

URBAN PLACES: DYNAMICS OF CHANGE

Urban Dynamics of Change in Sydney Olympic Park, Newington, Rhodes and The Waterfront

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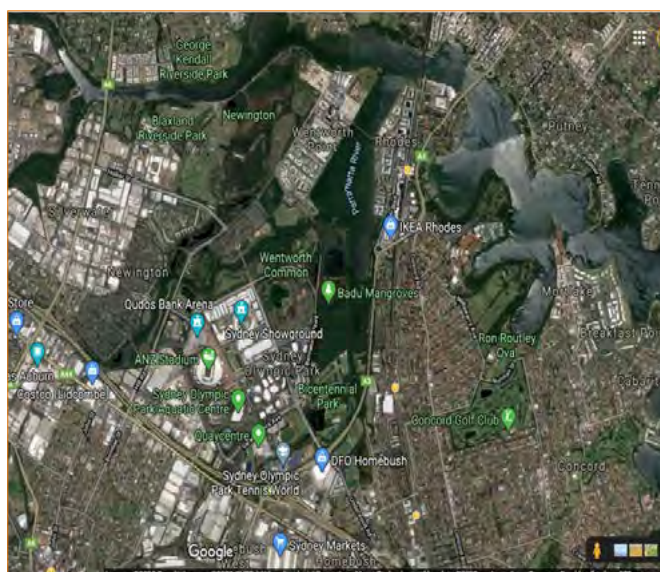
Syllabus Content

The urban dynamics of change: suburbanisation, exurbanisation, counterurbanisation, decentralisation, consolidation, urban decay, urban renewal, urban village, spatial exclusion

A case study showing one of the urban dynamics listed above, operating in a country town or suburb.

The concept of *urban dynamics* refers to the constant change and development of urban areas by any or all of the key processes; suburbanisation, exurbanisation, counterurbanisation, decentralisation, consolidation, urban decay and renewal, urban village creation or spatial exclusion. Population growth has led to an increasing need to accommodate people in urban places, particularly in Sydney. The inner western suburbs of Sydney Olympic Park, Newington, Rhodes and the relatively new inclusion of Wentworth Point are examples of areas undergoing continual and dynamic change.

Figure 1: The suburbs of Sydney Olympic Park, Newington, Rhodes and Wentworth Point are located approximately 13km from the Central Business District of Sydney. This makes them prime locations for residential and retail.



Source: Google maps

The area was once heavily focused on industry. The Sydney Olympic Park site, for example, has been home to an abattoir, armory, brick pit and assorted factories over the last one hundred years. At the turn of the century, a booming population gave rise to the need for increased industrial activity to provide resources for building homes, particularly bricks. Plastic production and chemical manufacturing emerged between the 1940s and 1960s. As a result, the adjoining Homebush Bay was thought to be the fourth most polluted waterway in the world, due to chemical and organic run-off. The high levels of pollution were especially problematic for the adjacent Badu Wetlands, a crucial home for several native species and an essential location for birds and juvenile fish. This can be covered in detail in the *Ecosystems at Risk* topic.



Source: National Library of Australia

The severe ecological damage to the precinct started to attract more attention during the 1970s and 1980s, in tandem with a greater appreciation of its potential use for future population growth. As such, a goal of remediation was planned. The first part of



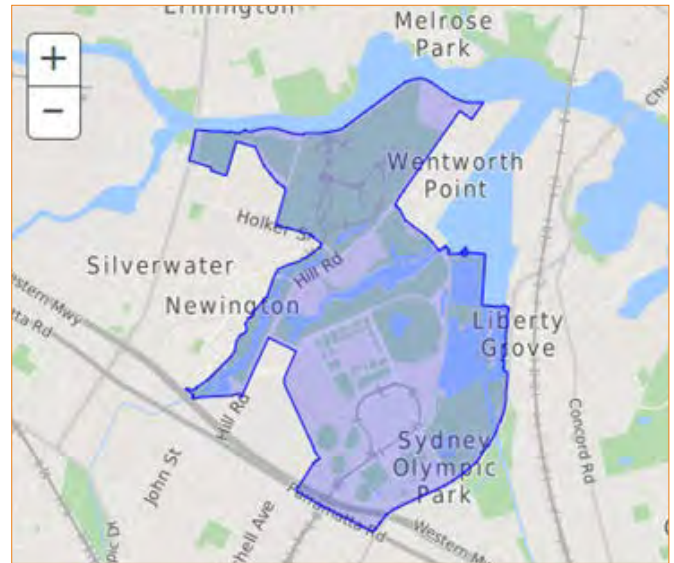
the plan was the development of Bicentennial Park in the early 1980s for the 1988 Australian Bicentenary. Construction began in 1983 with the aim to create 100 hectares of parkland to be used for the personal enjoyment of locals and tourists. The core principles were *sustainability* and longevity of the area to improve *liveability*, protect *biodiversity* and increase *air quality* by creating large areas of green space. Additionally, the area would eventually include residential, employment, conservation and recreation.

