

Workshop Digital Signage mit Interaktiven Displays
Mensch und Computer 2009, September 6th 2009

THE DIGITAL COLUMN AS INTERACTIVE ADVERTISING MEDIUM

Agenda

- 1 Classical Columns
- 2 Digital Columns
- 3 Cylindrical Screens
- 4 Interactive Columns
- 5 Discussion

1. CLASSICAL COLUMNS

CLASSICAL COLUMNS



CLASSICAL COLUMNS



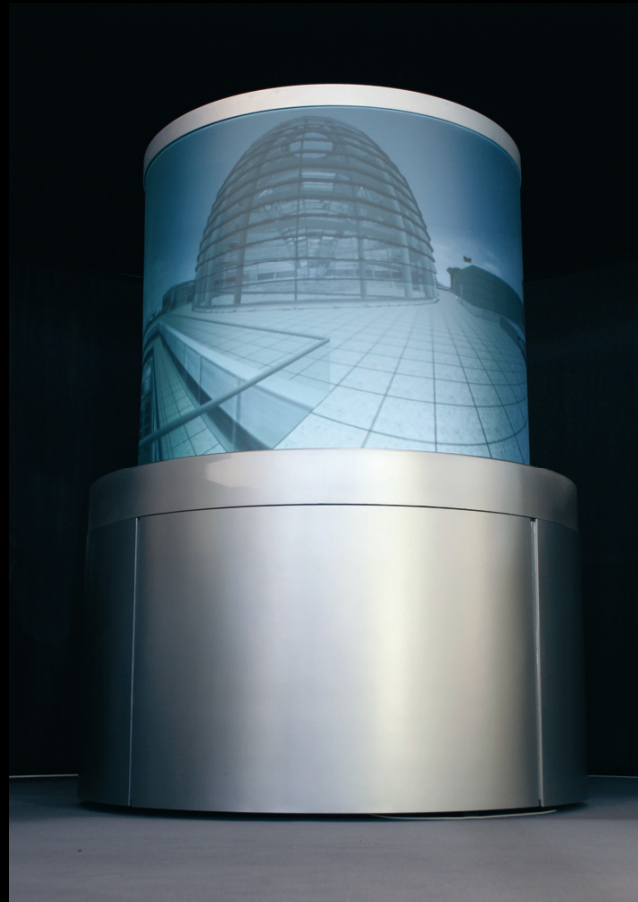
Digital Column as Advertising Medium

2. DIGITAL COLUMNS

DIGITAL COLUMNS

- Rotating LED displays (Dynascan, Kinoton)
- Cylindrical LED displays
- Fraunhofer VR Object Display

VR OBJECT DISPLAY



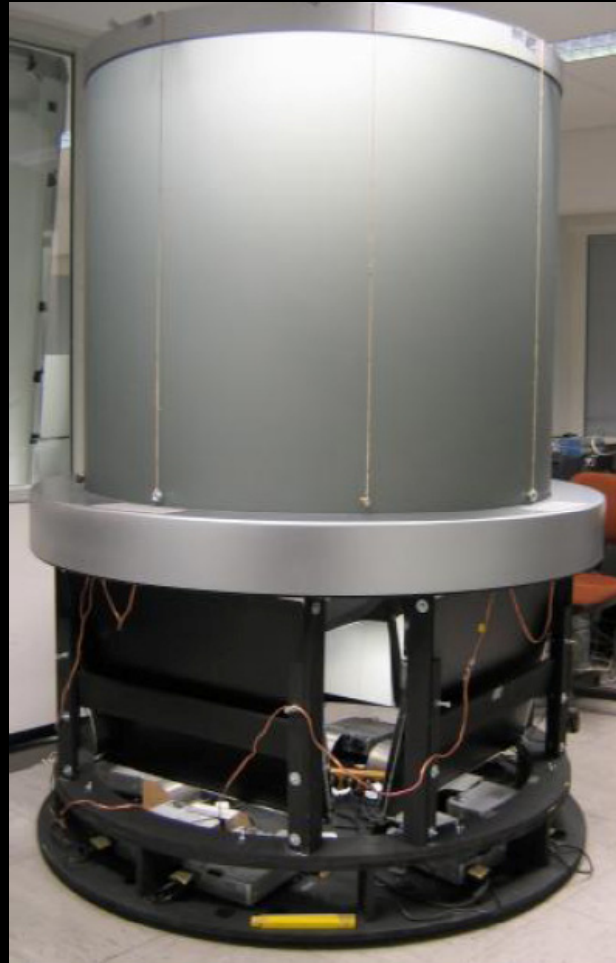
DISPLAY MODES

- 2D Mode
- 3D Stereo Mode
- VR Object Mode

SPECIFICATIONS

- height 2.2 m, diameter 1.5 m
- 3D rear projection by 8 standard projectors
- 2048 x 512 resolution
- magnetical and optical tracking system
- directed sound system

