The aim of this article is to question the capacity of our state-of-the-art urban planning and urban systems to adapt to continuous changes and disturbances in the operating environment. We contribute to the current debate of alleged rigidity of planning by observing adaptability and evolution from a spatial-functional systems angle. We argue that in an attempt to help cities adapt to uncertain futures, strategic planning would benefit from the epistemology of resilience and complex systems for a better performance. Resilience approach entails the notion that disturbances are non-avoidable and critical for the constant evolution of cities and regions. However, this knowledge lacks operationalisation in planning practice. We observe the adaptability of urban systems and planning by reflecting their qualitative resilience capacity, addressing implicit deficiencies due to hierarchical orientation and, propose a spatially oriented framework to help indicate resilience potential from urban morphological qualities.

Vacant residential buildings as potential reserves: a geographical and statistical study
Vacant housing has been associated with a variety of interests from economic implications and consequences for the urban structure to the possibility of providing housing for the homeless. In addition to these social and financial aspects, unused buildings have resources embedded in them. They take land from other activities and contain refined natural resources in the form of building components and materials. Therefore, empty buildings can be regarded as reserves for urban mining, i.e. material extraction. In doing so, these buildings contribute to the resilience of cities. This geographical and statistical study on residential vacancies is situated in Finland, where empty homes may also keep using energy and producing emissions. The research material consists of a vast dataset of all residential
buildings with vacancies in Finland in mid-2014, a total of 275,486 buildings with 1,100,267 occupied and 378,802 unoccupied dwellings (52% of the Finnish housing stock). The paper shows several characteristics that increase the understanding of vacancies and their role in the dynamics of the building stock. Public policy should address the issue of vacancy, not only because of social and economic implications but also because of its environmental impacts and opportunities.

**General information**

State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: Built Environment in Transition
Authors: Huuhka, S.
Keywords: (building stock, housing stock, obsolescence, redundancy, resilient housing, resource efficiency, shrinking cities, vacancy rates, vacant buildings, value conservation, Finland)
Number of pages: 24
Pages: 816-839
Publication date: Sep 2016
Peer-reviewed: Yes
Early online date: 2 Dec 2015

**Publication information**

Journal: Building Research and Information
Volume: 44
Issue number: 8
ISSN (Print): 0961-3218
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Scopus rating (2016): 1.298 1.561
Publication Forum (2016): 2
Scopus rating (2015): 1.524 1.543
Web of Science (2015): 2.196 3.193 6.9 0.49 0.00318 0.881
Publication Forum (2015): 2
Scopus rating (2014): 1.305 1.471
Web of Science (2014): 1.454 2.156 6.9 0.5 0.00223 0.626
Publication Forum (2014): 2
Scopus rating (2013): 1.552 1.837
Publication Forum (2013): 2
Scopus rating (2012): 1.492 1.696
Publication Forum (2012): 2
Scopus rating (2011): 0.76 1.084
Scopus rating (2010): 0.761 1.166
Scopus rating (2009): 0.767 1.413
Scopus rating (2008): 0.798 1.496
Scopus rating (2007): 0.665 1.279
Scopus rating (2006): 0.572 1.431
Scopus rating (2005): 0.357 0.855
Scopus rating (2004): 0.798 1.166
Scopus rating (2003): 0.483 0.771
Scopus rating (2002): 0.371 1.147
Scopus rating (2001): 0.349 0.865
Scopus rating (2000): 0.329 0.628
Scopus rating (1999): 0.258 0.731
Original language: English
Electronic versions:
Huuhka_Vacant_residential_buildings_as_potential_reserves-A_geographical_and_statistical_study_Accepted_Manuscript.
Embargo ended: 2/12/16
DOIs:
10.1080/09613218.2016.1107316
Links:
http://urn.fi/URN:NBN:fi tty-201612294924
Accessibility improvement models for typical flats: Mass-customizable design for individual circumstances

Elderly housing policies in Finland emphasize aging in place and preparing the existing housing stock for the predicted increase in the aged population. Timely home modifications that enhance mobile accessibility are a focal target for these policies. This article introduces the idea of mass-customizable architectural accessibility improvement models (AIMs) that have been developed for typical Finnish flats. The applicability and generalizability of an AIM designed for an archetypal two-room flat is tested by applying it to nine case buildings in the city of Tampere. The model was found to be beneficial for 42 of the 45 rooms in the research material.
A statistical and geographical study on demolished buildings

Demolition of buildings is one fundamental but little studied factor participating in the dynamics of building stocks. This paper applies an explorative research strategy and studies the characteristics and location of demolished buildings in Finland as well as motives behind the demolition decisions. A statistical and geographical analysis was performed on a data set of all 50,818 buildings demolished in Finland between 2000 and 2012. The study shows that in the Finnish context, the amount of demolition, the size of the community, demographic development and construction activity are all interconnected. In general, the larger the community, the more it gains inhabitants and the more is built as well as demolished. The data confirms that removals from the building stock are a result of conscious deliberation; sudden destruction and gradual deterioration due to abandonment play minor roles. Non-residential buildings dominate the demolished floor area. In addition, they are much larger and younger at the time of demolition than residential buildings, which consist primarily of detached houses. Demolitions are geographically concentrated: cities covering little over 5% of Finland’s area are accountable for 76% of demolished floor area; and city cores with the area of only 0.2% for as much as 44%.

