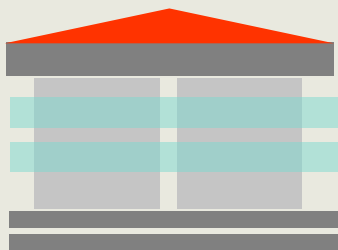




InnoSchool - InnoArch

Presentation of a Research Project



13.9.2008

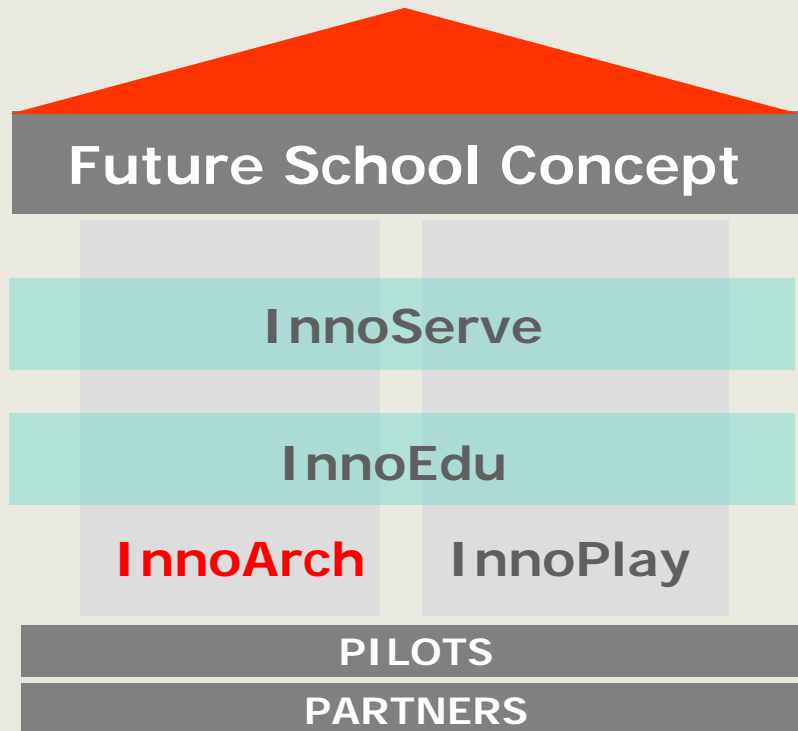
Aija Staffans

Helsinki University of Technology

Department of Architecture

InnoSchool

Innovations in Architecture, Education, Playful Learning and Services
1.1.2007-31.12.2009



University of Helsinki

InnoEdu

Faculty of Behavioral Sciences,
Center for Research on Teaching

University of Lapland

InnoPlay

Faculty of Education,
Centre for Media Pedagogy

Helsinki University of Technology

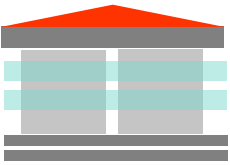
InnoArch – Places and Spaces for Learning

Department of Architecture

InnoServe

Department of Computer Science
and Engineering, SimLab



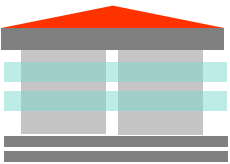


InnoSchool

Innovations in Architecture, Education, Playful Learning and Services
1.1.2007-31.12.2009

“The InnoSchool consortium project researches and develops schools, with the goal to develop the Innovative School Concept. The two overarching research questions of the project are:

- 1) What are the innovative concepts, i.e. the practices, processes, models and principles that should be followed in planning, designing and implementing the Future School so that it becomes a boundary-permeating systemic innovation?
- 2) Specifically, we want to define the concepts that concern architecture, pedagogy, playful environments, and service processes, and especially their trans-disciplinary combinations that support educational innovations in the Future School.”



InnoSchool Consortium

Research

Helsinki University of Technology
University of Helsinki
University of Lapland
Stanford University
University of California, Santa Barbara (UCSB)

Industrial Partners

Cramo Finland
Elisa
Lappset Group Ltd.
Martela Group
Microsoft

Municipalities

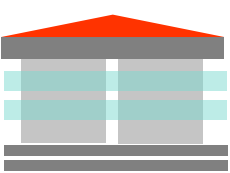
City of Espoo
City of Helsinki
City of Rovaniemi

Dissemination Partners

National Board of Education
Finnish Forest Industries Federation

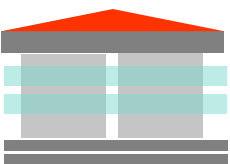
Funding

Partners (20%)
Tekes – Finnish Funding Agency for Technology and Innovations (80%)

