‘Places for people
- City and library’

Prof Rob Adams AM
Director City Design and Projects
70% of the world's population will live in cities.

Cities are responsible for 75-80% of the world's greenhouse gases and 70-80% of national GDP's.

Source: Jeb Brugmann
Cities of Hope

The great global migration from rural areas to megacities is reaching a peak. But forget the doomsayers – these sprawling urban landscapes will be humanity’s salvation, argues Doug Saunders

Chongqing is a dense and smoky inland city, the heavy-industry, high-rise home to more than 30 million people. It is to China what Chicago was to 20th-century America, or Manchester to 19th-century England, and it’s growing at an extraordinary rate. Every day a tide of 15,000 new arrivals washes in to Chongqing. Every day an extra 140,000 sqm of floor space is constructed for new residents. It’s a vast megalopolis, a megacity of the sort that will soon take over the world.

I met Mr and Mrs Zhang on the day they first arrived in Chongqing from their rural village. It had taken them almost 10 years to save enough money to move, and required extraordinary sacrifice: a brutal savings regime and years living in a fetid slum far away from their children, whom they saw only once a year. On the week I visited them in the sweltering heat of the Sichuan summer, they had pooled together their accumulated cash from years of sweated labour in motorcycle parts factories, and had paid the full purchase price of 150,000 yuan ($24,000) for a clean and elegant three-bedroom apartment, turning them, legally, into city-dwellers. In the next few months they will bring their parents over from the village, shutting the farm down and ending their family’s millennia-long connection to the fields. The driving force behind their exodus, Mrs Zhang, is a sparkplug of a woman with tired eyes but a pitbull’s tenacity, who long ago resolved to save her family from peasant farming at any cost.

The Zangs are the archetypal people of the 21st century, and we ignore their story at our peril. For the defining force of this century, almost certainly more significant than war, recession and perhaps even climate change, will be the huge and final shift of human populations from rural areas to
"Baukultur" as an impulse for growth
Good examples for European Cities
Selected case studies
DECENTRALISATION TO CONCENTRATION

Glasgow
FROM BLIND SPOT TO CITY OF CULTURE
Dublin
QUALITY PUBLIC INFRASTRUCTURE

Bordeaux
PEOPLE, PLACES AND TRANSPORTATION

Bogota
An empty, useless city centre

ARCHITECTURE
Norman Day

city, empty and useless except during office hours. Our planners lack the courage to bring the city back to life.

Last week American architect Saad Crockett spoke about his experiences as city planner for New York City. His problems were like ours, only magnified by the size of that biggest apple, but there the comparison ends. His department actually instigated creative uses of empty buildings and downtown had become a national centre for the arts. But there was no hint of our failure to plan. Mr. Robertson spoke of bonuses for incorporating shopping blocks, theatres and apartment housing into new office developments.

New projects, he said, are entwined into the city fabric through an insistence on connecting tunnels, shopping, paseos and under-street arcades to link buildings, streets and metro stations. There are planning bonuses in New York to encourage retention of historical buildings. New buildings include mixed functions of arcades, shops, cinemas, offices and top-floor apartments, all in the city centre. New York has had success with the creation of malls and redirection of traffic. Compare that with the dismal situation in Bourke Street.

Melbourne's heritage of north-south lanes and arcades, the Block and the new City Square arcade should set the pattern of future development. Our planners should be reaffirming the notion of city planning, not allowing architects to allocate useless, wind-swept forecourts "for the public use."

Having almost succeeded in maximising the Strategy Plan, we should not pin too many hopes on the existing system. It remains to be seen. The lesson from New York is that it remains to be seen.
VISION

‘24 hour City that looked and felt like Melbourne’

1985 Strategy Plan
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity
6 Public participation
7 Integrated Action
8 Adaptability

= Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity
6 Public participation
7 Integrated Action
8 Adaptability

= Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
sustainability

2010

28,097 dwellings

Source: City of Melbourne, Census of Land Use and Employment
Note: Dwelling dots show the density of dwellings in CUU Blocks, which roughly equates to CBD blocks.
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity
6 Public participation
7 Integrated Action
8 Adaptability

= Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
PLACES FOR PEOPLE

City of Melbourne in collaboration with GEHL ARCHITECTS, Urban Quality Consultants Copenhagen

MELBOURNE 2004
48% of the study area has redeveloped within a single generation.
A CITY OF CHOICES

