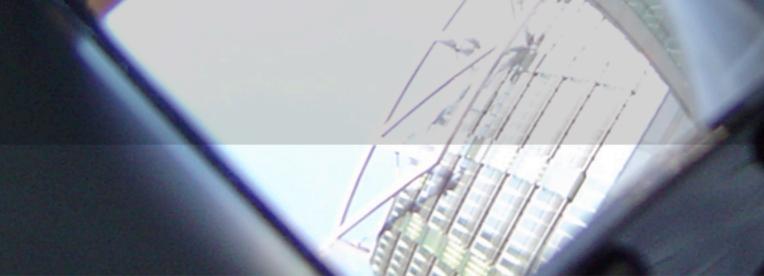


#### Workshop 'Urban Renewal'



Lisa Ehrenstrasser/Michael Idziorek/Ina Wagner/Mira Wagner, Summer School, Vienna, Sep 22-25,, 2009







**Tangible user** 

interface

# Support groups of urban planners, citizens, politicians, etc. in collaboratively envisioning urban change

Mixed-reality technologies

**Issues of representation** 

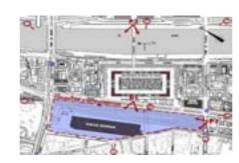
Presence and user experience Users' purposeful activities Collaborative aspects -Interaction design

**Urban themes** Scale, temporality, borders and layers, fuzziness, ambience, mobility

# **IPCity** The sites for participatory workshops

Psychiatric Hospital of Sainte-Anne, Paris

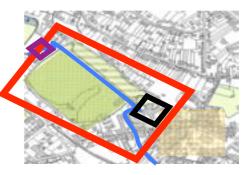
Urban renewal office of Vienna's 16th district TGI de Paris



Planning a new courthouse

La Caserne Bossut, Cergy-Pontoise

Pontoise



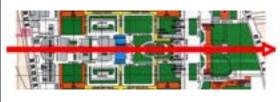








Rethinking the wall around Sainte-Anne





The Parcours - entrance siutaion, layers, ambience



Brunnenmarkt - re-

designing the stalls

Attracting new customers - introducing night life



Use or destruction of a historic building



Covering the existing railway tracks with residential area Connectivity Centrality Activities Housing types Ambience





#### first St.Anne workshop





Manipulating objects (barcode interface)

configuration area with two different spaces for connecting content with tokens, one for billboards' and the other as a 'plane'

**IPC**i

creating sound, dimming, making it louder, mixing different sound files Green triangles connected to other tokens inorder to orient these combination of pink and blue square to change the background image To increase the scale of objects by joining shapes of the same colour first panoramic background and sound application, with a static table



one token shape, barcode commade tablett, optional sketching onto the scene using the live cammera, fuzziness and ambience, projected table map with viewing angle, associating visual objects with sound, rotating table configuration in one 'active corner', projected thumbnails on table close to toke

#### Vienna workshop













Implications for redesign from second St.Anne workshop

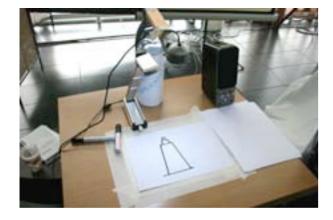
experiment with different colour tokens, to enlarge the projected map introducing a zooming function to give the participants control over the space of interventions, to provide two rather than one working area on the table so that several participants can co-construct simultaneously, to represent urban rythems such as flows and movement to bring more life into the objects and scenes, to creat 'sketch objects' on the fly, to add sound which qualifies the space in terms of ambience and distance, changing temporal rhythms, introducing mechanisms to store and recreate scenarios

#### TGI workshop















using sketcher to apply textures to 3D building volumes, real time video background





introduction of a virtual ground, info screen showing information about the objects that are being manipulated

to assign default values predefining the 'realistic scale' of content, simplifying the interface to make it easier to manipulate content improoving the workshop flow, viewing and rearranging content, work with the hapticity of the colour tokens eventually making them smaller









a parallel application of the colour table with sets of rules to inform urban planning, working with density, mass and building codes



## MR Tent

- Placing objects (2D images, 3D objects, sound)
- Adding roads and flows
- Discuss the allocation of land use
- Sketching on a scene, adding sketches to a scene
- Exploring Soundscapes

• History (save, reload previous scenes, compare)







## Findings I - Facilitate participation

Brings people together around a table and provides them with tools that are easy to learn and handle in an interactive way

Table acts as a mediator

Provides a space for 'mixing realities' that can be viewed and evaluated together

The 'roughness' of design representations leaves openings for discussion

Openness of technologies - an explicit step away from simulation tools







## Findings II - multimodal interactions

#### Familiarity

the meeting place of a tent, the experience of a round table, physical maps, simple objects made from well-known material, interaction modes participants know from everyday life We use these elements in a somewhat unusual way

#### **Multimodality**

Participants are invited to not just talk about their vision but to enact it - the action temporarily moves to the foreground and the talking to the background Body posture, gestures, gaze, visuals, object manipulations, and sound – all play together in intricate ways





#### Findings III - challenges for urban planners

Urban planners have the chance to find themselves on 'equal footing' with non-experts - they need to give up control over how to represent urban issues

Composed scenes are rather different from the material architects are used to work with, in terms of perspective, as well as mixture of real elements with 3D objects and 2D images

Working with sound as a predominantly expressive medium requires learning on the side of urban planners

Value of the MR-Tent is precisely that it opens up for novel forms of representation beyond widely accepted representational techniques, such as sketching, 3D modeling, and simulation.





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## Workshop: tasks

- Develop scenarios on the basis of inspirational materials / ideas
- Content search and preparation:
  - physical maps
  - panoramas
  - 2d content: colour, transparency, composition, cut, physical content cards, ground textures, flows
  - Sound recording, search, processing
  - Produce content cards (rfid)
  - Hmdb: default, size, sound connection, rfid, offset
- Plan evaluation: research questions, documentation, evaluation
- Conduct workshop
- Joint analysis of workshop with a focus on research questions (use your notes, sketches, photos, sreenshots)
- Summarize key research findings
- Prepare presentation



### Workshop: research questions

- I. Did the content you used/prepared allow you express ideas and co-develop an urban scenario? Identify strengths and weaknesses.
- 2.Did the panoramas you prepared support your spatial understanding and help you build a scene? Identify strengths and weaknesses.
- 3. How would you describe the collaborative features of the ColorTable what are the essential elements that further collaboration?
- 4. What does sound add to co-developing and experiencing an urban scenario? Identify strengths and weaknesses.
- 5. Evaluate details of the interaction what could be improved and how?
  - Assigning content
  - Manipulating content (placing, changing attributes ...)
  - Setting paths
  - Assigning/manipulating sound

6. Are there additional functionalities you can think of?

7. How would you describe the 'language' the ColorTable offers participants?