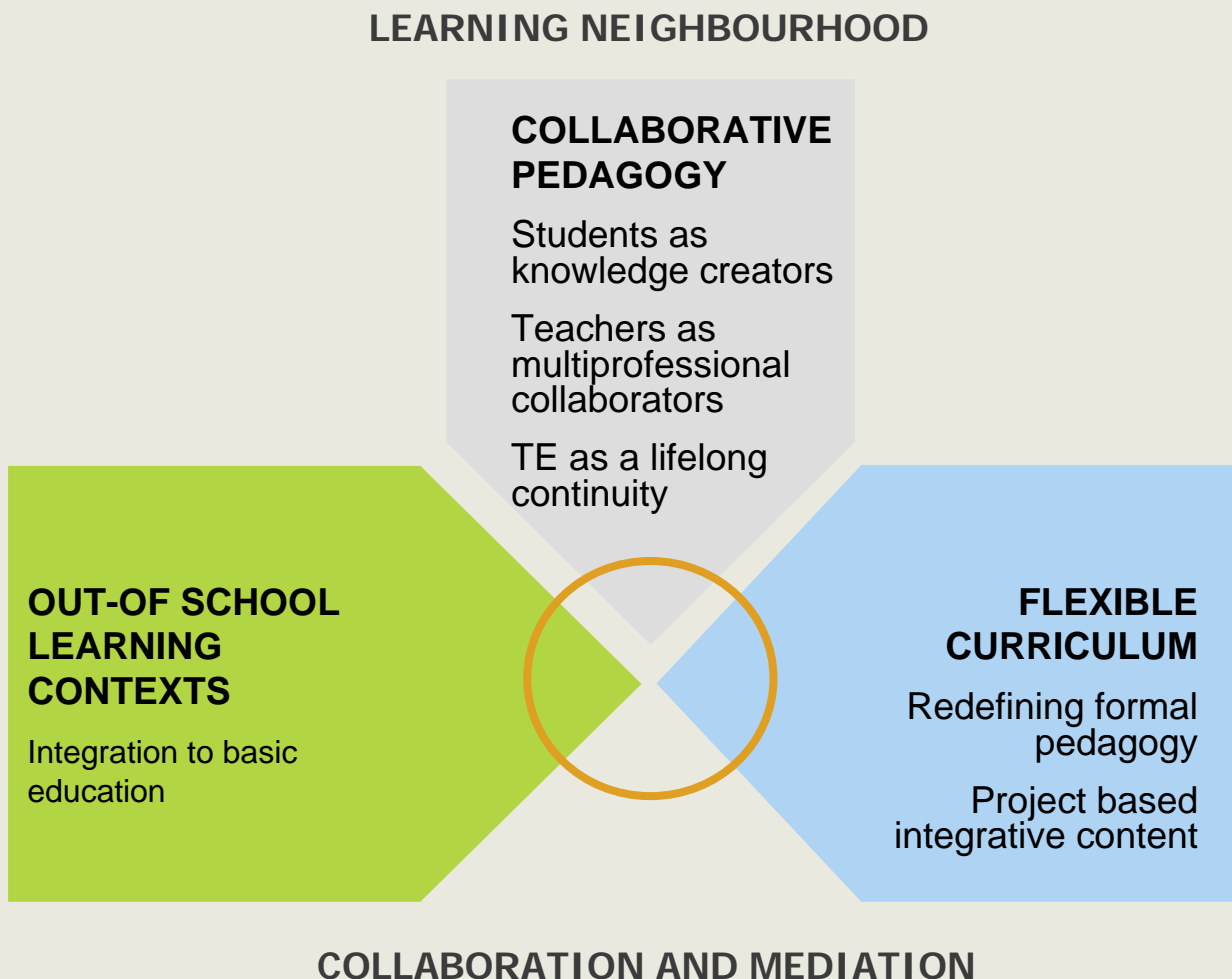


InnoSchool Concept Design





InnoEdu Research Frame



INFORMAL

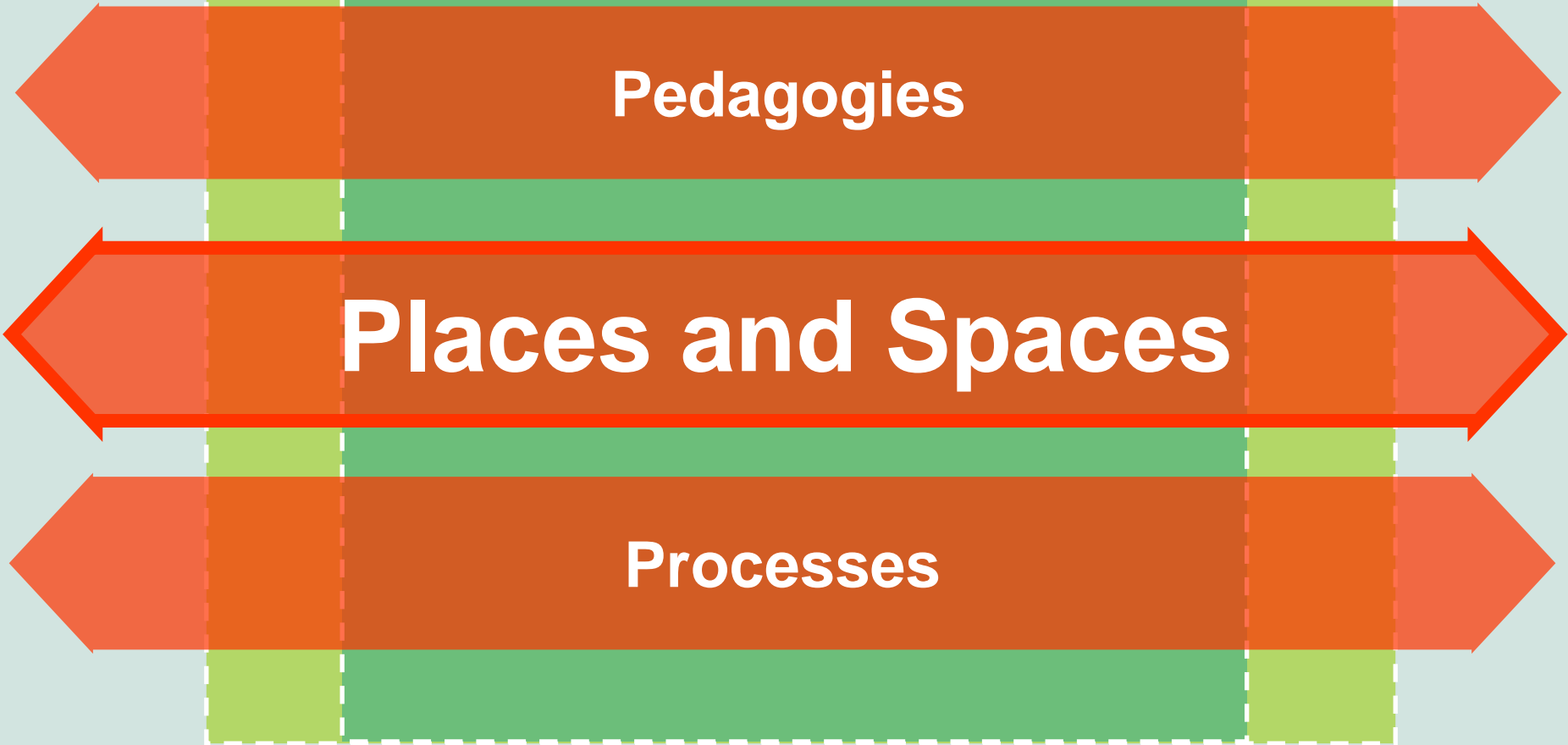
NONFORMAL

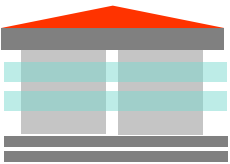
FORMAL

Pedagogies

Places and Spaces

Processes



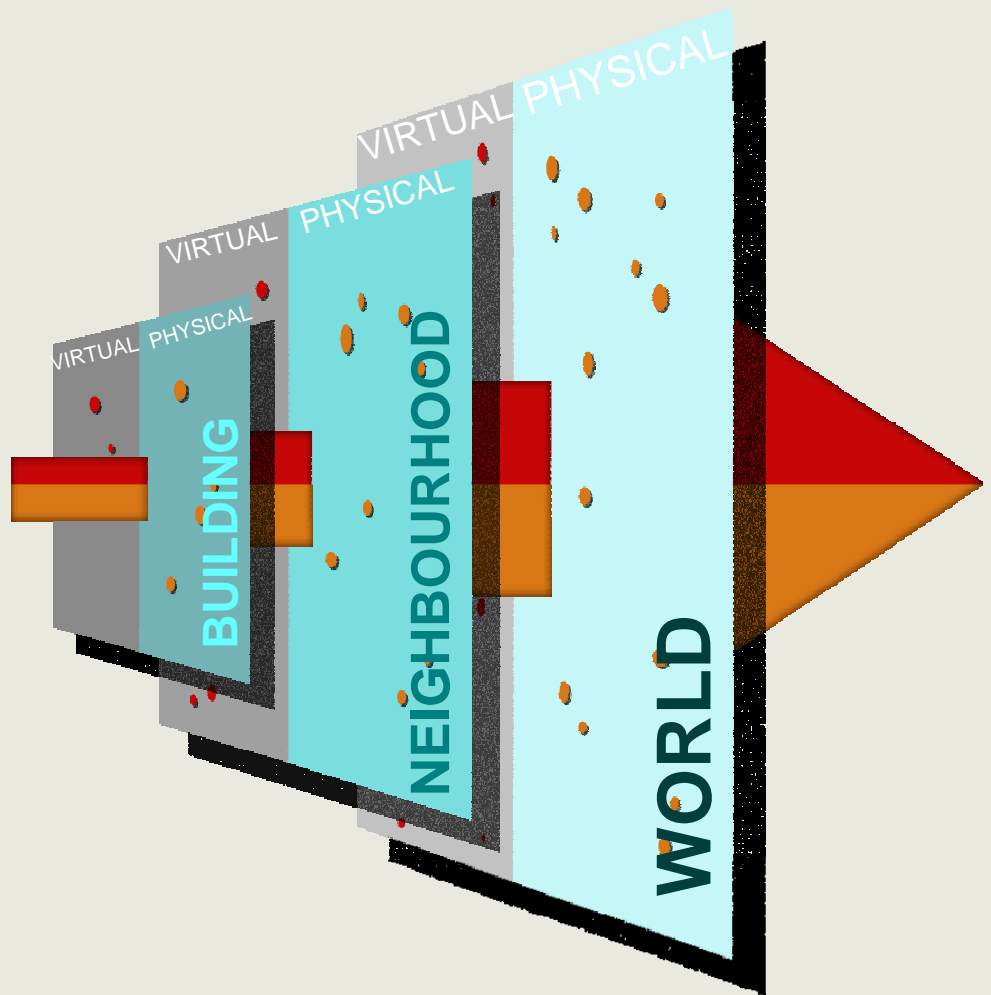


InnoArch Goals

Primary Goal: to deepen the understanding of the interrelationship between a spatial experience and a meaningful learning process (TSL)

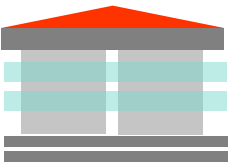
TSL* processes

Secondary Goal: to develop a collaborative, inquiry based planning and design process for the future school