No. Food / Beverage Establishments
Central City, Docklands and Southbank
1982-2012

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>604</td>
<td>722</td>
<td>1,117</td>
<td>1,978</td>
</tr>
</tbody>
</table>
A CITY OF CHOICES

No. Retail Establishments
Central City, Docklands and Southbank
1982-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>1,906</td>
</tr>
<tr>
<td>1992</td>
<td>1,566</td>
</tr>
<tr>
<td>2002</td>
<td>1,691</td>
</tr>
<tr>
<td>2012</td>
<td>2,423</td>
</tr>
</tbody>
</table>
§ 3311 per cent increase in apartments between 1982 and 2002;
§ 830 per cent more residents 1992-2002;
§ 71 percent more public space on streets and in squares between 1994 and 2004;
§ 62 per cent more students in the CDB 1993-2004;
§ 275 per cent more cafes and restaurants 1993-2004;
§ pedestrian traffic has nearly doubled in the Bourke Street Mall between 1993 and 2004 from 43,000 people per day to 81,000;
§ the Bourke Street Mall (81,000 daily) and Swanston St (60,500 daily) now both carry more pedestrians than London’s Regent Street (55,000 daily); and
§ night time pedestrian traffic has increased 98 per cent between 1993 and 2004 reflecting the growth of bars and café’s and a safer, more welcoming environment.
The most liveable city has more life and more living there

David Jones

Our revived urban heart has new beat

by Royce Mimlar

The comeback of central Melbourne has been marked by a spate of new businesses and real estate developments. The central business district is on the rise, with new office and retail spaces being developed. This has led to a resurgence of activity, with more people choosing to live and work in the CBD.

A CITY REVISTED

A city revisited

SPACE USERS DISTRIBUTION OF TOTAL SPACE

RESIDENTIAL CBD APARTMENTS

OFFICE VACANCY RATES

In the last decade, the CBD has undergone a significant transformation, with new developments and upgrades to public spaces. This has contributed to the city's appeal as a place to live and work.

The Age Newspaper
16 June, 2005
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity

6 Public participation
7 Integrated Action
8 Adaptability

=Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
public melbourne
urban design strategy
the design and management of a city’s public realm
streets = 80%
investing in public spaces

- waterways
- built form
- street patterns
- public transport
- parks
- clear structure
- distinct character
- accessibility
- good fit with people’s intentions
- sustainability
- continuity and change
- variety versus consistency
- animation senses
- equity
Bluestone and asphalt are traditional materials in central Melbourne. As well as historic precedent, bluestone and asphalt harmonise with each other to provide a neutral background consistent with the formality of the city's streets. Bluestone is extremely durable and gives excellent grip. Asphalt will remain as the most common footpath surface but will gradually be replaced with sawn bluestone slabs similar to those used outside the Town Hall and in the City Square. Although paving the footpaths in bluestone has a high initial cost the Council considers it is a worthwhile long-term investment.

Use this Note in conjunction with the Bluestone Paving Units Specification (see page 4 of this Technical Note).

SECTION

Note prepared by: CITY PROJECTS DIVISION

Date Published: September 1995
extent of bluestone paving in 1985
extent of bluestone paving in Jan 2014
variety versus consistency
street trees since 1993
senses
1980s
2 Sidewalk Cafes
good fit with people’s intentions
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity
6 Public participation
7 Integrated Action
8 Adaptability

= Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
1836
city block
plan

19th century
subdivision

20th century
consolidation
of land
PEDESTRIAN LINKS + LOCAL PLACES

Total Lanes, Arcades and Alleys
434

Average per Block
6

Total Through-block Links
179

Total with a Cluster of Street Art
17
Repurposing our Cities

1 Density
2 Mixed use
3 High quality public realm
4 Local Character
5 Connectivity

6 Public participation
7 Integrated Action
8 Adaptability

= Economic vitality, social cohesion and Sustainability.

Bib. Value of Urban Design – Ministry for the Environment New Zealand
total no. of pedestrians per day – middle of Swanston Street

Recording sites at Swanston St North & South, recorded significantly higher activity in 2007, compared with 2006 (14 per cent and 83 percent respectively)
Growth in no. of cyclists commuting to work in municipality has increased.

