

USE CASES for AUGMENTING THE GALLERY - NYU



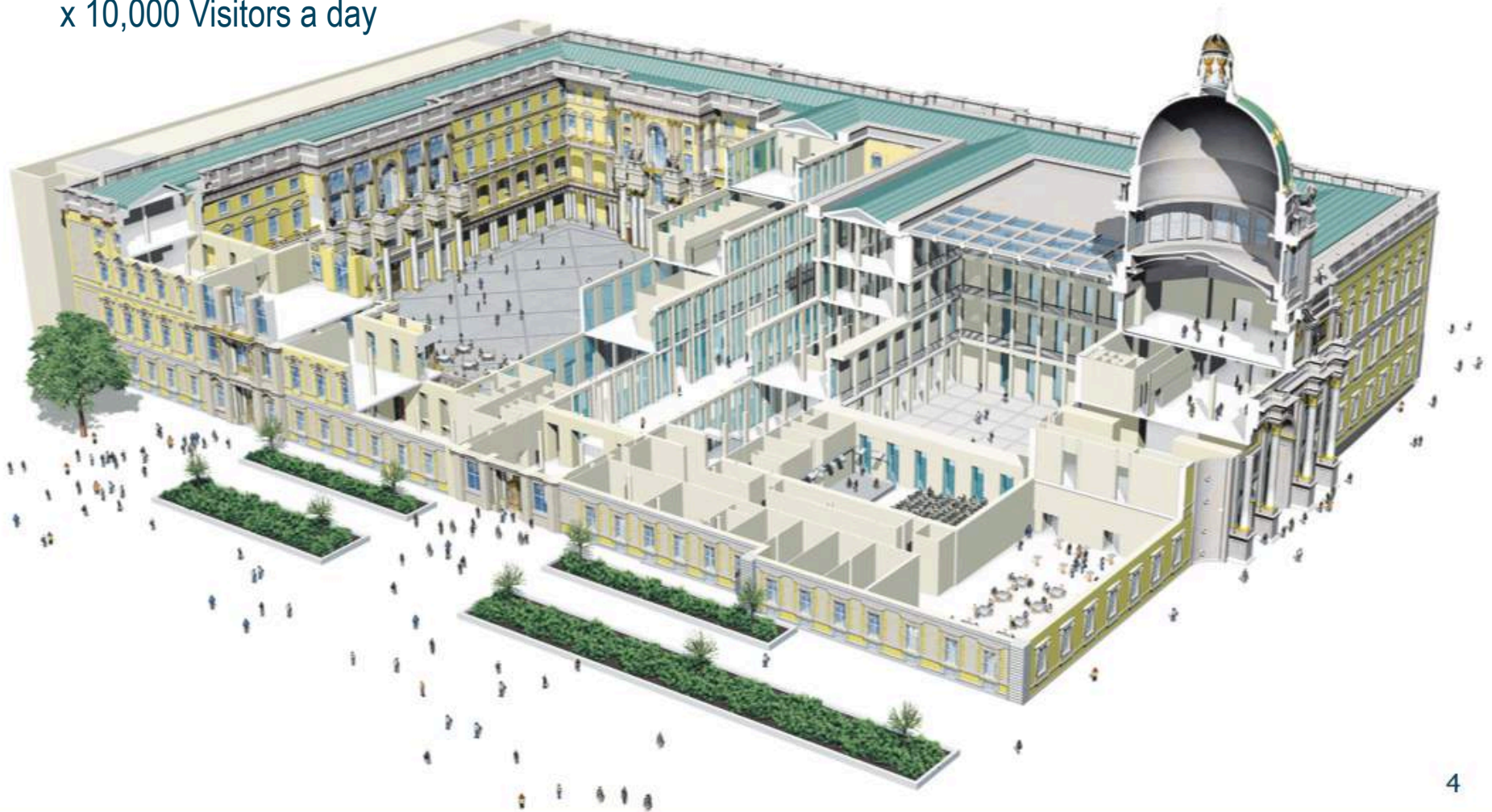
Bild: bzz landschaftsarchitekten



INTRO & OVERVIEW

DAS HUMBOLDT FORUM

40,000 M² - 25,000 Objects – 4 „Museums“ – Exhibitions – Events – Education – Gastronomy – Shops
x 10,000 Visitors a day