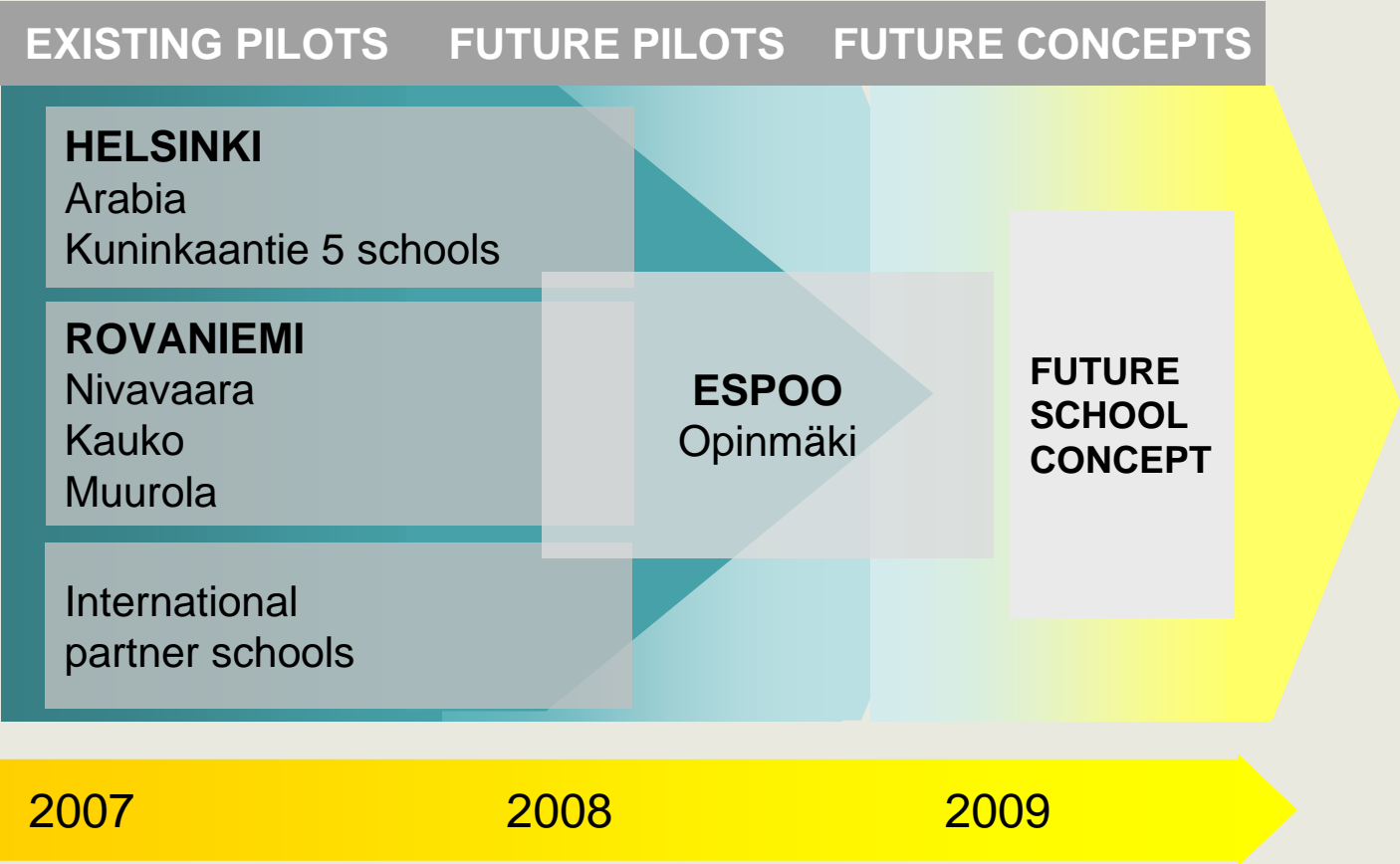


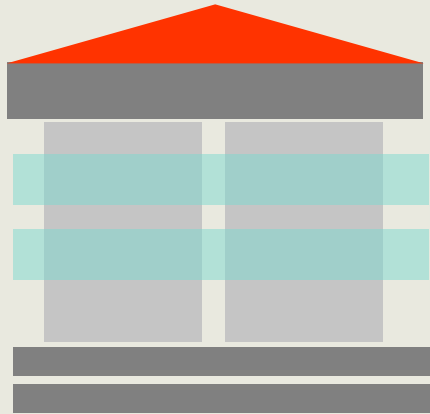
* TSL= teaching, studying learning

Research Frame and Focus Areas



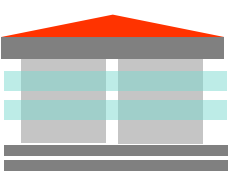
InnoSchool Pilot Schools





InnoArch Indoor Studies
InnoArch as a Co-developer
InnoArch Outdoor Studies

”Mediating Places and Spaces”



Mediating Places and Spaces

InnoArch Indoor Studies: Stanford Loft

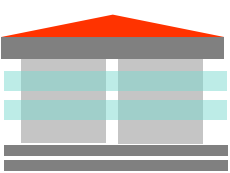


Higher Education in Stanford:

**Multinational student teams working in a collaborative space called Loft
What makes the learning experience so special?**



Source: Lilli Palasto 2008



Mediating Places and Spaces

InnoArch Indoor Studies: Spatial Intensity in Arabia School

"Informal learning and the use of space?"

Mapping and monitoring the use of Arabia School together with InnoEdu



SA-3

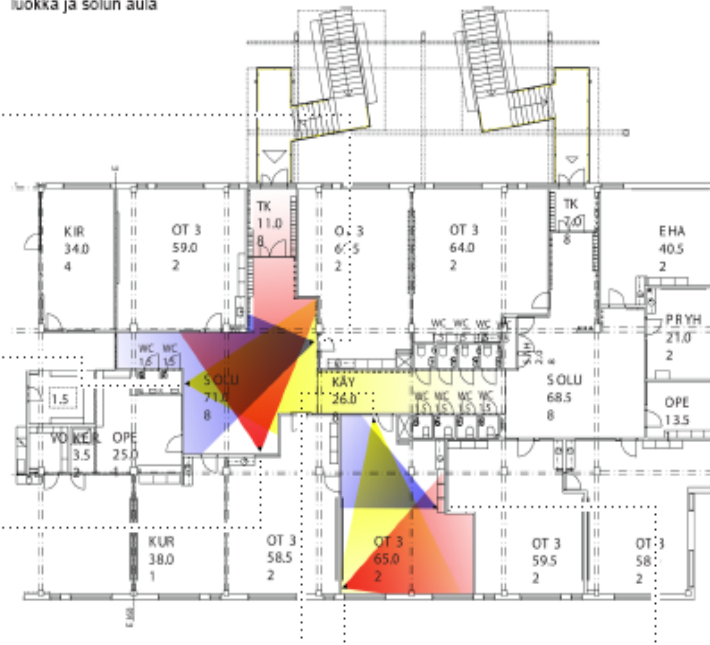


SA-1



SA-2

Kamerat, viikko 1/2:
luokka ja solun aula



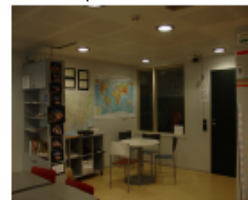
L-1



L-2



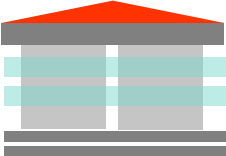
L-3



Class of 24 pupils
Age 10
Video observation in
the class room and in the
lobby for one week