In 2015 bicycles now represent close to 16% of total vehicles on roads, footpaths and parks, in the central city up from 1% in 2002 and 4% in 2006.
Summer Cooling Mode

Temperature greater than 26°C
LIBRARY AT THE DOCK
LIBRARY AT THE DOCK
LIBRARY AT THE DOCK
DOCKLANDS DEVELOPER PRECINCTS

AY – Parcels 5B, 6 & 6A
LIBRARY at THE DOCK
Australia’s First Six Star Green Star Public Building
In Australia’s Most Sustainable Precinct

Key Features

• CLT structure 30% lighter than traditional steel/concrete frame
• Optimised passive ventilation via low level air vents and thermal chimney (atrium over main stair)
• 85 kW photovoltaic array (supplies 30% of the buildings operational power)
• 6 star green star base build and fit-out
• Low VOC and formaldehyde free materials
• External cladding/decking sourced from redundant wharf structures
• Water harvesting via 55,000 litre underground tank for toilet flushing
• Hydronic in slab heating to ground floor (rooftop gas fired boiler)
• VRV fan coils to first and second levels
• Sets a new benchmark in public library design
LIBRARY at THE DOCK
CLT Cross Laminated Timber

- CLT Structure (core, floor and roof slabs)
- Substructure – existing wharf deck
- Recycled timber façade (rainscreen)
- 3,700 m² CLT
- 2,200 lineal metres of glulam columns and beams
- Thousands of screws, nails and bolts
- Highly mechanised production process
- Simplicity – basic assembly concepts

**SUSTAINABLE**
- Carbon neutral structural option – 1m³ of timber stores 0.25lt of carbon
- Generates zero waste
- Reduced fresh water consumption
- Reduces deliveries to site (90% less)

**SAFE**
- Better work environment with less dust, less vibration noise and obstructions
- Fewer operatives on site and for a reduced period of time.
LIBRARY at THE DOCK
Design Process and Technical Detailing
It’s a Different Design/Construction Process

- All design completed up front
- 3D modelling in AutoCad/Revit
- Data File to factory manufacturing process
- Installation sequencing, Crane calculations all modelled prior to construction
- Flat-Pak material delivery (21 shipping containers)

Benefits

- Proven Speed – approx. 30% saving in construction program (structure erected in 60 days by 6 carpenters)
- Waste minimised, reduces on-site decision making and errors
- Clean and Safe (utilises power drills predominantly)
- Robust, High Quality Result
- Potential to be cost competitive
- Contractors love it, no lost time to injuries over 12 month construction period,
LIBRARY AT THE DOCK
LIBRARY AT THE DOCK
INNOVATION DISTRICT: PUBLIC REALM PROJECTS

PROJECTS UNDERWAY

1. UNIVERSITY SQUARE
   - Master plan implementation - major renewal.
   - Phase: Design Development

2. PELHAM STREET LINK - STAGE 1
   - Improved pedestrian connection and opportunity for WSUD/nature link between Carlton Squares.
   - Irrigation link supply to Lincoln stormwater tank.
   - Phase: Design Development

3. LINCOLN SQUARE
   - Concept plan to identify short and long term open space opportunities.
   - Phase: Community Engagement

4. CARLTON CONNECT
   - Community Innovation Hub Partnership project with UoM

5. QVM REDEVELOPMENT
   - Master plan implementation - major renewal.
   - Temporary Activation on Elizabeth Street.
   - Phase: Design Development

OPPORTUNITIES

6. CARDEGAN STREET
   - Current tree planting under way.
   - Future opportunity to improve bicycle & pedestrian connection.
   - Phase: Concept

7. BARRY ST / LEICESTER ST RESERVE
   - Opportunity for small urban space that also diverts and treats stormwater.
   - Phase: Concept

8. RMIT FORECOURT / URBAN SQUARE
   - Opportunity for privately owned public space within RMIT campus, aligning with Cardegan St improvements.
   - Partnership project with RMIT

Some innovation opportunities in public realm projects:

- Easy access to useful technology and information
- Spaces and facilities that are conducive to using your own technology (Chargable surfaces etc)
- Smart control - Lights, irrigation, facilities that can be remotely monitored and controlled
- Smart Monitoring - Spaces that tell us temperature, water flow, air / water quality / wind speed and frequency and time of use.
- Learning from what we do - Smart versions next to standard versions so we can monitor the difference.
- Open source / usable data and reporting
- Apps / proximity based access to static site information such as history, future projects, available facilities etc.
- Smart use of materials - solar glass in tram and bus shelters etc.