General information

State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Department of Civil Engineering, Research group: Built Environment in Transition, Research group: Service Life Engineering of Structures
Authors: Huuhka, S., Lahdensivu, J.
Number of pages: 25
Pages: 73-96
Publication date: 2016
Peer-reviewed: Yes
Early online date: 1 Jan 2014

Publication information

Journal: Building Research and Information
Volume: 44
Issue number: 1
ISSN (Print): 0961-3218
Ratings:
Publication Forum (2017): 2
Scopus rating (2016): 1.298 1.561
Publication Forum (2016): 2
Scopus rating (2015): 1.524 1.543
Web of Science (2015): 2.196 3.193 6.9 0.49 0.00318 0.881
Publication Forum (2015): 2
Scopus rating (2014): 1.305 1.471
Web of Science (2014): 1.454 2.156 6.9 0.5 0.00223 0.626
Municipal economics of regional development – infill versus greenfield development

There is an ongoing debate in academia about the pros and cons of infill development. It has been said that dense city structure can lead to several agglomeration benefits and cost savings, whereas urban sprawl is usually seen as a negative phenomenon supporting an unsustainable lifestyle and leading to increasing municipal expenditures. Contradictive perspectives can also be found. Some studies claim that limiting the land available to build on is raising the prices in housing markets resulting in various problems. It is also alleged that the economic benefits gained through densifying are diminished in cities with a population over 500 000.

In this case study, the analysis is limited strictly to the financial aspects of regional development projects. The main difference when comparing this study to the existing body of literature is that the municipal revenues are considered alongside the expenditures instead of focusing solely on the cost aspects. The net Present Value method is used to analyze three different regional development projects. An ongoing greenfield residential area development project is compared with two infill development projects in the city of Tampere in Finland. The first infill area is situated in the immediate vicinity of the city center and the second is a suburb about eight kilometers west from downtown Tampere. The analysis provides information not only about differences between infill and greenfield projects, but also about the dissimilarities between different types of infill.

The results indicate that from the perspective of municipal economics, residential infill is more profitable when compared to greenfield development. Two studied infill areas start returning profits 25–30 years after the start of the development, whereas for the studied greenfield project the corresponding value is almost 50 years. Despite the undeniable economic benefits, the practice shows that there are still major obstacles preventing the widespread realization of infill in Finland.
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
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: Urban Planning Theory
Authors: Partanen, J.
Keywords: (complexity, innovation, planning, self-organization, urban evolution)
Number of pages: 21
Pages: 951-971
Publication date: 19 Sep 2015
Peer-reviewed: Yes
ASJC Scopus subject areas: Environmental Science(all), Geography, Planning and Development

Publication information
Journal: Environment & Planning B: Planning and Design
Volume: 42
Issue number: 5
ISSN (Print): 0265-8135
Ratings:
Publication Forum (2017): 2
Scopus rating (2016): 0.693 1.03
Publication Forum (2016): 2
Scopus rating (2015): 0.553 0.989
Web of Science (2015): 1.195 1.582 &gt;10.0 0.327 0.00235 0.528
Publication Forum (2015): 2
Scopus rating (2014): 0.504 1.023
Web of Science (2014): 0.983 1.475 &gt;10.0 0.291 0.00235 0.495
Publication Forum (2014): 3
Scopus rating (2013): 0.855 1.351
Publication Forum (2013): 3
Scopus rating (2012): 0.7 1.349
Publication Forum (2012): 3
Scopus rating (2011): 0.745 1.284
Scopus rating (2010): 0.765 1.231
Scopus rating (2009): 0.766 1.34
Scopus rating (2008): 0.653 1.085
Scopus rating (2007): 0.707 1.325
Scopus rating (2006): 0.624 1.317
Scopus rating (2005): 0.695 1.015
Scopus rating (2004): 0.972 1.688
Scopus rating (2003): 0.624 0.98
Scopus rating (2002): 0.606 1.069
Scopus rating (2001): 0.5 1.093
Scopus rating (2000): 0.891 1.065
Scopus rating (1999): 0.298 1.28
Original language: English
DOIs:
10.1068/b140064p
Links:
http://www.scopus.com/inward/record.url?scp=84941798840&partnerID=8YFLogxK (Link to publication in Scopus)
Source: Scopus
Source-ID: 84941798840
Research output: Scientific - peer-review › Article

Mikä estää joustavan asuntorakentamisen?