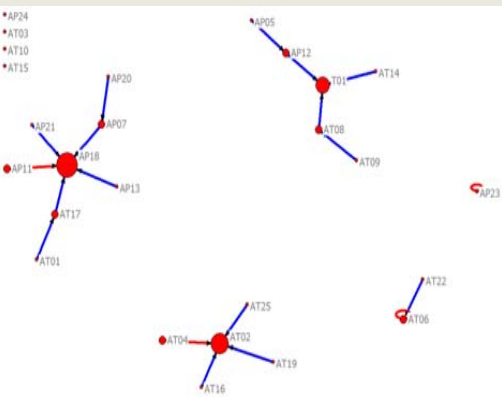
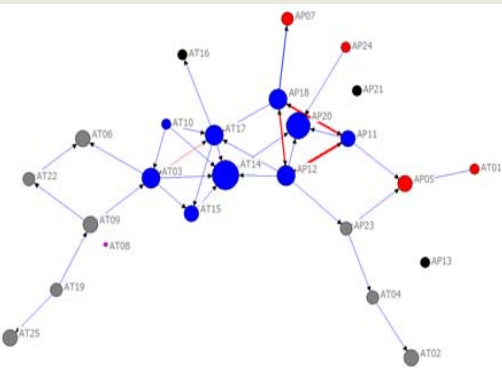
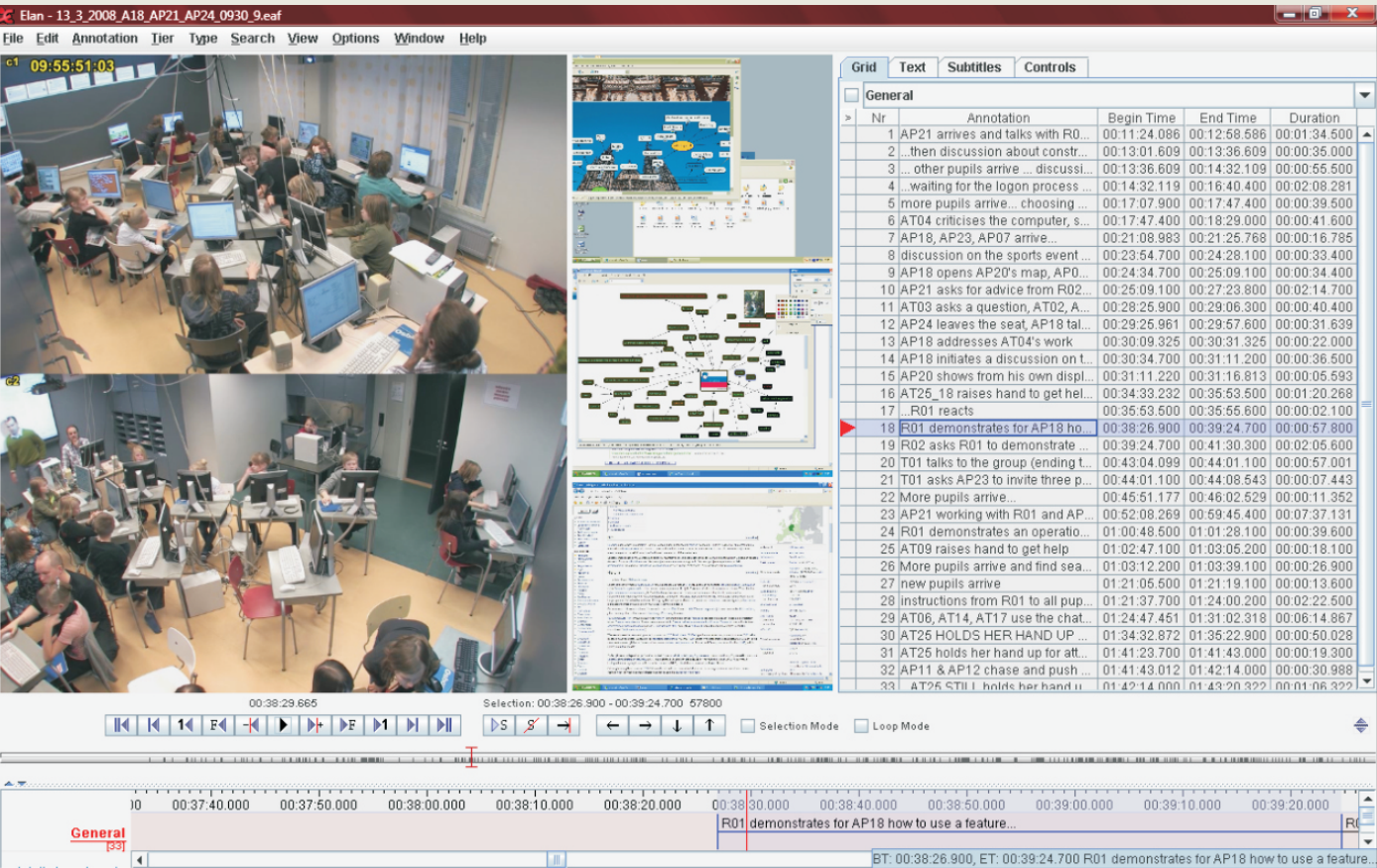
Mapping events in
particular places in school
house;
identifying themes,
actions and practices;

Developing video-
enabled, evidence-based
research methods;
archiving, analysis and
representing the film
(Green&Skukauskaitė
2007; Elan & Monty)

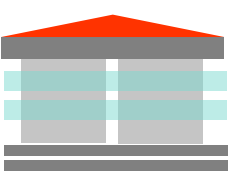


Mediating Places and Spaces

InnoEdu Studies: Informal Episodes in Class Room



Source: Leena Krokfors 2008



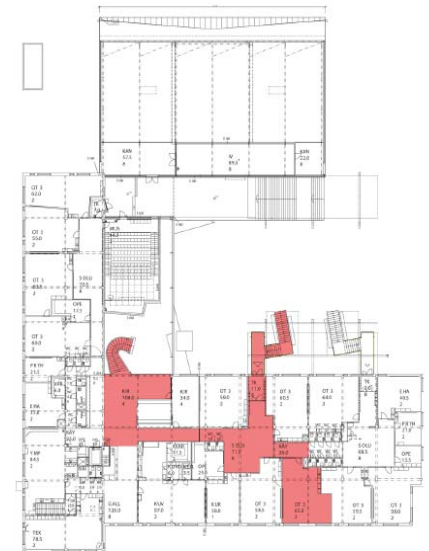
Mediating Places and Spaces

InnoArch Indoor Studies: Spatial Intensity in Arabia School

Koulu valitun kohdeluokan kokemana



Arabian koulu, 1. kerros

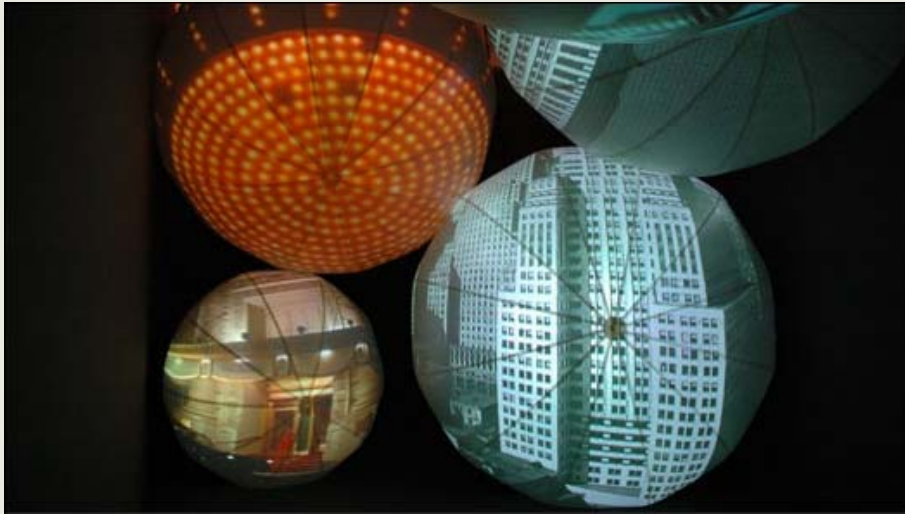


Arabian koulu, 2. kerros

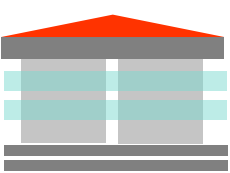
What is the connection between space and learning
-evidence?