HARDWARE



Digital Column as Advertising Medium

HARDWARE

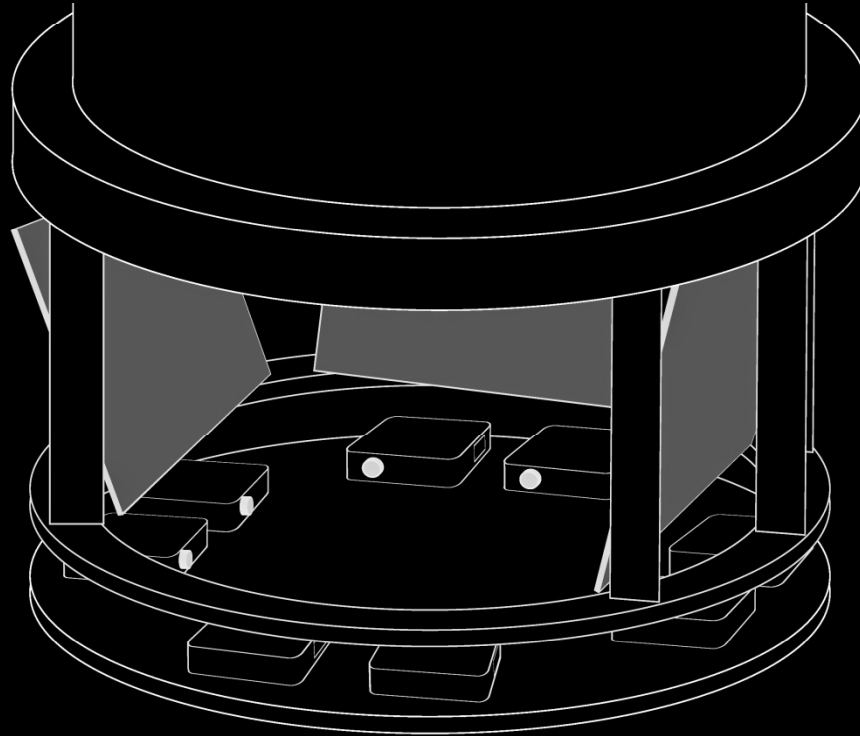
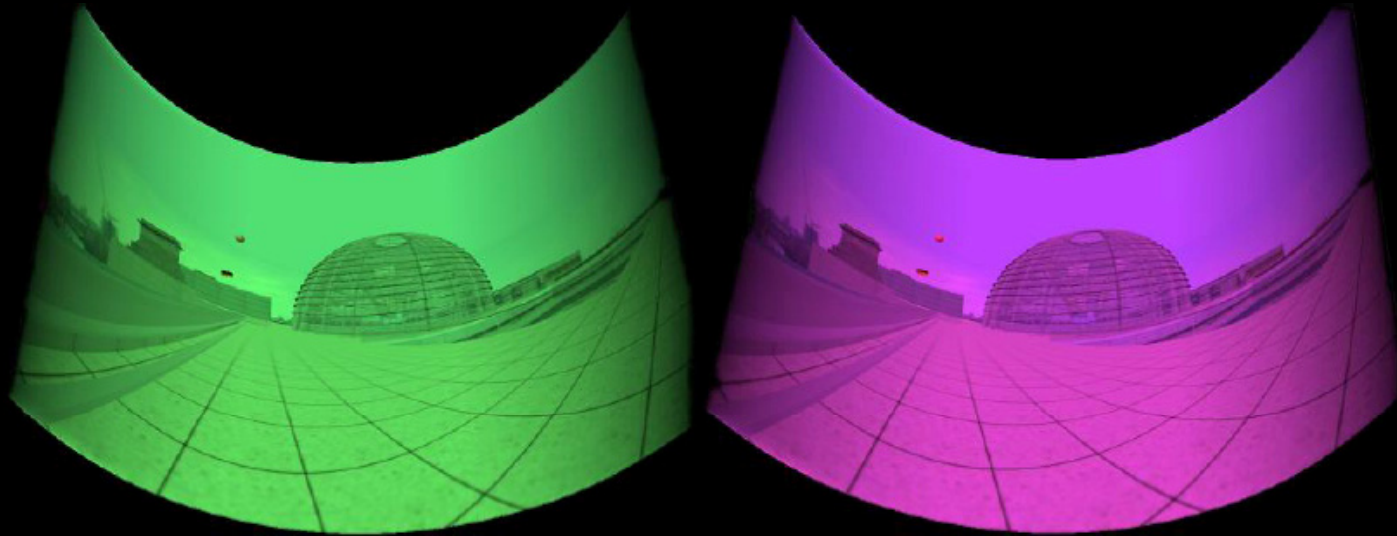


IMAGE CORRECTION

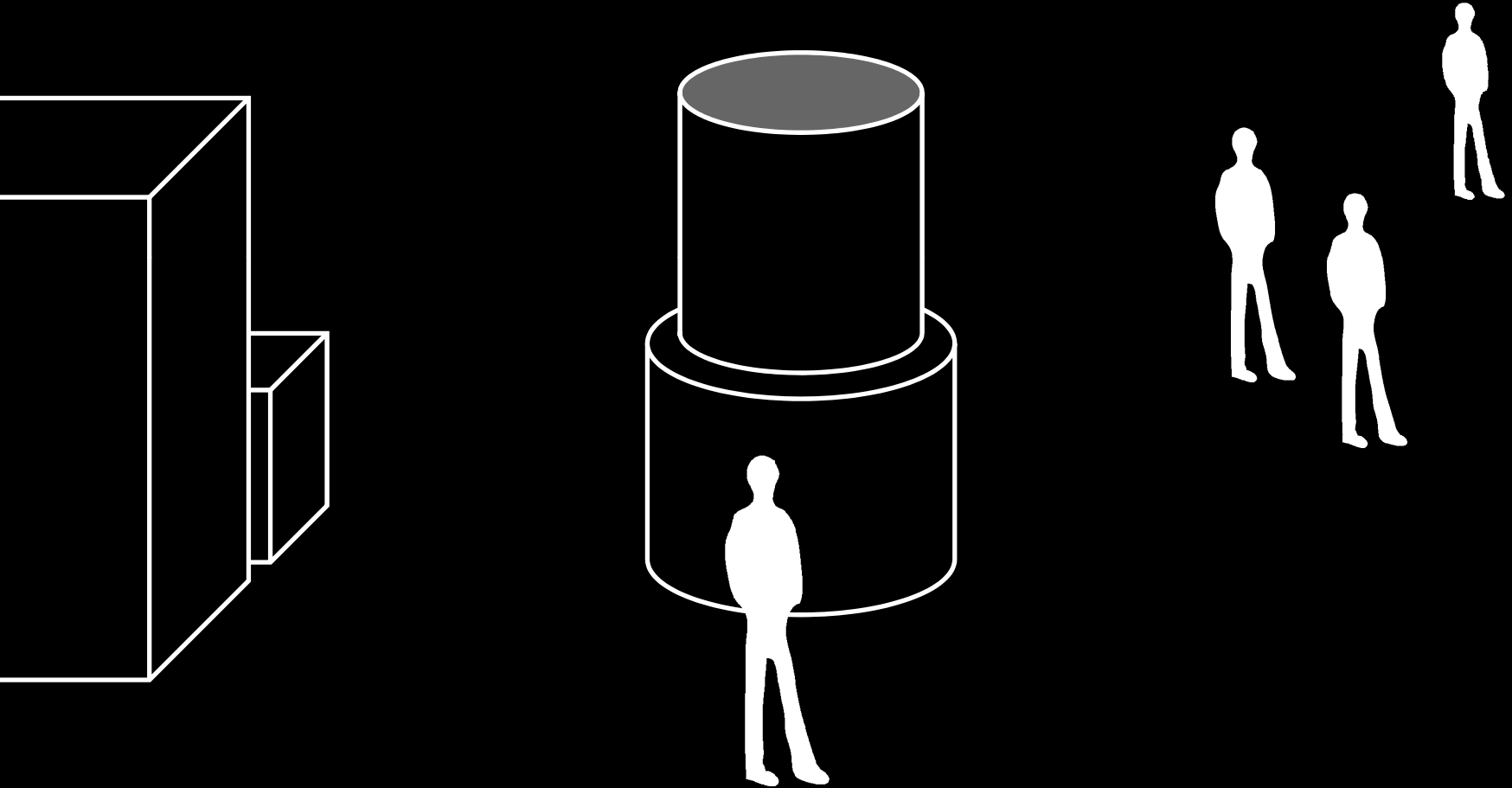


SOFTWARE

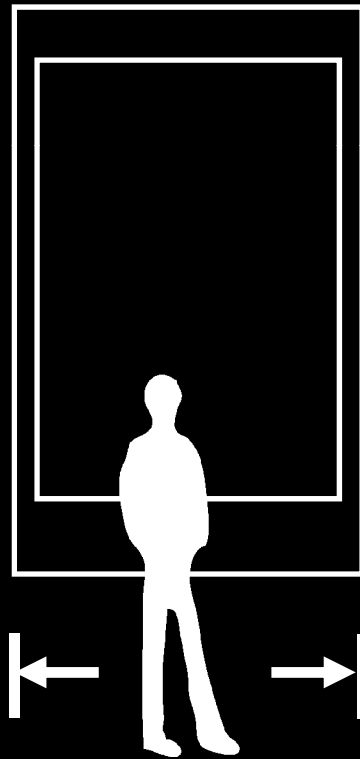
- Realtime autocalibration software
- Edgeless image blending
- Distributed rendering of visualisation
- Displayed contents VRML scenes

