Jenni Partanen (Ms.)
Provastinkatu 7A
33250 Tampere
Finland
telephone +358 40 518 4405
email jenni.partanen@tut.fi

# **CURRICULUM VITAE**

## **EDUCATION**

Tampere University of Technology, Tampere, Finland
M.Arch. in Urban Planning and Design, minor in History of Architecture (2005)

Master's thesis entitled "Nekalan Itse-organisoitumisen malleja" (Models of Self-Organization in Nekala Area). (In Finnish. For the abstract in English, see the end note<sup>i</sup>)

Budapest University of Technology and Economics, Budapest, Hungary Studies in Architecture and Urban Design, (Spring Semester 1997)

Tiirismaa Senior Upper Secondary School (Tiirismaan Lukio), Lahti, Finland (1989-1992) Matriculation examination with overall grade of Laudatur (highest possible)

#### **TEACHING EXPERIENCE**

Tampere University of Technology, Tampere, Finland
Urban Planning and Design, Professional Course 2, (2002-2005)
Academic Assistant
(2006-2008, 2010-)
Academic Assistant, Lecturer
Courses are taught in Finnish and in English

Tampere University of Technology, Tampere, Finland Urban Planning and Design, Basic course (2006, 2008-) Academic Assistant, Lecturer

Tampere University of Technology, Tampere, Finland Urban Planning and Design, Advanced course (2002-2005) Academic Assistant

#### PROFESSIONAL EXPERIENCE

# **Academic Experience:**

June 2005-October 2007:

Researcher, Doctoral Student

Tampere University of Technology, Tampere, Finland

DECOMB "Design Concepts and Management of Built Environment" (Tekes)

The aim of the research was to explore new methods for planning processes in complex urbanity. The modeling was studied as a tool to take into account the essential, chaotic features of a bottom-up generating urban system.

# September 2007-Present:

Doctoral Student

TUT Graduate School, Tampere University of Technology, Tampere, Finland My research focuses on the use of the dynamic computer model in certain self-organizing areas as a method to understand and steer the bottom-up generating urban process. The aim of the research is to demonstrate by means of a dynamic model the capacity for self-organizing behavior in areas with special potential for autonomous generation.

(On maternity leave Dec.2006-Nov.2007 and May 2009-April 2010)

Research contributions also in following research projects between 2003-2012

**2007-2008 Vaativat paikat** (The Finnish Housing Fair Co-operative Organisation, Arts Council of Finland, The Building Information Foundation RTS)

**2008-2009** Pispalan KaOs (City of Tampere, European Regional Development Fund)

2011 Algoritminen asemakaava (Arts Council of Finland)

# **Design Experience**

Working since 1997 as a freelance designer. Small housing and renovation projects. Own office 2006-(Anomal). Housing and renovation designs, urban and conceptual design.

# September 2002-December 2004

#### Designer

Arkkitehtitoimisto Eero Lahti Oy (Architects' Office), Tampere, Finland Housing and urban design projects as a member of design teams. Special responsibility for 3D-modeling and visualization.

## **July2001-August 2002**

## Designer

City of Tampere, Finland

Department of City Planning

City plans in different scales in Tampere. Lintulampi "town house" area, preliminary plans for Niemi district, numerous smaller plans.

Secretary in two architectural competitions.

## July-August 2002

# **Graphic Designer**

Arkkitehtitoimisto Hanna Lyytinen (Architects' Office), Tampere, Finland layout and graphics of a publication "Historical Phases of Hämeenkatu 31 Quarter"

## May 2000-July2001

## Designer

Arkkitehtitoimisto Eero Lahti Oy (Architects' Office), Tampere, Finland Housing and urban design projects as a design team member.

#### March 1998-June 1999

## Designer

Rebuild Arkkitehdit Oy (Architects' Office), Turku, Finland
Renovation and reuse designing of a former industrial site of Upo Oy, Lahti, Finland.
Design project as a design team member, special responsibility for the site office in Lahti.

## **ARCHITECTURAL COMPETITIONS**

Urban Design Competition, Sinisaari Area, Rauma, Finland (1997)

2<sup>nd</sup> Prize

Housing Design Competition, Tampella Area, Tampere Finland (Design team/Eero Lahti Architects office) (2001)

Honourable Mention

Urban Design Competition, Developing strategy for Hervanta Area, Tampere, Finland (2003)

2<sup>nd</sup> Prize

Architectural Competition, Conversion of old shoe factory Ruuskanen, Tampere, Finland (2004)

2<sup>nd</sup> Prize

## **EXHIBITIONS**

#### **Private exhibition**

Gallery-café Niceplace, Tampere, Finland (1995)

**Paintings** 

**Private exhibition** 

Gallery Rauha, Lahti, Finland (1997) **Paintings** 

Archiprix International Organization's

Architectural Biennale "World's Best Graduation Projects"

