

FEDERATION SQUARE

Melbourne, Australia

Date

1998 - 2002

Architect

ab + Bates Smart

Project Value

A\$ 200m

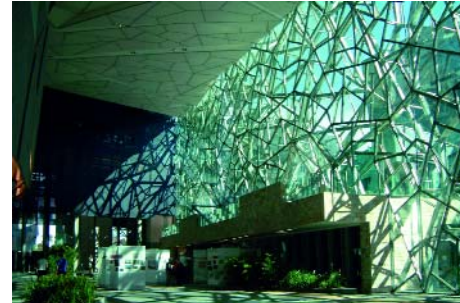
Project Status

Completed 2002

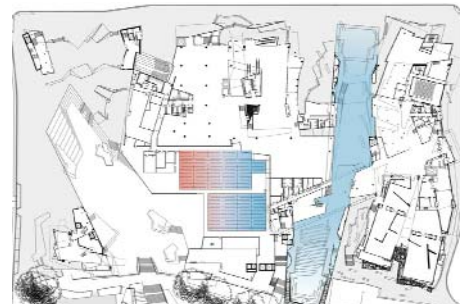
Federation Square, Melbourne, is the major arts and media development in the state of Victoria, Australia. Atelier Ten won the competition with architects Lab + Bates Smart to environmentally engineer and design the buildings in the complex.

Federation Square will be the home to the new Museum of Australian and Aboriginal Art as well as the National Film Archive and Cinemedia Centre and numerous other arts and cultural bodies.

The scheme set out with a strong commitment to environment and energy and this was a key part of the brief. The large glazed atria presented a particular design challenge to eliminate overheating without using cooling.



Internal view of façade (above)



Labyrinth level plan, showing Labyrinth (centre) cooling air for the atrium (right) (image above)



Labyrinth walls (above); Night view of Federation Square (below)



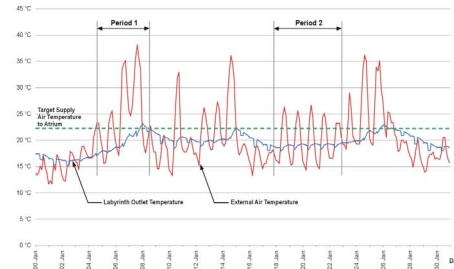
atelier ten

FEDERATION SQUARE
Melbourne, Australia

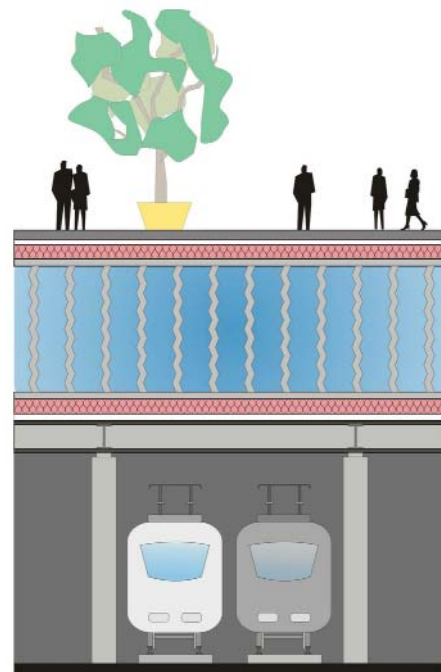
As at the Earth Centre a thermal labyrinth has been employed to exploit diurnal temperature variations to provide the necessary cooling.

The scheme also includes a central cogeneration plant with absorption chillers for efficient power generation. Heating and cooling plant is located away from the buildings for simple maintenance.

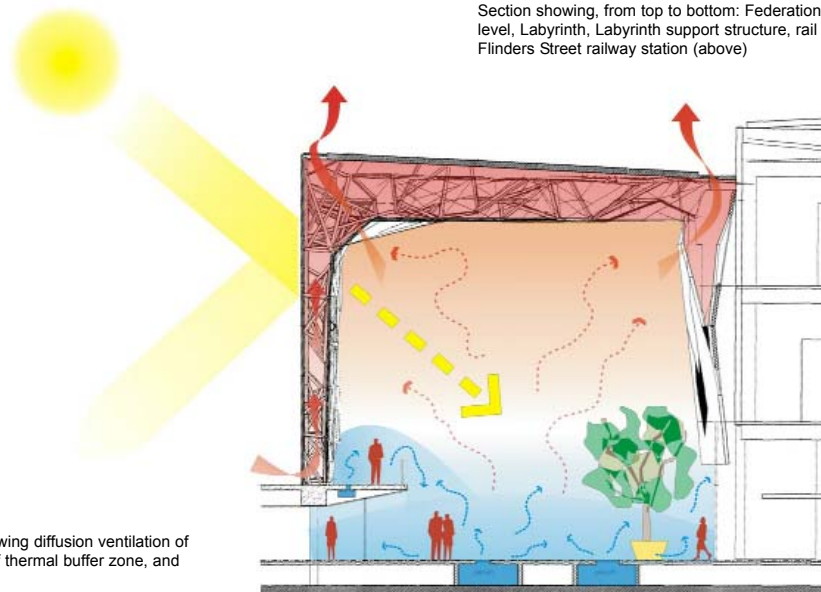
All galleries are conditioned using displacement cooling for optimum energy efficiency and all air handling and reticulation plant use variable speed drives to match delivery to load.



Graph showing summertime labyrinth output temperatures vs. outdoor temperatures



Section showing, from top to bottom: Federation Square plaza level, Labyrinth, Labyrinth support structure, rail lines into Flinders Street railway station (above)



Section through main atrium, showing diffusion ventilation of main space, passive ventilation of thermal buffer zone, and reduction in solar gain

atelier ten