3. CYLINDRICAL SCREENS

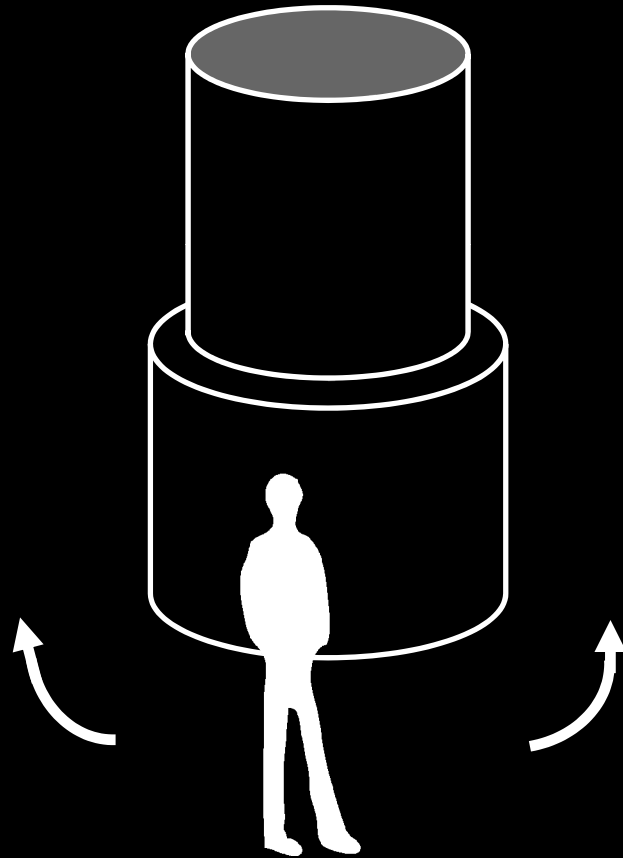
AMBIENT AND SITUATION



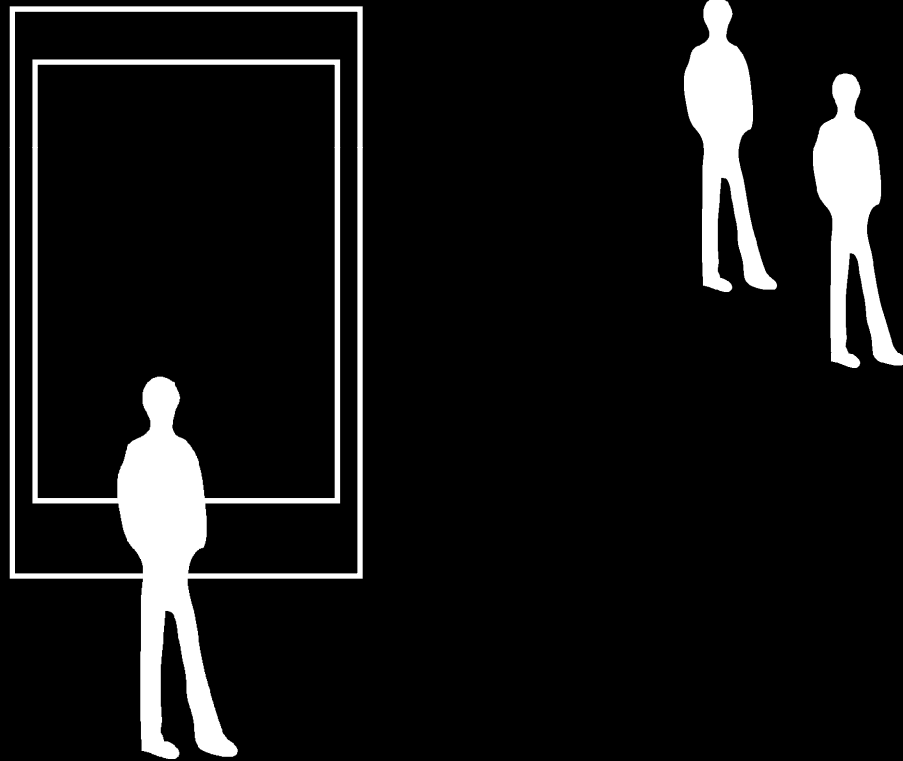
DEGREES OF FREEDOM



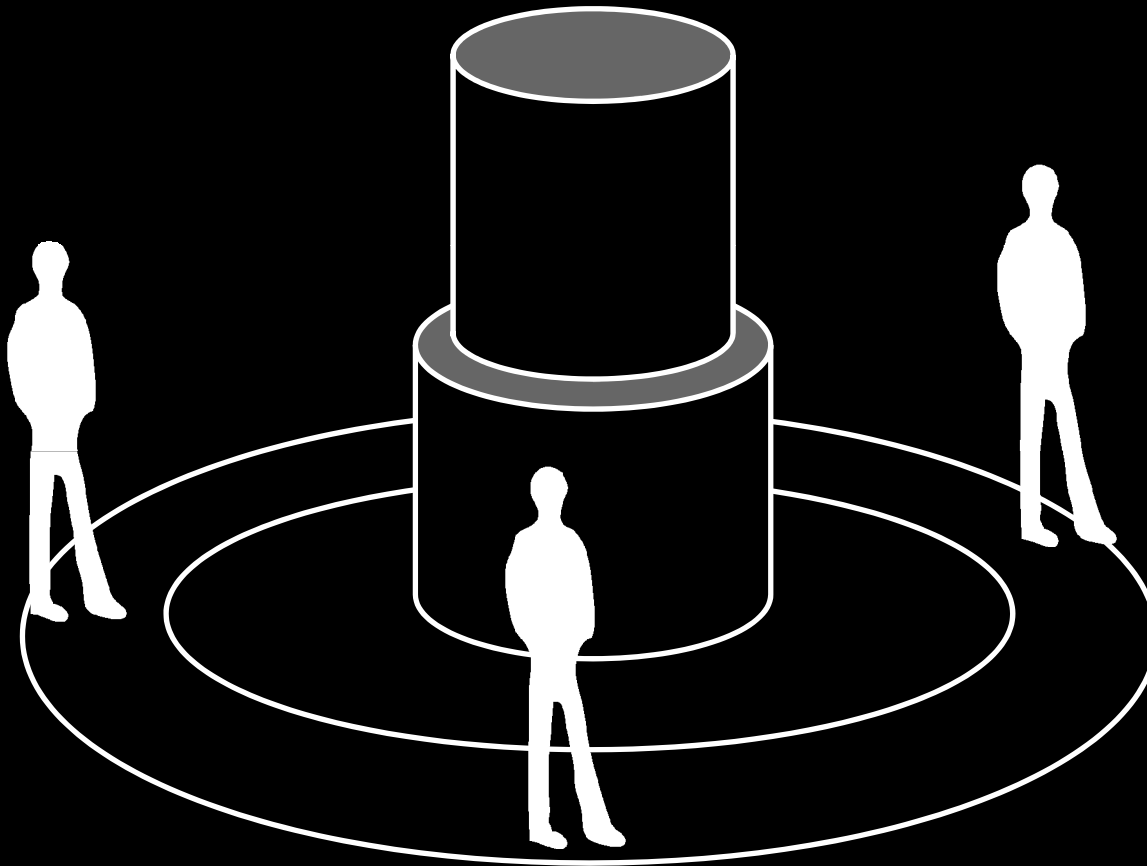
DEGREES OF FREEDOM



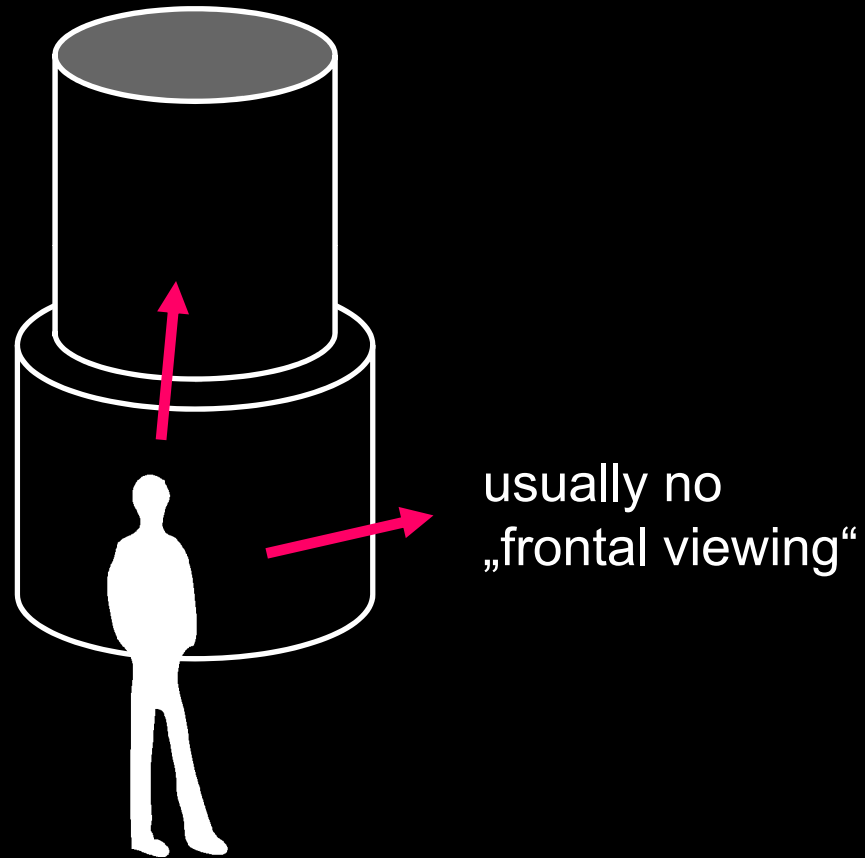
