

Exploring faceted geospatial data with tangible interaction

Objectives

- Enable citizens to analyze urban planning processes
- Lower barrier to access geo-spatial data
- Offer user-friendly interactive visualization
- Allow collaborative usage on tabletop



MACE (Metadata for Architectural Contents in Europe) is a pan-european initiative to interconnect and disseminate digital information about architecture.

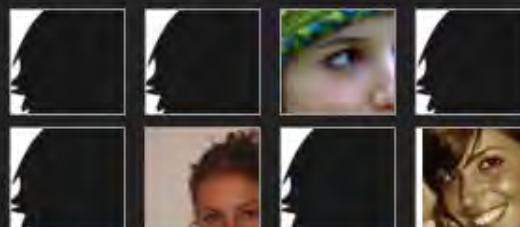
Search in our repositories:

Browse by classification



Find contents organized by architectural knowledge.

MACE Community



Join the MACE Community to share and annotate resources together.

Browse by competence

Knowledge of fine arts				
Knowledge of History	198	203	205	209
Ability to Create Architectural Design	559	554	565	569
Ability to match requirements and cost factors in				
Knowledge of Urban Design	154	163	166	169
Underst. people/building relations	537	546	554	557

Browse by location



About MACE

We connect various repositories of architectural knowledge and enrich their contents with metadata. The result are unique services for searching and browsing architectural contents, for instance, by conceptual connection, geography, language.

[More information about the project](#)

[Contact us](#)

Popular contents

[MACE : Extras](#)

[Passivhaus_Grevenmacher](#)

[Barcelona Estación de Francia - Wikipedia, la enciclopedia libre](#)

[Passivhaus Mersch](#)

[cubierta plana invertida](#)

Repositories

The following partners have already joined MACE to make their contents more accessible and interconnected:

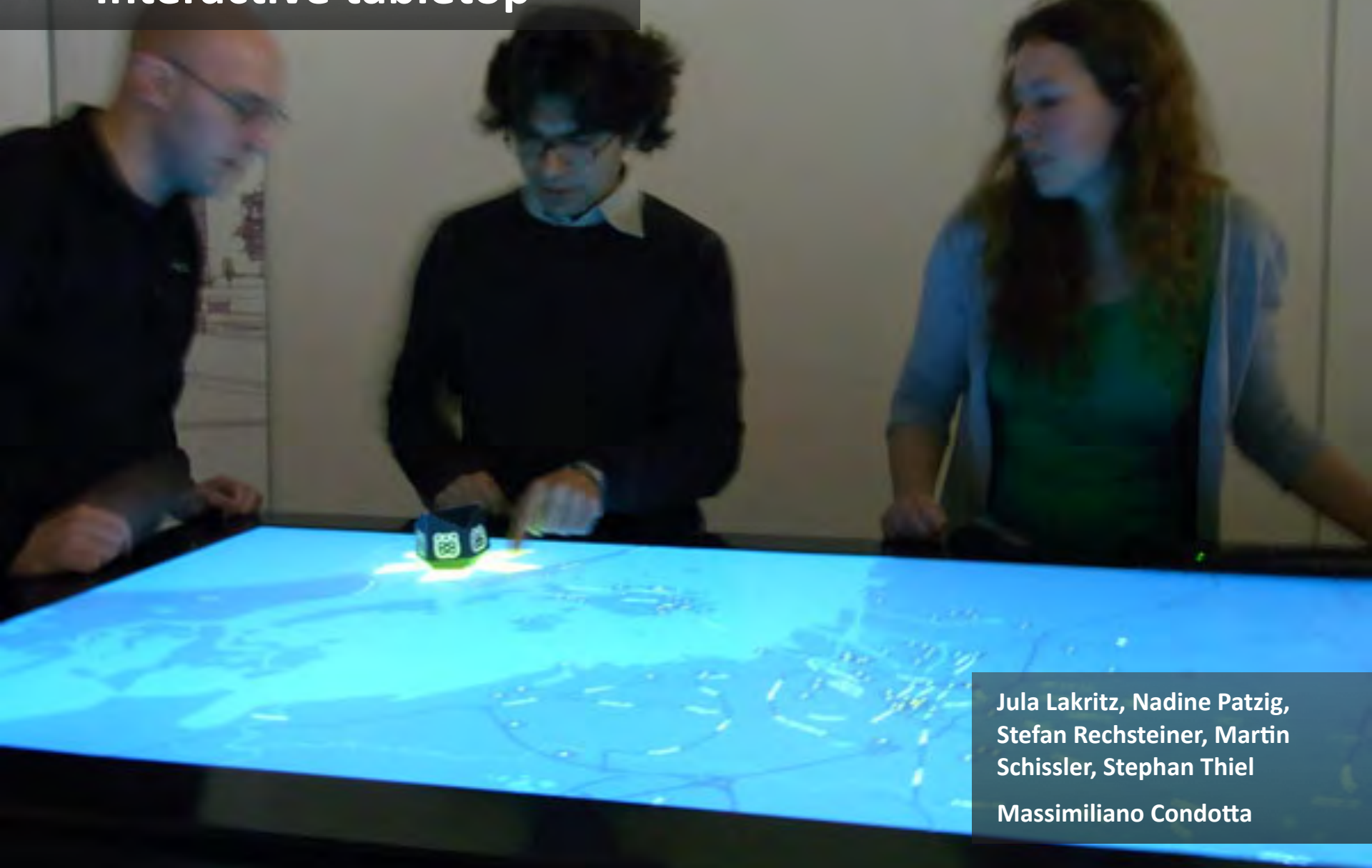
mæve

La Biennale, 2008



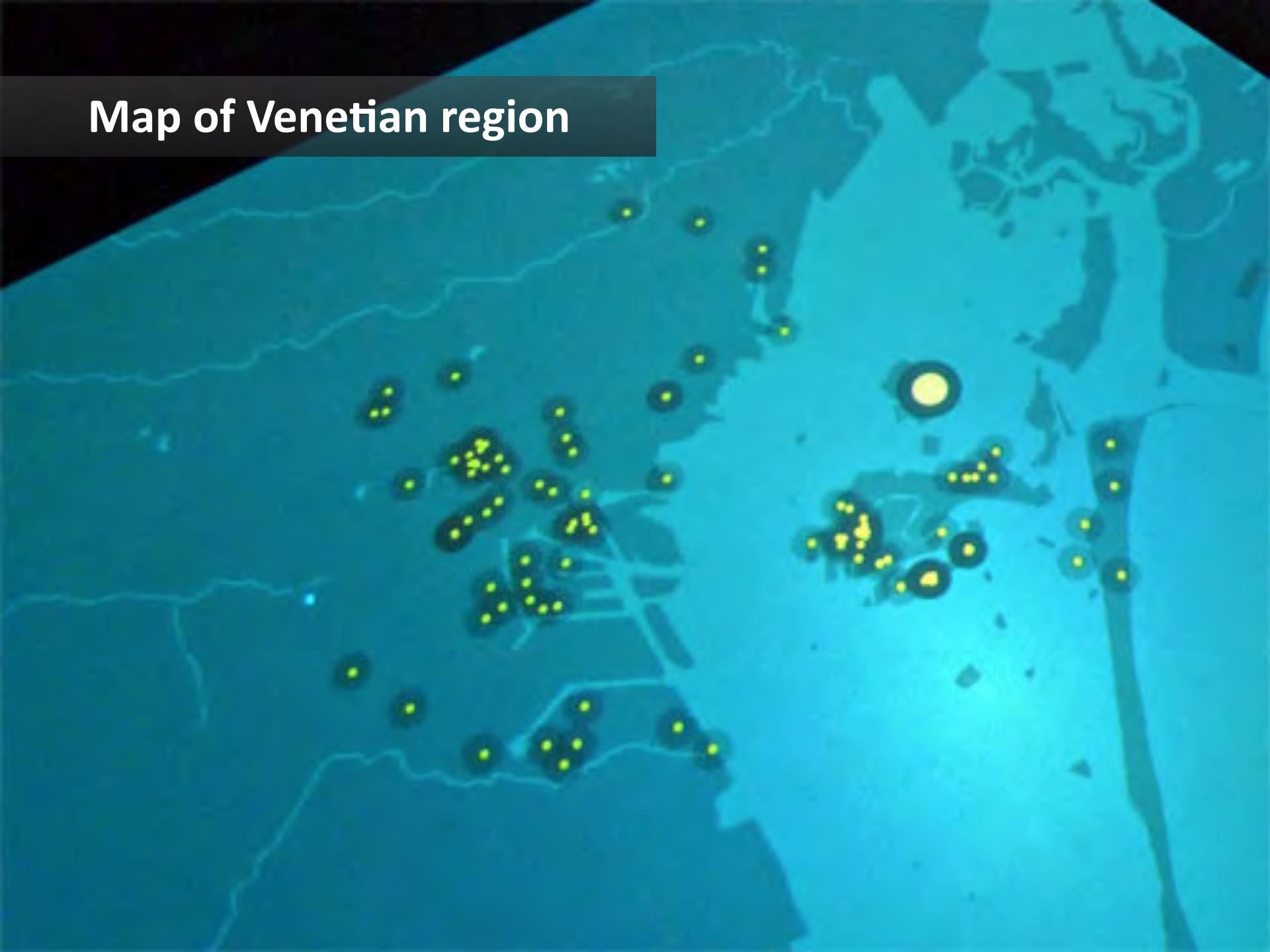
<http://portal.mace-project.eu/mæve>

