SPATIAL DATA ANALYSES
OF URBAN LAND USE AND ACCESSIBILITY

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The opportunity to interact is a strong organizing element in human activity patterns. In this Ph.D. thesis the author attempts to uncover aspects of the relation between interaction opportunities over long distances, local interactions and human activity patterns, using state-of-the-art methods and often newly available geographic data.

The studies forming this thesis revolve around:
1. Methodological aspects of the relationship between long-distance interaction opportunities, local interactions and urban land-use patterns.
2. The driving forces and rationale behind the geographic expansion of overland transport networks.
3. The role that land-use patterns, local and/or long-distance interaction opportunities play in current spatial planning dilemmas.

The chapters in this thesis offer insights into the effects of the so-called Modifiable Areal Unit Problem; the expansion of the Dutch railway network in the 19th century; the effects of land-use density and mixing on human activity patterns; the effects of national borders on municipal population growth; and on evaluating the effectiveness of future road network investments when people are assumed to move.

About the author
Chris Jacobs-Crisioni graduated in spatial planning in 2007. Since his graduation he has developed a special interest in large dataset handling, quantitative analysis techniques and mapping, and he has developed GIS applications, transport and land-use models. He has worked as a GIS consultant in the transport sector and as a researcher at the VU University Amsterdam’s SPINlab and the European Commission’s Joint Research Centre. He is currently working as an independent researcher with his own company, Bureau Jacobs-Crisioni.