MULTI USER INTERACTION



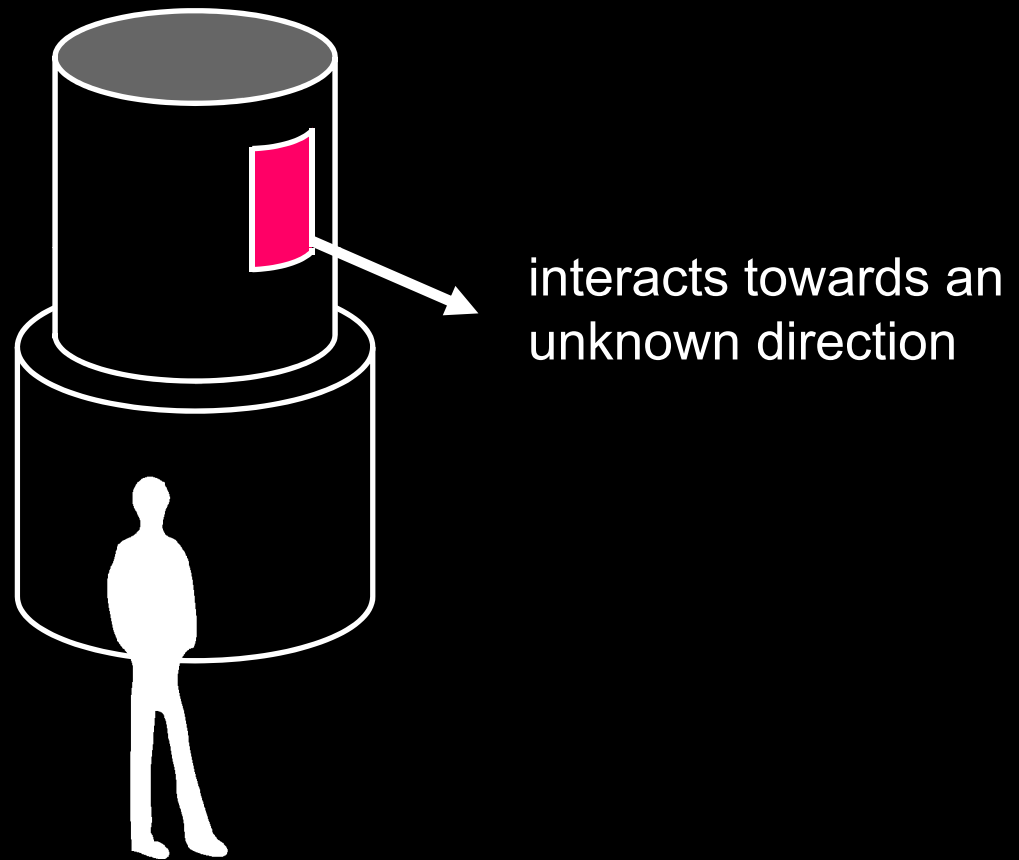
MULTI USER INTERACTION



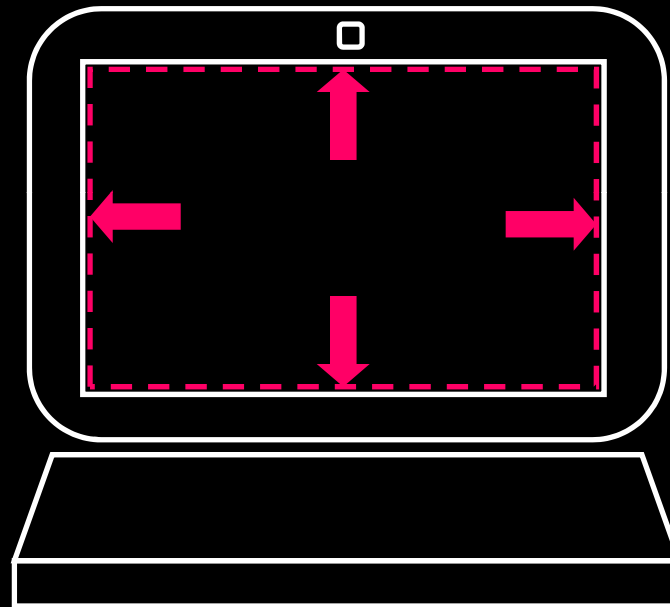
VIEWER POSITION



POSTER POSITION

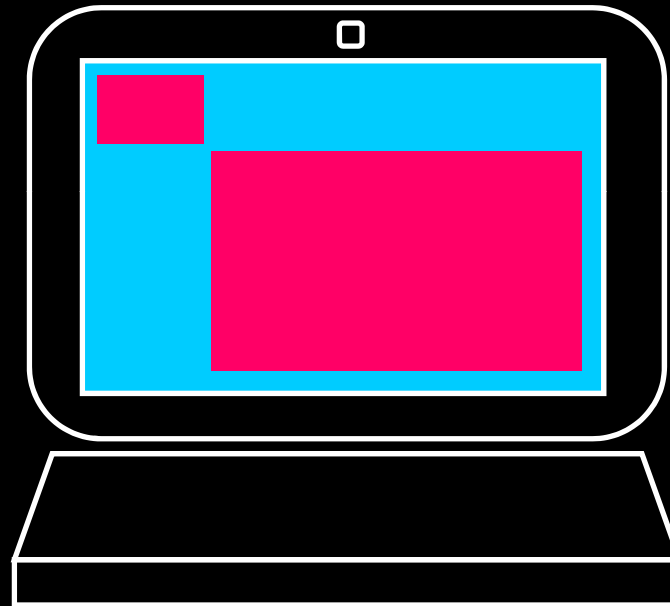


