Chair for Information Architecture | FS2009 Elective Course Information Architecture

Introduction to Information Architecture

Prof Dr Gerhard Schmitt February 16, 2009



# Introduction Information Architecture

- Chair for Information Architecture
- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

# Introduction Information Architecture

## – Chair for Information Architecture

- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

# Chair for Information Architecture Prof Dr Gerhard Schmitt Dr Remo Burkhard Dipl Ing Jan Halatsch Dipl Ing Antje Kunze Dr Stefan Müller Arisona MSc Christian Schneider Dipl Des Sandra Wipfli Admin Ass Martina Sehmi

Chair for Information Architecture | FS2009 General Information Lecture

# Lecture | 13 - 14 p.m. | HIT H42 Participation 80% = 1 ECTS

Information Architecture Prof Dr Gerhard Schmitt 051-0724-09 V Chair for Information Architecture | FS2009 General Information Exercise

# Exercise Line I | 9 - 12 a.m. | HIT F22 / H31 Participation 80% + accepted Project = 3 ECTS

Topic: New Methods in Urban Simulation: "Collaborative City Design" | 051-0726-09 Jan Halatsch, Martina Jacobi halatsch@arch.ethz.ch, martimal@student.ethz.ch Chair for Information Architecture | FS2009 General Information Exercise

# Exercise Line II | 14 - 17 p.m. | HIT H31 Participation 80% + accepted Project = 3 ECTS

Topic: Visualize Urban Complexity | 051-0726-09 Christian Schneider, Sandra Wipfli, Lukas Treyer Seminar | Thesis Elective/Diplomwahlfacharbeit 14 - 15 p.m. | HIT H31 Participation 80% + Presentation + Thesis (6-8 pages) = 5 ECTS

Topic: New Methods in Urban Simulation: "State of the art in city modeling" | 063-0724-09 Jan Halatsch, Martina Jacobi <u>halatsch@arch.ethz.ch</u>, <u>martimal@student.ethz.ch</u>

#### Chair for Information Architecture | FS2009 Schedule



Ll	16-02	Introduction Information Architecture
L2	23-02	Excursion Biblioteca Werner Oechslin
L3	02-03	History of Information Architecture
L4	09-03	Thinking Information as a raw Material
L5	16-03	Information. The 5th Dimension in Architecture
L6	30-03	Push.Click.Touch. Visiting the Value Lab
L7	06-04	Smart Environments
L8	27-04	Computer Supported Collaborative Work
L9	04-05	New Methods in Urban Simulation
L10	11-05	Guest lecture
L11	18-05	Guest lecture

## Ll Introduction to Information Architecture

- Chair for Information Architecture
- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

L2 Excursion to the Biblioteca Werner Oechslin

Monday 23rd of February, 2009 | 13:00 - 17:00

Transport by bus 13.00 Meeting point at the orange sign 'SCIENCE CITY INFOSPOT' outside the HIL-building.

Contact: Sandra Wipfli, <u>wipfli@arch.ethz.ch</u>, + 41 44 633 29 02

### L3 History of Information Architecture

- From Cardboxes to Web 2.0
- Principles
- Evolving Trends

### L4 Information as a raw Material

- Data, Information, Knowledge
- New Methods in the architectural Design Process
  - Reading
  - Writing
  - Calculating
  - Designing
  - Modelling

## L5 Architecture and Dimension

- Dimensionality in Architecture
- Information as raw Material
- Information and Sustainability

### L6 Push.Click.Touch. Visiting the Value Lab

- New Methods in
  - reducing Complexity
  - elaborating Knowledge
  - comparative Studies
  - strategic Planning
- Opportunity Diplomwahlfacharbeit

### L7 Smart Environments

- Principles
- Technologies pervading Space
- Quality Characteristica
- The changing Relationship with the Environment

## L8 Computer Supported Collaborative Work (CSCW)

- CSCW-Tools
- CSCW in Teaching
- CSCW in Research
- CSCW in Practice

### L9 New Methods in Urban Simulation

- Urban Design Indicators
- Urban Patterns
- Digital City Structures
- Simulation Methods

# Introduction Information Architecture

## – Chair for Information Architecture

- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

#### Introduction Information Architecture Information Architecture

## INFORMATION Architecture or ARCHITECTURE Information?

<u>Jantar Mantar, astronomical Observatories of Jai Singh II, 1727-1734</u>

Introduction Information Architecture Information Architecture

#### **INFORMATION Architecture**

Metaphors and principles of physical architecture applied to digital data and information creates an architecture of information, using information as raw material

# ARCHITECTURE Information Making the invisible visible in the form of digital information applied to physical architecture to better understand and design physical architecture

Introduction Information Architecture INFORMATION Architecture

## Architecture Requires thoughtful analysis to manifest thoughtful synthesis (design).

The Architecture of Information Construction of a structure or the organization of information. Introduction Information Architecture INFORMATION Architecture

#### The Architecture of Information

,INFORMATION Architecture' expands the definition of architecture to areas outside the traditional realm.

