

Customer-oriented approach in cadastral procedures – Case study from Finland

This paper is presenting research on with possibilities and benefit of applying a customer-oriented approach in public cadastral procedures. Public service providers have raised awareness towards customer-oriented approaches in their procedures during recent decades. This study discusses the relevance of adopting a new approach in cadastral procedures by presenting a new method to obtain a subdivision procedure. This is done by conducting a literature review followed by a description of this new method in Finnish local government, the city of Tampere. After that, the study presents views of customers involved in the procedure collected by interviews. The results show that customers of the subdivision process value direct contact with authorities to ensure their interests to be taken into consideration. Eventually, the study proves that new co-operative methods with and within authorities are essential as well re-evaluating organisational culture values and methods.

General information

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Organisations: Civil Engineering, Aalto University
Contributors: Sulonen, K., Riekkinen, K., Kotilainen, S.
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Keywords: Cadastre, Customer-orientation, Land use, Public processes, Real property development
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Urban housing density and infrastructure costs

Urbanisation is one of the most significant global megatrends and, as a result, major cities are facing multiple challenges. In this study, we contribute to the sustainable urban development debate and examine the relation between housing density and infrastructure costs. The analysis is based on four hypothetical design prototypes and a consistent cost calculation framework. Based on the results, infrastructure costs per capita are the highest in low-density areas and the lowest in high-density areas, if parking is excluded. However, if also construction costs of parking structures are included, the costs per capita are the highest in high-density areas. Considering the notably high cost impact of parking structures and people's limited willingness to pay for parking, municipally zoned parking requirements in urban areas are likely to result in non-optimal land use. Furthermore, construction in poor soil conditions may only be considered feasible if the floor area ratio and residential densities are relatively high. Beyond the cost benefits, the number of residents that may be accommodated is crucial and higher density in central urban locations should be promoted. We also suggest the cost of urban greenness to be reasonable relative to its many reported benefits and conclude that denser urban structure should not be pursued at the expense of green spaces.

General information

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Organisations: Civil Engineering, Research group: Responsible Construction
Contributors: Kurvinen, A., Saari, A.
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Publication information

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Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Renewable Energy, Sustainability and the Environment, Management, Monitoring, Policy and Law

Keywords: Floor area ratio, Green spaces, Infrastructure costs, Parking, Residential density, Urban housing density

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Research output: Contribution to journal › Article › Scientific › peer-review

Improved water services cooperation through clarification of rules and roles

Water services face global challenges, many of which are institutional by nature. While technical solutions may suit several situations, institutional frameworks are likely to vary more. On the basis of constructive research approach and new institutional economics we analyze and illustrate water services and the roles of various water sector actors in Finnish water utility setting using the "soccer analogy" by the Nobel Laureate D.C. North: Institutions are the "formal and informal rules of the game" while organizations are the "players". Additionally, we assess the Finnish water governance system and discuss issues of scale and fragmentation and distinguish terms water provision and production. Finally, we elaborate the limitations of the soccer analogy to water services through ownership of the systems. According to the soccer analogy, inclusive institutional development requires skillful players (competent staff), team play (collaboration), proper coaching (education), supporters (citizens, media), managers (policymakers), and referees (authorities). We argue that institutional diversity and player/stakeholder collaboration are the foundation for enhancing good multi-level water governance, and that water management, although fragmented, should be seen as a connector of different sectors. For successful outcomes, scientific results should be communicated to public in more common language.

General information

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Organisations: Civil Engineering, Research group: Capacity Development of Water and Environmental Services CADWES

Contributors: Inha, L. M., Katko, T. S., Rajala, R. P.

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Publication information

Journal: Water (Switzerland)

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Ratings:

Scopus rating (2019): CiteScore 3 SJR 0.657 SNIP 1.074

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ASJC Scopus subject areas: Biochemistry, Geography, Planning and Development, Aquatic Science, Water Science and Technology

Keywords: Good governance, Institutional diversity, Institutions, Rules and roles, Soccer analogy, Stakeholder collaboration

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Research output: Contribution to journal › Article › Scientific › peer-review

Building university-industry co-innovation networks in transnational innovation ecosystems: Towards a transdisciplinary approach of integrating social sciences and artificial intelligence

This paper presents a potential solution to fill a gap in both research and practice that there are few interactions between transnational industry cooperation (TIC) and transnational university cooperation (TUC) in transnational innovation ecosystems. To strengthen the synergies between TIC and TUC for innovation, the first step is to match suitable industrial firms from two countries for collaboration through their common connections to transnational university/academic partnerships. Our proposed matching solution is based on the integration of social science theories and specific artificial intelligence (AI) techniques. While the insights of social sciences, e.g., innovation studies and social network theory, have potential to answer the question of why TIC and TUC should be looked at as synergetic entities with elaborated conceptualization, the method of machine learning, as one specific technique of AI, can help answer the question of how to realize that synergy. On the way towards a transdisciplinary approach to TIC and TUC synergy building, or creating transnational university-industry co-innovation networks, the paper takes an initial step by examining what the supports and gaps of existing studies on the topic are, and using the context of EU-China science, technology and innovation cooperation as a testbed. This is followed by the introduction of our proposed approach and our suggestions for future research.

General information

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Contributors: Cai, Y., Ferrer, B. R., Lastra, J. L. M.

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Research output: Contribution to journal > Article > Scientific > peer-review

The potential of biomethane in replacing fossil fuels in heavy transport-a case study on Finland

Electrification is a frequently discussed solution for reducing transport related carbon dioxide emissions. However, transport sectors such as aviation and heavy-duty vehicles remain dependent on on-board fuels. Here, biomethane is still a little exploited solution, and the case of heavy-duty vehicles is particularly underappreciated despite the recent technical advances and potentially notable emission reductions. This paper discusses the potential of biomethane in heavy-duty road transport in the case of Finland, where the utilization rate is low compared to the technical potential. To this end, the potential of biomethane production through both anaerobic digestion and gasification was calculated in three scenarios for the heavy-duty transport fleet, based on the literature values of biomethane potential and truck class fuel consumption. The authors find that approximately half of the heavy-duty transport in Finland could be biomethane fueled by 2030. The estimated production costs for biomethane (81-190 €/MWh) would be competitive with the current consumer diesel price (152 €/MWh). Utilizing the total biomethane potential in heavy-duty transport would furthermore decrease the respective carbon dioxide emissions by 50%. To accelerate the transition in the heavy-duty transport sector, a more comprehensive political framework is needed, taking into account both production and consumption.

General information

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MoE publication type: A1 Journal article-refereed

Organisations: Research group: Bio- and Circular Economy, Materials Science and Environmental Engineering, MAB

Powertec Oy, Tampere University

Contributors: Pääkkönen, A., Aro, K., Aalto, P., Konttinen, J., Kojo, M.
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ASJC Scopus subject areas: Geography, Planning and Development, Renewable Energy, Sustainability and the Environment, Management, Monitoring, Policy and Law

Keywords: Anaerobic digestion, Biomethane, Carbon emission reduction, Finland, Heavy-duty transport, Renewable transport fuels, Transition, Wood gasification

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Research output: Contribution to journal > Article > Scientific > peer-review

Built environment determinants of pedestrians' and bicyclists' route choices on commute trips: Applying a new grid-based method for measuring the built environment along the route

To better understand the role of the built environment in route choices among pedestrians and bicyclists, this study explores the built environment distribution along commute routes in two neighbourhoods in Tampere, Finland. A new grid-based method is developed to enable a more sophisticated analysis of the built environment along the route. The data consist of 73 commute routes collected with the Sports Tracker® smartphone application, of which 18 are made by foot and 55 by bicycle. To find the most relevant spatial scale, the values of each built environment variable are calculated with five buffer sizes for each cell of the grid covering the research area. Five statistics describing the distribution of the built environmental variables along each shortest and actual route are then calculated and compared. The results show that besides determining whether a significant association is found, different spatial scales for the analysis produce dissimilar findings in strength and even the direction of the correlations found. The most significant associations are found mainly with the smallest buffer (15m). Of the five built environment statistics calculated, the mean value of most built environmental variables had the most consistent correlation with route choice. Also, standard deviation and the third quartile of several built environmental variables along the routes correlate with route choice. The most significant associations with route choice are found with intersection density, institutional land use, slope, and age of buildings.

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Organisations: Architecture
Contributors: Sarjala, S.
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ASJC Scopus subject areas: Geography, Planning and Development, Transportation, Environmental Science(all)

Keywords: Active transport, built environment, commute, GIS, GPS, route choice

DOIs:

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Research output: Contribution to journal › Article › Scientific › peer-review

Technology valuation method for supporting knowledge management in technology decisions to gain sustainability

New technologies have major effects on the profitability of companies and the economic growth of society. If appropriate technologies can be routinely selected, then it is possible to achieve sustainability at a company level. Knowledge management (KM) can be used to support technology decision making and give an understanding of the potential of particular technologies in a specific business environment. In this study, the design research methodology (DRM) is used with three case studies in an industry environment to develop and evaluate a novel technology valuation method (TVM). The proposed six-step TVM focuses on the acquisition, modeling, and validation of product-related knowledge to support KM related to technology decisions. The contribution of this research is to use distinctions between product properties and behaviors with a disposition toward understanding the potential of technology. During the process, tacit knowledge is made visible and documented, which supports the reliability of technology decisions and enables companies to gain sustainability.

General information

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Organisations: Automation Technology and Mechanical Engineering, Sandvik Mining and Construction Oyj

Contributors: Mämmelä, J., Juuti, T., Julkunen, P.