General information
State: Published
Ministry of Education publication type: D2 Article in professional manuals or guides or professional information systems or text book material
Organisations: School of Architecture, Research group: ASUTUT
Authors: Kotilainen, S., Hedman, M.
Number of pages: 3
Pages: 17-19
Publication date: 9 Sep 2015

Host publication information
Title of host publication: ARA-viesti 2/2015
Publisher: The Housing Finance and Development Centre of Finland (ARA)
Electronic versions:
Mika_estaa_joustavan_asuntorakentamisen
Links:
http://www.ara.fi/fi- FI/ARAtietopankki/ARAviesti/ARAviestin_verkkoartikkelit/Mika_estaa_joustavan_asuntorakentamisen(35611)
http://urn.fi/URN:NBN:fi-tyy-201705171413
Links:
http://www.ara.fi/fi- FI/ARAtietopankki/ARAviesti/ARAviestin_verkkoartikkelit/Mika_estaa_joustavan_asuntorakentamisen%2835611%29
Research output: Professional › Chapter

Puusta potkua kuntien kehittämiseen

General information
State: Published
Ministry of Education publication type: E1 Popularised article, newspaper article
Organisations: School of Architecture, Research group: Urban Laboratory
Authors: Hynynen, A.
Publication date: 15 Jul 2015
Asukasläätiöinen puukerrostalokortteli tilaelementeistä: Esimerkkinä Kokkolan Nukkumatin tontin suunnitelma

This study examines resident-oriented modular timber framed construction in relation to the residential environment, multi-storey apartment buildings and apartments. Resident-orientation is a concept that in housing construction terminology, specifies the concept of user-orientation.

Special features of the production of modular timber framed construction affect design mainly in the scales of apartments and apartment buildings. When an apartment can be modified to suit the user's needs, a building's service life and the degree of utilisation increase. This study examines the possibilities of adaptable modular timber framed housing construction using the principle of adaptable zones and examples of three placement methods of modules as a tool. The analysis is supported by a large variety of modular timber framed apartment studies and their adaptable variations.

The study also attempts to better understand – regardless of the production method – the appreciation of residential environments and seeks to find an interpretation of how the built environment can be developed on the basis of residential preference studies. In addition, the study analyses the potential benefits of modular timber framed construction for realising residential environment preferences.

The study combines practical design and theoretical analysis. The study has incorporated two case designs, of which one modular timber framed housing block in central Kokkola is introduced. The aim of the study is to both determine necessary areas of development regarding modular timber framed building construction from the viewpoint of architectural and housing design; and to function as a resource for ideas and knowledge regarding the design of modular timber framed housing blocks.

General information
State: Published
Ministry of Education publication type: D4 Published development or research report or study
Organisations: School of Architecture, Research group: ASUTUT
Authors: Kotilainen, S., Hedman, M.
Keywords: (Timber apartment building, modular construction, resident orientation, adaptable housing construction)
Number of pages: 213
Publication date: 7 May 2015
Housing production is usually based on the belief of predictability, but this approach is inconsistent with the fact that the future cannot be predicted. Residential design and construction must therefore adopt more flexible and adaptable principles, where the impossibility of making predictions is taken into account. Adaptable housing can help to meet the forthcoming and increasingly diverse housing needs, providing housing alternatives in a sustainable way. Ten visions presented in this publication introduce a wide range of means, methods and scales to achieve adaptability and flexibility in housing construction. The publication consists of ten design assignments created during an advanced housing design course at Tampere University of Technology in spring 2013. The publication presents not only a wide range of means to achieve flexibility in housing construction, but also their direct connection with the practice. The publication is part of a study concerning user-centric spaces in the Indoor Environment Program of RYM Oy.
School travel mode choice and the characteristics of the urban built environment: The case of Helsinki, Finland

As observed in several previous studies, the nature of the urban structure can affect children's mode of transportation to school. In this paper, we identify and investigate, in the Finnish context, the elements of the urban structure around homes and en route to school that promote children's ability to walk or cycle to school, using the conceptual domains proposed by Mitra (2013) to frame the work.

The associations discovered can, to a large extent however, be viewed as contrasting significantly with those identified in previous research, as an increase in the variables, essentially indicating urbanity, decreased the likelihood of the children walking or cycling to school. This is due to the existence of a well-functioning public transportation network in the Helsinki region. The associations were more significantly associated with the environment en route to school than with the environment around homes. This research improves our understanding of active school transportation behaviour in an environment that is already relatively supportive of active transportation and independent mobility by offering a well-functioning public transportation system. (C) 2014 Elsevier Ltd. All rights reserved.
A comparative study of urban form

This paper compares four different approaches to urban morphology: historico-geographical, process typological, space syntax, and spatial analytical. It explores in particular the use of four fundamental concepts proposed in these approaches: morphological region, typological process, spatial configuration, and cell. The four concepts are applied in a traditional gateway area of the city of Porto, Portugal. The area includes considerable variety of urban form. The main purpose is to understand how to combine and co-ordinate these approaches so as to improve the description, explanation and prescription of urban form.