When Sydney won the 2000 Olympic Games in 1993, the site was chosen for the Games due to its proximity to the CBD and the area in its current form lacked purpose and clear vision. Thereafter, full scale remediation and development became the priority. In addition, the plan aspired to create a space that would continue to grow and evolve well after the Games had moved on, unlike many other locations of past Olympic Games.

The Games came and went, and the vision to see the area remain a vibrant urban space was followed through with vigour. This led to the development of Sydney Olympic Park as an official suburb (in 2009) to include employment, housing and greenspace for its residents and visitors. Sydney Olympic Park is 640 hectares in size, including 430 hectares of urban parkland. The Australian Bureau of Statistics cites 100% apartment living (as pictured), with a population at the 2016 census of 1,736. Additionally, the median weekly household income was \$1,768 and the median age of residents was 31.



Figure 2



Source: MapData Services

Urban renewal, adaptive reuse, urban consolidation and sustainability were paramount focus areas in the development of Sydney Olympic Park as a “go-to” location. The remediation and rezoning of the location are ideal examples of urban renewal. The area had suffered significant decay during and after the closure of industrial activity in the mid-20th century. The consolidation of unused and dilapidated areas by converting them into residential, economy and recreation was effective and led to the development of the new Sydney Olympic Park suburb. Whilst a lot of the new buildings possess a modern feel, the historic “*culture of place*” has been maintained by repurposing original heritage buildings through the process of *adaptive reuse*. For example, the main abattoir administration building is now used as the headquarters of Paralympics Australia (pictured). Similarly, what was once a naval armory is now the highly popular Blaxland Riverside Park and Arts and Culture Precinct. A final example is the adaptation of the former brickpit site into the Ring Walk (pictured). The area acts as a place of leisure, along with having significant conservational importance as vital habitat for the endangered green bell frog, along with being a catchment for water run-off.



LEFT: High-rise development, Sydney Olympic Park

FAR LEFT: Abattoir heritage precinct, Sydney Olympic Park. Source: Wikimedia

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Brickpit Ring Walk



Blaxland Riverside Park and Arts and Culture Precinct

Principles of sustainability have been given high priority in the design of Sydney Olympic Park. Effective examples of environmentally sound practices are scattered all over the location and often without being obvious. Examples include:

Specialised building designs – the Lion building incorporates solar panels and principles of energy efficiency, earning it a five-star sustainability rating. Similarly, the Sydney Olympic Park train station's leaf-shaped roof (pictured) maximises run-off and the entry of sunlight. The Qudos Bank Arena's roof is insulated with used phone books, demonstrating a novel and unique form of recycling.



Olympic Boulevard pavement and tree planting



Sydney Olympic Park station entrance. Source: Wikimedia Commons

The **Sydney Olympic Park 2030 Master Plan** is the key document focusing on the *future directions* and plans for the precinct. This prospectus outlines the ambition to continue the development of Sydney Olympic Park as a key location for lifestyle, employment, recreation and environmental sustainability. The location of SOP, a short distance from the commercial centre of Parramatta, means that it is a sensible choice for residential and economic development. The Plan aims to make SOP a go-to location by building 10,000 new homes for 23,500 new residents, to cater for 34,000 new jobs and 100,000m² of retail space. This will be pursued with high standards of liveability and economic growth in mind. The SOP Authority wants to stand true to the goal of ensuring the longevity of the location long after the Games, and also be a leader in the development of urban places that offer an attractive lifestyle, as well as the necessary amenities for everyday life.