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ASJC Scopus subject areas: Geography, Planning and Development, Renewable Energy, Sustainability and the Environment, Management, Monitoring, Policy and Law

Keywords: Knowledge management, Manufacturing industry, Sustainability, Technology, Technology decision, Technology valuation

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Research output: Contribution to journal › Article › Scientific › peer-review

A comparative analysis of global datasets and initiatives for urban health and sustainability

Globally, urban populations are growing rapidly, and in most cases their demands for resources are beyond current limits of sustainability. Cities are therefore critical for achieving national and international sustainability objectives, such as greenhouse gas reduction. Improving sustainability may also provide opportunities for urban population health co-benefits by reducing unhealthy exposures and behaviours. However, there is currently sparse empirical evidence on the degree to which city characteristics are associated with variations in health-related exposures, behaviours and sustainability. This paper examines the feasibility of aggregating empirical data relating to sustainability and health for global cities. An initial scoping review of existing English-language datasets and networks is performed. Resulting datasets are analysed for data types, collection method, and the distribution of contributing cities across climates, population sizes, and wealth. The review indicates datasets are populated using inconsistent methodologies and metrics and have poor overlap of cities between them. Data and organisations tend to be biased towards larger and wealthier cities, and concentrated in Europe and North America. Therefore, despite vast amounts of available data, limitations of reliability, representativeness, and disparate sources mean researchers are faced with significant obstacles when aggregating data to analyse the sustainability and health of globally representative samples of cities.

General information

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MoE publication type: A1 Journal article-refereed

Organisations: University College London, London School of Hygiene and Tropical Medicine, The Energy and Resources Institute India, Fiocruz Bahia

Contributors: Taylor, J., Haines, A., Milner, J., Davies, M., Wilkinson, P., Sehgal, M., Singh, K. N., Barreto, M., Vianna, N., Teles, C.

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Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Renewable Energy, Sustainability and the Environment, Management, Monitoring, Policy and Law

Keywords: Data, Health, Organizations, Sustainability, Urban

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Research output: Contribution to journal › Article › Scientific › peer-review

Radon, fungal spores and MVOCs reduction in crawl space house: A case study and crawl space development by hygrothermal modelling

In this case study was to investigate how ventilation of the crawl space will influence on concentrations of radon, fungal spores and MVOCs in the crawl space and indoors of detached house. The crawl space pressurisation by exhaust air from indoors was successful to prevent the convective flow of radon from the soil, but it increased microbial growth in the crawl space. After installation of the supply and exhaust ventilation in the crawl-space and in the living space, the concentrations of fungal spores in the crawl space and also entry of radon and MVOCs into a house decreased. A microbiologically safe crawl space was determined with hygrothermal simulation utilizing the Finnish Mould Growth Model and a two year examination period. The optional structures of the crawl space being depressurised with exhaust ventilation included an open base uncovered ground and various air-sealed closed structures. When mould growth of building materials was at medium resistant sensitivity class, mould was not observed during different air change rates in any of the examined structures. Open base uncovered gravel ground is a functional solution of a crawl space, only when there are no organic materials. The air-sealed ground structure is recommended build with concrete + insulation and when air exchange rate (ach) varied from 0.2 to 1 h⁻¹. A concrete ground in the crawl space having ach from 0.2 to 0.6 h⁻¹ is also very effective. XPS insulation and plastic sheet covered ground are not recommendable due to their high mould index.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Civil Engineering, Ramboll Finland Ltd., Ita-Suomen yliopisto

Contributors: Keskikuru, T., Salo, J., Huttunen, P., Kokotti, H., Hyttinen, M., Halonen, R., Vinha, J.

Number of pages: 10

Pages: 1-10

Publication date: 15 Jun 2018

Peer-reviewed: Yes

Publication information

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Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: Air change, Crawl space, Ground covers, Modelling, Mould growth, Radon

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Source: Scopus

Source ID: 85046008041

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Beyond the City Limits

General information

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MoE publication type: D2 Article in professional manuals or guides or professional information systems or text book material

Organisations: Politecnico di Milano, Universidad Camilo José Cela

Contributors: Rubio Hernandez, R., García García, M.

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Place of publication: Madrid

Publisher: Universidad Camilo José Cela

Editors: Díaz-Camacho, M. Á., García Triviño, F. A.

ISBN (Print): 978-84-95891-76-1

ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development

Keywords: Neighbourhood, Development, Regeneration

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Professional

Creativity

General information

Publication status: Published

MoE publication type: D2 Article in professional manuals or guides or professional information systems or text book material

Organisations: Universidad Camilo José Cela

Contributors: Rubio Hernandez, R.

Pages: 330-335

Publication date: 2018

Host publication information

Title of host publication: Geourbanismos : Inventario de la ciudad emergente

Publisher: Universidad Camilo José Cela

Editors: Díaz Camacho, M. Á., Toral Guinea, M.

ISBN (Print): 978 84 95891 73 0

ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development

Keywords: Creative Cities

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Professional

Examining the rhythms of 'urban elements' on walking and driving routes in the city

The article follows Kevin Lynch's renowned formulation of 'urban elements' to examine the mobilities, experiences and materialities on ordinary routes in the city. Utilizing route narratives and participant-produced visual data, the article focuses on various identifiable micro-temporalities and mobility rhythms on repeated walking and driving routes, building on Henri Lefebvre's notion of 'rhythmanalysis'. The article examines how a framework built around rhythm and urban elements can add to the analysis of contemporary urban sites from the perspectives of situated mobile contexts, noting sequences and polyrhythmia as central temporal characteristics in the body-environment relations.

General information

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Contributors: Tartia, J.
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Original language: English
ASJC Scopus subject areas: Demography, Geography, Planning and Development, Sociology and Political Science
Keywords: everyday life, mobile methods, mobilities, Rhythm, rhythmanalysis, urban elements
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Geology

General information

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Organisations: Universidad Camilo José Cela
Contributors: Rubio Hernandez, R.
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ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development
Keywords: Geography, Urban environment
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Identity

General information

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MoE publication type: D2 Article in professional manuals or guides or professional information systems or text book material
Organisations: Universidad Camilo José Cela
Contributors: Rubio Hernandez, R.
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ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development
Keywords: Urban identity
Research output: Chapter in Book/Report/Conference proceeding › Chapter › Professional

Road safety comparisons with international data on seriously injured

Reducing the number of fatalities is a key objective of road safety policy. As road safety improvements in Europe have decreased the number of fatalities, more focus has been directed to seriously injured. The aim of this study is to compare the different definitions of and international data on seriously injured, combine this data with fatality data and investigate the results and the conclusions for road safety policy. Particularly, a combined indicator of killed and seriously injured (KSI) is used in analysis. For comparing the amount of seriously injured in different countries, the definition recommended by the European Commission, the Maximum Abbreviated Injury Scale (MAIS) level 3+ was adapted. Based on the comparisons the use of a KSI indicator is recommended as it widens overall awareness of road safety performance. When analysing the amount of seriously injured and KSI, the results highlight bicycle, moped and motorcycle users compared to fatalities as an indicator. As sustainable mobility and urbanisation shape the future transport systems and increase the importance of cycling, adopting KSI indicator is increasingly important, but further research is needed to identify the best practices and define guidelines for gathering, reporting and analysing international data on seriously injured.

General information

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MoE publication type: A1 Journal article-refereed

Organisations: Civil Engineering, Research group: Transport Research Centre Verne

Contributors: Utriainen, R., Pöllänen, M., Liimatainen, H.

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ISSN (Print): 0967-070X

Ratings:

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Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Transportation, Law

Keywords: Comparison, Fatalities, KSI, Road safety, Seriously injured

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Transport_policy_Utriainen et al. Embargo ended: 2/03/20

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10.1016/j.tranpol.2018.02.012

URLs:

<http://urn.fi/URN:NBN:fi:ttty-201803151375>. Embargo ended: 2/03/20

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Research output: Contribution to journal > Article > Scientific > peer-review

Landowners' willingness to promote bioenergy production on wasteland – future impact on land use of cutaway peatlands

Landowners are the key players in bioenergy production on wasteland; such as cutaway peatlands. In this study, the landowner's interest to use cutaway peatlands for bioenergy production was investigated using a survey and GIS (Geographic Information Systems) methods in an area in South Ostrobothnia, Finland. The focus was to identify which different bioenergy production chains are preferred by the respondents: combustion, gasification or biogas production from agriculture, energy-willow short-rotation forestry or forestry based energy crops. Also, the influence of personal environmental values on the selection was measured and the future impacts and barriers for the land use were assessed. Afforestation was the most popular after-use method among the landowners. The next most favorable method was energy crop cultivation but it was highly dependent on economic profitability and subsidies. Currently, approximately 8.2% or 500 ha of the total peat extraction area could be used for bioenergy production in the region by 2035. Based on the survey, forest based biomass is the best option if bioenergy is to be produced. The next choice was agro biomass and the least favored plant was willow. This study suggests that the biggest cutaway peatlands will be converted to forest energy in the future. Suggestive results were that the owners with high environmental values are especially interested in agro biomass growing and the landowner having a distant home place does not have a negative influence on bioenergy production. Altogether, land use and biomass production of cutaway peatlands is connected with the demands of the Finnish bio-economy.

General information

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Organisations: Chemistry and Bioengineering, Research group: Bio- and Circular Economy, Jyväskylän yliopisto, Seinäjoki University of Applied Sciences

Contributors: Laasasenaho, K., Lensu, A., Rintala, J., Lauhanen, R.
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ASJC Scopus subject areas: Forestry, Geography, Planning and Development, Nature and Landscape Conservation, Management, Monitoring, Policy and Law

Keywords: Biogas, Combustion, Energy crop, Gasification, GIS, Willow

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Source: Scopus

Source ID: 85029532718

Research output: Contribution to journal > Article > Scientific > peer-review

Extending the life of virtual heritage: Reuse of TLS point clouds in synthetic stereoscopic spherical images

Recent advances in Terrestrial Laser Scanner (TLS), in terms of cost and flexibility, have consolidated this technology as an essential tool for the documentation and digitalization of Cultural Heritage. However, once the TLS data is used, it basically remains stored and left to waste. How can highly accurate and dense point clouds (of the built heritage) be processed for its reuse, especially to engage a broader audience? This paper aims to answer this question by a channel that minimizes the need for expert knowledge, while enhancing the interactivity with the as-built digital data: Virtual Heritage Dissemination through the production of VR content. Driven by the ProDigiOUs project's guidelines on data dissemination (EU funded), this paper advances in a production path to transform the point cloud into virtual stereoscopic spherical images, taking into account the different visual features that produce depth perception, and especially those prompting visual fatigue while experiencing the VR content. Finally, we present the results of the Hiedanranta's scans transformed into stereoscopic spherical animations.

General information

Publication status: Published

MoE publication type: A4 Article in a conference publication

Organisations: Architecture, Research group: EDGE

Contributors: Garcia Fernandez, J., Tammi, K., Joutsiniemi, A.