SPATIAL INTENSITY
What Constitutes Experiential Space and How We Perceive It
Arvi Mäkitalo 2008

Spatial Intensity – Augmented Reality



Source: Imaginary Forces 2006 / Bubbles in the wine



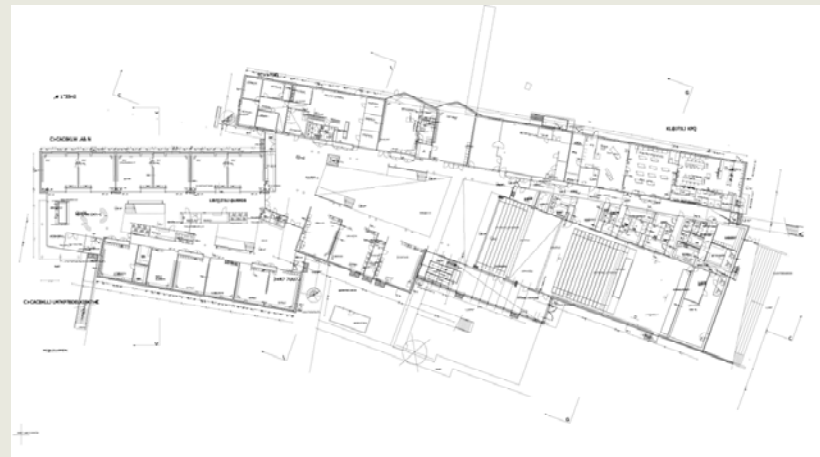
Mediating Places and Spaces

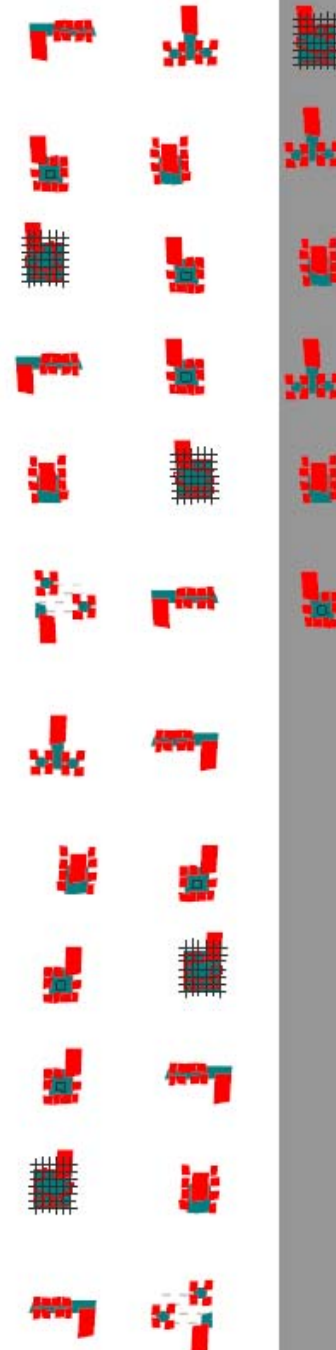
Post Occupancy Evaluation in 19 Finnish School Buildings



Evaluating building performance and looking for activity spots outside formal teaching facilities

Jukka Sulonen 2008





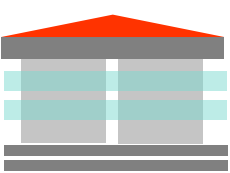
Examples of Finnish

Schools



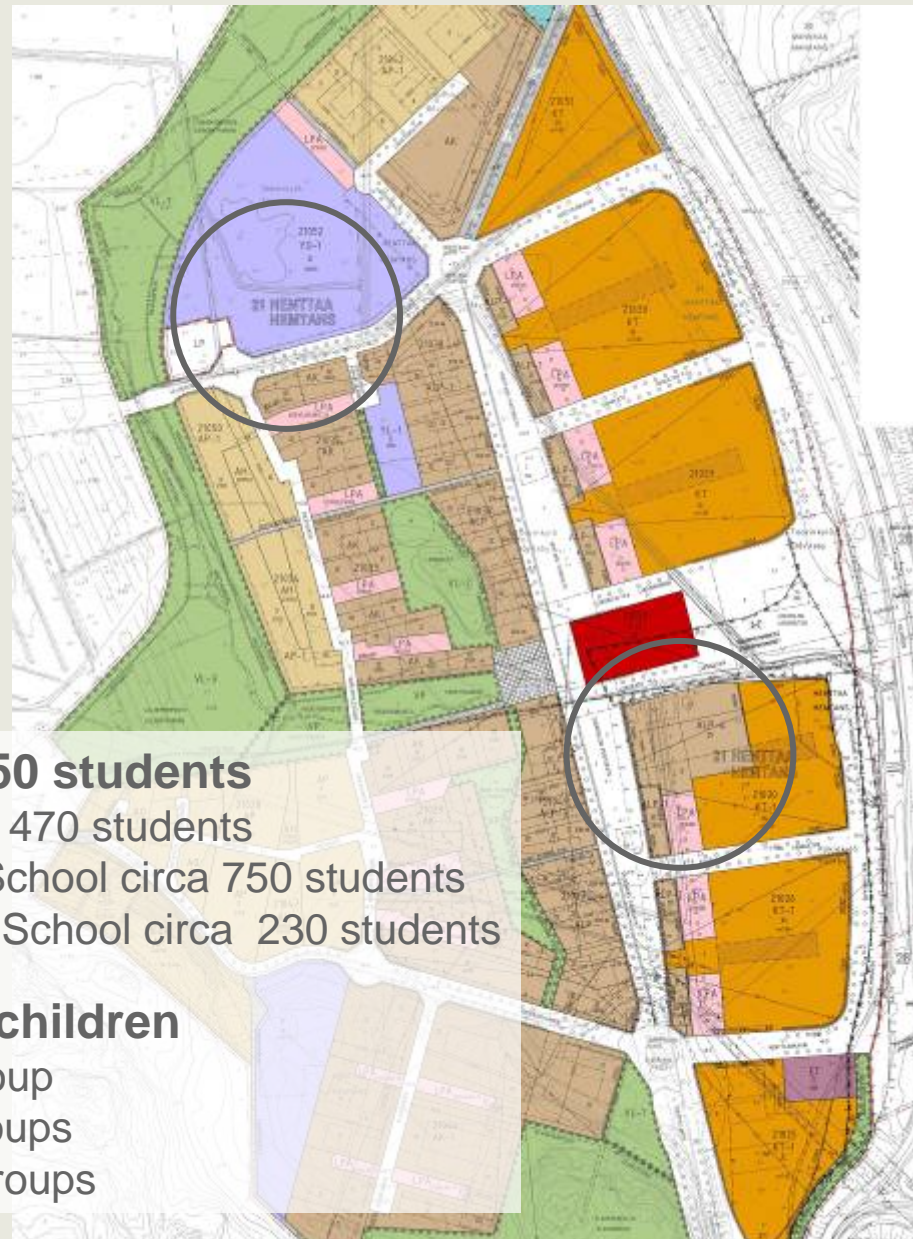
InnoArch

jukka sulonen M.Sc. (Arch.)