Humboldt Forum – Digital Department

Norman Mähler – Department Head

Alan Prohm – Content Strategy and Concept

Nathalie Keurmeur – Content Strategy and Concept

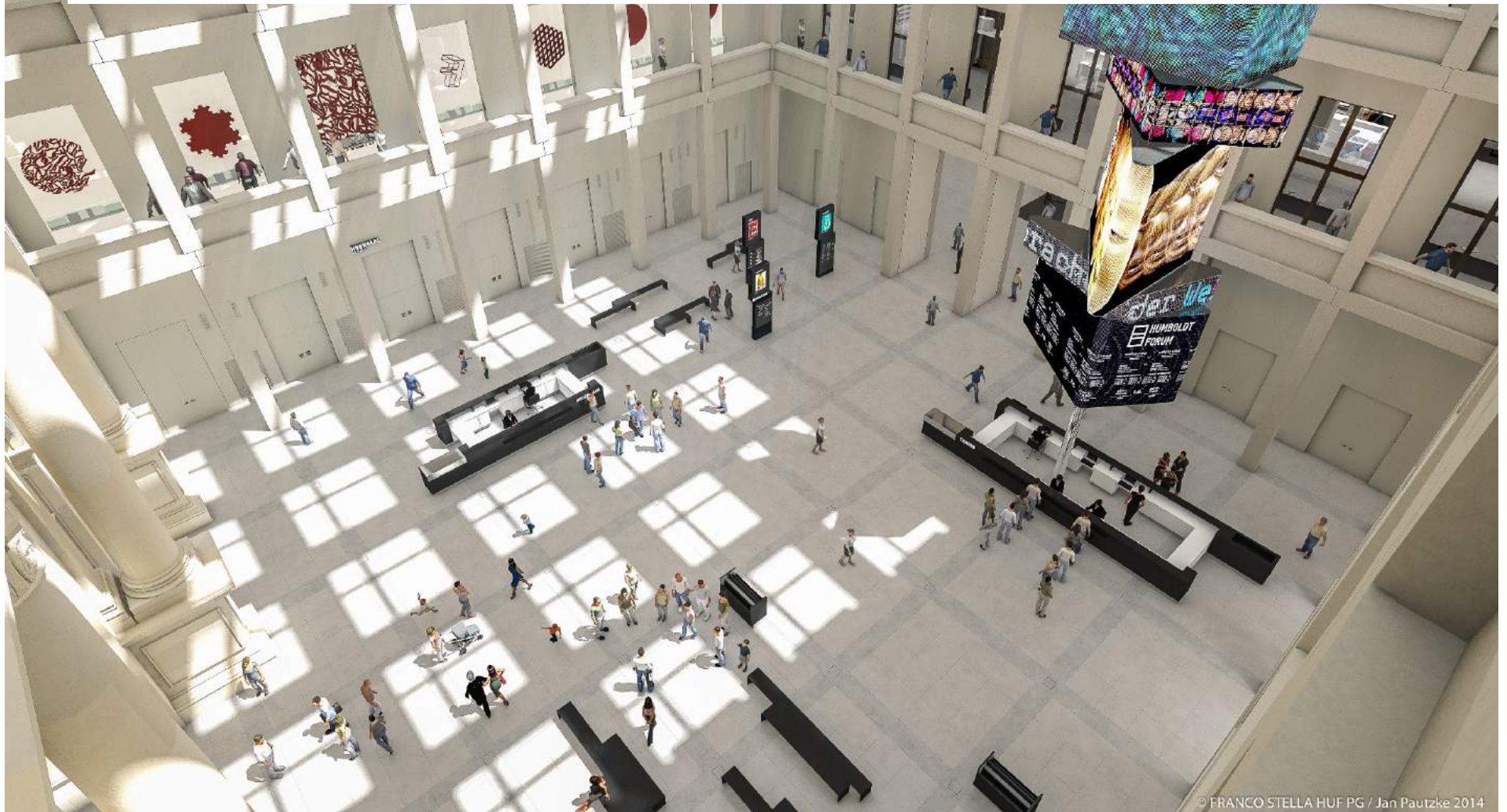
Manuel Fischer – Systems Architect

Cornelia Fanslau – Databank Strategy and Planning

Conrad Mücke – Museum 4.0

DAS HUMBOLDT FORUM – DIGITAL

Digital Signage, Media Tower, Visitor Guide, Indoor Navigation, Media Stations, Installations, AR/VR ...