Number of pages: 7

Pages: 317-323

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Host publication information

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Publisher: ISPRS

Publication series

Name: International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives

ISSN (Electronic): 2194-9034

ASJC Scopus subject areas: Information Systems, Geography, Planning and Development

Keywords: Point cloud, Reuse, Spherical images, Stereoscopic, Terrestrial Laser Scanner, VR

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isprs-archives-XLII-2-W3-317-2017

DOIs:

10.5194/isprs-archives-XLII-2-W3-317-2017

URLs:

<http://urn.fi/URN:NBN:fi:tty-201708071657>

Bibliographical note

jufoid=83846

Source: Scopus

Source ID: 85021701753

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Advances in determining Δu and S_u for limit equilibrium analyses

It is well known that in undrained stability calculations, total stress and effective stress analyses do not give the same calculated factor of safety when $FOS > 1$. This is due to the fact that shear strength is defined differently in these two approaches: In total stress analyses, the mobilised shear stress is compared to undrained shear strength, i.e. strength at failure. In undrained effective stress analyses, the shear strength is defined as corresponding to the mobilised effective stress state. This causes an overestimation of FOS in undrained ϕ' - c' analyses. Modelling of excess pore pressure Δu has traditionally been source of most uncertainty in undrained effective stress analyses. Having the correct shear strength along the slip surface can be considered the most crucial detail in all stability analyses. It can be argued that in the context of Limit Equilibrium analyses where deformations are not considered, priority should be given to calculating the shear strength correctly, instead of attempting to obtain a "correct" mobilised Δu value. This paper gives a general introduction to the new HSU (Hybrid s_u) method. For the purposes of LEM analyses, Δu is calculated so that the resulting Mohr-Coulomb shear strength corresponds to the assumed failure state. This approach solves the inherent overestimation of FOS in undrained ϕ' - c' analyses. To predict the effective stress at failure, a constitutive effective stress soil model is employed. Also presented is a concept of deriving undrained shear strength S_u in LEM, based on an effective stress soil model. This makes it possible to conduct the LEM stability analysis in terms of total stresses, while deriving soil strength from effective strength parameters. The different approaches of calculating Δu and S_u with the HSU method are compared using a theoretical stability calculation example. The relative merits of the different approaches are discussed.

General information

Publication status: Published

MoE publication type: A3 Part of a book or another research book

Organisations: Civil Engineering, Ramboll Finland Ltd.

Contributors: Lehtonen, V., Länsivaara, T.

Number of pages: 11

Pages: 237-247

Publication date: 2017

Host publication information

Title of host publication: Landslides in Sensitive Clays : From Research to Implementation

Publisher: Springer

ISBN (Print): 978-3-319-56486-9

ISBN (Electronic): 978-3-319-56487-6

Publication series

Name: Advances in Natural and Technological Hazards Research

Volume: 46

ISSN (Print): 1878-9897

ISSN (Electronic): 2213-6959

ASJC Scopus subject areas: Computers in Earth Sciences, Economic Geology, Global and Planetary Change, Management, Monitoring, Policy and Law, Geography, Planning and Development

DOIs:

10.1007/978-3-319-56487-6_21

Source: Scopus

Source ID: 85020069216

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Determination of remoulding energy of sensitive clays

Energy involved in disintegrating of sensitive clays from an intact to a fully remoulded state is one of the key aspects in assessing the post failure movements of sensitive clay landslides. This energy is referred to as remoulding energy. In this paper, the energy approach is conceptualised using an analytical approach. A comprehensive review of the empirical, laboratory and field techniques to estimate remoulding energy are presented and discussed in detail.

General information

Publication status: Published

MoE publication type: A3 Part of a book or another research book

Organisations: Civil Engineering, Norwegian Univ. of Sci. and Technol.

Contributors: Thakur, V., Degago, S. A., Selänpää, J., Länsivaara, T.

Number of pages: 11

Pages: 97-107

Publication date: 2017

Host publication information

Title of host publication: Landslides in Sensitive Clays : From Research to Implementation

Publisher: Springer

ISBN (Print): 978-3-319-56486-9

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Name: Advances in Natural and Technological Hazards Research

Volume: 46

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ASJC Scopus subject areas: Computers in Earth Sciences, Economic Geology, Global and Planetary Change, Management, Monitoring, Policy and Law, Geography, Planning and Development

DOIs:

10.1007/978-3-319-56487-6_9

Source: Scopus

Source ID: 85020126453

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Effects of sample disturbance in the determination of soil parameters for advanced finite element modelling of sensitive clays

The stress-strain response of sensitive clays tested in a laboratory setting can be significantly affected by disturbance effects caused by sampling, transport, storage and specimen preparation. Soil models for finite element analyses are commonly calibrated using the results from laboratory tests and, consequently, calibrated model parameters are likely to be affected by sample disturbance. For sensitive clays subjected to constant volume shearing, the stress-strain behavior is dependent on the direction of loading and, due to build-up of shear induced pore pressure, effective stresses will reduce with increasing strain in the post-peak regime. According to previous studies, peak strengths, strains at failure and postpeak behavior of sensitive clays are all significantly influenced by sample quality. Therefore, the relative quality of model predictions generated using a sensitive clay finite element model can also be expected to be notably affected by sample disturbance. In this study, the impact of sample disturbance on the determination of model input parameters for advanced finite element modelling of sensitive clays is addressed and critically discussed. Two advanced soil models are used for this purpose: the total stress based NGI-ADPSOFT model, which is able to predict the anisotropic strain-softening behavior of saturated sensitive clays, and the effective stress based S-CLAY1S model, which is characterized by an anisotropic yield surface and is able to simulate soil destructuration. The practical implications of a thoughtful selection of the input parameters are evaluated through FE stability analyses of a sensitive clay slope.

General information

Publication status: Published

MoE publication type: A3 Part of a book or another research book

Organisations: Civil Engineering, Norwegian Geotechnical Institute (NGI), Ramboll Finland Ltd., University of Delaware

Contributors: D'Ignazio, M., Jostad, H. P., Lämsivaara, T., Lehtonen, V., Mansikkamäki, J., Meehan, C.

Number of pages: 9

Pages: 146-154

Publication date: 2017

Host publication information

Title of host publication: Landslides in Sensitive Clays : From Research to Implementation

Publisher: Springer

ISBN (Print): 978-3-319-56486-9

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ISSN (Electronic): 2213-6959

ASJC Scopus subject areas: Computers in Earth Sciences, Economic Geology, Global and Planetary Change, Management, Monitoring, Policy and Law, Geography, Planning and Development

DOIs:

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Source: Scopus

Source ID: 85020127433

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Mayrit: Un paisaje de agua?

General information

Publication status: Published

MoE publication type: D2 Article in professional manuals or guides or professional information systems or text book material

Organisations: Universidad Camilo José Cela

Contributors: Rubio Hernandez, R.

Pages: 141-144

Publication date: 2017

Host publication information

Title of host publication: Geourbanismos : Atlas de la ciudad emergente

Editors: Díaz Camacho, M. Á., García Triviño, F. A.

ISBN (Print): 978-84-95851-70-9

ASJC Scopus subject areas: Geography, Planning and Development, Nature and Landscape Conservation

Keywords: Water infrastructures, Urban landscapes

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Professional

Problems related to field vane testing in soft soil conditions and improved reliability of measurements using an innovative field vane device

In Finland, undrained shear strength is commonly measured using the field vane shear test (FV). Currently, the most commonly used field vane testers are the Nilcon vane and the electrical vane with shear rotation and measuring systems located above the ground level. Vane testing is normally carried out using vanes equipped with slip coupling, while the use of casing for protecting the vane is not very common. Recent studies from Finland have shown that the undrained shear strength of clays can be significantly underestimated when casing is not used. Experimental observations suggest that the slip coupling might not always be sufficient to remove all of the rod friction effects that occur during testing. Tampere University of Technology has recently purchased an innovative field vane apparatus with a vane tester unit, where torque and rotations are measured right above the vane. In this way, the effect of rod friction is minimized and the measured stressrotation behavior is less biased. In this study, issues related to practical applications, testing devices and interpretation methods are discussed. Then, a critical comparison between test results in soft clays from both the traditional and new field vane testers is performed.

General information

Publication status: Published

MoE publication type: A3 Part of a book or another research book

Organisations: Civil Engineering, Norwegian Geotechnical Institute (NGI)

Contributors: Selänpää, J., Buò, B. D., Länsivaara, T., D'Ignazio, M.

Number of pages: 11

Pages: 121-131

Publication date: 2017

Host publication information

Title of host publication: Landslides in Sensitive Clays : From Research to Implementation

Publisher: Springer

ISBN (Print): 978-3-319-56486-9

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Name: Advances in Natural and Technological Hazards Research

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ASJC Scopus subject areas: Computers in Earth Sciences, Economic Geology, Global and Planetary Change, Management, Monitoring, Policy and Law, Geography, Planning and Development

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<http://urn.fi/URN:NBN:fi:tuni-201910234045>

Source: Scopus

Source ID: 85020067264

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Mapping indoor overheating and air pollution risk modification across Great Britain: A modelling study

Housing has long been thought to play a significant role in population exposure to environmental hazards such as high temperatures and air pollution. However, there is sparse data describing how housing may modify heat and air pollution exposure such that housing's role in poor health and mortality from these hazards may be estimated. This paper describes the development of individual-address level indoor overheating and air pollution risk modifiers for Great Britain, for use alongside historical weather, outdoor air pollution, population socio-economic data, and mortality data in a large-scale epidemiological investigation. A geographically-referenced housing stock database was developed using the Homes Energy Efficiency Database (HEED) and the English Housing Survey (EHS). Simulations of unique combinations of building, fabric, occupation, and environment were run using a modelling framework developed for EnergyPlus 8.0, estimating indoor temperature metrics, indoor/outdoor ratio of pollution from outdoor sources, and indoor air pollution from multiple indoor sources. Results were compiled, matched back to individual properties in HEED, and mapped using Geographical Information Systems (GIS). Results indicate urban areas had higher numbers of buildings prone to overheating, reduced levels indoor air pollution from outdoor sources, and higher air pollution from indoor sources relative to rural areas, driven largely by variations in building types. The results provide the first national-scale quantitative estimate of heat and indoor air pollution modification by dwellings, aggregated at levels suitable for inclusion in health analysis.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University College London, University of Oxford, University of Nottingham

Contributors: Taylor, J., Davies, M., Mavrogianni, A., Shrubsole, C., Hamilton, I., Das, P., Jones, B., Oikonomou, E., Biddulph, P.