Interactive tabletop



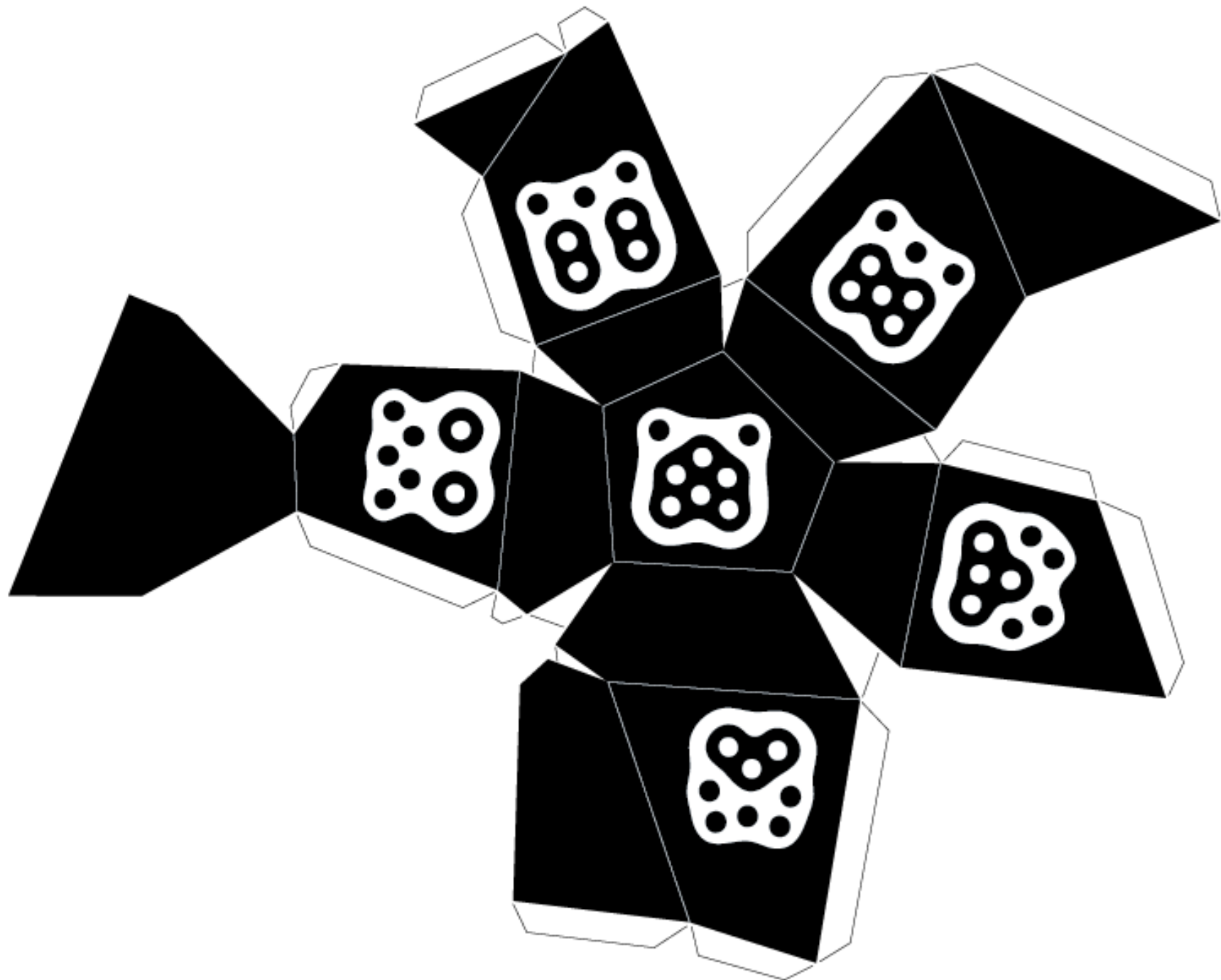
Jula Lakritz, Nadine Patzig,
Stefan Rechsteiner, Martin
Schissler, Stephan Thiel
Massimiliano Condotta