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Authors: Oliveira, V., Monteiro, C., Partanen, J.
Keywords: (Conzenian school, Muratorian school, Space syntax, Spatial analysis, Urban form)
Number of pages: 20
Pages: 73-92
Publication date: 2015
Peer-reviewed: Yes
ASJC Scopus subject areas: Urban Studies, Archaeology, Archaeology

Publication information
Ainutkertaisten tarpeiden tragedia

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: EDGE
Authors: Joutsiniemi, A.
Publication date: 2015
Peer-reviewed: Yes

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 53
Issue number: 2
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1

Links:
http://www.scopus.com/inward/record.url?scp=84927724787&partnerID=8YFLogxK (Link to publication in Scopus)
Source: Scopus
Source-ID: 84927724787
Research output: Scientific - peer-review › Article
As demonstrated in many earlier studies, the qualities of physical environment have great impacts on physical activity (PA) behavior. However, studying individual built environmental variables often produces contradictory effects between studies. To overcome this, we composed multivariate environmental types using principal component analysis that take notice of the inter-correlations between the physical environmental variables. To get a realistic view of the places children and adolescents visit in their daily life, we used mapping methodology where children themselves defined their important places. Based on 16 built environmental variables, six built environmental types were composed around these places.

We found that walking and cycling was most prominent in residential environments and least common in mixed use areas with offices. Environments with big commercial buildings as well as green environments had the highest proportions of car use. Most places, in general, were visited with friends, but most typically, areas with big commercial buildings and mixed use areas with offices were reached in the company of friends. Relatively many places were visited alone in residential areas.
Kastellin monitoimitalo Oulu, Arkkitehtilehti 4/15

General information
State: Published
Ministry of Education publication type: F1 Published independent work of art
Organisations: School of Architecture, Research group: Architecture: History, Theory and Innovations
Authors: Lahdelma, I.
Publication date: 2015

Event information
Research output: Solo art production » Architecture

Kattavasti rivitaloista

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture, Research group: ASUTUT
Authors: Helamaa, A.
Number of pages: 2
Pages: 80-81
Publication date: 2015
Peer-reviewed: Unknown

Publication information
Journal: Arkkitehtii
Issue number: 3
ISSN (Print): 0783-3660
Ratings:
Publication Forum (2017): 0
Publication Forum (2016): 0
Publication Forum (2015): 0
Original language: Finnish
Research output: Professional » Book/Film/Article review

Kaupunki näyttämönä

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture, Research group: Urban Planning
Authors: Chudoba, M.
Number of pages: 2
Pages: 12-13
Publication date: 2015
Peer-reviewed: Unknown

Publication information
Journal: Arkkitehtiuutiset
Issue number: 8
ISSN (Print): 0044-8915
Original language: Finnish
Links:
Research output: Professional » Article
Kaupunki uudistuu

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture, Research group: Urban Planning
Authors: Chudoba, M.
Number of pages: 2
Pages: 12-13
Publication date: 2015
Peer-reviewed: Unknown

Publication information
Journal: Arkitehtiuutiset
Issue number: 10
ISSN (Print): 0044-8915
Original language: Finnish
Links:
http://www.e-julkaisu.fi/SAFA/au_arkitehtiuutiset/10_2015/
Research output: Professional › Article

Key concepts in urban studies: 2nd edition

General information
State: Published
Ministry of Education publication type: C1 Separate scientific books
Organisations: School of Architecture, Research group: Built Environment in Transition, Research group: Urban Planning Theory
Authors: Gottdiener, M., Budd, L., Lehtovuori, P.
Publication date: 2015

Publication information
Place of publication: London
Publisher: SAGE Publications
ISBN (Print): 9781849201995
Original language: English
Publication series
Name: SAGE Key Concepts series
Links:
https://uk.sagepub.com/en-gb/eur/key-concepts-in-urban-studies/book234192
Research output: Scientific - peer-review › Book

Paluu ojankaivajien valtakuntaan

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: EDGE
Authors: Joutsiniemi, A.
Publication date: 2015
Peer-reviewed: Yes

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 53
Issue number: 1
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Puuhubi: Perinteestä uusiin innovaatioihin


Raitiotien seisakkeet: Yhdyskuntasuunnittelun jatkokurssi A ja B

Kolmosaisten kurssin painopiste oli urban design-osuudella, muiden ollessa vapaavalintaisia. Suunnittelukohteina poikkitieteellisesti muodostetuilla ryhmillä oli Kolmiosaisen raitiotien yleissuunnitelmassa esitetty kaupunkiraitiotie. Useat osallistujat olivat valinneet myös planning-osuuden, johon koottiin jäsenistö kunkin seisakkeen design-osuuden ryhmistä.