Number of pages: 12

Pages: 1-12

Publication date: 1 Apr 2016

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 99

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2016): CiteScore 7.1 SJR 1.998 SNIP 2.227

Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: Building physics, Building stock modelling, IAQ, Overheating

DOIs:

10.1016/j.buildenv.2016.01.010

URLs:

<http://www.scopus.com/inward/record.url?scp=84955098873&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84955098873

Research output: Contribution to journal › Article › Scientific › peer-review

Pre-use phase LCA of a multi-story residential building: Can greenhouse gas emissions be used as a more general environmental performance indicator?

Both the construction and use of buildings cause significant environmental pressures. The greenhouse gas (GHG) emissions imposed by buildings have been studied rather extensively, but less is known about other impacts. Still, climate change is only one harmful impact driven by buildings. Furthermore, no studies exist about how the other impacts are correlated with GHG emissions in the building context, and thus to what extent GHGs could be utilized as a more general environmental performance indicator. This paper fills these gaps by presenting a life cycle assessment of the pre-use phase of a modern concrete-element residential building with a very comprehensive life cycle inventory (LCI). The focus of the study is on the comparison of the accumulation of different environmental impacts relative to GHGs. The accumulation is analyzed from two perspectives common to building LCAs: building systems and different construction materials. The ReCiPe midpoint assessment method is utilized to reach wide impact category coverage. The study shows how GHGs act as a relatively good indicator for eight impact categories, but not for the others. The study also depicts that a very high coverage in the LCI must be reached to capture the majority of the different impacts. Many materials and building systems are considered non-relevant and are often excluded from building LCAs, which are in fact of great importance in many impact categories.

General information

Publication status: Published
MoE publication type: A1 Journal article-refereed
Organisations: University of Iceland, Aalto University
Contributors: Heinonen, J., Säynäjoki, A., Junnonen, J. M., Pöyry, A., Junnila, S.
Number of pages: 10
Pages: 116-125
Publication date: 1 Jan 2016
Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 95

ISSN (Print): 0360-1323

Ratings:

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ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: Building, Construction, Embodied emissions, Environmental impact, LCA, Life cycle assessment, ReCiPe
DOIs:

10.1016/j.buildenv.2015.09.006

Source: Scopus

Source ID: 84941915948

Research output: Contribution to journal › Article › Scientific › peer-review

Clashing coalitions: A discourse analysis of an artificial groundwater recharge project in Finland

The purpose of this paper is to increase understanding of the dynamics of knowledge production in the context of large-scale environmental projects causing local conflict. In particular, the paper analyses the discourse coalitions that formed around an artificial groundwater recharge project for the Turku Region in Finland. The material for this study consists of over 400 articles and opinion pieces which were collected from local and regional newspapers between 1999 and 2010. The articles were analysed by using Hajer's [1995. The politics of environmental discourse. Ecological modernisation and the policy process. Oxford, UK: Clarendon] discursive framework, and the analysis was complemented with the concept of knowledge coalition by Van Buuren and Edelenbos [2004. Conflicting knowledge. Why is joint knowledge production such a problem? Science and Public Policy, 31 (4), 289–299]. Results of the study indicate that knowledge coalitions were formed among the researchers, lay residents, and policy-makers, and they all utilised similar expertise-based factual arguments to support their cause. Thus, the paper participates in the academic discussion on the use and interpretation of expert knowledge in environmental policy-making by reshaping the division between experts and lay residents.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Department of Chemistry and Bioengineering, Research group: Industrial Bioengineering and Applied Organic Chemistry, Turun Kauppakorkeakoulu

Contributors: Kurki, V., Takala, A., Vinnari, E.

Pages: 1317-1331

Publication date: 2016

Peer-reviewed: Yes

Publication information

Journal: Local Environment

Volume: 21

Issue number: 11

ISSN (Print): 1354-9839

Ratings:

Scopus rating (2016): CiteScore 3.2 SJR 0.852 SNIP 0.941

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Management, Monitoring, Policy and Law

Keywords: civil society, Environmental conflict, infrastructure projects, knowledge production, local government

DOIs:

10.1080/13549839.2015.1113516

URLs:

<http://www.scopus.com/inward/record.url?scp=84946605654&partnerID=8YFLogxK> (Link to publication in Scopus)

Bibliographical note

EXT="Vinnari, Eija"

Source: Scopus

Source ID: 84946605654

Research output: Contribution to journal › Article › Scientific › peer-review

Imágenes 2.5D basadas en información de reflectancia para la interpretación morfológica del patrimonio arquitectónico

The evolution of the different documentation and renderization techniques has made substantial improvements in the representation and preservation of cultural heritage in the last 20 years. In the field of photogrammetry, Reflectance Transformation Images (RTI) for interactive representation of the geometric properties of surfaces, are an effective tool for the interpretation and preservation of cultural heritage. The need for specific light conditions and camera positions for RTI generation, have limited its application in the field of archaeology of architecture and urbanism, and has narrowed the application to small objects such as artifacts, sculptures, inscriptions, among others. This study proposes a new workflow that eliminates the dependence on external conditions and scale for representing surfaces of architectural heritage from RTI images. This workflow starts with the three-dimensional virtual reconstruction based on photogrammetric methods and concludes with the generation of 2.5D images based on RTI. The workflow will be demonstrated using a 2.5D representation of the interior topography of the ruins of the Castle Villagarcía de Campos in Spain in order to identify undocumented historical traces.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: School of Architecture, Institute of Society and Space (SOCIS)

Contributors: García-Fernández, J.

Number of pages: 12

Pages: 43-54

Publication date: 1 Dec 2015

Peer-reviewed: Yes

Publication information

Journal: Revista de Teledeteccion

Volume: 2015

Issue number: 44

ISSN (Print): 1133-0953

Ratings:

Scopus rating (2015): CiteScore 0.1 SJR 0.12 SNIP 0.084

Original language: Spanish

ASJC Scopus subject areas: Earth and Planetary Sciences (miscellaneous), Geography, Planning and Development

Keywords: 2.5 dimension, Architectural heritage, Digitization, Graphical representation, Imagery

DOIs:

10.4995/raet.2015.3656

Source: Scopus

Source ID: 84952058216

Research output: Contribution to journal › Article › Scientific › peer-review

Mapping the effects of urban heat island, housing, and age on excess heat-related mortality in London

With the predicted increase in heatwave frequency in the UK due to climate change, there has been an increasing research focus on mortality during hot weather. This paper examines the risk of mortality in London during hot weather by combining data on population age and distribution, Urban Heat Island (UHI), and dwelling propensity to overheat due to geometry and fabric characteristics derived using building physics in order to calculate the spatial variation in heat-related mortality risk across London. Spatial variation of heat-related mortality was found to reflect background mortality rates due to population age, while dwelling characteristics were found to cause a larger variation in temperature exposure (and therefore risk) than UHI. The highest levels of excess mortality were found in areas with larger elderly populations, towards the outskirts of the Greater London Authority (GLA).

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University College London, London School of Hygiene and Tropical Medicine, Univ Reading, University of Reading, Sch Syst Engn

Contributors: Taylor, J., Wilkinson, P., Davies, M., Armstrong, B., Chalabi, Z., Mavrogianni, A., Symonds, P., Oikonomou, E., Bohnenstengel, S. I.

Number of pages: 12

Pages: 517-528

Publication date: 1 Dec 2015

Peer-reviewed: Yes

Publication information

Journal: Urban Climate

Volume: 14

ISSN (Print): 2212-0955

Ratings:

Scopus rating (2015): CiteScore 2.4 SJR 0.879 SNIP 1.005

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Environmental Science (miscellaneous), Urban Studies, Atmospheric Science

Keywords: Building physics, GIS, Heatwave, Mortality, Urban heat island

DOIs:

10.1016/j.uclim.2015.08.001

URLs:

<http://www.scopus.com/inward/record.url?scp=84949100950&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84949100950

Research output: Contribution to journal › Article › Scientific › peer-review

Airtightness of residential buildings in Finland

Single-family buildings and apartments in multi-family apartment buildings have been studied in Finland in two large-scale studies between the years 2002 and 2009. This paper is based on the measurements of airtightness of 170 single-family detached houses and 56 apartments by fan pressurisation method at 50 Pa. The mean air change rate of 10 autoclaved aerated concrete block, 10 shuttering concrete block, 10 concrete element, 10 brick masonry, 10 lightweight aggregate concrete block, 100 timber-framed, and 20 log single-family houses was 1.5 h⁻¹, 1.6 h⁻¹, 2.6 h⁻¹, 2.8 h⁻¹, 3.2 h⁻¹, 3.9 h⁻¹ and 6.0 h⁻¹, respectively. In concrete-built multi-storey houses, in which the intermediate floor was cast on site, the mean n₅₀-value of 23 apartments was 0.7 h⁻¹. The mean n₅₀-value of 20 apartments in multi-storey houses built from concrete elements was 1.6 h⁻¹. 16 apartments in timber-framed multi-storey houses had a mean n₅₀-value 2.9 h⁻¹. Factors like construction method and insulation material (polyurethane insulation) in timber-framed houses, seam insulation material in log houses and ceiling structure in heavyweight buildings among others were found to have an effect on the average values of air change rates. The mean values of airtightness do not satisfy the recommended level of airtightness in Finland. Most important result, however, is that good airtightness of individual houses was reached within all house groups regardless of the choice of structure, storeys, ventilation system or technology of construction.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Department of Civil Engineering, Life Cycle Effectiveness of the Built Environment (LCE@BE), Aalto University, Department of Civil and Structural Engineering

Contributors: Vinha, J., Manelius, E., Korpi, M., Salminen, K., Kurnitski, J., Kiviste, M., Laukkarinen, A.