InnoArch as a Co-developer

Case Opinmäki School in Espoo

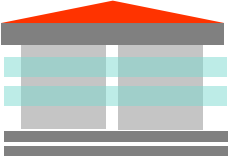


Education: Place for 1450 students

- International School circa 470 students
- Finnish Comprehensive School circa 750 students
- Swedish Comprehensive School circa 230 students

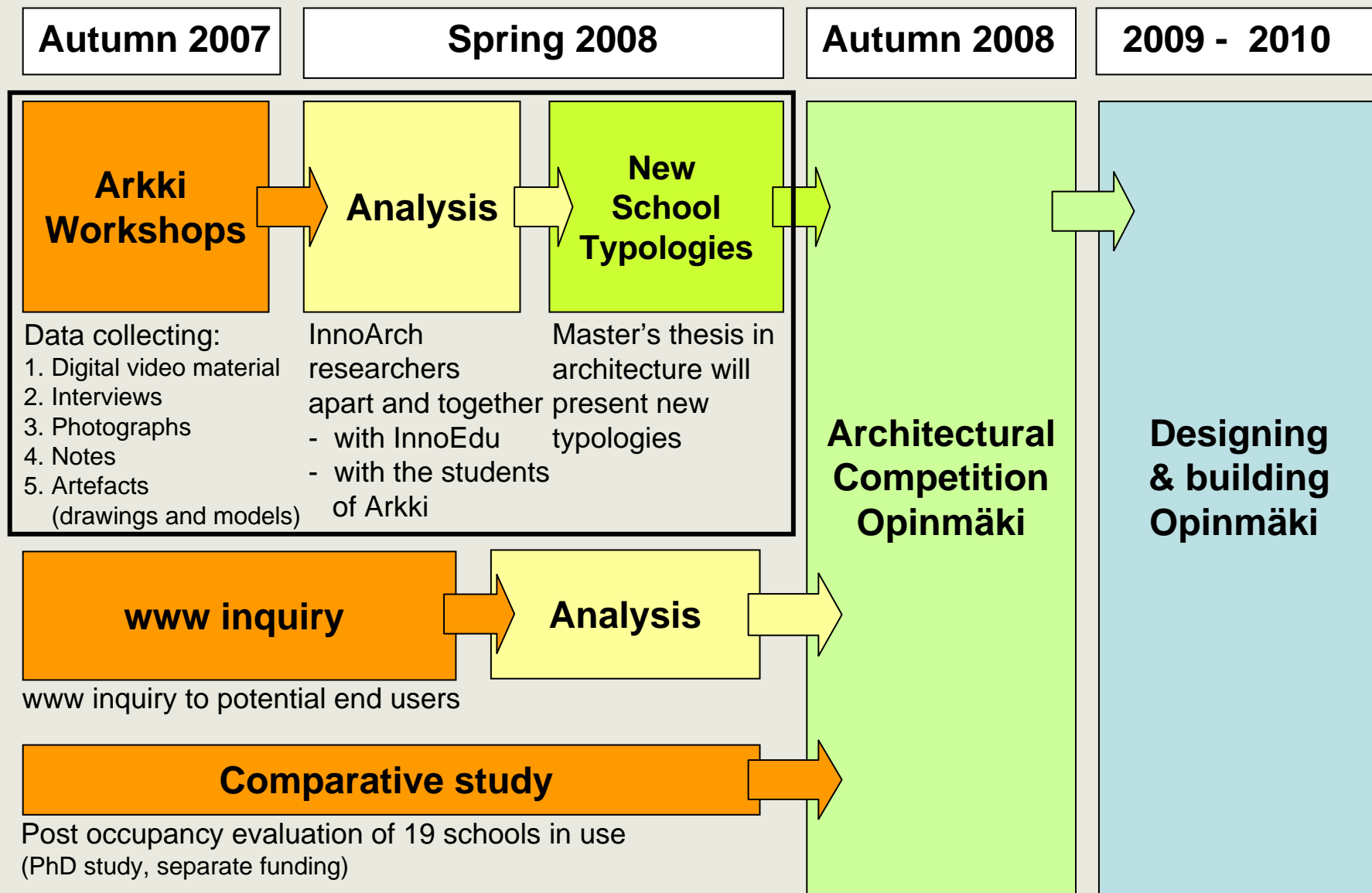
Day care: Place for 120 children

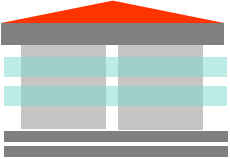
- Day care in English: 1 group
- Day care in Finnish: 4 groups
- Day care in Swedish: 2 groups



InnoArch as a Co-developer

Case Opinmäki School in Espoo





InnoArch as a Co-developer

Case Opinmäki School in Espoo

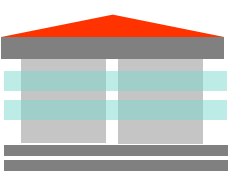


Opinmäki workshop

28.8.2008

for Espoo Educational Administrators

”Kick off for the planning process”



InnoArch as a Co-developer

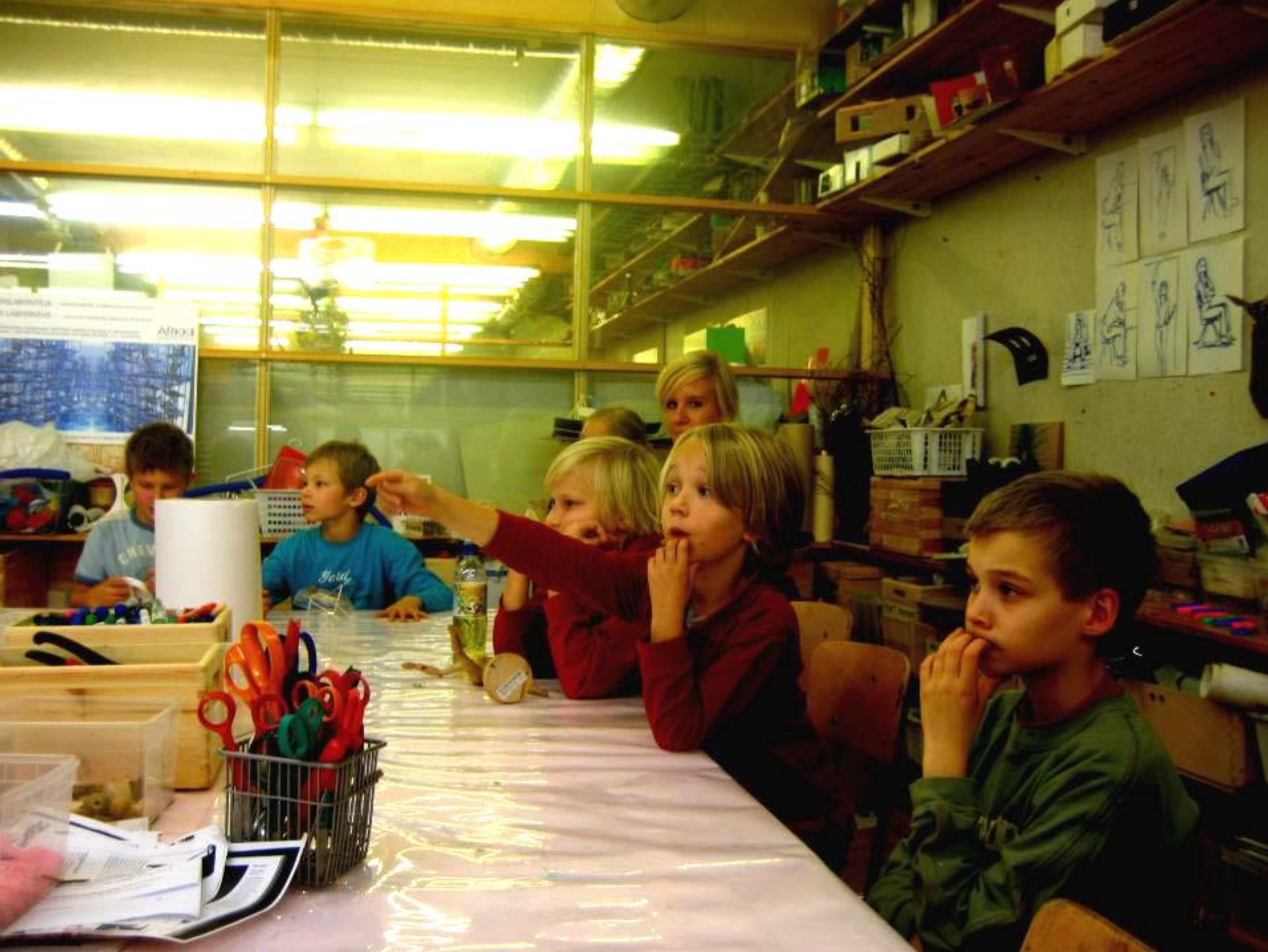
Children's Architecture Workshops Arkki

Children and young people in ages 11-18 working together
Documented in photographs and video tapes

18 workshops and closing seminar in autumn 2007

Arkki= Architectural School for Children and Youth
Architecture is part of the visual arts education in Finland
at the comprehensive school in Finland