CLASSICAL SCREEN



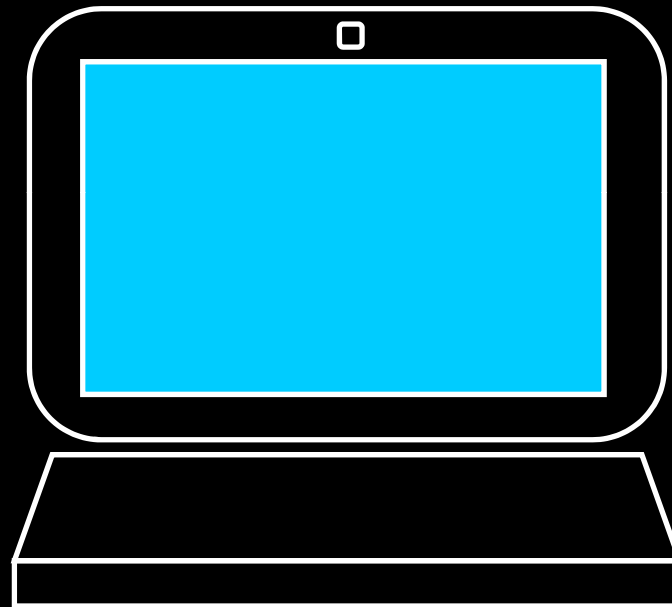
rectangular frame

CLASSICAL SCREEN



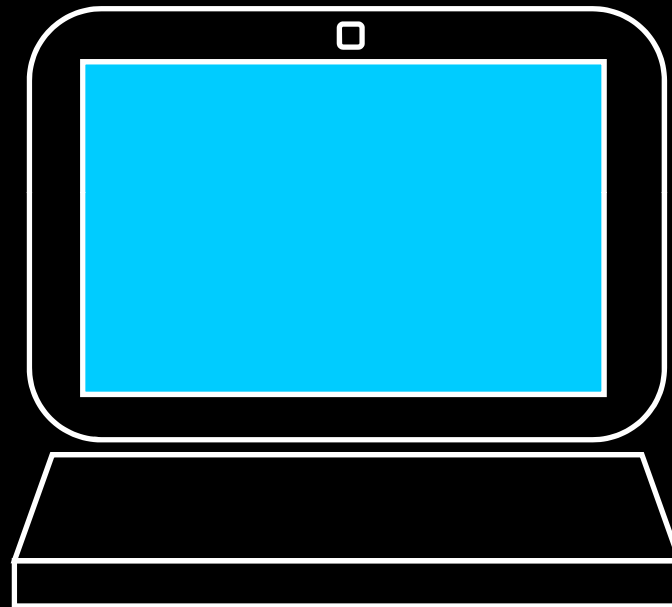
screen layout depends
on its framing

CLASSICAL SCREEN



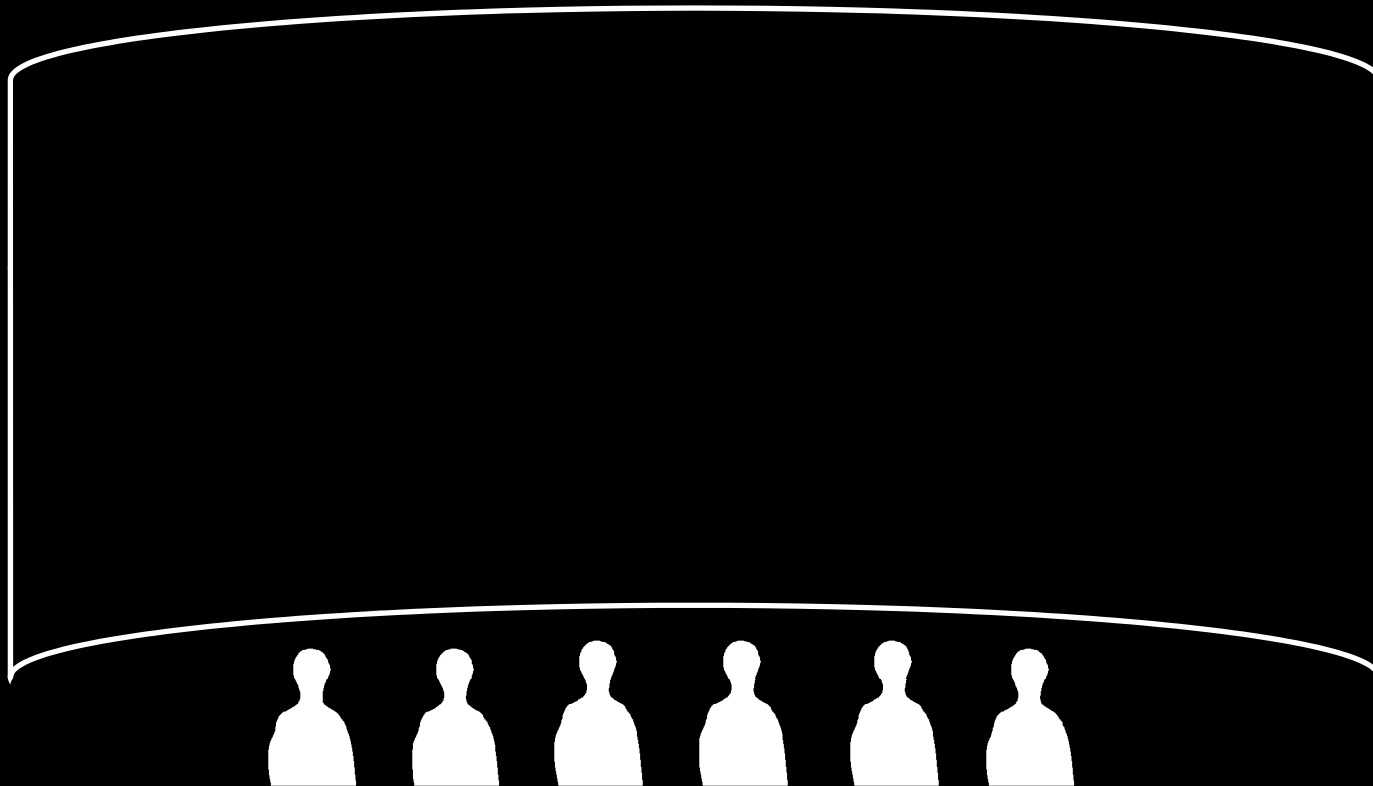
window metaphor