Number of pages: 13

Pages: 128-140

Publication date: 1 Nov 2015

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 93

Issue number: P2

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2015): CiteScore 6.9 SJR 2.067 SNIP 2.498

Original language: English

ASJC Scopus subject areas: Civil and Structural Engineering, Environmental Engineering, Geography, Planning and Development, Building and Construction

Keywords: Air change rate, Air leakage, Airtightness, Residential buildings

Electronic versions:

Kiviste - Airtightness of residential buildings in Finland. Embargo ended: 11/06/17

DOIs:

10.1016/j.buildenv.2015.06.011

URLs:

<http://urn.fi/URN:NBN:fi:tuni-201911216158>. Embargo ended: 11/06/17

URLs:

<http://www.scopus.com/inward/record.url?scp=84938085676&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84938085676

Research output: Contribution to journal › Article › Scientific › peer-review

Assessing uncertainty in housing stock infiltration rates and associated heat loss: English and UK case studies

Strategies to reduce domestic heating loads by minimizing the infiltration of cold air through adventitious openings located in the thermal envelopes of houses are highlighted by the building codes of many countries. Consequent reductions of energy demand and CO₂e emission are often unquantified by empirical evidence. Instead, a mean heating season infiltration rate is commonly inferred from an air leakage rate using a simple ratio scaled to account for the physical and environmental properties of a dwelling. The scaling does not take account of the permeability of party walls in conjoined dwellings and so cannot differentiate between the infiltration of unconditioned ambient air that requires heating, and conditioned air from adjacent dwellings that does not. A stochastic method is presented that applies a theoretical model of adventitious infiltration to predict distributions of mean infiltration rates and the associated total heat loss in any stock of dwellings during heating hours. The method is applied to the English and UK housing stocks and provides probability distribution functions of stock infiltration rates and total heat loss during the heating season for two extremes of party wall permeability. The distributions predict that up to 79% of the current English stock could require additional purpose-provided ventilation to limit negative health consequences. National models predict that fewer dwellings are under-ventilated. The distributions are also used to predict that infiltration is responsible for 3-5% of total UK energy demand, 11-15% of UK housing stock energy demand, and 10-14% of UK housing stock carbon emissions.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University of Nottingham, University of Oxford, London School of Hygiene and Tropical Medicine, University College London

Contributors: Jones, B., Das, P., Chalabi, Z., Davies, M., Hamilton, I., Lowe, R., Mavrogianni, A., Robinson, D., Taylor, J.

Number of pages: 13

Pages: 644-656

Publication date: 1 Oct 2015

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 92

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2015): CiteScore 6.9 SJR 2.067 SNIP 2.498

Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: DOMVENT, Leakage, Model, Monte Carlo, Permeability, Ventilation

DOIs:

[10.1016/j.buildenv.2015.05.033](https://doi.org/10.1016/j.buildenv.2015.05.033)

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Source: Scopus

Source ID: 84934989246

Research output: Contribution to journal › Article › Scientific › peer-review

Indicators for self-organization potential in urban context

Self-organization is a basic mechanism by which complex urban systems organize themselves. This mechanism emerges from individual agents' local interactions, often with unpredictable consequences at the regional level. These emergent patterns cannot be controlled by traditional hierarchical methods, but they can be steered and encouraged towards desirable goals. Self-organization is often used as an allegory for all 'unplanned' activity in cities. It is important to study the actual mechanisms of self-organization in cities to link the theory of self-organization to planning praxis. This work builds on ongoing work exploring novel complex planning tools and methods. Here I explore the key features of open dynamic systems identified in the literature as indicators of self-organizing capacity. I study their applicability in urban spatial planning, and propose three measurable characteristics for estimating the self-organization potential of urban activities. Flow reflects generic accessibility, and is measured using space syntax. Internal order refers to autonomously organizing entities, in this case the clustering tendencies of activities. Enriching rests upon increasing complexity and is measured as changes in degrees of entropy over time. The results indicate that (1) the study area meets the criteria for self-organization, and (2) these characteristics can be applied to discover nodes of higher potential for self-organization in a city.

General information

Publication status: Published
MoE publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: Urban Planning Theory
Contributors: Partanen, J.
Number of pages: 21
Pages: 951-971
Publication date: 19 Sep 2015
Peer-reviewed: Yes

Publication information

Journal: Environment & Planning B: Planning and Design
Volume: 42
Issue number: 5
ISSN (Print): 0265-8135
Ratings:
Scopus rating (2015): CiteScore 2.5 SJR 0.572 SNIP 1.077
Original language: English
ASJC Scopus subject areas: Environmental Science(all), Geography, Planning and Development
Keywords: complexity, innovation, planning, self-organization, urban evolution
DOIs:
10.1068/b140064p
URLs:
<http://www.scopus.com/inward/record.url?scp=84941798840&partnerID=8YFLogxK> (Link to publication in Scopus)
Source: Scopus
Source ID: 84941798840
Research output: Contribution to journal > Article > Scientific > peer-review

The effect of ground leases on house prices in Helsinki

One imperfection in housing markets is imperfect knowledge about legal interests such as ground leases. Both actual reduced legal interest as well as uncertainty surrounding rights and future lease payments for houses constructed on leased land may affect prices relative to houses built on freehold land. We use regression analysis of sales prices of condominium transactions in Helsinki to examine the effect ground leases have on house prices. We find that prices on condominiums constructed on leased lots are discounted at least 5 %, on average. In addition, we see that the announcement of potentially large increases in base rents upon renewal contributes to the discount.

General information

Publication status: Published
MoE publication type: A1 Journal article-refereed
Organisations: Department of Civil Engineering, Research group: Digitalization in the real estate and construction sector, The University of Georgia, Department of Real Estate, Georgia State University, Department of Financial Planning, Housing and Consumer Economics
Contributors: Tyvima, T., Gibler, K. M., Zahirovic-Herbert, V.
Number of pages: 20
Pages: 451-470
Publication date: 11 Sep 2015
Peer-reviewed: Yes

Publication information

Journal: Journal of Housing and the Built Environment
Volume: 30
Issue number: 3
ISSN (Print): 1566-4910
Ratings:
Scopus rating (2015): CiteScore 1.7 SJR 0.604 SNIP 1.087
Original language: English
ASJC Scopus subject areas: Geography, Planning and Development, Urban Studies
Keywords: Condominium, Finland, Ground leases, House prices, Housing markets
DOIs:
10.1007/s10901-014-9424-3
URLs:
<http://www.scopus.com/inward/record.url?scp=84938832858&partnerID=8YFLogxK> (Link to publication in Scopus)
Source: Scopus
Source ID: 84938832858

Growth of Urban Peripheries with Reference to Inconsistent Spatial Planning Policies: South-east Amman as case study

The rapid random spatial growth of the urban peripheries of Amman calls for an immediate reconsideration of the enforced planning policies that govern the spatial growth of those settlements. However, an overall assessment of the current planning mechanisms is urgently needed.

The article addresses some spatial factors which are impacting the peripheral growth at the south-eastern edge of Amman. It includes the urban land policies that are generated by Greater Amman Municipality GAM. The adoption of decentralization as a prevailing framework for urban policy in the latter two GAM master plans forms a turning point at the planning level. Such concept has evolved through the application of rigid frameworks that culminated into complex urban superposition.

This study deals with a marginal settlement which lies at the south-eastern edge of the Greater Amman Municipality, i.e. Muwaqqa. The analysis intends to explore how Muwaqqa has expanded randomly, testing in the meantime the relationship between Amman city core and its peripheral settlements both spatially and functionally. Light shall also be shed on the two major master plans of GAM: The Greater Amman Comprehensive and Development Plan (GACDP) of 1986, and the Amman Master Plan:

Metropolitan Growth of 2008, tackling their impact on the peripheral district in question.

The study proposes some feasible planning measures to pave the way for better control of the rapid urban growth at the peripheral areas with the aim to mitigate the negative aspects which adversely affecting the urban structure of Amman. However, the paper also examines the urban transformation of the chosen settlement which further aggravates the multi-jurisdictional divisions that initially meant to sustain an urban uniformity for a modern Amman entity.

General information

Publication status: Published

MoE publication type: B1 Article in a scientific magazine

Organisations: University of Jordan, Architectural department, Hashemite University, Zarqa-Jordan

Contributors: Amr, A., Saad, M.

Number of pages: 15

Pages: 54-68

Publication date: Mar 2015

Peer-reviewed: No

Publication information

Journal: European International Journal of Science and Technology

Volume: 4

Issue number: 3

Article number: 3

ISSN (Print): 2304-9693

Original language: English

ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development, Architecture

Keywords: urban planning, Urban areas, Urban development, regional development, timber construction, innovation network, development platform, Urban form, urban processes

Electronic versions:

Growth of Urban Peripheries with Reference to Inconsistent Spatial

Research output: Contribution to journal › Article › Scientific

Groundwater as a source of conflict and cooperation: Towards creating mutual gains in a Finnish water supply project

Community planners, decision-makers and authorities frequently encounter conflicts revolving around natural resource management as well as around urban planning. Since the 1970s, the dynamics of conflict resolution have evolved from conventional expert-based rational solutions towards collaborative ones. Against this background, our research investigates one contentious groundwater project in the Tampere Region in Finland. Conflict assessment clarified the divergent interests of the multiple parties. Drawing on negotiation theory, this study illustrates how polarised positions and competitive framing, as well as the influence of historical baggage, may form an insurmountable barrier to successful negotiation. While the acknowledgement of various interests should form the heart of the integrative negotiation process, excessive energy is used for argumentation to protect predefined goals with as minor concessions as possible.

Addressing the collaborative approach, we suggest multiple ways towards creating mutual gains and cooperation in future water supply projects.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Department of Chemistry and Bioengineering, Research group: Industrial Bioengineering and Applied Organic Chemistry, Life Cycle Effectiveness of the Built Environment (LCE@BE)

Contributors: Kurki, V., Katko, T. S.

