

RP2005: URBAN MICORCLIMATES: PHD #5 MITIGATING THE URBAN HEAT ISLAND EFFECT WITH URBAN GREENERY IN AUSTRALIAN CITIES: POLICY AND COMMUNICATION

Problem

The urban heat island effect is caused by removal of vegetation, by building materials and pavings, and by heat produced from vehicles and other machinery (Fig. 1). Heatwaves, exacerbated by the urban heat island effect, impact a city's liveability, economic activity, infrastructure and delivery of public services.

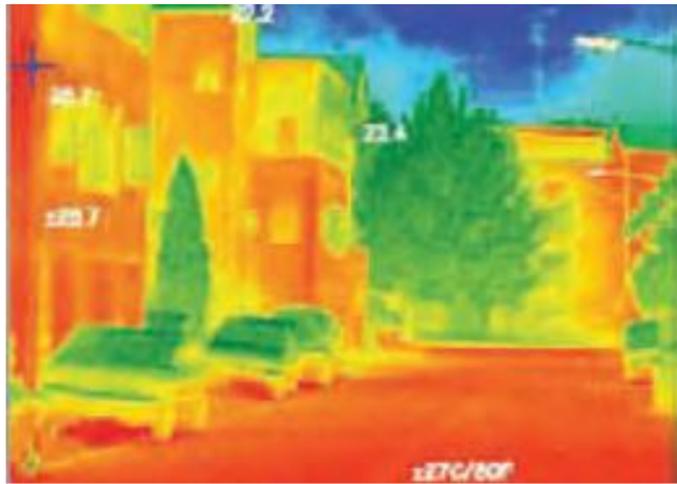


Figure 1 Thermal imaging at street level.
Source: City of Melbourne, 2012 Urban Forest Strategy

Approaches to mitigation fall within five categories: vegetation, water, built form, materials and precinct design. Urban greenery, as well as mitigating the urban heat island effect, also provides a wide range of other 'ecosystem services' (Fig. 2).

Whilst there is a growing body of research on the urban heat island effect, there has been little research on the development of policy for mitigation of the urban heat island effect.

Solution

Within theories of sustainability transitions, urban greenery policies can be framed as emerging socio-technical innovations (Fig. 3).

This research will analyse the role of policy and communication in the retention and expansion of urban greenery in Australian cities, and test how theories of sustainability transitions facilitate the policy process, as part of a broader shift to an overarching ecological worldview.

Urban greenery can mitigate urban heat, as well as fulfilling many other roles in cities.



Figure 2 Parklands mitigate urban heat, and provide multiple other biophysical and social functions. Photo: J Bush

Benefits

This research will contribute to understandings of the policy mechanisms for urban greenery, and the supporting practices and processes for knowledge translation between distinct disciplines and communities, expanding trans-disciplinary endeavours to protect and increase urban greenery.

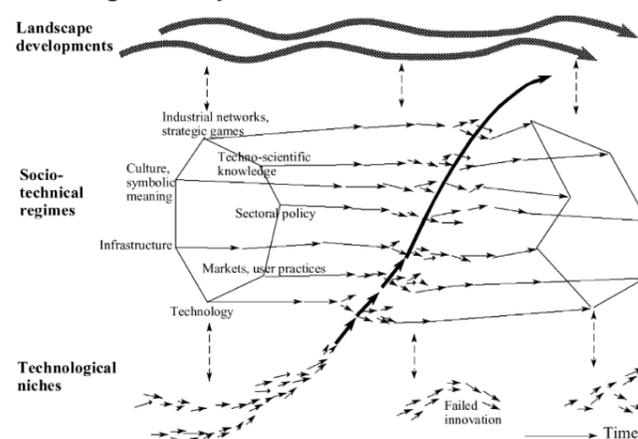


Figure 3 A multi-level perspective on pathways of sustainability transitions. Source: Geels, 2002, Research Policy, 31, 1257-74

A call to action: after reading this poster, please plant a tree - and watch it grow!

Contact

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