Raitiotien seisakkeet - monialainen suunnitteluprosessi opintojakson aiheena
Urban Planning and Design Advanced Course, co-ordinated by Tampere University of Technology Architecture School, opened up a possibility for the collaboration of two universities in Autumn 2014. The multidisciplinary student groups were given a task: to design a tram stop and its environment in Tampere. A real project was behind the task, giving a concrete motivation for negotiations.

General information
State: Published
Ministry of Education publication type: D4 Published development or research report or study
Organisations: School of Architecture, Research group: Urban Planning
Number of pages: 74
Publication date: 2015

Publication information
Publisher: Tampere University of Technology, School of Architecture
ISBN (Print): 978-952-15-3456-0
Original language: Finnish
Electronic versions: raitiotien_seisakkeet
Links:
Research output: Professional › Commissioned report
Strategic planning and epistemology of change: Probing the fitness of urban and planning systems with resilient spatial strategies

The aim of this paper is to question the fitness of our state-of-the-art urban planning and urban systems to adapt to continuous changes and disturbances in operating environment. We argue that in an attempt to help cities adapt to uncertain futures, strategic planning should be better informed by the epistemology of complex adaptive systems and better recognise recursive emergent processes between urban metabolism and morphology.

Temporary Uses Producing Difference in Contemporary Urbanism

General information
State: Published
Ministry of Education publication type: D3 Professional conference proceedings
Organisations: School of Architecture, Research group: Built Environment in Transition, Research group: Urban Planning Theory, University of Turku
Authors: Lehtovuori, P., Ruoppila, S.
Number of pages: 18
Publication date: 2015

Host publication information
Title of host publication: Transience and permanence in urban development workshop, Sheffield 14.—15.1.2015
Place of publication: Sheffield, UK
Research output: Professional › Conference contribution
Unlikely similar – Forking paths and path-dependency in transportation studies of Helsinki and Melbourne

General information
State: Published
Ministry of Education publication type: A4 Article in a conference publication
Organisations: School of Architecture, Research group: EDGE, Curtin University
Authors: Joutsiniemi, A., Curtis, C.
Publication date: 2015

Host publication information
Title of host publication: Book of Proceedings : 29th Annual AESOP 2015 Congress, Definite Space – Fuzzy Responsibility
Links:
http://www.aesop2015.eu/
Research output: Scientific - peer-review › Conference contribution

Uusia tuulia Euroopasta

General information
State: Published
Ministry of Education publication type: D2 Article in professional manuals or guides or professional information systems or textbook material
Organisations: School of Architecture, Research group: Built Environment in Transition, Research group: Urban Planning Theory
Authors: Lehtovuori, P.
Number of pages: 18
Pages: 42-59
Publication date: 2015

Host publication information
Title of host publication: Asukkaan ehdoilla : moninaisuutta asumamuotoihin
Place of publication: Helsinki
Publisher: RAKENNUSTIETO OY
ISBN (Print): 978-952-267-100-4
Links:
Research output: Professional › Chapter


General information
State: Published
Ministry of Education publication type: B1 Article in a scientific magazine
Organisations: School of Architecture
Authors: Lehtovuori, P.
Number of pages: 3
Pages: 77-79
Publication date: 2014
Peer-reviewed: No

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 52
Issue number: 2
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Children and youth transport in different urban morphological types

As demonstrated in many earlier studies, the qualities of physical environment have great impacts on physical activity behavior. However, studying individual built environmental variables often produces contradictory effects between studies. To overcome this, we composed multivariate environmental types using principal component analysis that take notice of the inter-correlations between the physical environmental variables. To get a realistic view of the places children and adolescents visit in their daily life, we used mapping methodology where children themselves defined their important places. Based on 16 built environmental variables, six built environmental types were composed around these places.

We found that walking and cycling was most prominent in residential environments and least common in (central) business districts. Commercial environments as well as green environments had the highest proportions of car use. Most places, in general, were visited with friends, but most typically, commercial environments and (central) business districts were reached in the company of friends. Relatively many places were visited alone in residential areas.
City of Boulevards or City of Malls? Urban Transport Infrastructure Retrofits Are Urban Landscape in Helsinki and Tampere

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture
Authors: Hämäläinen, T., Lehtovuori, P.
Pages: 36-41
Publication date: 2014
Peer-reviewed: Unknown

Publication information
Journal: Project Baltia, Archive
Issue number: 22
Original language: English
Links:

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2015-01-10<br/>Publisher name: World Society for Transport and Land Use Research
Source: researchoutputwizard
Source-ID: 195
Research output: Scientific › peer-review › Conference contribution

Designing Cities, Planning for People:

General information
State: Published
Ministry of Education publication type: A4 Article in a conference publication
Organisations: School of Architecture
Authors: Chudoba, M.
Number of pages: 10
Pages: 76-85
Publication date: 2014

Host publication information

Publication series
Name: University of Oulu, Department of Architecture, Publications
No.: A61
ISSN (Print): 0357-8704
Links:
http://ojs.tsv.fi/index.php/atut/

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2015-01-10<br/>Source: researchoutputwizard
Digitaalista ja elähtäntyttä

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: EDGE
Authors: Joutsiniemi, A.
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 52
Issue number: 4
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish
Links:
http://www.yss.fi/journal/digitaalista-ja-elahhtyta/

Eliel Saarinen ja korkean rakentamisen ristiriita

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture
Authors: Chudoba, M.
Number of pages: 16
Pages: 13-28
Publication date: 2014
Peer-reviewed: Yes

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Journal: Yhdyskuntasuunnittelu
Volume: 52
Issue number: 1
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Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2014-12-30
Source: researchoutputwizard
Source-ID: 232
Research output: Scientific - peer-review › Article
Omannäköistä asumista : Visioita kehitysvammaisten asumiseen


General information
State: Published
Ministry of Education publication type: C2 Edited books
Organisations: School of Architecture
Authors: Helamaa, A., Kotilainen, S., Lahtinen, V.
Number of pages: 167
Publication date: 2014

Publication information
Place of publication: Tampere
Publisher: Tampereen teknillinen yliopisto. Arkkitehtuurin laitos
Original language: Finnish

Publication series
Name: Tampereen teknillinen yliopisto. Arkkitehtuurin laitos. Asuntosuunnittelu. Julkaisu
No.: 13
ISSN (Print): 2242-4598
Electronic versions:
omannakoista_asumista.pdf
Links:

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2014-12-30
Source: researchoutputwizard
Source-ID: 448
Research output: Scientific - peer-review » Anthology

Public spaces, experience and conflict: The Cases of Helsinki and Tallinn

General information
State: Published
Ministry of Education publication type: A3 Part of a book or another research book
Authors: Lehtovuori, P., Kurg, A., Schwab, M., Ermert, S.
Number of pages: 23
Pages: 125-143
Publication date: 2014

Host publication information
Title of host publication: Public Space and Relational Perspectives : New Challenges for Architecture and Planning
Publisher: Routledge
Editors: Tornaghi, C., Knierbein, S.

Publication series
Name: Routledge Research in Planning and Urban Design
Publisher: Routledge
Suomen aluerakenteen ja liikennejärjestelmän kehityskuva : Ennakointiteemojen ja tulevaisuukskuvien alueelliset näkökulmat. Osaraportti 2

General information
State: Published
Ministry of Education publication type: D4 Published development or research report or study
Organisations: Department of Information Management and Logistics, Research group: Urban Laboratory, Suomen ympäristökeskus SYKE - Finnish Environment Institute, Department of Information Management and Logistics, University of Eastern Finland, Turun yliopisto
Authors: Kalenoja, H., Rissanen, R., Hynynen, A., Rehunen, A., Ahonen, O., Mäkelä, T., Pöllänen, M., Palonen, T., Rantanen, A., Hirvonen, T., Tapio, P.
Number of pages: 100
Publication date: 2014

Publication information
Place of publication: Helsinki
Publisher: Ympäristöministeriö
ISBN (Print): 978-952-11-4266-6
Original language: Finnish

Bibliographical note
Suomeen aluerakenteen ja liikennejärjestelmän kehityskuva (ALLI)<br>Contribution: organisation=tlo,FACT1=0.6<br>Contribution: organisation=ark,FACT2=0.4<br>Portfolio EDEND: 2014-12-30<br>Publisher name: Ympäristöministeriö
Source: researchoutputwizard
Source-ID: 638
Research output: Professional › Commissioned report

Tieteen tuhti perspuoli

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Research group: EDGE
Authors: Joutsiniemi, A.
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 52
Issue number: 3
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish
Links:
Towards a sustainable Skanssi
Course publication. The publication contains course works submitted for the Sustainable Design Studio 2013 which concentrate on the future development of the Skanssi area in Turku. For the publication six student groups’ analyses and structure & masterplan –proposals have been gathered. In addition to that, selected individual works by 12 students are shown in this publication. Furthermore this publication contains a green roof and storm water management analysis and an environmental and landscape management proposal for the new residential areas.