Number of pages: 15

Pages: 337-351
Publication date: 2015
Peer-reviewed: Yes

Publication information

Journal: Water Alternatives
Volume: 8
Issue number: 3
ISSN (Print): 1965-0175
Ratings:

Scopus rating (2015): CiteScore 4.5 SJR 0.899 SNIP 1.402

Original language: English

ASJC Scopus subject areas: Management, Monitoring, Policy and Law, Geography, Planning and Development, Political Science and International Relations

Keywords: Case-study, Conflict assessment, Finland, Groundwater, Integrative negotiation, Mutual gains approach
URLs:

<http://www.water-alternatives.org/index.php/alldoc/articles/vol8/v8issue3/295-a8-3-3>

URLs:

<http://www.scopus.com/inward/record.url?scp=84948137804&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84948137804

Research output: Contribution to journal › Article › Scientific › peer-review

Institutional entrepreneurship, power, and knowledge in innovation systems: Institutionalization of regenerative medicine in Tampere, Finland

In this paper we ask what is the place of institutional entrepreneurship in a (regional) innovation system. The main research questions addressed are (a) how does a new science-based concentration of innovation become institutionalized in an innovation system; (b) who are the institutional entrepreneurs and what do they actually do in their efforts to institutionalize new beliefs, practices, and activities within a system; and (c) what knowledge do institutional entrepreneurs need and what kind of power do they exercise in the institutionalization process. We add new knowledge to studies focusing on innovation systems by revealing how new elements are attached into it. We also add power and knowledge to the study of institutional entrepreneurship and institutional change. The empirical analysis identifies the main phases of institutionalization, key actors in different phases, and their strategies of influence. This paper is based on the analysis of secondary data and twenty-eight interviews with key actors.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS)

Contributors: Sotarauta, M., Mustikkamäki, N.

Number of pages: 16

Pages: 342-357

Publication date: 2015

Peer-reviewed: Yes

Publication information

Journal: ENVIRONMENT AND PLANNING C: GOVERNMENT AND POLICY

Volume: 33

Issue number: 2

ISSN (Print): 0263-774X

Ratings:

Scopus rating (2015): CiteScore 4.1 SJR 1.479 SNIP 1.591

Original language: English

ASJC Scopus subject areas: Environmental Science (miscellaneous), Public Administration, Management, Monitoring, Policy and Law, Geography, Planning and Development

Keywords: Innovation system, Institution, Institutional entrepreneurship, Knowledge, Power, Regenerative medicine
DOIs:

10.1068/c12297r

URLs:

<http://www.scopus.com/inward/record.url?scp=84926362021&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84926362021

Research output: Contribution to journal › Article › Scientific › peer-review

Arbitrary Land Use Policy in Jordan between Legal Brand and Property Control

The absence of appropriate land use planning, leapfrog population growth, and high demand for urban land persist among the prevailing urban characteristics of Amman. Generally, land use policy in Jordan, and particularly in Amman remains out of control because of some social considerations and inconsistent laws.

Such phenomenon creates serious problems related to the local land market. This paper attempts to address the wide gap between land supply and demand through analysis of the relevant institutional framework, land governance, land policy and practice in Jordan. However, the historical background of land proprietorship is given parallel to the overall institutional framework of land regulation. The magnitude and reason for legal land tenure along the proposed urban corridors shall also be examined.

General information

Publication status: Published

MoE publication type: E1 Popularised article, newspaper article

Organisations: University of Jordan, Architectural department, Hashemite University, Zarqa-Jordan

Contributors: Tewfik, M., Amr, A.

Number of pages: 8

Pages: 86-93

Publication date: Dec 2014

Peer-reviewed: Unknown

Publication information

Journal: European International Journal of Science and Technology

Volume: 3

Issue number: 9

ISSN (Print): 2304-9693

Original language: English

ASJC Scopus subject areas: Urban Studies, Geography, Planning and Development, Architecture

Keywords: Urban development, regional development, timber construction, innovation network, development platform, Urban form, urban planning, urban processes

Electronic versions:

"Arbitrary Land Use Policy in Jordan between Legal Brand and

URLs:

<http://urn.fi/URN:NBN:fi:tty-201708161684>

Research output: Contribution to journal > Article > General public

The impact of occupancy patterns, occupant-controlled ventilation and shading on indoor overheating risk in domestic environments

It is widely recognised that a major source of uncertainty in building performance simulation relates to occupancy and behavioural assumptions. This paper aims to assess the relative impact of lifestyle patterns, occupant-controlled window opening and shading use on indoor overheating risk levels in dwellings. The indoor thermal environment of a set of broadly representative archetypes of the London housing stock was simulated using dynamic thermal modelling. Two lifestyle patterns and four scenarios of window opening and shading use schedules were combined with multiple other varying parameters (building geometry and orientation, insulation levels, level of overshadowing by adjacent buildings), leading to a total of 27,648 modelled dwelling variants. It was found that the rankings obtained for dwellings occupied by a family with children at school and dwellings occupied by pensioners were broadly similar for all combinations of behaviour and the majority of overheating metrics. Lower ranking correlations were, however, observed between simple temperature-dependent window opening scenarios and a more sophisticated scenario of combined shading and night ventilation. This is an indication that shading and/or night cooling could modify indoor overheating risk significantly. The findings of the study add to a growing body of literature suggesting that the way inhabitants occupy and operate a building has a measurable impact on thermal discomfort and potentially the health risks associated with their exposure to high indoor temperatures. This should be taken into consideration in the design of retrofit interventions and public health strategies aiming to minimise such risks.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University College London, London School of Hygiene and Tropical Medicine, University of Nottingham

Contributors: Mavrogianni, A., Davies, M., Taylor, J., Chalabi, Z., Biddulph, P., Oikonomou, E., Das, P., Jones, B.

Number of pages: 16

Pages: 183-198

Publication date: 1 Jan 2014

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 78

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2014): CiteScore 6.3 SJR 1.887 SNIP 2.751

Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: Behaviour, Dwellings, Overheating, Shading, Simulation, Ventilation

DOIs:

10.1016/j.buildenv.2014.04.008

URLs:

<http://www.scopus.com/inward/record.url?scp=84901007060&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84901007060

Research output: Contribution to journal › Article › Scientific › peer-review

The relative importance of input weather data for indoor overheating risk assessment in dwellings

The risk of overheating in UK dwellings is predicted to increase due to anthropogenic climate change and local urban climate modification leading to an increased urban heat island effect. Dwelling geometry characteristics such as orientation, aspect, and glazing, and building fabric characteristics such as thermal mass and resistance can influence the risk of overheating. The majority of simulation-based studies have focused on identifying the importance of building characteristics on overheating risk using a small number of weather files, or focus solely on the impact of external temperatures rather than a full set of climatic variables. This study examines the overheating risk in London dwelling archetypes when simulated under different UK climates, both in the present and under 'hot future' conditions, with the objective of identifying whether the conclusions drawn from location-specific studies can be generically applied to different cities. Simulations were carried out using the dynamic thermal simulation tool EnergyPlus using 3456 dwelling variants and six different Design Summer Year (DSY) climate files from locations within the UK. In addition, a 2050 Medium Emissions scenario weather file was used to model a particularly hot summer in all locations. The results indicate that weather files can influence the ranking of relative overheating risk between dwelling types, with significant variations in the relative ranking between London, Scotland and the North of England, and the rest of England. These results show that studies examining the overheating risk across the UK need to consider the variability of building performance under regional weather conditions.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University College London, London School of Hygiene and Tropical Medicine, University of Nottingham

Contributors: Taylor, J., Davies, M., Mavrogianni, A., Chalabi, Z., Biddulph, P., Oikonomou, E., Das, P., Jones, B.

Number of pages: 11

Pages: 81-91

Publication date: 1 Jan 2014

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 76

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2014): CiteScore 6.3 SJR 1.887 SNIP 2.751

Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: EnergyPlus, Kendalls Tau, Overheating, Weather files

DOIs:

10.1016/j.buildenv.2014.03.010

URLs:

<http://www.scopus.com/inward/record.url?scp=84897417588&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84897417588

Research output: Contribution to journal › Article › Scientific › peer-review

Using probabilistic sampling-based sensitivity analyses for indoor air quality modelling

We develop a probabilistic framework for modelling indoor air quality in housing stocks, selecting appropriate sensitivity analyses to understand indoor air quality determinants, and constructing a reliable metamodel from the most relevant determinants to allow quick assessments of future intervention scenarios. The replicated Latin Hypercube sampling method is shown to be efficient at propagating variations between model input and output variables. A comparison of a range of sample-based sensitivity methods shows that an initial visual assessment can help to select appropriate sensitivity analyses, as they test for different types of relations (i.e. linear, monotonic, and non-monotonic). An advantage of linear regression methods is that the total output can be apportioned to various input variables. The advantage of tests with correlation coefficients is that the associated p-values can be used to assess whether input variables are significant. An artificial neural network constructed from a reduced set of input variables selected at a 5% level of significance is able to accurately predict indoor air quality. In the application of the framework to the modelling of winter indoor air quality in single-storey flats in England, the drivers for internally- and externally-generated PM_{2.5} are found to be different, therefore allowing interventions that reduce both concentrations simultaneously. Principal determinants for externally-generated PM_{2.5} are the internal deposition rate of PM_{2.5}, weather-corrected volumetric infiltration rate, and ambient concentration of PM_{2.5}, while for PM_{2.5} produced by gas cooking, they are the kitchen window opening area, generation rate of PM_{2.5}, and indoor temperature.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: University College London, University of Nottingham, London School of Hygiene and Tropical Medicine

Contributors: Das, P., Shrubsole, C., Jones, B., Hamilton, I., Chalabi, Z., Davies, M., Mavrogianni, A., Taylor, J.

Number of pages: 12

Pages: 171-182

Publication date: 1 Jan 2014

Peer-reviewed: Yes

Publication information

Journal: Building and Environment

Volume: 78

ISSN (Print): 0360-1323

Ratings:

Scopus rating (2014): CiteScore 6.3 SJR 1.887 SNIP 2.751

Original language: English

ASJC Scopus subject areas: Environmental Engineering, Civil and Structural Engineering, Geography, Planning and Development, Building and Construction

Keywords: Housing stock, Indoor air quality, Metamodel, Probabilistic sampling, Sensitivity analysis

DOIs:

10.1016/j.buildenv.2014.04.017

URLs:

<http://www.scopus.com/inward/record.url?scp=84901003154&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84901003154

Research output: Contribution to journal › Article › Scientific › peer-review

Water supply and sanitation services in Finland before world war 2

Water supply and sanitation services in Finland before World War II is reviewed. In Finland, fire insurance companies played a significant role in the initial development of water services. Water was needed for putting out fires as well as for domestic and other community purposes. At first, Finnish houses were insured, if at all, with the General Fire Insurance Fund in Stockholm. Important social and political reforms such as municipal self-government and universal suffrage also influenced positively the development of the sector. After Finnish cities opted for municipal ownership and responsibility, three other technical options were adopted: metering-based billing, a ban on lead pipes, and the acceptance of flush toilets. Several plans for sewer systems were made and some were also constructed in the late 1800s. Although the wettest areas of the towns were drained and hygiene improved, lakes were still being polluted due to untreated wastewater discharges. The bucket was replaced by a drainpipe, and the problems were flushed out of sight, untreated, to the nearest water systems as is typical of protosystems.