CLASSICAL SCREEN

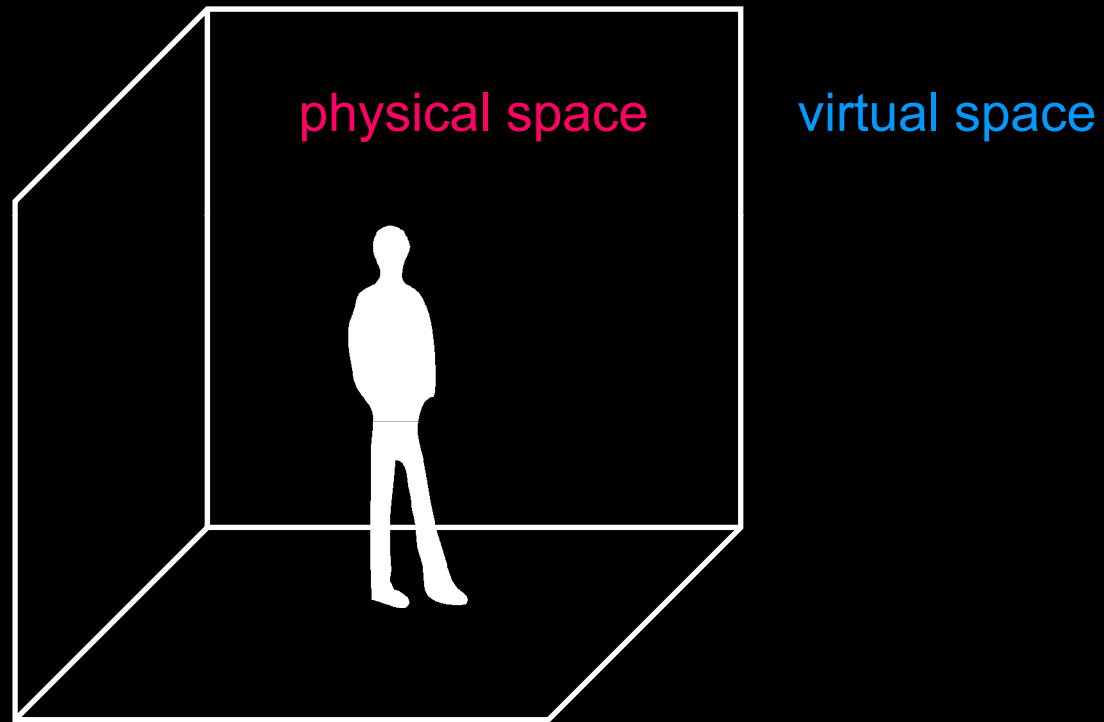


screens out what is
outside its frame

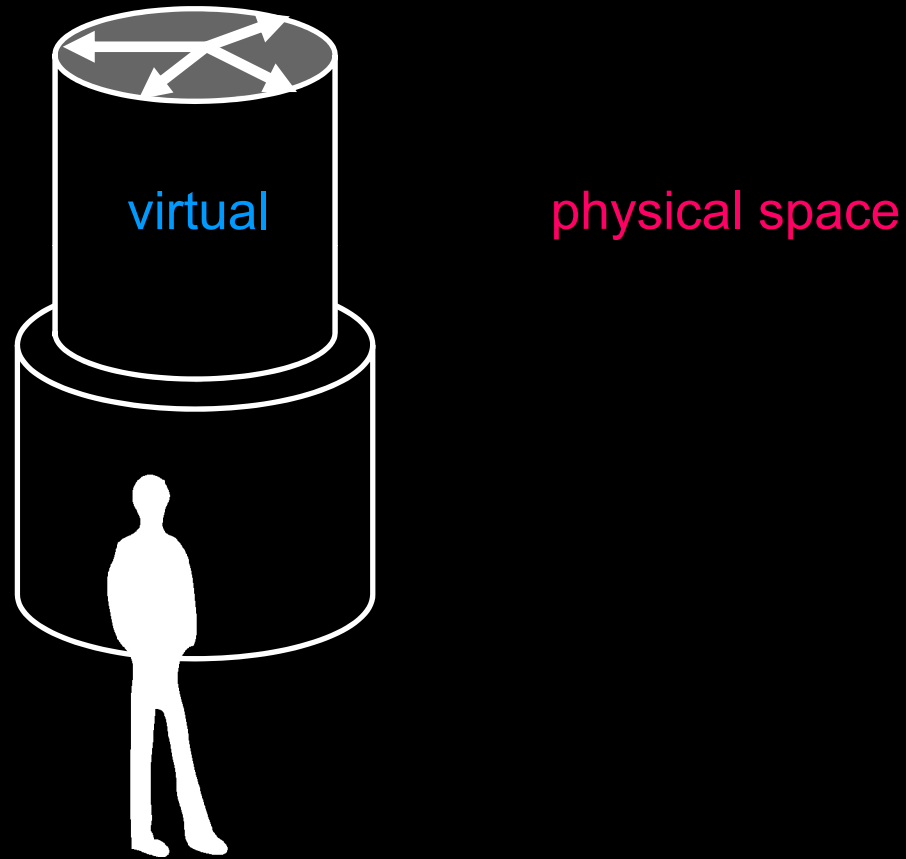
CINEMA SCREEN (immersive)



CAVE (total immersive)



CYLINDRICAL SCREEN (non-immersive)