Map of Venetian region



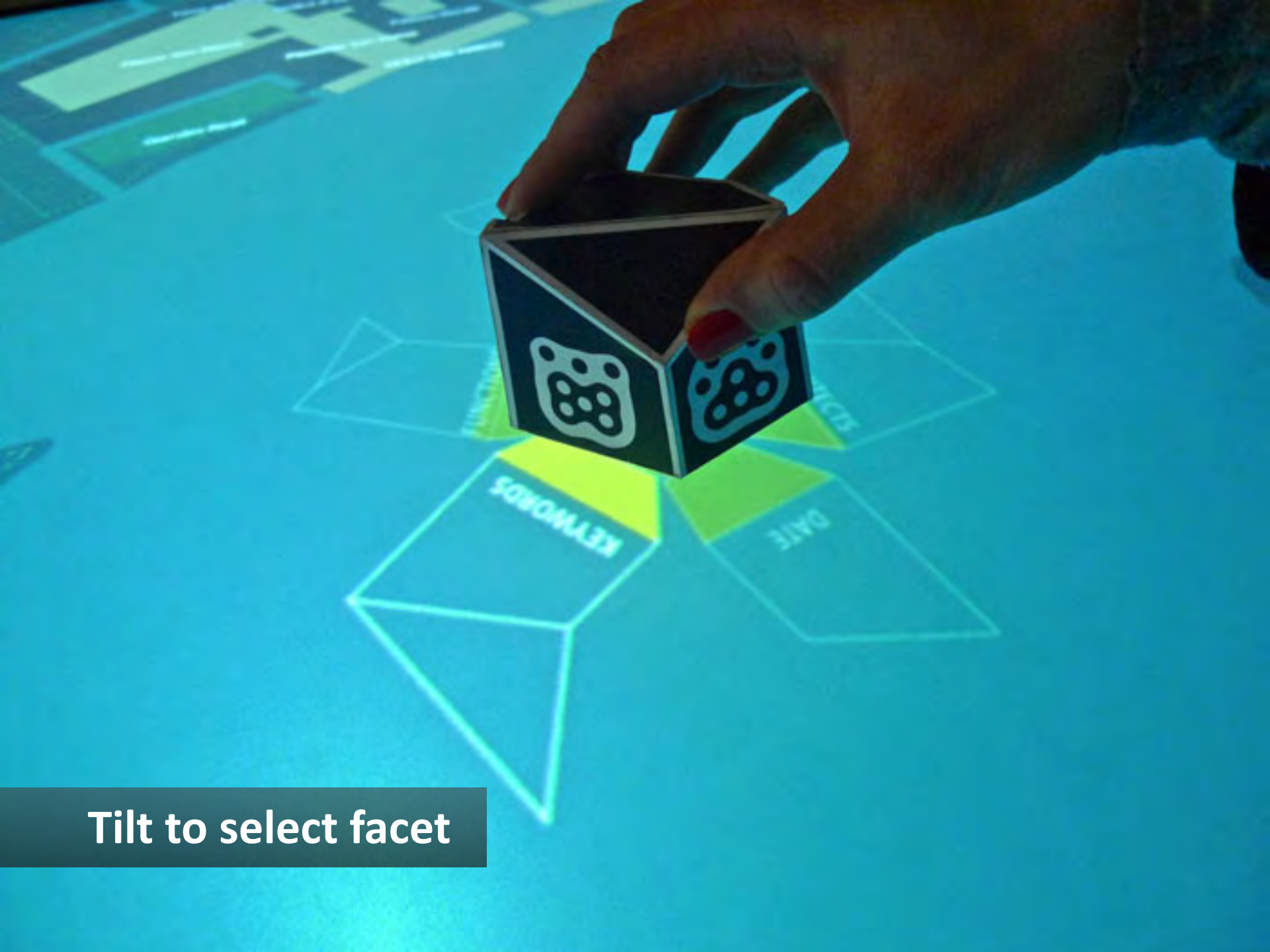
Polyhedron to explore faceted data





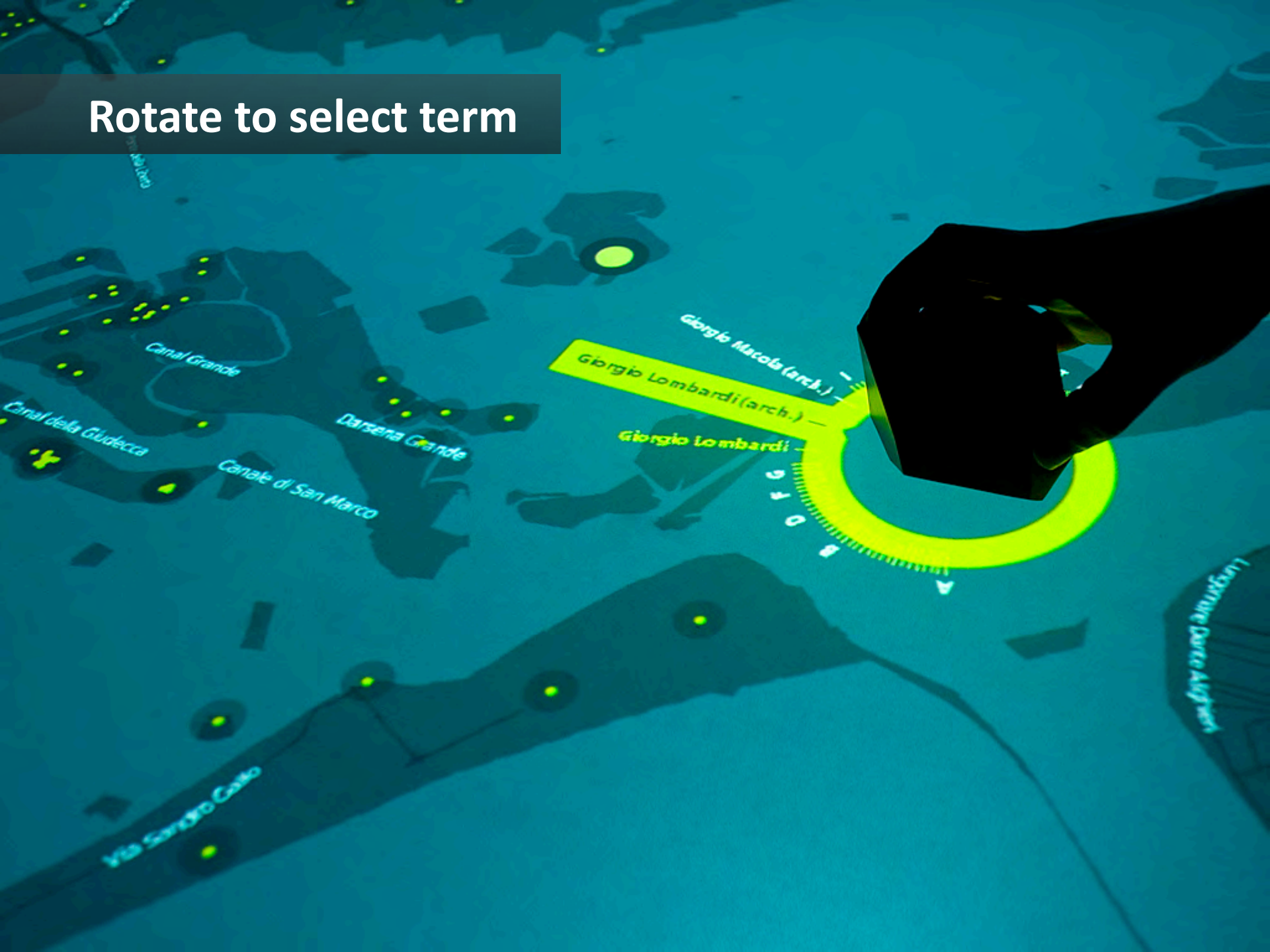
Display of facets





Tilt to select facet

Rotate to select term



Lock term to highlight matching results



Video: Venice Unfolding

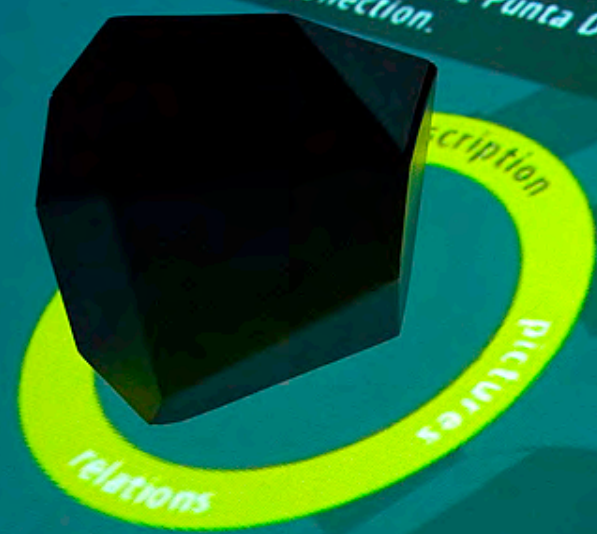


<http://vimeo.com/11526474>

Browse through background information

MUSEUM

...in Venice. After 14 months of restoration by Japanese architect, Tadao Ando opened to the public on June 6th during the Venice art biennale. Its first exhibition 'mapping the studio' artists from the François Pinault collection' was curated by Alison M. Gingeras and Francesco Bonami. Owned by French Francois Pinault, whose business empire also includes Gucci and Yves saint Laurent, he has one of the world's largest collections of contemporary art, of some 2,500 works, of which 141 are destined for the Punta Della Dogana's permanent collection.