General information

Publication status: Published

MoE publication type: A2 Review article in a scientific journal

Organisations: Department of Chemistry and Bioengineering, Tampere University of Technology, Life Cycle Effectiveness of the Built Environment (LCE@BE), Former organisation of the author

Contributors: Juuti, P., Katko, T.

Number of pages: 8

Pages: 80-87

Publication date: 2014

Peer-reviewed: Yes

Publication information

Journal: Flux

Volume: 97-98

Issue number: 4

ISSN (Print): 1154-2721

Ratings:

Scopus rating (2014): CiteScore 0.4 SJR 0.169 SNIP 0.515

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development

URLs:

<http://www.scopus.com/inward/record.url?scp=84926623647&partnerID=8YFLogxK> (Link to publication in Scopus)

Bibliographical note

EXT="Juuti, Petri"

Source: Scopus

Source ID: 84926623647

Research output: Contribution to journal › Review Article › Scientific › peer-review

Attitude-behaviour gap in energy issues: Case study of three different Finnish residential areas

To mitigate climate change technical advances must be accompanied by greater ecological commitment from consumers, i.e. households. This study aims to determine whether there are differences in energy attitudes and energy behaviour between residents living in three different types of residential districts. To gain an understanding of attitudes, the study investigated the participants' concerns about climate change, their position on energy issues and their perceptions of their own energy behaviour. To gain an understanding of actual energy behaviour the study investigated the participants' carbon footprints. The results indicate that there is a gap between people's energy attitudes and their actual energy behaviour. There seems to be a discernible 'ecologisation', a greening of attitudes, in Finnish society, but actual energy behaviour is changing more slowly. People know how to reduce their energy use but are e.g. too comfort-loving or indifferent to make any changes to their energy use. Due to the attitudes are not becoming more environment friendly and no environmental action is happening. Regarding further research this gap need to be investigated specifically and filled because it could otherwise prove a significant stumbling block to achieving the desired rate of progress towards the country's environmental goals.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Life Cycle Effectiveness of the Built Environment (LCE@BE), Aalto University, School of Engineering, Aalto University

Contributors: Valkila, N., Saari, A.

Number of pages: 11

Pages: 24-34

Publication date: Feb 2013

Peer-reviewed: Yes

Publication information

Journal: ENERGY FOR SUSTAINABLE DEVELOPMENT

Volume: 17

Issue number: 1

ISSN (Print): 0973-0826

Ratings:

Scopus rating (2013): CiteScore 4.2 SJR 1.651 SNIP 2.045

Original language: English

ASJC Scopus subject areas: Renewable Energy, Sustainability and the Environment, Geography, Planning and Development, Management, Monitoring, Policy and Law

Keywords: Carbon footprint, Energy attitudes, Energy behaviour, Finland, Greenhouse gas emissions

DOIs:

10.1016/j.esd.2012.10.001

URLs:

<http://www.scopus.com/inward/record.url?scp=84871966946&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84871966946

Research output: Contribution to journal › Article › Scientific › peer-review

Boundary Interaction in Emerging Scenes: Two Participatory Planning Cases from Finland

This article examines the self-organising features of participatory planning. The argument is that the complexity and non-linearity of present-day participatory practices unavoidably transgresses the formal linear idea of public interaction in planning processes. To study this development, the article approaches public participation as boundary interaction (Wenger, 2003). The approach is applied to two cases of participatory planning in Finland. Further, the article analyses the possibilities self-organising initiatives offer for developing cooperative practices in urban planning.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS), School of Management (JKK)

Contributors: Leino, H.

Number of pages: 14

Pages: 383-396

Publication date: Sep 2012

Peer-reviewed: Yes

Publication information

Journal: PLANNING THEORY AND PRACTICE

Volume: 13

Issue number: 3

ISSN (Print): 1464-9357

Ratings:

Scopus rating (2012): CiteScore 1.4 SJR 0.823 SNIP 0.907

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development

Keywords: Boundary interaction, boundary organisation, participatory planning, self-organisation

DOIs:

10.1080/14649357.2012.706629

URLs:

<http://www.scopus.com/inward/record.url?scp=84866840292&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84866840292

Research output: Contribution to journal › Article › Scientific › peer-review

Consumer panel on the readiness of finns to behave in a more pro-environmental manner

Due to climate change, there is an urgent need to take measures toward reducing greenhouse gases and energy consumption. It is therefore vital to examine peoples' attitudes and the potential for a more pro-environmental readiness. Consumer panels were used in the gathering of data, even with such small subsamples, statistical significance of difference cannot be assessed. The research subjects participating were randomly selected from two different residential areas and three different age groups. The consumer panels examined the environmental attitudes of the research subjects as well as their readiness to adopt a more pro-environmental lifestyle under four theme headings: Urban structure, household energy consumption, mobility and lifestyle. The results suggest that all the research subjects are very much ready to reduce their consumption, but not quite ready to invest in expensive, but environmentally-friendly equipment. Young and elderly research subjects seemed more prepared to make pro-environmental changes than middle-aged subjects. Place of residence also seemed to have an impact on the adoption threshold: Research subjects living in more densely populated suburbs seemed to be more willing to give up driving, whereas those living in sparsely populated areas seemed to be more willing to invest in expensive, but environmentally-friendly equipment and give up flying for vacations.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Life Cycle Effectiveness of the Built Environment (LCE@BE), Aalto Univ, Aalto University, Sch Engn, Dept Civil & Struct Engn

Contributors: Valkila, N., Saari, A.

Number of pages: 19

Pages: 1561-1579

Publication date: Jul 2012

Peer-reviewed: Yes

Publication information

Journal: Sustainability

Volume: 4

Issue number: 7
ISSN (Print): 2071-1050
Ratings:

Scopus rating (2012): CiteScore 1.4 SJR 0.463 SNIP 0.774

Original language: English

ASJC Scopus subject areas: Management, Monitoring, Policy and Law, Renewable Energy, Sustainability and the Environment, Geography, Planning and Development

Keywords: consumer panel, environmental-friendliness, behavioral readiness, urban structure, sustainable consumption, GREENHOUSE-GAS EMISSIONS, ENERGY

DOIs:

10.3390/su4071561

URLs:

<http://www.scopus.com/inward/record.url?scp=84864474855&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84864474855

Research output: Contribution to journal › Article › Scientific › peer-review

Parkour: Creating loose spaces?

Parkour is a spectacular and highly mediatized new way of movement that challenges conceptions of acceptable or appropriate behaviour in urban public space. This article will examine the potential of parkour to "loosen" urban spatial texture by applying recent thinking on loose and tight space by Karen A. Franck and Quentin Stevens to data gathered through in-depth interviews with parkour practitioners (traceurs) in two Finnish cities. When practising in urban public spaces, the traceurs we interviewed often caused confusion among other people. We explore how they negotiate their right to public space in the face of these reactions, either by evasion or with a combination of legal and moral arguments. We argue that parkour is not only a playful and confrontational practice with a potentially subversive character, but that the process of loosening space constitutes a complex dialectic, which may also involve a certain degree of tightening in the public space for other unexpected or unintended activities.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS), University of Helsinki

Contributors: Ameen, L., Tani, S.

Number of pages: 14

Pages: 17-30

Publication date: Mar 2012

Peer-reviewed: Yes

Publication information

Journal: GEOGRAFISKA ANNALER SERIES B: HUMAN GEOGRAPHY

Volume: 94

Issue number: 1

ISSN (Print): 0435-3684

Ratings:

Scopus rating (2012): CiteScore 1.9 SJR 0.626 SNIP 1.133

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development

Keywords: Loose space, Parkour, Public space, Tight space

DOIs:

10.1111/j.1468-0467.2012.00393.x

URLs:

<http://www.scopus.com/inward/record.url?scp=84859418113&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84859418113

Research output: Contribution to journal › Article › Scientific › peer-review

Do matters of concern matter? bringing issues back to participation

The objective of our article is twofold. First, we claim that the theoretical planning discussion dealing with public participation has forgotten one basic principle, namely that the people are taking part in the planning process because they are interested in a particular issue. There is a need for new conceptual approaches in participatory research which carry the discussion first towards the issues, then to the structures of participation. For this reason, we have combined practice-oriented policy analysis with the recent discussion of issue politics. Second, we implement the key propositions of the theoretical debate in an empirical case. The aim is to indicate how the trajectory of the issue, as well as its continuities and discontinuities, develop in diverse ways in different civic forums. We claim that this perspective provides more

information for researchers, civil servants and citizens about the logic of participatory practice.

General information

Publication status: Published
MoE publication type: A1 Journal article-refereed
Organisations: Institute of Society and Space (SOCIS), City of Helsinki Urban Facts
Contributors: Leino, H., Laine, M.
Number of pages: 15
Pages: 89-103
Publication date: Feb 2012
Peer-reviewed: Yes

Publication information

Journal: PLANNING THEORY
Volume: 11
Issue number: 1
ISSN (Print): 1473-0952
Ratings:
Scopus rating (2012): CiteScore 3.8 SJR 1.748 SNIP 1.361
Original language: English
ASJC Scopus subject areas: Geography, Planning and Development
Keywords: issue politics, public participation, trigger event, urban planning
DOIs:
10.1177/1473095211417595
URLs:
<http://www.scopus.com/inward/record.url?scp=84856281552&partnerID=8YFLogxK> (Link to publication in Scopus)
Source: Scopus
Source ID: 84856281552
Research output: Contribution to journal › Article › Scientific › peer-review

Luhtaorvokki ja luonnon geopolitiikka

We analyze EU biodiversity policy as a way of building a coherent Europe, using the contextual conservation problems of an endangered species of violet *Viola uliginosa* as a proxy for scalar practices. The material consists of an extensive review of the literature on the existence, ecology and conservation of the species on both sides of the EU eastern border as well as biological field data gathered where it occurs in Finland. The case study shows that the scalar practices exercised in conservation create two geopolitical spaces over Europe through which the EU defines its geo-power over member and non-member states. The case also brings out the importance of human-non-human constellations in the geopolitics of nature emerging from field inventories, data gathering, site management and genetic analyses with separate violet populations. Altogether, the paper emphasizes the crucial role of practices and political processes in understanding the influence of scales in biodiversity policy.