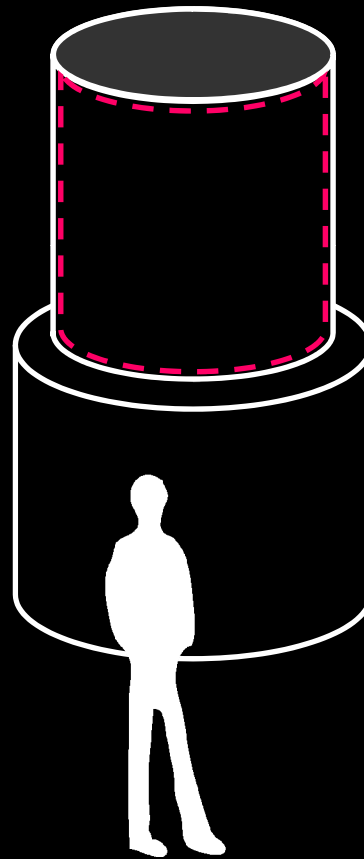


CYLINDRICAL SCREEN (non-immersive)



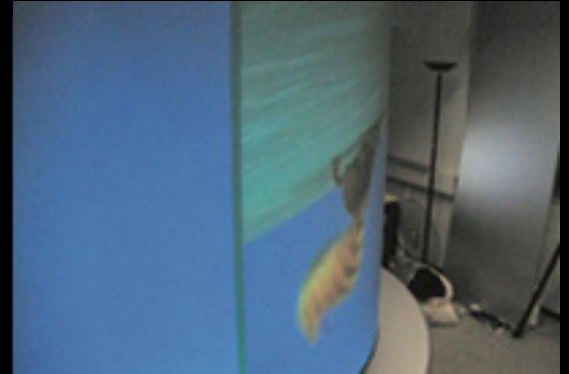
convex shape

CYLINDRICAL SCREEN

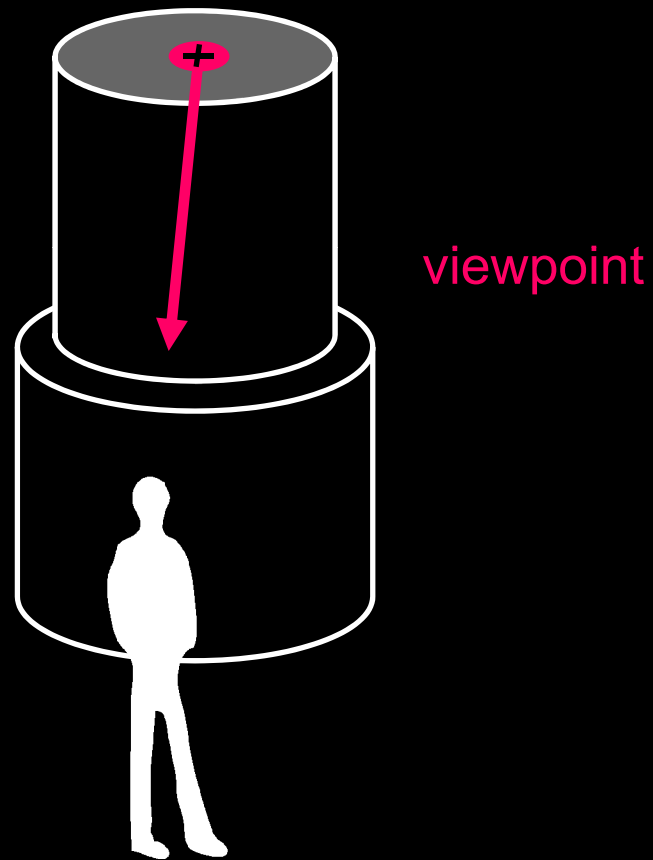


section of view

IMAGES AND MOVIES



PANORAMA



PANORAMA



TYPOGRAPHY

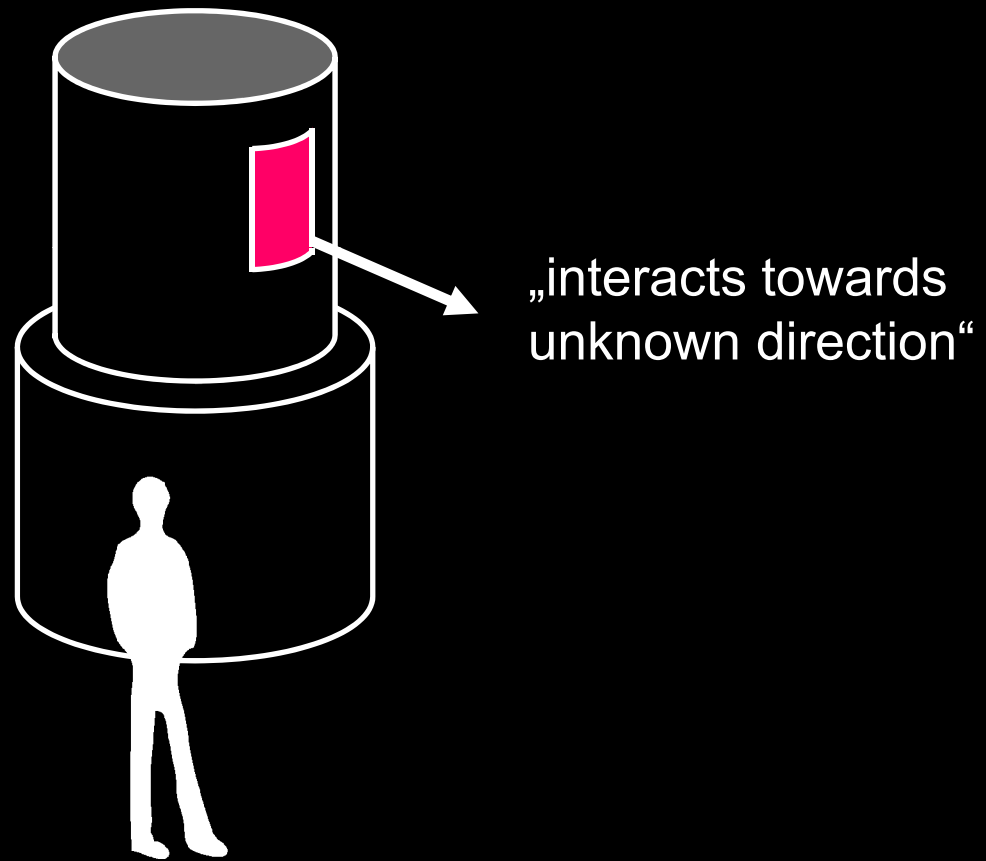


TYPOGRAPHY

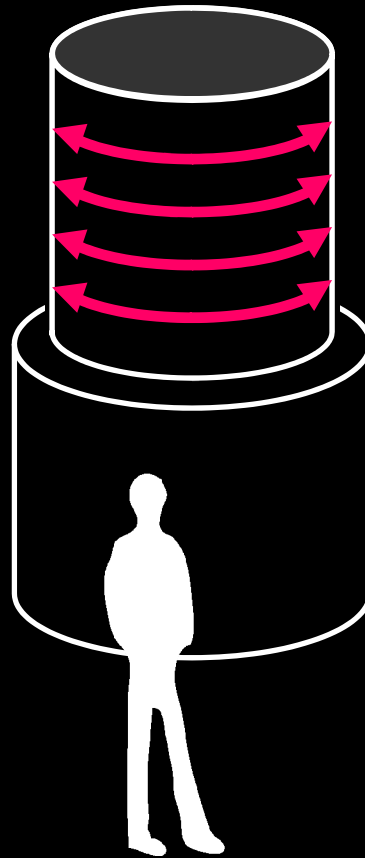


4. INTERACTIVE COLUMNS

CHARACTERISTIC 1



CHARACTERISTIC 2

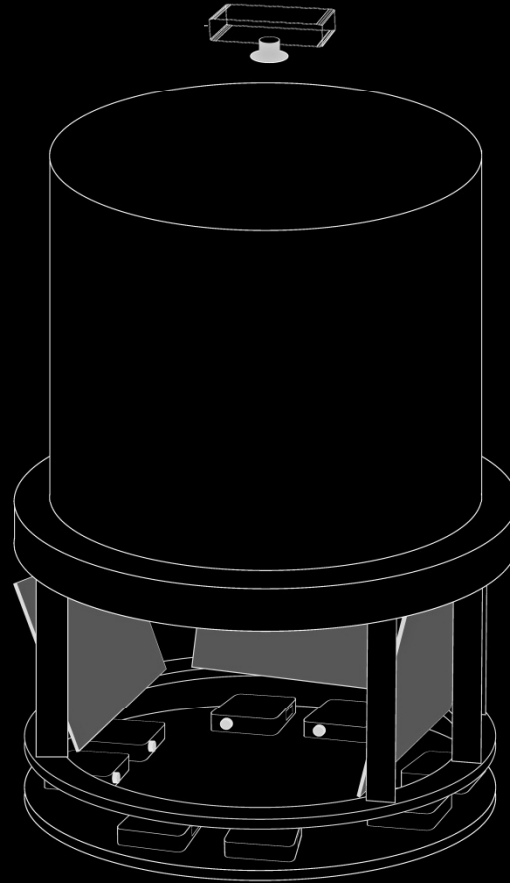


„No Left, No Right, no
Beginning and no End“

INTERACTION TECHNIQUES

- Multitouch (direct but explicit only)
- Face, Facial Expressions (frontal viewing only)
- Gestures (close-up, subtle interaction)