Shanghai, China (2007) **Urban Design Project** 

**Architecture exhibition: TUT Architectural Projects** 

Main Library Metso Exhibition Space, Tampere, Finland (2007) **Architectural Design** 

participator and organizer

Architecture exhibition: "Methods of Representation" **Architectural Design** 

Pispala Library Exhibition Space, Tampere, Finland (2008)

Participant and organizer

Architecture exhibition: "FINN\_topo", **Urban Design Project** 

New topological and algorithmic architecture Design Museum, Helsinki, Finland (2009)

Architecture exhibition: "Vaativat Paikat" (Delicate Spaces) **Urban Design and Architectural Projects** 

Gallery TR1, Tampere, Finland

GIS-based method for infill development of Tampere

(Design Team)

Architecture exhibition: "FINN\_topo",

New topological and algorithmic architecture Urban Design Project Exhibition

Space Media 54, Tampere, Finland (2010)

### COMMISSIONS OF TRUST AND EXPERT TASKS

Member of the Planning Team of the Architectural Week of Tampere and the seminar "Architecture and Cities in Transition 1" (2007-2008)

Member of the Planning Team "Locality" of Tampere Architectural Policy Programme (2006)

Member of Scinetific Committee, CUPUM conference 2011

### **SCHOLARSHIPS and STIPENDS**

1000 Fim

Lahden Rakentajat ry (Builders Association of Lahti) (2002) (~170eur)

for successful university studies.

10 000 Euros "Casa Humana" Scholarship

Suomen Asuntomessujen säätiö (The Finnish Housing Fair Co-operative Organisation) (2007)

For developing a method for urban infill development and new ways of housing in the "Vaativat Paikat" (Delicate Spaces) Project (Design Team).

## 3 000 Euros Valtion Rakennustaidetoimikunta (Arts Council of Finland)(2007)

For the architectural design in the "Vaativat Paikat" (Delicate Spaces) Project (Design Team).

# **3000 Euros** Rakennustietosäätiö (The Building Information Foundation RTS) (2007)

For Exhibition and publication of the "Vaativat Paikat" (Delicate Spaces) Project (Design Team).

One week sojourn in Stockholm, Sweden

Finnish-Swedish Cultural Foundation

To explore Swedish town house typologies (2008) (Design Team).

**500 Euros** Valtion taiteen keskustoimikunta (Arts Council of Finland)(2010)

For conference trip to the Urban Planning Conference (ICURPT) in Paris, France.

4000 euros Valtion taiteen keskustoimikunta (Arts Council of Finland)(2011)

**19 000euros** Valle Scholarship (2011-12)

#### **VISITING LECTURES AND PRESENTATIONS**

## "Models of Self-Organization of Nekala Area"

Kaupunkitutkimuksen Päivät (Conference of the Urban Research), Helsinki, Finland (2005)

### "Simulations and Transarchitecture - Computational Methods in Architecture"

Tampere Summer University, Faculty of Social Sciences (2006)

## "What Are the Elements of Good Urban Environment?"

Tampereen Työväenopisto (public educational center), Tampere, Finland (2007)

# "Self-Organization as a Generator for Urban Progress"

in CityIdeals seminar for design professionals, Helsinki, Finland (2007)

## "Critical Interpretation of Visual Messages as a Part of 'Civil Expertise' in urban planning"

Maantieteen päivät (Geographical Conference), Tampere, Finland (2008)

## "Can We Control the City? New Theories and Methods in Urban Planning and Design"

University of Tampere, Department of Environmental Policy (2009)

# "Complexity and Ethics - Evaluating the Self-Organization of Reality"

International conference of the Nordic Association of Architectural Research (NAAR). Tampere, Finland (2010)

"Evaluating Complexity - Ethical Challenges in Computational Design Processes"

International Conference on Urban, Regional Planning and Transportation (ICURPT) by World Academy of Science, Engineering and Technology (WASET). Paris, France (2010)

"Modelling the Local Scale Land-Use: Case Nekala". in GISRUK2011, Portsmouth, UK.

"A Cellular Automata Model for Simulating Local Scale Urban Dynamics." in CUPUM 2011, Lake Louis, Canada.

"Modeling Urban Dynamics in Self-organizing Enclaves: The Cases of Nekala and Vaasa". in ECQTG meeting 2011, Athens, Greece.

"Simulation in steering of complexity and self-organization in the city". Visiting lecture in UERL meeting, University of Washington. 2012.