OUR ECOSYSTEM

 **SMB – Ethnological Museum/Museum for Asian Art**

 **SHF – Humboldt Academy**

 **LB – Berlin und die Welt**

 **Humboldt Universität zu Berlin**

 **SHF – Museum of the Site**

 **/ Interventionen**

 **SHF – Temporary exhibitions**



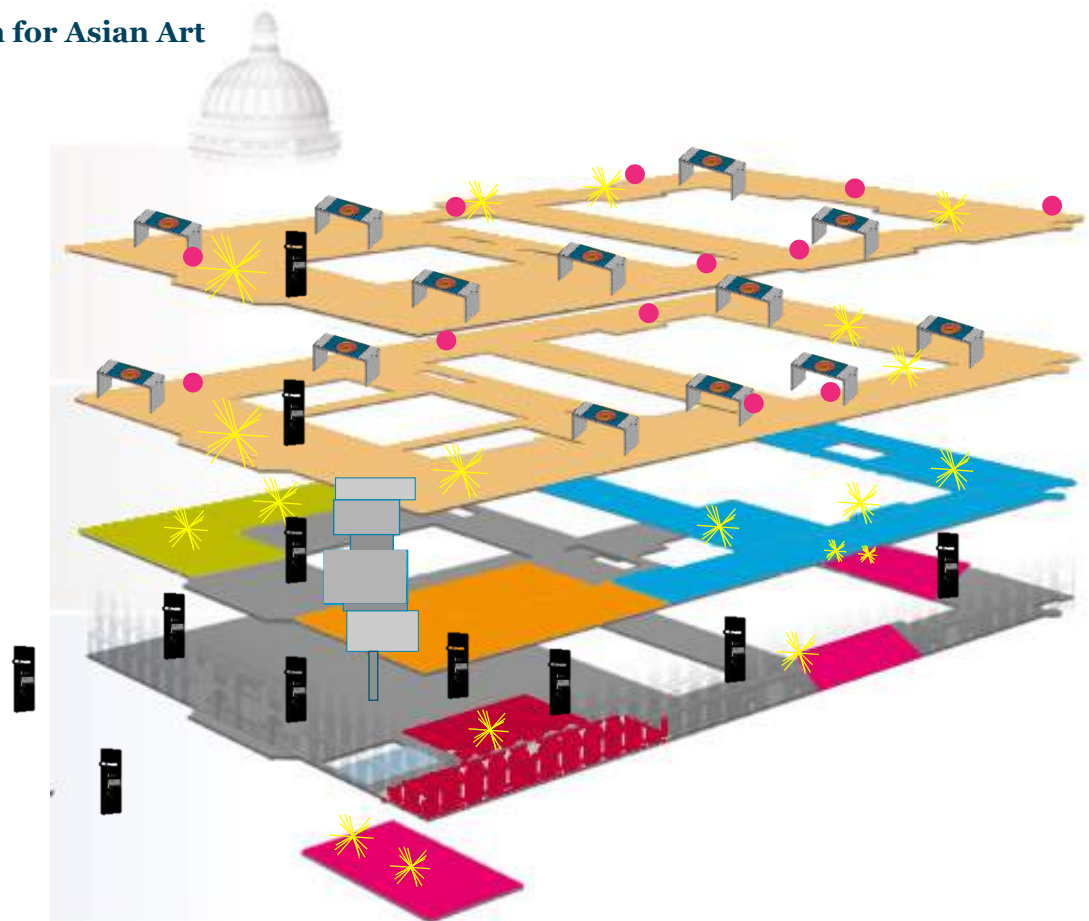
Special media installation



Standard media stations



**BCD – Orientation
and guidance system**



ECOSYSTEM



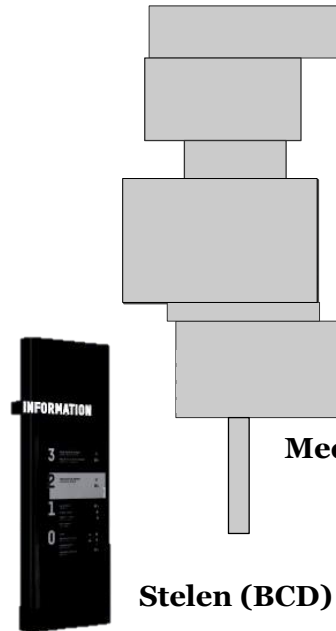
humboldtforum.com/org



Social Media-Kanäle

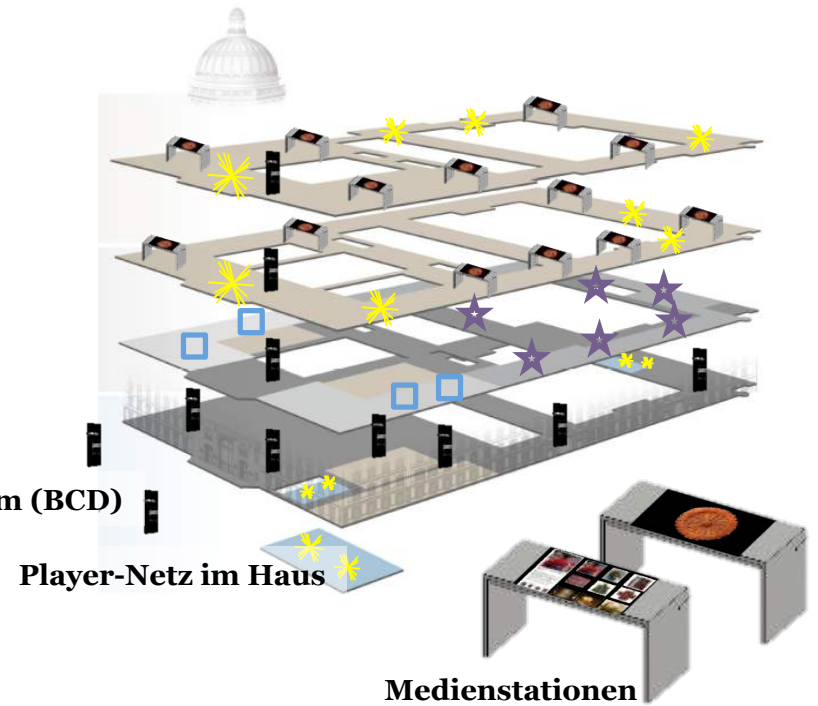


Humboldt Forum Digital



Stelen (BCD)

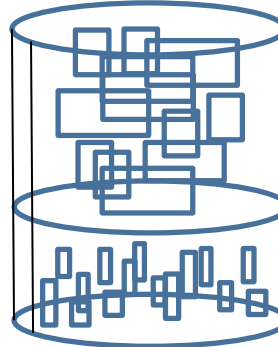
Medienturm (BCD)



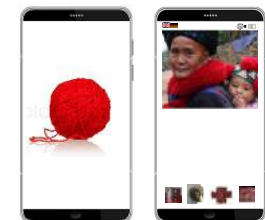
Player-Netz im Haus

Medienstationen

HF Content Pool



Orientation Tool



Visitor Guide



HF-Akteure

APPROACH

Digital media to support physical experience/encounter (objects, persons, world)

Based on an integrated, intermedial, intercultural, whole-bodied (intermodal) and interdisciplinary approach to reception

Digital tools to fulfill cognitive tasks

Digital systems that materialise Humboldt Forum ideals

THE ERGONOMIES – 4 Dimensions of User-Centered Design

Logistic

Physical

Sensory

Cognitive

ERGONOMIC

CONCEPT – GUIDING IDEAS

The Humboldt Forum Idea

Die ganze Welt *in ihren Zusammenhängen* –
erlebbar, erforschbar,
erkundbar



Gründungsintendanz

More than a museum

Nature *and* Culture

Multiperspectivity – The Present – Participation

The Humboldt Brothers



WILHELM: VERBINDUNG

Encounter – *Wechselwirkung* – Exchange
Languages – Ways of Thinking – Ways of Living



