

Towards an Interface Index

Alain Chiaradia and Edja Trigueiro

Space Syntax Limited, UK.
a.chiaradia@spacesyntax.com.

Abstract

Current crime prevention theories identify the interaction of three entities - target, offender, and the mediating environment - as the analytical focus from which solutions for reducing certain crimes types can be derived. The understanding of how environmental features act as intervening factors between offender and target is conceptualised through a rational choice theory of offenders that underpins most studies. Rational choice theory focuses on the immediate decision making process of potential offenders, while situational crime prevention analyzes actions with the aim to reduce opportunities by “designing out crime” through measures that will increase risk and effort, and decrease rewards. Tactics involve different scales of environmental and spatial design or redesign, often referred to as Crime Prevention through Environmental Design (CPTED) . Previous space syntax research, acknowledged in a guide published by the Office of the Deputy Prime Minister (ODPM) and the Home Office, contribute to the CPTED debate by showing important correlations between level of relative spatial accessibility, spatial morphologies and specific crime patterns.

The paper presents a morphological study of housing estates in Stockwell, South London, in the perspective of CPTED. The study hypothesis is anchored on findings from previous configurational spatial analysis (Hillier 2002, Shu & Hillier, 2000). However, for statutory reasons, the quality of the crime records disclosed by the police make it impossible to develop a precise spatial analysis similar to Shu et al. This led to formulation of the current model for assessing environmental potential for crime, or a interface index, which is to be rooted on a robust ensemble of evidence-based research. In project design scenario evaluation, the inherent absence of records, ranked potential interface index maps provide a structured framework in decision making processes as well as architectural and urban design training. In research situations of existing design, such an index is thought to be useful when precise data are not available due to the Data Protection Act or other restriction. This conjectural approach could posteriorily be tested against precise crime record data by those with access.

Preliminary results revealed morphological changes analogous to those identified in Summers Town, North London, by Hanson (2000), who characterised them as a change “from streets which seem rather similar to one another to housing estates which seem very different from one another.” They also show that the metric analysis of “constitutedness”, detailed land uses, and density provides a vivid picture of changes in the street level interface map. Finally, it is conjectured that the most difficult part of creating a interface index will be to establish the interaction and weighting of the factors outlined above.

Literature

- CURTIN, L., TILLEY, N., OWEN, M., PEASE, K. (2001) Developing Crime Reductions Plans: Some example from the reducing burglary initiative, Crime reduction Research Series paper 7, Home Office.
- DESYLLAS, J., CONNOLY, P., HEBBERT, F. (2003) Modelling natural surveillance, in: *Environment and Planning B: Planning and Design*, Vol. 30(5) September, p. 643 - 655.
- HANSON, J. (2000) Urban transformations: a history of design ideas, in: *Urban Design International*, 5, p. 97-122.
- HILLIER, BILL, (2002) Can streets be made safe?, 5th Symposium of the IUPEA, Creating Sustainable urban environments, Future Forms for City Living, 23-26 Sept 2002, Oxford.
- HOUGH, M., TILLEY, N. (1998) Getting the grease to the squeak, research lessons for crime prevention, Crime Detection and Prevention Series paper 85, Home Office.
- LLEWELYN, D. & HOLDEN M. PARTNERSHIP. (2004) Safer Places, The planning System and Crime prevention, Home Office, Office of the Deputy Prime Minister.
- SHU, S., HILLIER, B. (2000) Crime and urban layout: the need for evidence, Institute for Public Policy Research (IPPR). 'Key Issues in Crime Prevention, *Crime Reduction and Community Safety* (eds. Ballantyne S, MacLaren V, Pease K).
- TILLEY, N., LAYCOCK, G. (2002) Working out what to do: Evidence-based crime reduction, Crime reduction Research Series paper 11, Home Office.