Infrastructure designs – many areas around the precinct have been designed to maximise run-off to the purpose-built on-site Water Reclamation Plant. Collected run-off is recycled and reused throughout Sydney Olympic Park, Newington and Wentworth Point. Design features include sloped pavement toward the centre of Olympic Boulevard (pictured), gutter breaks to allow water to flow into the drains with ease and permeable pavement (pictured) around deciduous trees to allow temperature regulation in the restaurant zone.

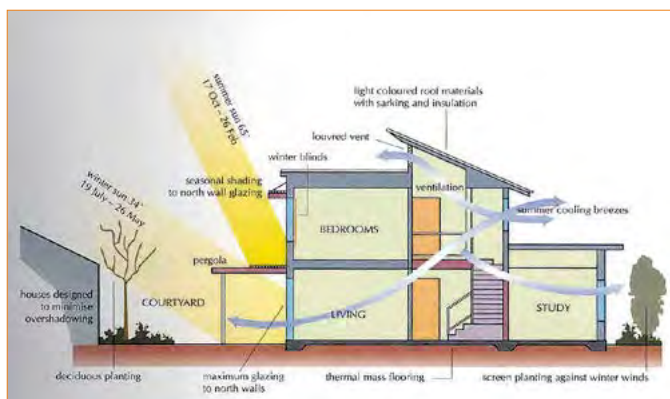
RIGHT: Sydney Olympic Park lighting and landscaping. Source: Wikimedia Commons





Neighbouring suburbs

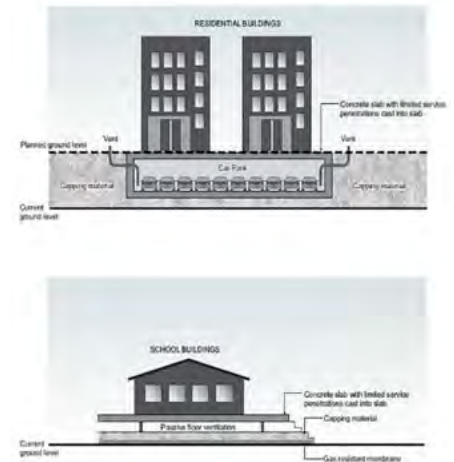
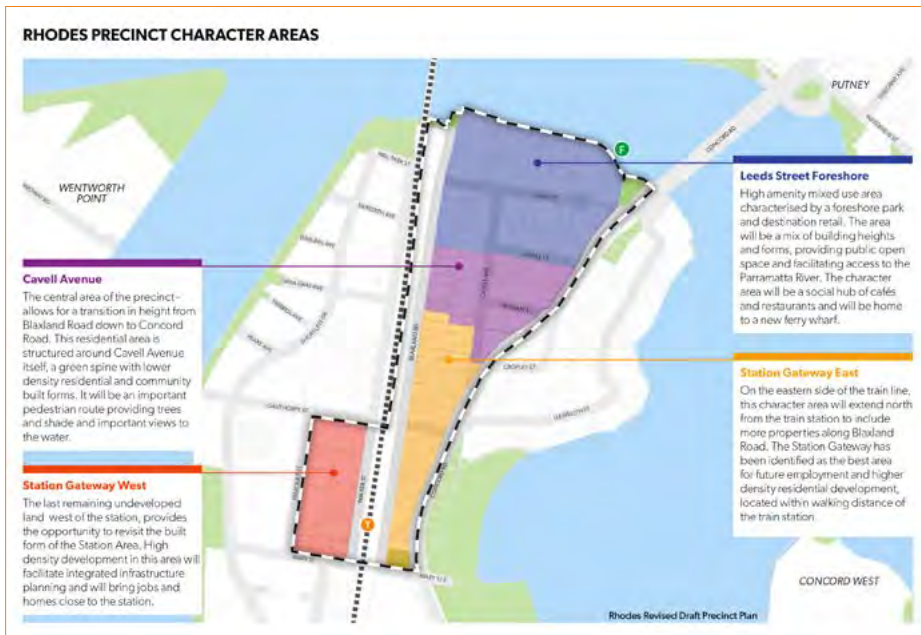
The suburb of **Newington** was the home of the athletes during the Sydney Olympic Games. Whilst originally designed for the Games, there was always an aim to sell the residential facilities and create a suburb that thrived long after the year 2000. Central to its design were principles of sustainability and liveability for residents. It was built to include the use of recycled water from the SOP Water Reclamation Plant, and a focus on solar energy with a move away from air conditioning. Also, Newington was created under Community Title, one of the first such developments in Australia, and as such has very strict rules regarding the use of space and the architectural design of the suburb. Mixed density residential was a priority and houses were specially designed to make use of natural ventilation, access to sunlight (diagram pictured) and the surrounding greenspace. There is widespread use of natural gas within homes, and during construction effort was taken to minimise construction waste. Newington has continued to grow since the Games and is now home to 5,802 people, almost double the population in 2001 when the suburb first welcomed private residents. Newington now supports thriving Chinese and Korean populations, creating a sense of community for newer Australians and a distinct *culture of place*.