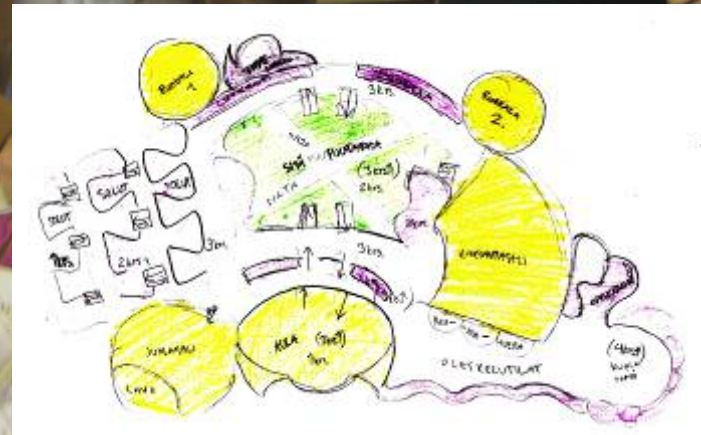








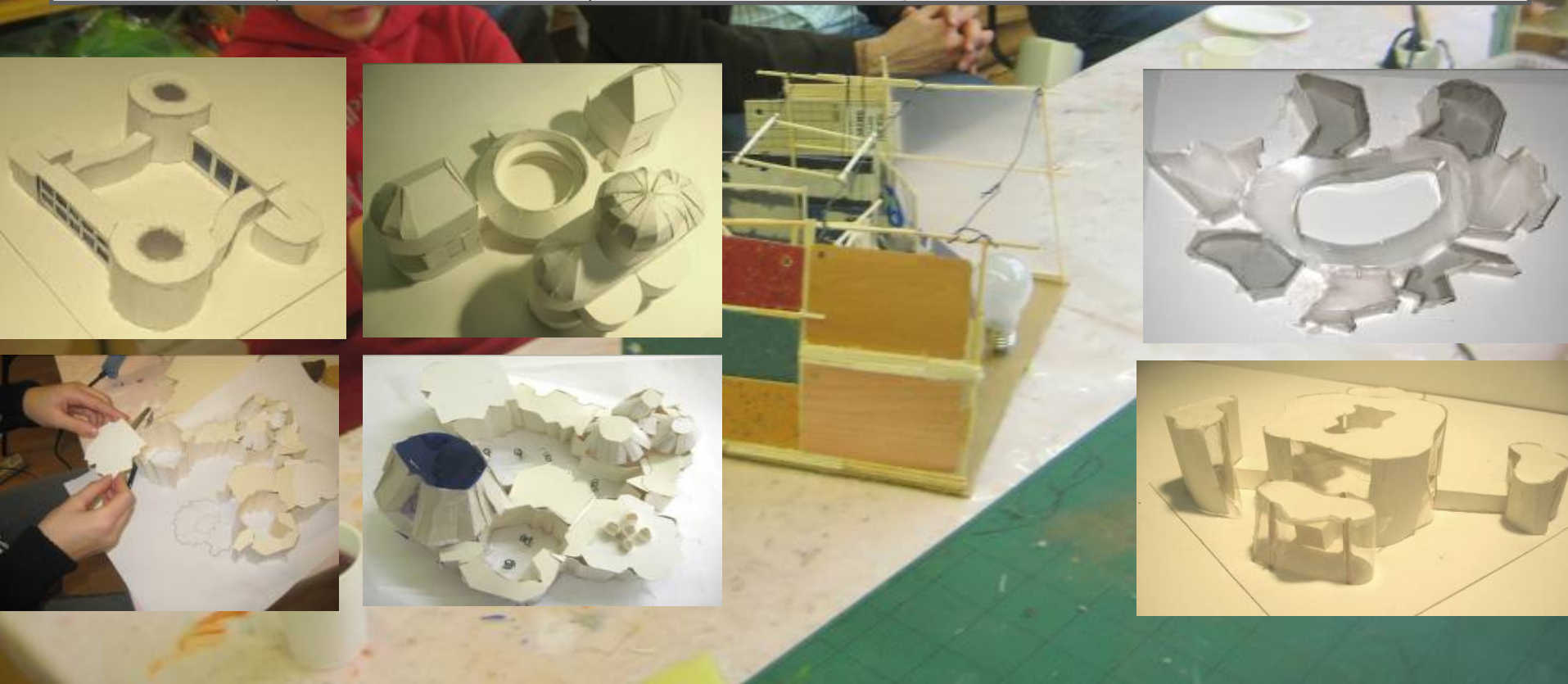
7. workshop	20.11.& 21.11.	Future Spaces to study and learn (groups) (2)	Organic shapes. Cell shape came out and also attempts to share round shape into cornered rooms.
8. workshop	27.11.& 28.11.	Future Spaces to study and learn (clusters) (3)	The big centre hall surrounded by smaller spaces (class rooms) came out several times. Rooms were very high with balconies, bridges and many levels inside. On the roofs open air living areas. Access outside directly from every class room. Nature elements like stones or water elements like fountains, ponds and brooks, were placed between the class rooms.

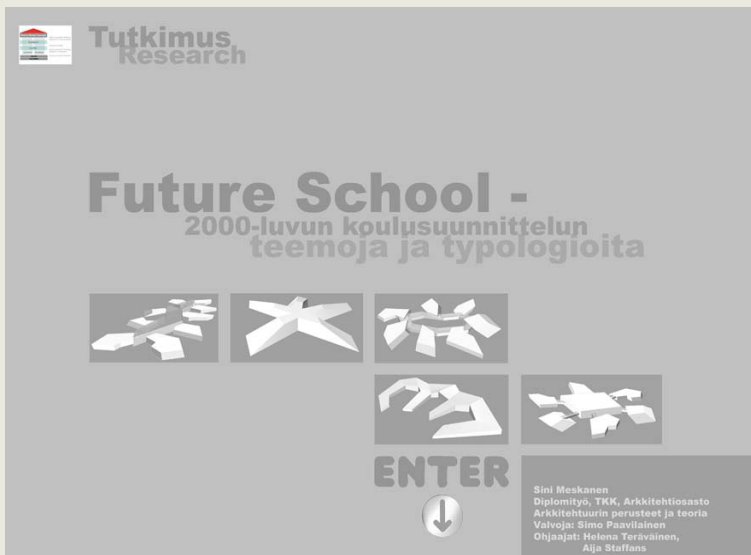






10. workshop	11.12. & 12.12,	modelling the school house. Photographing the models.	Stairs like Guggenheim's, rhythm like Reima Pietilä's. A lot of greenery and water. Pilotism. Bridges between houses on pillars. Multi-shaped buildings. Houses resembling rocky stones. Many interesting roof windows. Steps with lawn. Shelters and sun awnings. Round buildings divided in sectors etc.
Seminar at Arkki School	19.12.	Discussion about all topics and creations together with parents	A huge amount of fantastic drawings and models. The overall picture was cleared up to, when everything was repeated and analysed together. The students (pupils) had again opportunity to explain their solutions to the audience.





