

## The Harbour Game: A Mixed Reality Game for Urban Planning

*Speaker:*

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**THE HARBOUR GAME**

A MIXED REALITY GAME FOR URBAN PLANNING

- **Context** of the project

- Aarhus is the second largest city in Denmark with 300.000 inhabitants
- The port of Aarhus is one of the busiest in Northern Europe
- A new plan for the utilization of central harbour areas in Aarhus was in the making
- Traditional planning approach and process initiated by the municipality



- The **project team**

- We wanted to challenge the municipality's approach by actively engaging a wider range of participants
- A multidisciplinary project team consisting of architects, process and usability consultants, political scientists and programmers.
- A collaboration between private companies, researchers from the University of Aarhus, the Aarhus School of Architecture & sponsors from the public and private sector



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- **Challenges** in deliberative urban planning
  - Traditionally planning is viewed as an expert discipline
  - In deliberative planning all voices must have an equal say
  - Planning is a complex discipline governed by hard & soft constraints which must be taken into account
  - Deliberative planning is (still) ruled by the experts who introduce rational arguments as opposed to emotional

- Games can **level the playing field**
  - Games as a communication space based on rules where qualified professionalism meets the knowledge and interests of citizens and create a basis for mutual understanding
  - Realistic gaming simulations support expert planners whereas simple games accommodates broader participation
  - Dilemma: how to address complex problems using simple games?

- Our approach
  - Deliberative, game-based planning as a three-legged creature: **experience, learn & contribute**



- **Primary goals** of the Harbour Game
  - Engage different interest groups by giving them a novel & fun experience
  - Let all participants leave with a sense of the complex issues involved in urban planning
  - Let all participants contribute to the planning process at the vision formulation stage



- The **setup** of the game
  - Data collected previously presented as posters/project cards
  - 4 teams/4 members: each team had to agree on a strategy beforehand
  - A board makes the game accessible to more players simultaneously
  - Physical artefacts contain information & relation which makes the process and the debate more tangible
  - Simple rules: present project, place marker, other teams can support or suppress a project
  - Based on deliberative debate supported & framed by the rules

# PROJECT POSTERS



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# STRATEGY IN THE MAKING



- 10.45 - Første spilleunde med Steen-eriksen
- 11.45 - Publikumsforening
- 12.00 - 12.45 - Frokostpause, Tærtebækk og Gæstebog indsamling
- 12.45 - Forberedelse af blyde / gruppearbejde, valg af præsentation og scenarie
- 13.15 - Anden spilleunde med Steen-eriksen
- 14.15 - Publikumsforening
- 14.30 - 15.00 - Afsluttende evaluering og debat. Præsentation af vores projektforløb og udfordringer

havnen på spil ? ! ...

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# THE GAME BOARD



**THE HARBOUR GAME**

A MIXED REALITY GAME FOR URBAN PLANNING



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# PLAYING THE GAME



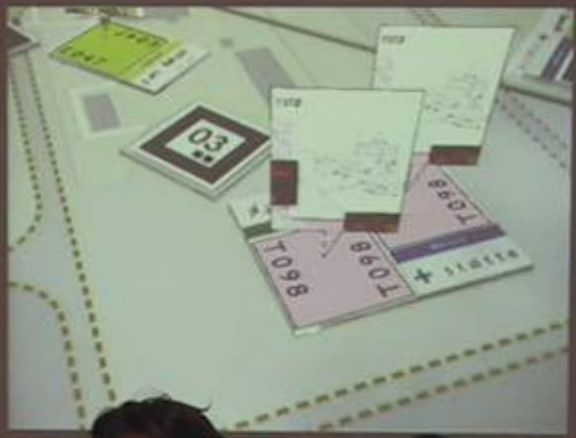
u0000nreise	kultur
0-17	0-17
18-30	18-30
31-44	31-44
45-59	45-59
60-74	60-74
75-89	75-89

bolig	infrastruktur
0-17	0-17
18-30	18-30
31-44	31-44
45-59	45-59
60-74	60-74
75-89	75-89

aktivitet	fulltame
0-17	0-17
18-30	18-30
31-44	31-44
45-59	45-59
60-74	60-74
75-89	75-89



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- The **technology** of the game
  - Allowed us to overlay the physical markers with digital information
  - Allowed us to automatically keep score
  - Allowed us to keep track of contributions more easily
  - Made it possible to present the contributions in an ordered fashion afterwards
  - Cheap hardware & open source software
  - Is NOT a prerequisite for using games in urban planning!

# SIMPLE TECHNOLOGY



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- The **outcome** of the game
  - Players & spectators were quickly engaged in playing the game
  - New alliances were formed across traditional divides
  - The *pure players* had fun but were unrealistic, the *serious people* were realistic but had no fun – the *serious players* had fun and created realistic visions
  - As an event for creating interest in urban planning the game was a success – as a tool for actual planning there is still some way to go



# PRESENTING THE RESULTS



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AT THE HARBOUR



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# AT THE HARBOUR



## THE HARBOUR GAME

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THANK YOU

**Thank You** for listening!

More info at: [www.havnespil.dk](http://www.havnespil.dk)  
(mostly in Danish)

Contact: [thomas@kollision.dk](mailto:thomas@kollision.dk)

**THE HARBOUR GAME WAS MADE IN  
COLLABORATION WITH:**  
UNIVERSITY OF AARHUS, AARHUS SCHOOL OF  
ARCHITECTURE, THE PROJECT TEAM *HAVNEN PÅ SPIL &  
KOLLISION*

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