## **PUBLICATIONS**

#### **Books**

"Nekalan teollisuusalueen itse-organisoitumisen malleja" (Models of Self-Organization of Nekala Area). Master's thesis, Tampere University of Technology. (Tampere: Department of Architecture, TUT, 2005) (In Finnish. For the abstract in English, see the end note)

# Articles and Conference Papers

#### Scientific articles:

Partanen J (2007): **Experiment in Architectural Education** in: Ylä-Anttila, K and Alppi S (eds.): *City Scratching*. Datutop series. Department of Architecture, Tampere.

Partanen J , Joutsiniemi A (2007): **Simulaatio kaupungin kompleksisen kehityksen hallinnassa**. in Yhdyskuntasuunnittelu 2/2007.

Partanen J , Joutsiniemi A (2008): **Monimuotoisuuden ja kompleksisuuden mallintaminen** in: Ahlava A, Edelman H (eds): *UDM Urban Design Managment. Opas käytäntöön* (Finnish edition) (2008).

Joutsiniemi A, Partanen J, Pakarinen T(2008): **Kehitysimpulsseja synnyttävä kaupunkikonteksti**in: Ahlava A., Edelman H (eds): *UDM Urban Design Managment. Opas käytäntöön* (Finnish edition).

Partanen J, Joutsiniemi A(2009): **The Modeling of the Manifold and the Complex** in: Ahlava A, Edelman, H (eds): *UDM Urban Design Managment*. (English edition) (**Taylor & Francis**, 2009).

Joutsiniemi A, Partanen J, Pakarinen T(2009): **An Urban Context Which Generates the Impulse to Development** in: Ahlava A, Edelman H. (eds). *UDM Urban Design Managment*. (English edition) (Taylor & Francis, 2009).

Partanen J (2010): Complexity and Ethics. Conference paper in NAAR 2010 in Tampere, Finland.

Partanen J (2010): Ethical Challenges in Complex Design. Conference paper ICURPT 2010 Paris, France.

Partanen J (2010): **Reclaiming the Fallow Resources: Potential for Breeding Ground or Over-Exploitation** in: Ylä-Anttila K (ed): City Scratching. Datutop series. (Department of Arch., Tampere).

Partanen J (2011): **Modelling the Local Scale Land-Use: Case Nekala**. Conference paper in GISRUK2011, Portsmouth, UK.

Partanen J (2011): A Cellular Automata Model for Simulating Local Scale Urban Dynamics. Conference paper in CUPUM 2011, Lake Louis, Canada.

Partanen J (2011): Modeling Urban Dynamics in Self-organizing Enclaves: The Cases of Nekala and Vaasa. Conference paper in ECQTG 2011, Athens, Greece.

Partanen J (2012): **Exploring complex dynamics with a CA based urban model.** Conference paper (submitted) in CAMUSS 2012, Porto, Portugali.

#### Other publications

"Self-Organization of Nekala Area", project in exhibition catalogue of Archiprix International / Architectural Biennale "World's Best Graduation Projects". Shanghai, China (2007).

Final Report of "**Pispalan KaOs**" city district development project. Jenni Partanen (ed.), Riikka Pylvänen 2009. (In Finnish, no English abstract available)

Final Report of "Vaativat Paikat" urban design and development project, 2010 (Kaarsalo,S;Partanen,J;Leppänen,T). (In Finnish, no English abstract available)

An article "Uusia yhteistyön muotoja ja kaupunkikehityksen työkaluja etsimässä" (Exproring the new methods of co-operation and tools for urban developing) ). (In Finnish, no English abstract available). In Museokello Magazine (Publications of Museums of Tampere)(2009). In Finnish, no English abstract available)

An article "Ajatuksia Apolista" (Reflections of Architectural Policy Program) In Pispalainen magazine (2/06)

#### endnotes: APPENDIX

<sup>i</sup> "Nekalan teollisuusalueen itse-organisoitumisen malleja" (Models of Self-Organization of Nekala Area). Master's thesis, Tampere University of Technology.

#### THESIS ABSTRACT

Author Student number

Jenni Partanen 136909 8.6.2005

#### Abstract

In this thesis the aim is to develop a method for modeling the self-organizing growth of the urban structure avoiding deterministic planning.

Ongoing change of urban structure from centre—periphery -dualism towards multi-nodal structure has challenged the traditional town planning. It is crucial to develop new methods for controlling and describing self-organizing, complex processes.

First the set of rules were defined concerning the quality and quantity of actions in the area. Then different possible futures were calculated by GIS. The calculations were visualized to illustrate the potential results. Finally some unconventional building typologies were created on the lower scale. In most cases, results of differently thematized alternative futures varied as expected.

Somehow model seemed to create fascinating, chaotic order in its illusionary unpredictability, simulating realistically self-organizing process in urban structure.

Utility of the method among different factors is remarkable. It offers a totally new and alternative tool for conventional town planning process aiming to a stabile urban structure. It is possible to create visualized models to help interaction between different actors in building industry, planning and design.