

Unlocking the secrets of street ambience

Written by Nick Patorniti, Researcher, Centre for Human Factors and Sociotechnical Systems, University of the Sunshine Coast



While many urban design guidelines include ambience as a required 'city quality', few provide ways to achieve it. Ayrcaan/flickr, [CC BY](#)

What makes a city street “tick”? What gives it that essential but elusive quality of a desirable “ambience”?

Our research uses global data to describe how to achieve the ideal functions of a main street. We have done this by developing a [systems abstraction hierarchy](#), which allows a main street to be explored as an interdependent system across many levels.

The project to date has described hundreds of main street components and linkages within the one model. This allows us to explore the impact of a range of technical or quantitative measures, such as “economic diversification”, as well as the influence and outcomes of necessarily subjective measures like “liveability”.

Why does this matter? Unlocking the complexity of cities and understanding why and how they function is fundamental to successful redevelopment. Our research explores that complexity with a focus on redeveloping downtown main streets.

Do we really need infill development?

Our global survey shows that built environment professionals agree these urban centres must be developed as connected, cultural and economic hubs, which serve as healthy and safe places for people.

Urban renewal of existing cities is becoming increasingly urgent. With a limited supply of land, no amount of urban sprawl can accommodate the rapid urbanisation of the world’s growing population.

Unlocking the secrets of street ambience

Written by Nick Patorniti, Researcher, Centre for Human Factors and Sociotechnical Systems, University of the Sunshine Coast

In 1800, 2% of the global population lived in urban centres. [Today it is 54%](#) . By 2050, it will be closer to 65% – 6.5 billion people living in cities worldwide.

New ways of understanding the capacity and best use of urban land and infrastructure are required. A recent release of the [UN-Habitat World Urban Campaign](#) called for comprehensive systems approaches to developing cities. Our research is doing just that by looking for better ways to undertake infill development in main streets.

How does a street system create ambience?

While many urban design guidelines include ambience as a required “city quality”, few provide ways to achieve it. However, from a systems perspective, we can establish that ambience is a result of a whole range of processes and physical objects.

Let’s examine and describe what needs to be done, how and why, to achieve something as subjective as [ambience](#)

For example, in the diagram below, ambience is “what” we are interested in. The data tell us “how” it is optimally achieved through many factors: screening, greenery, illumination, aesthetic interest, surfaces for sitting, surfaces for play, places to meet and wait, street-level food, drink and entertainment, and human activity.

Moving up to the values and measures, it is possible to identify “why” ambience is important to a main street: to manage light and noise pollution, and traffic volumes, and to enhance liveability, safety and air quality.

Further, the data tell us that, within the system, ambience is an important component of the social, perceptual quality and environment functional purposes at the very top of the model.

At the base, we can see which physical objects the data identified as necessary to establish ambience. For example, shade trees, feature lighting, seating, information signs, public art, street performers and so on all contribute to ambience.

Unlocking the secrets of street ambience

Written by Nick Patorniti, Researcher, Centre for Human Factors and Sociotechnical Systems, University of the Sunshine Coast



Are these commonsense observations?

The unfortunate reality is city design currently doesn't undergo this level of consolidated scrutiny. City design processes fail to consider all components and subsequent effects – good and bad.

A systems approach allows for targeted interventions that optimise cities and identify the potential for infill development. It provides an understanding of the components, how they function together and how it can go wrong. This new knowledge provides insights into all the elements involved in giving the city a “tune-up”.

The future success of our cities hinges on a higher level of understanding to tackle the complexities of global urbanisation.

Nick Patorniti works for GHD (international consulting services company) and currently receives industry research funding.

Nicholas Stevens is affiliated with Planning Institute of Australia.

Authors: Nick Patorniti, Researcher, Centre for Human Factors and Sociotechnical Systems, University of the Sunshine Coast

Read more <http://theconversation.com/unlocking-the-secrets-of-street-ambience-72662>