General information
State: Published
Ministry of Education publication type: D4 Published development or research report or study
Organisations: School of Architecture
Authors: Laak, M. (ed.), Del Barrio Batista, J. (ed.)
Number of pages: 87
Publication date: 2014

Publication information
Publisher: Tampere University of Technology, School of Architecture
Original language: English
Electronic versions:
towards_a_sustainable_skanssi
Links:

Bibliographical note
AUX=ark,"Del Barrio Batista, Juan"
Versio ok 14.12.2015
Research output: Professional › Commissioned report

Annikin puutalokortteli - uusi elämä asukasvetoisesti

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture
Authors: Helamaa, A.
Number of pages: 4
Pages: 32-35
Publication date: 2013
Peer-reviewed: Unknown

Publication information
Journal: RY Rakennettu ympäristö
Volume: 50
Issue number: 1
ISSN (Print): 1457-9510
Original language: Finnish

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29<br/>Publisher name: Rakennustarkasturyhdistys RTY ry; Rakennustietosäätiö RTS
Source: researchoutputwizard
Source-ID: 2283
Research output: Professional › Article


General information
State: Published
From momentary to historic: Rhythms in the social production of urban space, the case of Calcada de Sant'Ana, Lisbon

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture, Institute of Society and Space (SOCIS)
Authors: Lehtovuori, P., Koskela, H.
Pages: 124-143
Publication date: 2013
Peer-reviewed: Yes

Publication information
Journal: Sociological Review
Volume: 61
Issue number: Suppl. 1
ISSN (Print): 0038-0261
Ratings:
Publication Forum (2017): 2
Scopus rating (2016): 0.952 1.309
Publication Forum (2016): 2
Scopus rating (2015): 0.928 1.305
Web of Science (2015): 1.102 1.491 >10.0 0.152 0.00294 0.712
Publication Forum (2015): 2
Scopus rating (2014): 0.895 1.428
Web of Science (2014): 0.875 1.199 9.3 0.095 0.00271 0.605
Publication Forum (2014): 3
Scopus rating (2013): 0.874 1.421
Publication Forum (2013): 3
Scopus rating (2012): 0.521 1.004
Publication Forum (2012): 3
Scopus rating (2011): 0.767 1.079
Scopus rating (2010): 0.649 0.837
Scopus rating (2009): 0.658 1.113
Scopus rating (2008): 1.016 1.53
Scopus rating (2007): 0.868 1.264
Scopus rating (2006): 0.757 1.2
Scopus rating (2005): 0.466 1.093
Scopus rating (2004): 0.425 0.816
Scopus rating (2003): 0.518 0.984
Scopus rating (2002): 0.523 1.275
Scopus rating (2001): 0.896 1.834
Scopus rating (2000): 0.806 1.656
Scopus rating (1999): 0.521 1.197
Original language: English
DOIs:
10.1111/1467-954X.12057

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-11-29
Source: researchoutputwizard
Source-ID: 2360
Research output: Professional › Article

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29
Source: researchoutputwizard
Source-ID: 2761
Research output: Scientific - peer-review › Article
Havaintoja yhteisöasumisesta

General information
State: Published
Ministry of Education publication type: A4 Article in a conference publication
Organisations: School of Architecture
Authors: Helamaa, A.
Number of pages: 10
Publication date: 2013

Host publication information
Place of publication: Oulu
Publisher: University of Oulu, Department of Architecture
ISBN (Print): 978-951-42-9981-0

Publication series
Name: Julkaisu- Oulun yliopisto. Arkkitehtuurin osasto. A
No.: 58
ISSN (Print): 0357-8704
Links:

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29<br/>Publisher name: University of Oulu, Department of Architecture
Source: researchoutputwizard
Source-ID: 2284
Research output: Scientific - peer-review › Conference contribution

Informaatiohippasilla

General information
State: Published
Ministry of Education publication type: B1 Article in a scientific magazine
Organisations: School of Architecture
Authors: Joutsiniemi, A.
Number of pages: 4
Pages: 4-7
Publication date: 2013
Peer-reviewed: No

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 51
Issue number: 1
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29

General information
State: Published
Ministry of Education publication type: B1 Article in a scientific magazine
Organisations: School of Architecture
Authors: Chudoba, M.
Number of pages: 3
Pages: 74-76
Publication date: 2013
Peer-reviewed: No

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 51
Issue number: 1
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-11-29<br/>Publisher name: Yhdyskuntasuunnittelun Seura
Source: researchoutputwizard
Source-ID: 2045
Research output: Scientific › Article


General information
State: Published
Ministry of Education publication type: B2 Part of a book or another research book
Organisations: School of Architecture
Publication series
Name: SIY Raportti
ISSN (Print): 1237-1866

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29
Source: researchoutputwizard
Source-ID: 1892
Research output: Scientific › Conference contribution

Mitä peetä?: (Wisa Majamaa: The 4th P – people – in urban development based on Public-Private-People partnership ja Matti Kuronen: The role of partnerships in sustainable urban residential development.)