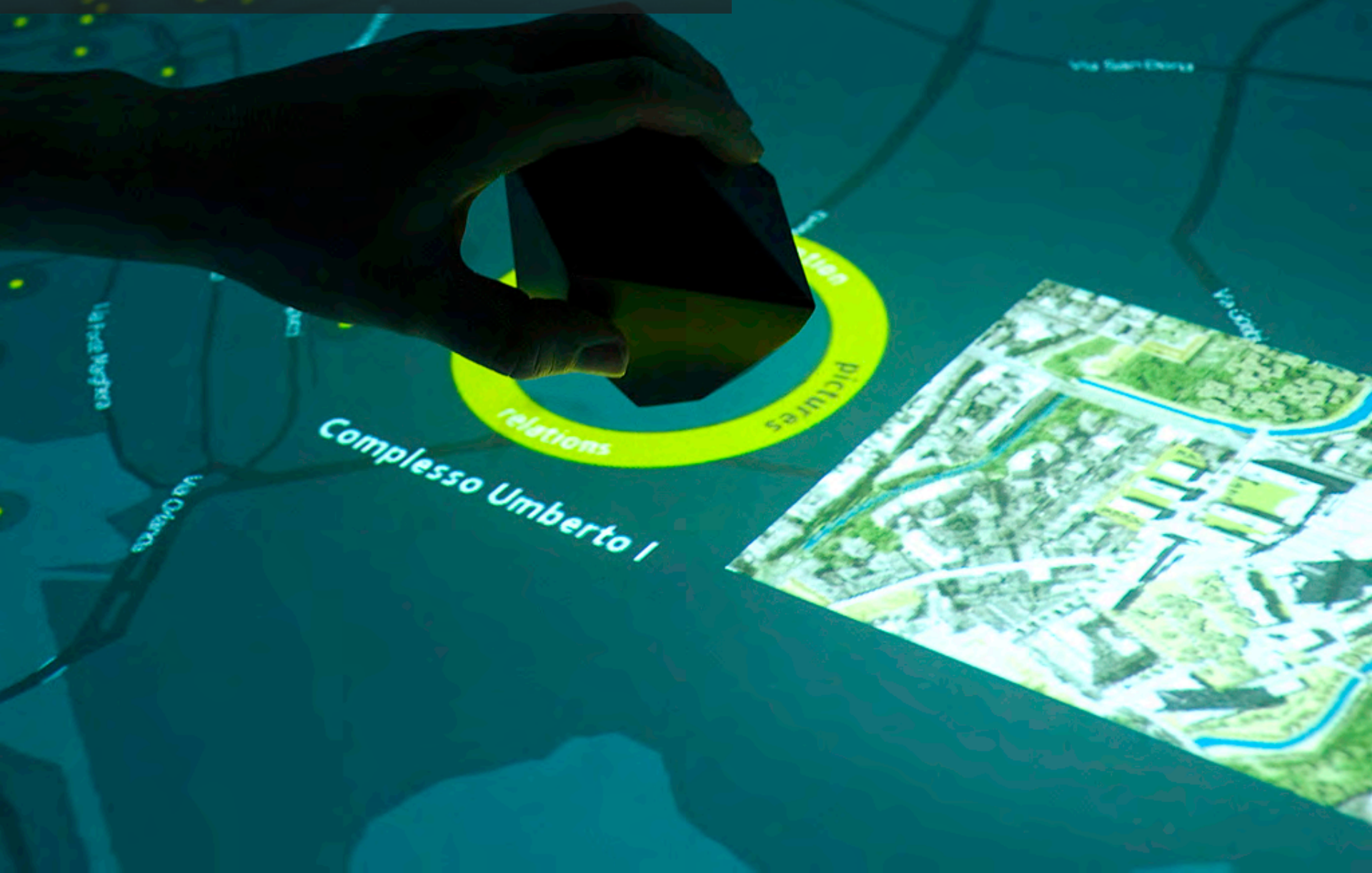
Punta della Dogana

Canal della Giudecca

Canal Grande

Punta della Dogana

Browse through media files



Usability Walk-through



Sabine Richter,
Sebastian Schwinkendorf

Formative user study: Suggestions

Polyhedron to select faceted data

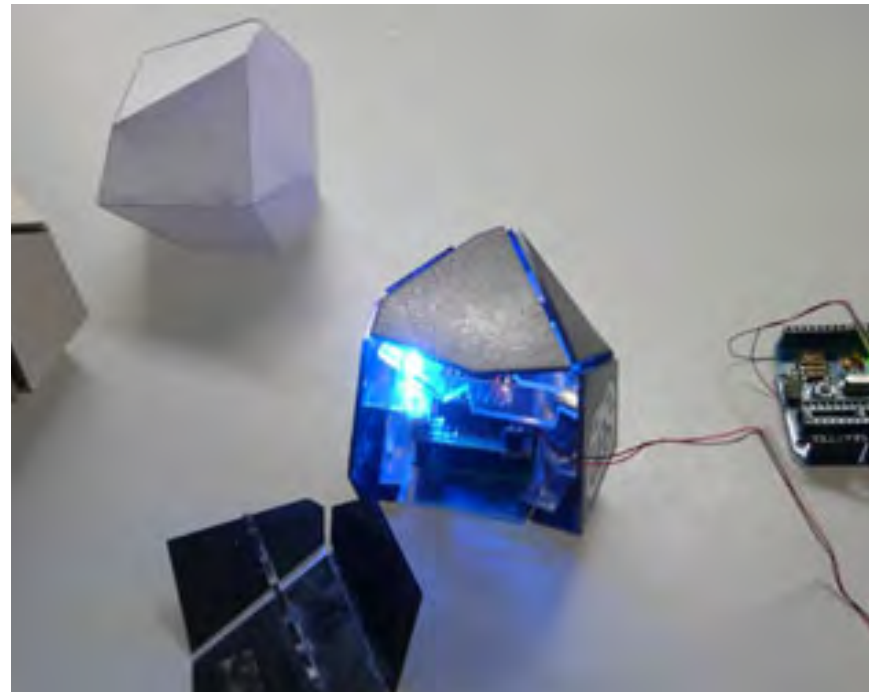
- User has to re-find facet every time
 - > Color-code facets

Formative user study: Suggestions

Polyhedron to select faceted data

- User has to re-find facet every time
 - > Color-code facets

- Tilting not self-explanatory
 - > Embed accelerometer



Conclusions

- Tangible artifact acts as resource for action

Invites users to explore data

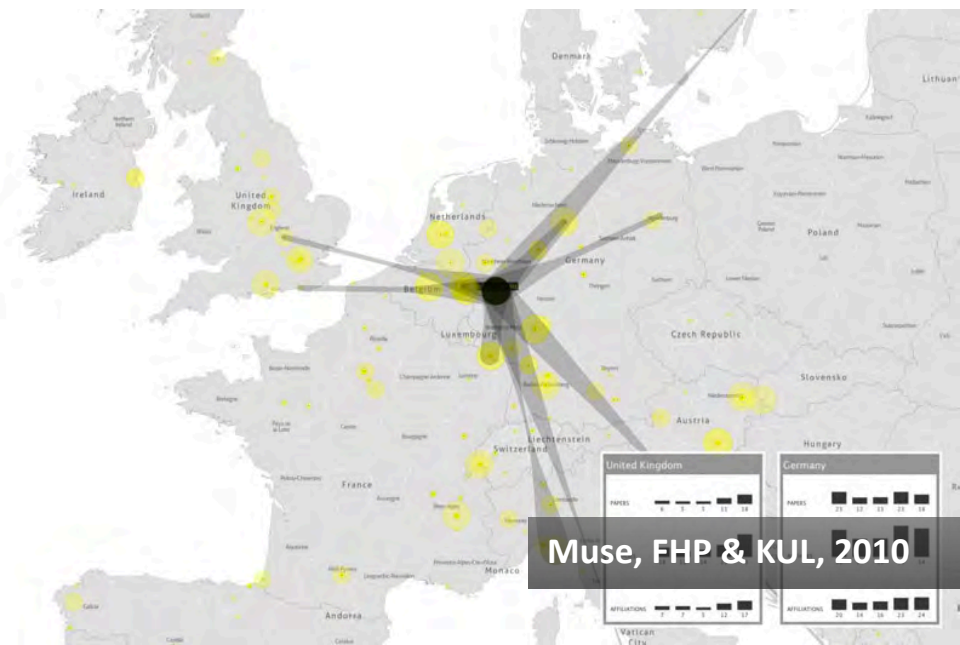
- Reduces the barrier between physical world and virtual data

Enables citizens to participate in the discovery and analysis of information referring to the physical world

- Provides a sensory user experience

Future work

- Interaction design patterns for geo-visualizations
- Use in different domains
- Simple-to-use map library



Thank you! Questions?