General information

Publication status: Published
MoE publication type: A1 Journal article-refereed
Organisations: Life Cycle Effectiveness of the Built Environment (LCE@BE), University of Helsinki
Contributors: Jokinen, A., Ranta, P.
Number of pages: 14
Pages: 3-16
Publication date: 2012
Peer-reviewed: Yes

Publication information

Journal: Terra: Maantieteellinen Aikakauskirja
Volume: 124
Issue number: 1
ISSN (Print): 0040-3741
Ratings:
Scopus rating (2012): SJR 0.192 SNIP 0.233
Original language: Finnish
ASJC Scopus subject areas: Geography, Planning and Development, Water Science and Technology, Agricultural and Biological Sciences(all), Earth and Planetary Sciences(all)
URLs:
<http://www.scopus.com/inward/record.url?scp=84862552656&partnerID=8YFLogxK> (Link to publication in Scopus)
Source: Scopus
Source ID: 84862552656

Making sense of the social: Human-nonhuman constellations and the wicked road to sustainability

Social questions become especially tangible in the context of human-nonhuman interrelations. This article focuses on coexistential practices in the context of management, protection, and production and it clarifies how the social in particular empirical cases is enacted. The work is based on three empirical case studies. We explore the conflicts in forestry and urban planning caused by the Siberian flying squirrel; the increased presence of the grey wolf; and the paradox of the domestic pig—a clever animal that is treated harshly by factory-farming practices. As our cases indicate, the social is not a group of people living in a certain setting according to certain norms and traditions. The social is a contingent, activated constellation of interagentivities that emerges together with a shared concern that particular customs and habits are not serving the purpose they are expected to serve. The cases challenge efforts to adopt a human-centered view of the social as the basis for developing the concept of sustainability. They also indicate that there is no one social sustainability, but rather many articulations of the concept.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Life Cycle Effectiveness of the Built Environment (LCE@BE), Finnish Game and Fisheries Research Institute, Ita-Suomen yliopisto

Contributors: Hiedanpää, J., Jokinen, A., Jokinen, P.

Number of pages: 10

Pages: 40-49

Publication date: 2012

Peer-reviewed: Yes

Publication information

Journal: SUSTAINABILITY: SCIENCE, PRACTICE, AND POLICY

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Original language: English

ASJC Scopus subject areas: Environmental Science(all), Geography, Planning and Development

Keywords: Animal welfare, Case studies, Conflict resolution, Environmental sociology, Human-environment relationship, Wildlife management

URLs:

<http://www.scopus.com/inward/record.url?scp=84862497082&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84862497082

Research output: Contribution to journal › Article › Scientific › peer-review

Policy learning and the 'cluster-flavoured innovation policy' in Finland

With this paper I aim to shed light on the attempts that have been made to adjust Finnish policy making to the changes in the global technoeconomic environment, as well as to the meta-rationales behind the evolving cluster-flavoured innovation (CFI) policies. Policy learning is discussed with reference to the main cluster and innovation policy changes in Finland and related conceptual development. My main aim is to paint an overall picture of Finnish CFI policies and learning related to them as well as to analyse how efforts to redesign the policies have been unfolding over the past twenty years. This paper is based on (a) secondary data (ie, earlier studies and reports on the Finnish cluster and innovation policies) and (b) data from two empirical studies.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS)

Contributors: Sotarauta, M.

Number of pages: 16

Pages: 780-795

Publication date: 2012

Peer-reviewed: Yes

Publication information

Journal: ENVIRONMENT AND PLANNING C: GOVERNMENT AND POLICY

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Ratings:

Scopus rating (2012): CiteScore 2.6 SJR 0.869 SNIP 1.007

Original language: English

ASJC Scopus subject areas: Environmental Science (miscellaneous), Public Administration, Management, Monitoring, Policy and Law, Geography, Planning and Development

Keywords: Cluster policy, Finland, Governance, Innovation policy, Policy learning

DOIs:

10.1068/c1191

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<http://www.scopus.com/inward/record.url?scp=84868023229&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 84868023229

Research output: Contribution to journal › Article › Scientific › peer-review

Local or digital buzz, global or national pipelines: Patterns of knowledge sourcing in intelligent machinery and digital content services in Finland

In regional innovation systems (RIS), there is a need to identify the knowledge bases that firms draw upon and differentiate innovation policies accordingly. From this premise, the main aim of this paper is to compare two Finnish industries, intelligent machinery and digital content services, that draw upon different kinds of knowledge bases. The three main research questions discussed here are as follows: (a) do knowledge sources of the firms representing two different industries with two different knowledge bases differ from each other, and how; (b) how do the knowledge sources differ between different types of RIS and (c) what kind of extra-regional pipelines do the three different cases have? The RIS under scrutiny represent fragmented metropolitan (Helsinki metropolitan area), old industrial (Tampere region) and organizationally thin (South Ostrobothnia) RIS.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS), Research Unit for Urban and Regional Development Studies (Sente)

Contributors: Sotarauta, M., Ramstedt-Sen, T., Seppänen, S. K., Kosonen, K. J.

Number of pages: 22

Pages: 1305-1326

Publication date: Jul 2011

Peer-reviewed: Yes

Publication information

Journal: European Planning Studies

Volume: 19

Issue number: 7

ISSN (Print): 0965-4313

Ratings:

Scopus rating (2011): CiteScore 1.5 SJR 0.684 SNIP 0.902

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development

DOIs:

10.1080/09654313.2011.573139

URLs:

<http://www.scopus.com/inward/record.url?scp=79961033362&partnerID=8YFLogxK> (Link to publication in Scopus)

Source: Scopus

Source ID: 79961033362

Research output: Contribution to journal › Article › Scientific › peer-review

Briefing: Initial findings from the urba project

This briefing describes the research project The Future Concepts of Urban Housing (Urba), which was initiated in 2007 to develop new ideas, concepts and cooperative practices for Urban housing in the Helsinki metropolitan area. The area suffers from Urban sprawl, soaring prices and a lack of feasible and attractive housing alternatives as a result of the narrow and inflexible housing market. Moreover, the housing sector suffers from a lack of cooperation. Urba is a multi-disciplinary research project that brings together a wide range of stakeholders and actors in the housing sector. The first phase of the project has produced an initial selection of promising Urban housing concepts that will serve as the basis for the development phase. The development phase is structured in the form of a collective learning and invention process that involves a wide group of participants from the housing sector.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS), Aalto University, Centre for Urban and Regional Studies

Contributors: Krokfors, K., Ilmonen, M., Kangasoja, J., Lehtonen, H., Mälkki, M., Mäntysalo, R., Norvasuo, M., Nupponen, T., Puustinen, S.

Number of pages: 3

Pages: 15-17

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Peer-reviewed: Yes

Publication information

Journal: PROCEEDINGS OF THE ICE: URBAN DESIGN AND PLANNING

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ISSN (Print): 1755-0793

Ratings:

Scopus rating (2011): CiteScore 1.1 SJR 0.153 SNIP 0.488

Original language: English

ASJC Scopus subject areas: Geography, Planning and Development, Urban Studies, Civil and Structural Engineering

DOIs:

10.1680/udap.2011.164.1.15

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<http://www.scopus.com/inward/record.url?scp=79951962584&partnerID=8YFLogxK> (Link to publication in Scopus)

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Source ID: 79951962584

Research output: Contribution to journal › Article › Scientific › peer-review

Institutional entrepreneurship for knowledge regions: In search of a fresh set of questions for regional innovation studies

We investigate conceptually the institutional change process and innovation underpinning knowledge-based regional development from the point of view of institutional entrepreneurship. The main aim is to raise institutional entrepreneurship among debated concepts in regional development studies. We set out to discuss the following question: what kind of conceptual base provides empirical studies with a fresh set of research questions and hence point of departure in a study of the ways in which actors influence the course of events and aim to change the very institutional setting in which they are embedded.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Institute of Society and Space (SOCIS)

Contributors: Sotarauta, M., Pulkkinen, R.

Number of pages: 17

Pages: 96-112

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ASJC Scopus subject areas: Environmental Science (miscellaneous), Public Administration, Management, Monitoring, Policy and Law, Geography, Planning and Development

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Source: Scopus

Source ID: 79952143814

Research output: Contribution to journal › Article › Scientific › peer-review

Tiedon synty kollektiivisessa lintujen havainnoinnissa: Lajiluettelon, paikan ja tietämisen vuorovaikutus

Most biodiversity data for research and decision-making are gathered using various lists of species. How do these tools influence observation, perception and knowledge generation among the data gatherers? A group of birdwatchers participating in a oneday species spotting competition is studied in this article as users of a species list. The study is ethnographic and derives its analytical perspectives from social studies of science, game studies and narrative research. The practice of knowing is the unit of analysis. The findings suggest that the species list can serve as a tool for representing biodiversity and producing statistical data due solely to its simultaneous role in placemaking. In this role the species list becomes an integrated component of the group's shared perception system, and also supports narratives as the basis of experiential knowing.

General information

Publication status: Published

MoE publication type: A1 Journal article-refereed

Organisations: Life Cycle Effectiveness of the Built Environment (LCE@BE), School of Management (JKK)

Contributors: Jokinen, A.

Number of pages: 12

Pages: 63-74

Publication date: 2011

Peer-reviewed: Yes

Publication information

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Scopus rating (2011): SJR 0.136 SNIP 0.145

Original language: Finnish

ASJC Scopus subject areas: Geography, Planning and Development, Water Science and Technology, Agricultural and Biological Sciences(all), Earth and Planetary Sciences(all)

URLs:

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Research output: Contribution to journal › Article › Scientific › peer-review