Another nearby location, **Rhodes**, is an example of urban renewal. The area was once a place to manufacture cast iron pipes for gas and city water reticulation purposes, however, redevelopment in the 2000s has led to the creation of a highly popular mixed use precinct. Major remediation was required to make the site habitable, and now includes an abundance of employment and economic land nestled between surrounding parklands and Homebush Bay. Rhodes covers only one square kilometre but has a population of 11,906 (an increase of 10,000 from 2006) with a median weekly household income of \$1693 as per the 2016 census. The original design principles limited residential buildings to no more than five storeys in height, ensuring residents did not feel overcrowded while maintaining the general aesthetic of the area. However, changes to this plan have led to higher density developments, increasing the population and the demand for services, particularly transport infrastructure. The Bennelong Bridge opened in 2016 to increase pedestrian access to the SOP and surrounding parklands, while simultaneously providing residents of Wentworth Point easier access to train services. Future plans for Rhodes include more greenspace, increasing density and the creation of more mixed use areas, as pictured. Whilst the skyline of the area will change dramatically, there is an emphasis on maintaining the character of the area and a focus on environmental sustainability.



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Source: <https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/Rhodes/rhodes-revised-draft-precinct-plan-part-2-2018-12-07.pdf>

Finally, a quick look at the nearby **Wentworth Point**, with a population of 6,994 and a median weekly household income of \$1,877, as a prime example of **urban renewal and consolidation**. What was once a site for industry has quickly become a thriving example of urban consolidation.

Since 2014, warehouses and manufacturing infrastructure have made way for a mixed-use urban activation precinct. The plan is still in motion but thus far has incorporated several key design features, such as:

- Plenty of open space, utilising the nearby SOP and the creation of a new Peninsula Park;
- Community facilities including the expansion of the existing community centre and the shared use of parks and fields with the newly created Wentworth Point Public School;
- Building essential infrastructure such as transport and education, including the Bennelong Bridge and increasing ferry access to SOP. There is also new cycle and pedestrian walkways to encourage non-car related travel;

- Affordable housing is being considered with Housing NSW aiming to take ownership of an allocated number of dwellings;
- Improved retail access as part of the mixed-use design to encourage the development of a unique 'culture of place' as a location of nightlife and cafes; and
- Sustainable design principles such as permeable surfaces, recycled water from the SOP Water Reclamation Plant and restricted building height to reduce shadow and improve liveability. Furthermore, buildings have been designed to maximise natural air flow and ventilation, as shown in the image. Site decontamination and remediation was required prior to construction due to increased sulfate and acid levels.

To conclude, the suburbs of Sydney Olympic Park, Newington, Rhodes and Wentworth Point were developed to maximise the use of existing land and create more residential and mixed-use opportunities to curb the ever growing issue of urban sprawl in Sydney. All are effective examples of urban dynamics and the constant change of urban morphology. Sydney Olympic Park runs several excursions and the Stage 6 Urban Places Excursion is highly recommended and is an excellent way to see all these processes in action.



Sanctuary Apartments, Wentworth Point



Bennelong Bridge, linking SOP & Wentworth Pt. Source: Wikimedia Commons