<http://idl.fh-potsdam.de>

FHP:-)

I
- -
U
- -
A
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V

KATHOLIEKE UNIVERSITEIT
LEUVEN

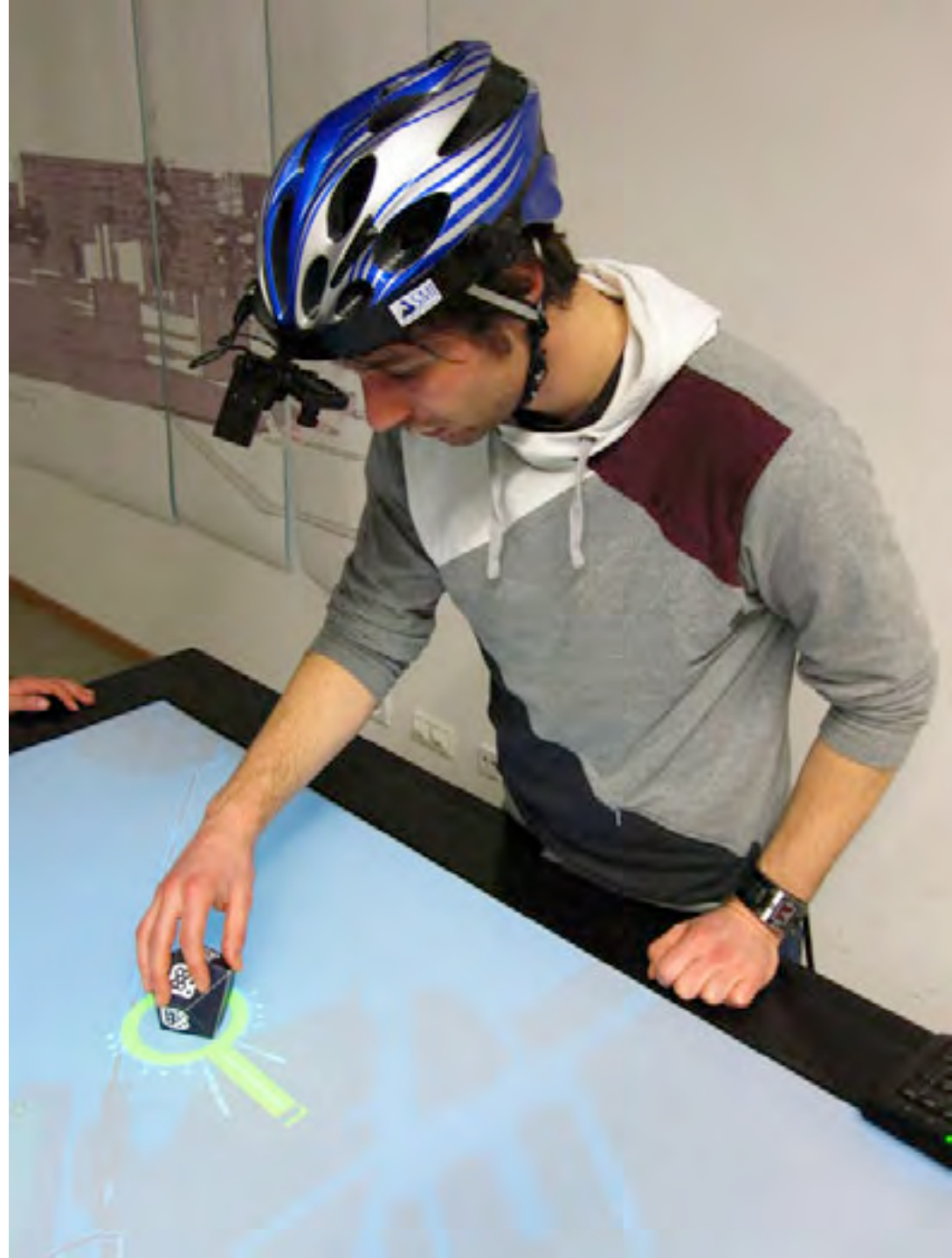
Till Nagel, FH Potsdam, 03/2011



nagel@fh-potsdam.de – twitter: @tillnm

Backup slides

Eye-tracking study



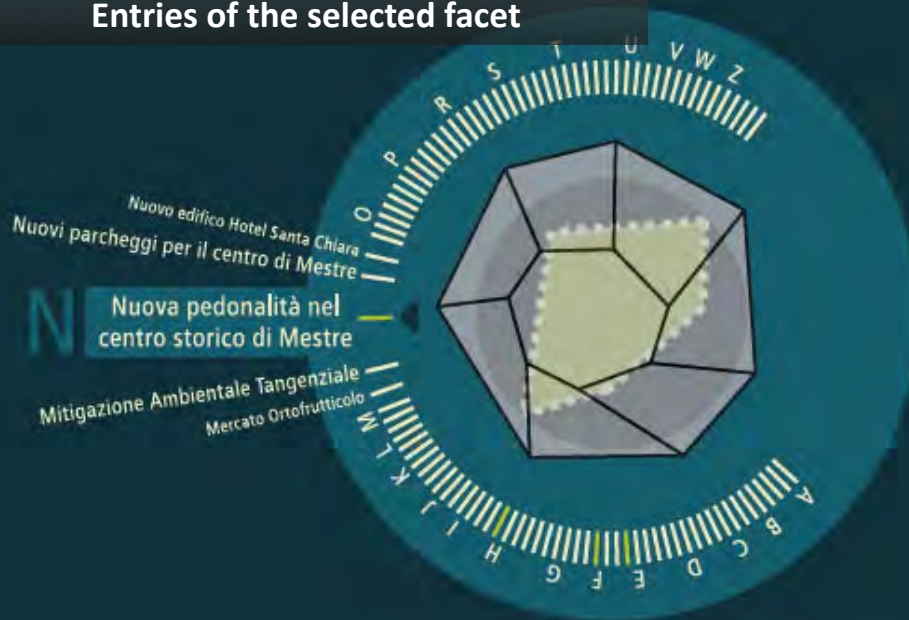
Unfolded data object



Selection of filter „architect“



Entries of the selected facet



Selection of an item





REGISTER



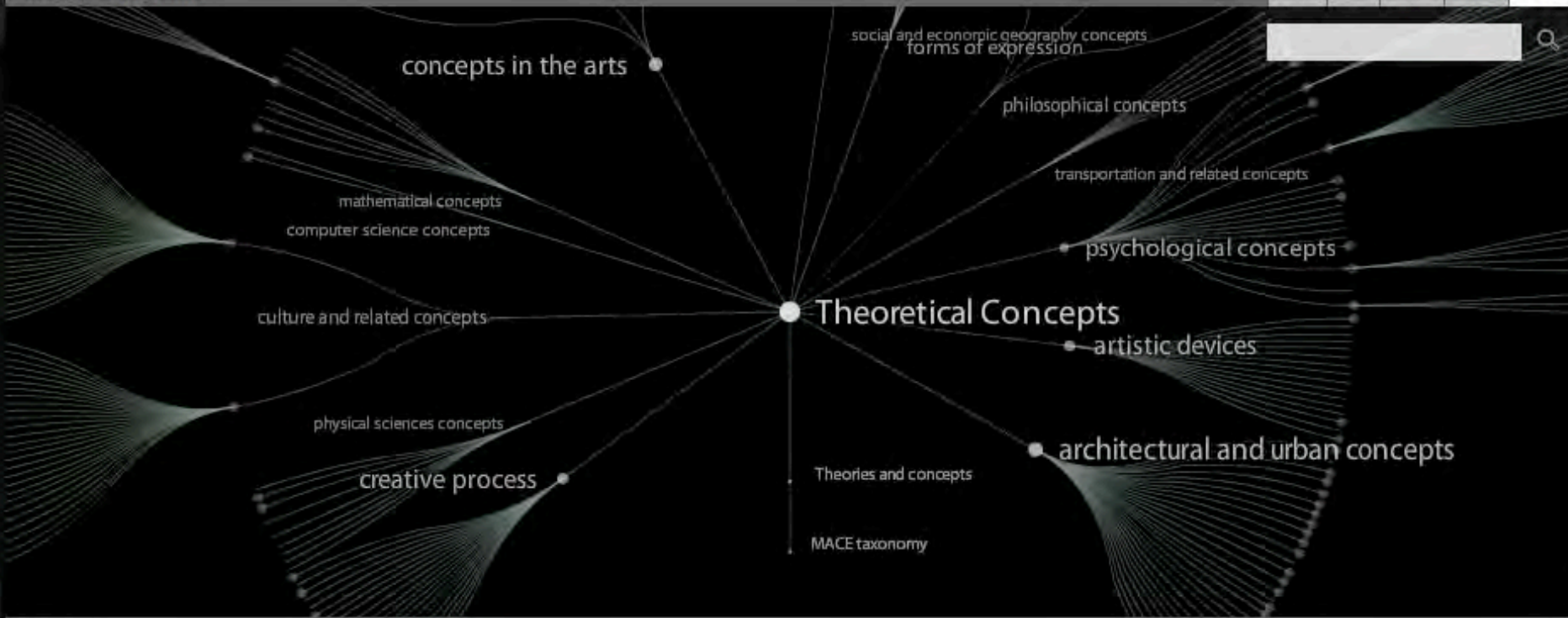
LOGIN

Home Search & Browse Community Feedback & Help Experiments

Filtered Search Browse by Classification Browse by Competence Social Search

Classification Terms

nl it de es en



Results

1087 results for: Theoretical Concepts

1 2 3 ... 89 90 91

WINDS view metadata

Bernard Tschumi

Bernard Tschumi, Architecture and Disjunction, originally published in 1975

WINDS view metadata

Instruments: The Diagram

the diagram represents one of the instruments for representing reality, what which resolves the