Future School

Thematic and Typologic Rethinking of School Design
with Children

Piazza

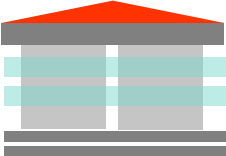
Stoa

Serial Atriums

Roof Garden

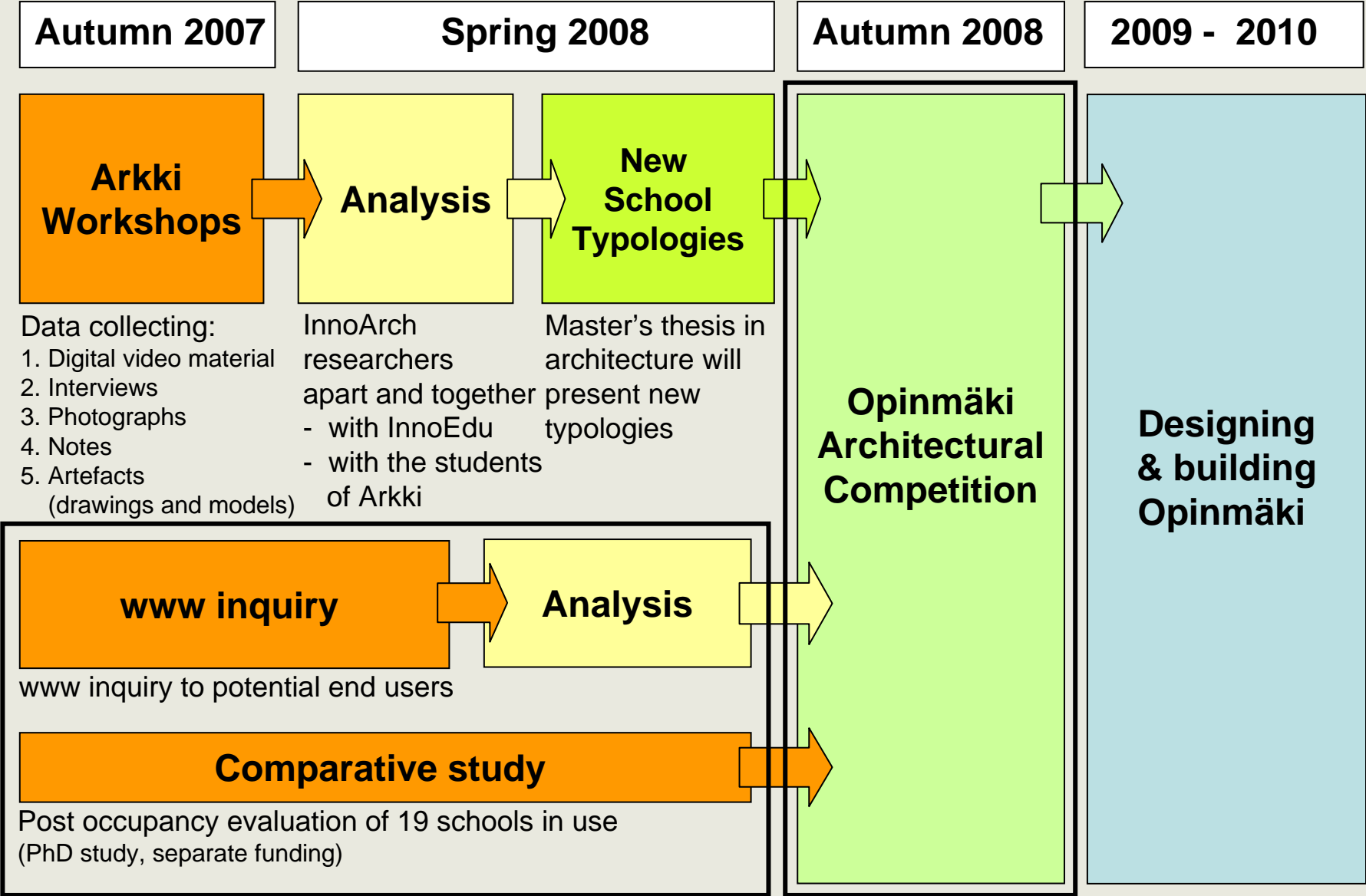
Heart, bridge and clusters

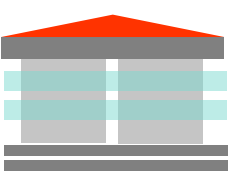
Source: Sini Meskanen 2008



InnoArch as a Co-developer

Case Opinmäki School in Espoo





Mediating Places and Spaces

InnoArch Outdoor Studies in Arabia School

Children as Environmental Agents in Helsinki and in Rovaniemi



Asking children about their perceptions, experiences and movement in the neighbourhood



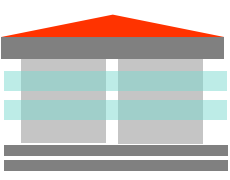
1. Mind mapping



2. Mobile mapping



3. Interview



Mediating Places and Spaces

InnoArch Outdoor Studies in Arabia School

Neighbourhood level environmental study by using mobile phone, GPS logger, Brieftec Binder software and GIS applications (Google Earth)

Source: Sirkku Huisko ja Reetta Hyvärinen 2008



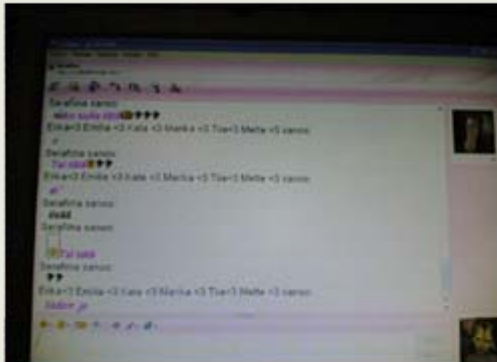
Details...



Pets and animals...



Unique hobbies and important elements of everyday life...

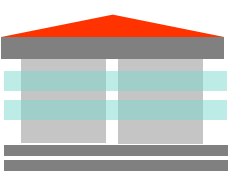


Reetta Hyvärinen 2008

Social gathering e.g. shopping malls...



Reetta Hyvärinen 2008



Mediating Places and Spaces

Kuninkaantie School Forum (www.koulufoorumi.fi)

Kuninkaantien Koulufoorumi

Luo Oma kohde

School Forum is

- a mediating virtual space between the school and the local community and
- a publishing platform for project based TSL

5 schools, project groups in art, literature, physics, history

Kommentin sävy: *

positiivinen ▼

Aihe: *

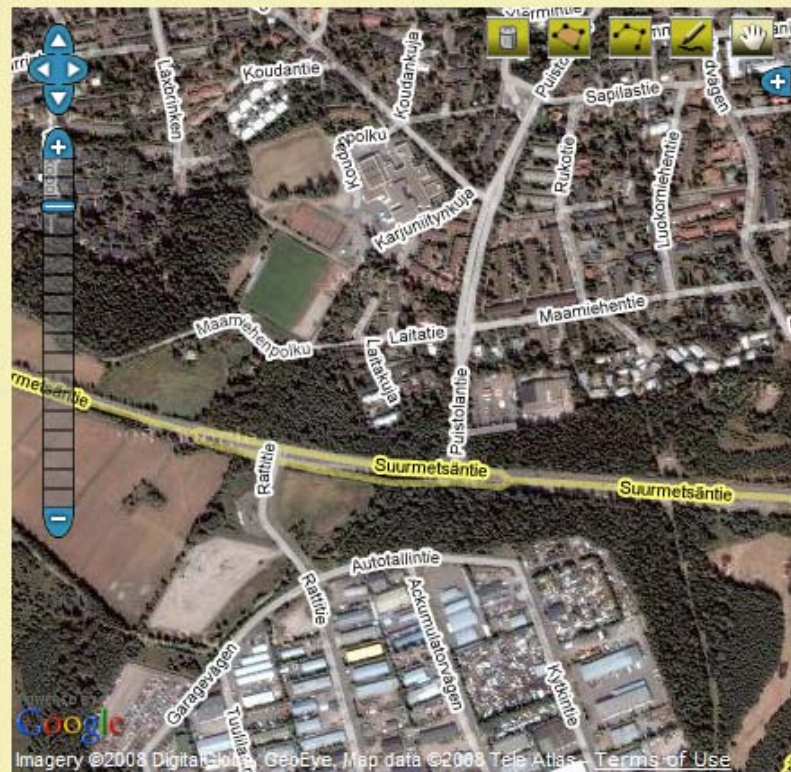
Historia ▼

Selaa

Hae

Lisää oma kohde

Ohje



Sharing the School Forum with the Mesa School, Santa Barbara?



IN FINLAND

Breaking boundaries through collaborative and mediating spaces

Theme

Expected Results

Schools as Platforms

Developing collaborative planning methods for the holders in groups

Well-being

School Learning Environments

School as a Learning Neighbourhood

collaborative spaces

for TSL processes

Schools as Integrators for Learning Resources and Networks

Local forums as mediators between the neighbourhood and the school; international collaboration

Schools as Platforms for Life-wide and Life-long Learning

Collaboration, mediation and sustainability guiding the planning process of the school



IN FINLAND