydney, 2012.
- 7 S Kellert, *Building for life: Designing and understanding the human-nature connection*, Island Press, Washington, DC, 2005.

- 8 N Low, B Gleeson, R Green & D Radovic, *The green city: Sustainable homes and sustainable suburbs*, UNSW Press, Sydney, 2005.
- 9 'The Landscape Character Network' (LCN), retrieved from <http://www.naturalengland.org.uk/>
- 10 'Digital communities', retrieved from <http://www.digitalcommunities.com/survey/cities/>
- 11 UNEP, '21 issues for the 21st century, results of the UNEP foresight process on emerging environmental issues', in J Alcamo & SA Leonard (eds.), *United Nations Environment Programme* (UNEP), Nairobi, 2012.
- 12 J-F Kelly, *Social cities*, Grattan Institute, Melbourne, 2012.
- 13 H Frumkin, 'Beyond toxicity: Human health and the natural environment', *American Journal of Preventative Medicine*, vol. 20, no. 3, 2001, pp. 234-240.
- 14 D Lowenthal, 'Finding valued landscapes', *Progress in Human Geography*, vol. 2, no. 3, 1978, pp. 373-417.
- 15 JI Nassauer (1995). 'Messy ecosystems, orderly frames', *Landscape Journal*, vol. 14, no. 2, 1995, pp. 161-169.
- 16 C Cooper Marcus & W Sarkissian, *Housing as if people mattered*. University of California Press, Berkeley, CA, 1986.
- 17 J Vischer & C Cooper Marcus, 'Design Awards Who Cares', in *Places*, vol. 3, no. 1, 1986, pp. 66-85.
- 18 A Broyard, 'A narrow escape from poetry', *New York Times*, 14 August 1988.
- 19 B Dawe, 'Abandonment of autos', in R Hall (ed.), *The Collins Book of Australian Poetry*, Fontana/Collins, 1981.
- 20 J Gehl, *Cities for people*, Island Press, Washington, DC, 2010.
- 21 Australian Government, *State of Australian cities 2012*, Department of Infrastructure and Transport, Major Cities Unit, Canberra, December 2012.



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