WINDS view metadata

Thermal response

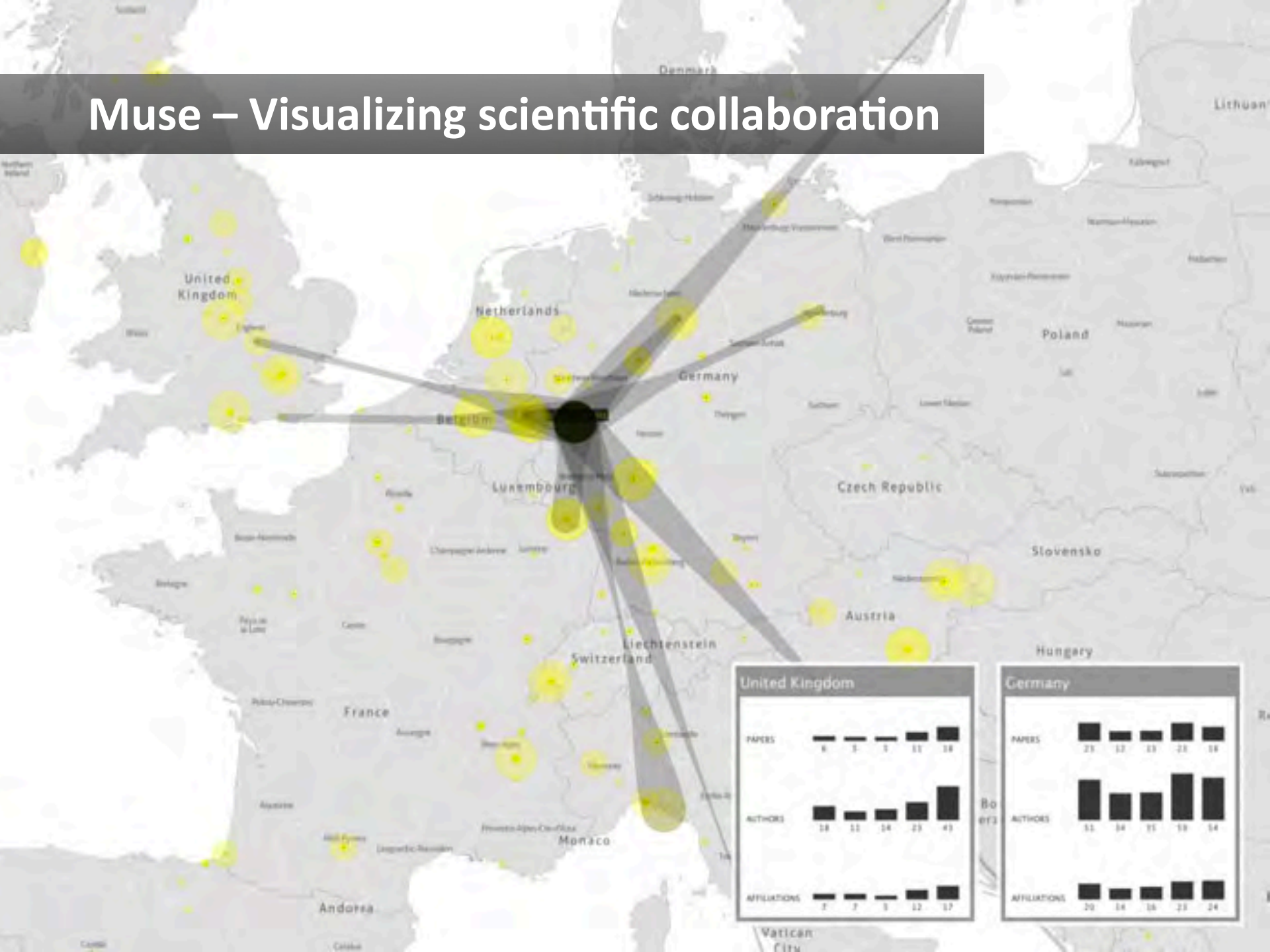


mæve tabletop, FH Potsdam 2008



Muse – Visualizing scientific collaboration

Muse – Visualizing scientific collaboration



lit.

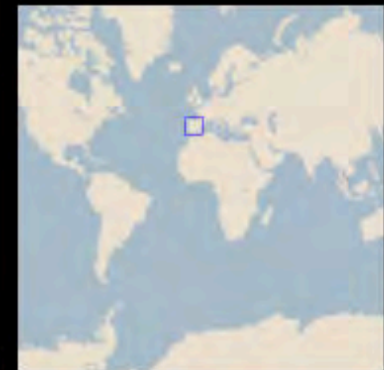
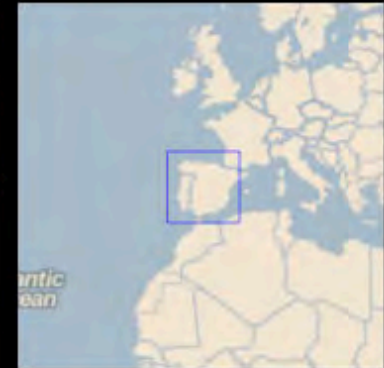
Location based literary research

Homo Faber

sofortgemacht, daß ich Schweizer (sein)
war nicht mehr zu stoppen. Er setzte
über Wattenbeziehungswiese über
Kadar, woran er wenig verstand, dann
machte er, was üblich nach
demselben Weltkrieg sofort auf

<http://lit.sebastianmeier.eu/>

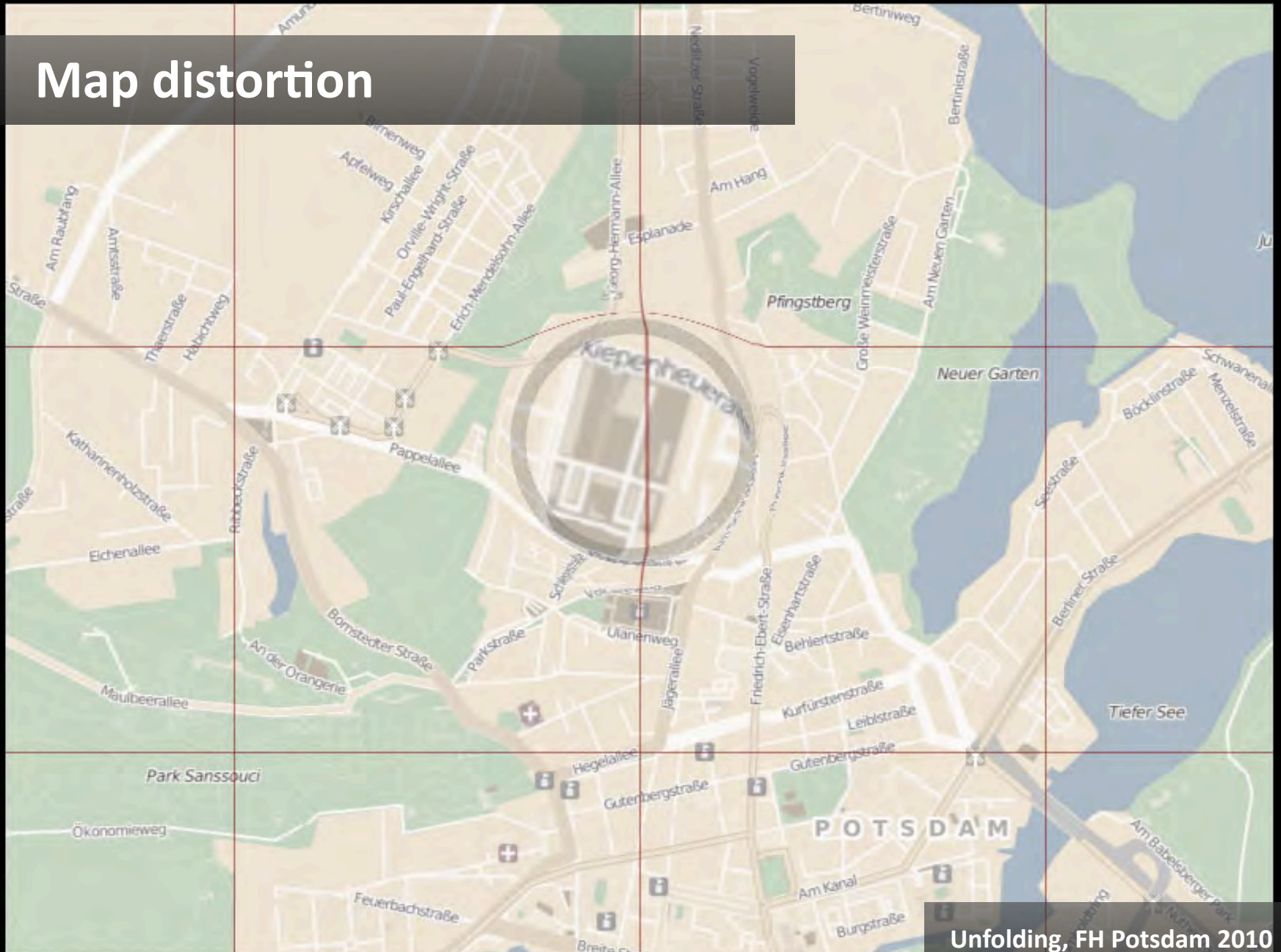
Simple to use and extend



Event mechanism



Map distortion



Unfolding, FH Potsdam 2010