,INFORMATION Architecture' uses architectural metaphors for better structuring, understanding and communicating information

# Introduction Information Architecture

- Chair for Information Architecture
- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

# Introduction Information Architecture **ARCHITECTURE Information**

,ARCHITECTURE Information' uses simulation for more than creating images or artefacts based on geometric constraints, rules, or cases.

Rather, non-geometric factors such as light, energy, structure, behaviour or systems knowledge become available for integrated direct modelling.

Formalise and generalise design principles

# Introduction Information Architecture

- Chair for Information Architecture
- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

#### INFORMATION ARCHITECTURE Architecture and Information



#### INFORMATION ARCHITECTURE

## Creative Industries



Donnerstag, 19. Februar 2009

## The City - Data, Information, Knowledge, Architecture

LL

First zero-carbon, zero-waste city in Abu Dhabi. Masdar City, Foster & Partners 2007

The City - Data, Information, Knowledge, Architecture

First zero-carbon, zero-waste city in Abu Dhabi. Masdar City

The City - Data, Information, Knowledge, Architecture

First zero-carbon, zero-waste city in Abu Dhabi. Masdar City

Projects Reduce Complexity

Value Lab

#### Projects Tools for collaborative planning

Future City Designer

Donnerstag, 19. Februar 2009

#### Projects Tools for planning future cities

CityEngine

Donnerstag, 19. Februar 2009

Projects Bridging the gap between digital and physical

The sensitive Tapestry

# Introduction Information Architecture

- Elective Course ,Information Architecture'
- INFORMATION Architecture
- ARCHITECTURE Information
- INFORMATION ARCHITECTURE
- Introduction Exercises

Workshop | 9 - 12 p.m. | HIT F22 / H31 New Methods in Urban Simulation: Collaborative City Desing Jan Halatsch, Martina Jacobi halatsch@arch.ethz.ch, martimal@student.ethz.ch 051-0726-09 Chair for Information Architecture | FS2009 New Methods in Urban Simulation

Design your Science City Dübendorf with latest tools and technologies together with your peers Chair for Information Architecture | FS2009 New Methods in Urban Simulation

Design your Science City Dübendorf with latest tools and technologies together with your peers

## New Methods in Urban Simulation Collaborative City Design





BUT: Need for collaborative design and variant generation

(pictures courtesy of foster+partners)



New Methods in Urban Simulation Collaborative City Design

Main Goals to think about

Zero Carbon Zero Waste

## New Methods in Urban Simulation Collaborative City Design



Donnerstag, 19. Februar 2009

## New Methods in Urban Simulation Collaborative City Design





(examples from HS2008)

# New Methods in Urban Simulation Collaborative City Design







(examples from HS2008)

## New Methods in Urban Simulation Collaborative City Design









(examples from HS2008)

## New Methods in Urban Simulation State of the Art in City Modeling



"You want to know what will be "in" tomorrow? Experience new technologies in City Modeling, Urban Simulation and Visualization and for the Planning of Future Cities"

### Coordinates

**COURSE:** 051-0726-09 (Elective Course Exercise, 3 ECTS)

Series: New Methods in Urban Simulation

**Topic:** Collaborative City Design

When: Mondays, 09 - 12 a.m.

Where: HIT H31 (iA computer lab)

Who: Jan Halatsch, Martina Jacobi

Contact: halatsch@arch.ethz.ch

<u>martimal@student.ethz.ch</u>

+41 44 633 79 62 & HIT 32.3

# Workshop | 14 - 17 p.m. | HIT H31 (3 ECTS) Visualize Urban Complexity | Workshop Christian Schneider, Lukas Treyer, Sandra Wipfli 051-0726-09

Chair for Information Architecture | FS2009

#### Information Architecture - Praxis II

You will:

on Visualization oundata. Desian L'omo this morning? b.r.e Ke Π ta CO rubbish? Wha vour interacti What ίοι hat flows sually Cí Whe 8 and \_do ization abou much space and why? How would a live subway change the appearance of Zurich?

You will be creating something which may look like....

Chair for Information Architecture | FS2009

### Information Architecture - Praxis II

# http://hindsight.trulia.com/

#### - Team:

- Christian Schneider, christian.schneider@arch.ethz.ch
- Sandra Wipfli, wipfli@arch.ethz.ch
- Lukas Treyer, lukastreyer@student.ethz.ch

## - Schedule:



Chair for Information Architecture | FS2009 Podcast Information Architecture

# http://www.ia.arch.ethz.ch/teaching/fs2009-lecture/



### Sources

18 <u>http://image55.webshots.com/</u> <u>155/7/29/80/2864729800035413848pEXZAa\_fs.jpg</u>
26 - 28 <u>http://www.flickr.com/photos/onikasi/1075044888/sizes/o/</u>
29 - 32, 34, 36 Chair for Information Architecture, ETHZ
37-39 Chair for Information Architecture, ETHZ
41 http://users.design.ucla.edu/~akoblin/work/faa/