- Position and Movements (allow implicit initial)

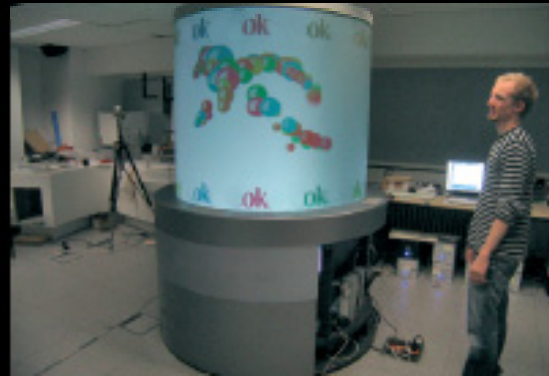
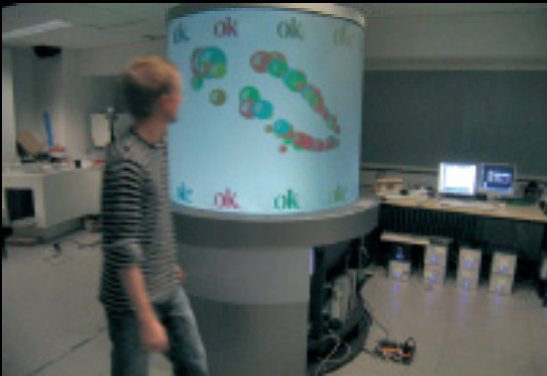
SENSOR INTERFACE



SENSOR INTERFACE



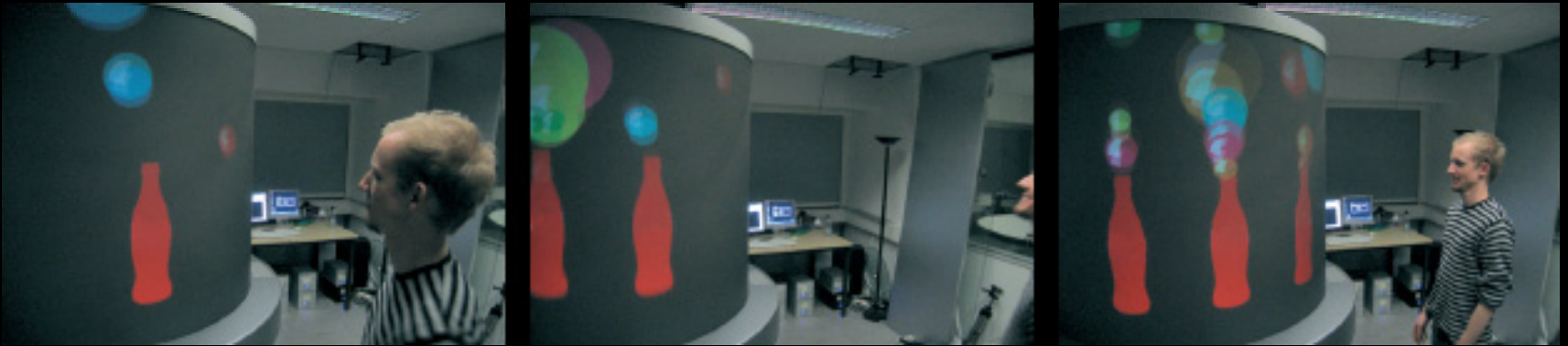
IMPLICIT INITIAL INTERACTION



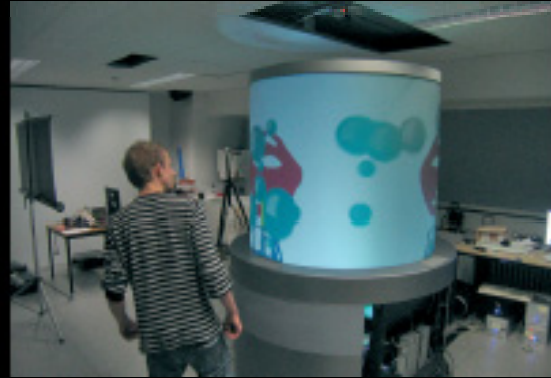
IMPLICIT INITIAL INTERACTION



REACTIVE COLUMN



MULTIPLAYER GAMES



DISCUSSION

- What are suitable sites of installation?
- What are the benefits for advertisers and viewers?
- Further ideas of advertisements?
- How can the interaction technique be refined?
- How might a user study of this prototype be designed?

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