General information
State: Published
Ministry of Education publication type: B1 Article in a scientific magazine
Organisations: School of Architecture
Authors: Joutsiniemi, A.
Number of pages: 4
Pages: 67-70
Publication date: 2013
Peer-reviewed: No

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 51
Issue number: 1
ISSN (Print): 1459-6806
Ratings:
Publication Forum (2017): 1
Publication Forum (2016): 1
Publication Forum (2015): 1
Publication Forum (2014): 1
Publication Forum (2013): 1
Publication Forum (2012): 1
Original language: Finnish

Bibliographical note
Source: researchoutputwizard
Source-ID: 2428
Research output: Scientific › Article

Näkökulma vanhan vaihtuu : Towards transformation

General information
State: Published
Ministry of Education publication type: D1 Article in a trade journal
Organisations: School of Architecture
Authors: Koponen, O.
Number of pages: 9
Pages: 13-21
Publication date: 2013
Peer-reviewed: Unknown

Publication information
Journal: Arkkitehtti
Volume: 110
Issue number: 3
ISSN (Print): 0783-3660
Participatory Design when Renovating Premises - Process and Methods

General information
State: Published
Ministry of Education publication type: A4 Article in a conference publication
Organisations: School of Architecture
Authors: Ruohomäki, V., Lahtinen, M., Joutsiniemi, A.
Number of pages: 6
Pages: 1-6
Publication date: 2013

Host publication information
ISBN (Print): 978-9979-72-397-4

Publication series
Name: Annual Conference of the Nordic Ergonomics Society
Links:
http://www.nes2013.is

Bibliographical note

Patina herättää tunteita

General information
State: Published
Ministry of Education publication type: B2 Part of a book or another research book
Organisations: School of Architecture
Authors: Kalakoski, I.
Pages: 122-124
Publication date: 2013

Host publication information
Title of host publication: Kulttuuriympäristön monet kasvot : puhetta suojelusta ja restauroinnista
Place of publication: Helsinki
Publisher: Suomenlinnan hoitokunta
Editor: Perkkiö, M.
ISBN (Print): 978-951-9437-40-8

Bibliographical note

Suunnitelmallista hajaannusta

General information
State: Published
Ministry of Education publication type: B1 Article in a scientific magazine
Organisations: School of Architecture
Authors: Joutsiniemi, A.
Pages: 4-7
Publication date: 2013
The Extended Home: On design solutions for community oriented housing

General information
State: Published
Ministry of Education publication type: B3 Non-refereed article in conference proceedings
Organisations: School of Architecture
Authors: Helamaa, A.
Number of pages: 13
Pages: 378-391
Publication date: 2013

Host publication information
Title of host publication: Communal Pathways to Sustainable Living, Proceedings of the 11th conference of the International Communal Studies Association (ICSA) Findhorn Foundation and Community, Scotland, 26-28 June, 2013
Publisher: The Findhorn Foundation
Editor: Meltzer, G.
ISBN (Electronic): 978-0-9926310-0-0

Publication series
Name: International Communal Studies Association Conference
Links:

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29 <br/>Publisher name: The Findhorn Foundation
Source: researchoutputwizard
Source-ID: 2285
Research output: Scientific › Conference contribution

Tilamallinnus käyttäjätiedon ja teknisen suunnittelun yhdistäjänä

General information
State: Published
Ministry of Education publication type: B3 Non-refereed article in conference proceedings
Organisations: School of Architecture
Authors: Joutsiniemi, A., Mathlin, M., Haapakangas, A., Ruohomäki, V., Lahtinen, M., Airaksinen, M., Holopainen, R., Tuomaala, P.
Number of pages: 6
Publication date: 2013
Uusilla menetelmillä kiinni kokemukselliseen tietoon

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture
Authors: Santaoja, M., Leino, H., Chudoba, M., Bamberg, J., Nieminen, J.
Number of pages: 2
Pages: 1-3
Publication date: 2013
Peer-reviewed: Yes

Publication information
Journal: Versus
Volume: 4
Issue number: 1
ISSN (Print): 2242-3443
Ratings:
Publication Forum (2017): 0
Publication Forum (2016): 0
Publication Forum (2015): 0
Original language: Finnish
Links:
http://www.ays.fi/versus/

Bibliographical note
Contribution: organisation=ark,FACT1=1<br/>Portfolio EDEND: 2013-12-29
Publisher name: Alue- ja ympäristötutkimuksen seura ry.
Source: researchoutputwizard
Source-ID: 2431
Research output: Scientific - peer-review » Article

Yhdyskuntasuunnittelun tulevaisuuksiin tähyämässä

General information
State: Published
Ministry of Education publication type: A1 Journal article-refereed
Organisations: School of Architecture
Authors: Joutsiniemi, A., Jääskeläinen, L., Ahonen, A., Roos, J., Paqvalin, R., Reijula, K., Ahonen, A., Tuomioja, E., Lodenius, S., Marjanen, H.
Pages: 11-55
Publication date: 2013
Peer-reviewed: Yes

Publication information
Journal: Yhdyskuntasuunnittelu
Volume: 51