ALEXANDER: VERNETZUNG

Research – Data – Cosmos
Travel – Exploration – Exchange

BEIDE: VERGLEICHENDE METHODE

mit Anspruch auf Ganzheitlichkeit u. Gerechtigkeit

Concepts of the main actors

SMB – Multiperspectivity, The Present, Participation

GdO – Multilayered history of the Site

Land Berlin – Berlin and the World

Humboldt Universität zu Berlin – Science in Action



USE CASES

USE CASES

1 – Content Compass

2 – The Red Thread

3 – Palast-Attrappe

*

CONTENT COMPASS

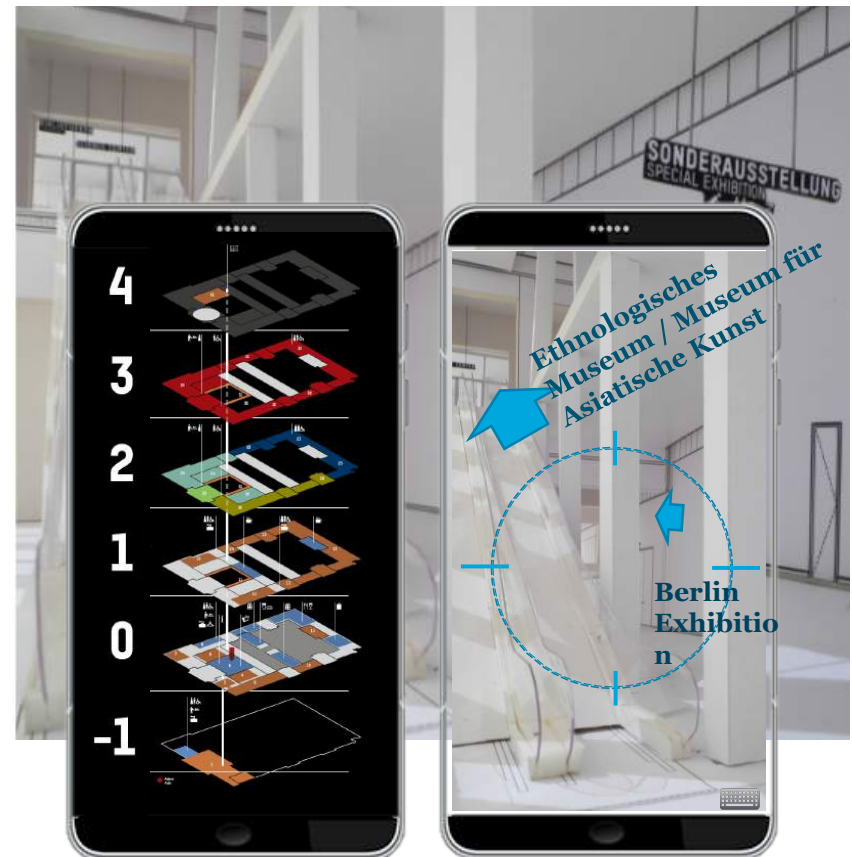
This use case concerns AR solutions for Indoor Navigation in a large museum complex. It poses the challenge of developing **an intuitive AR-based compass function for museum navigation** using smartphone or another mobile technology. The task is as follows: for a single spot in the Humboldt Forum (HF Foyer), display spatial and content-related coordinates in a synoptic overview that tracks in relation to a true North and to the map of all facility and content destinations in the Humboldt Forum. In other words, the task is to conceive a “Spyglass”-like app for use in museums, adding the informational layer of content coordinates (in what direction what contents can be found) to the standard cardinal coordinates (where is up/down, north/south/east/west, etc.).

Develop the above AR function also for blind users, and for an eyes-free use by sighted users.

CONTEXT: Wayfinding and Indoor Navigation



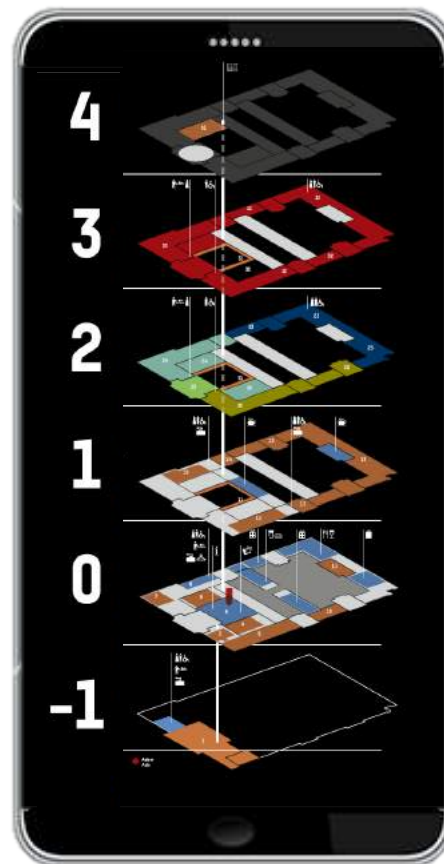
BCD-Digital: interactive floorplans, environmental awareness



Stage 1: simple navigable floorplans

Stage 2: intelligent wayfinding (compass)

CONTEXT: VISITOR GUIDE incl. Indoor Navigation



CONTENT COMPASS



Reference

Spyglass App by Pavel Ahafonau -

<https://itunes.apple.com/app/id332639548>

CONTENT COMPASS



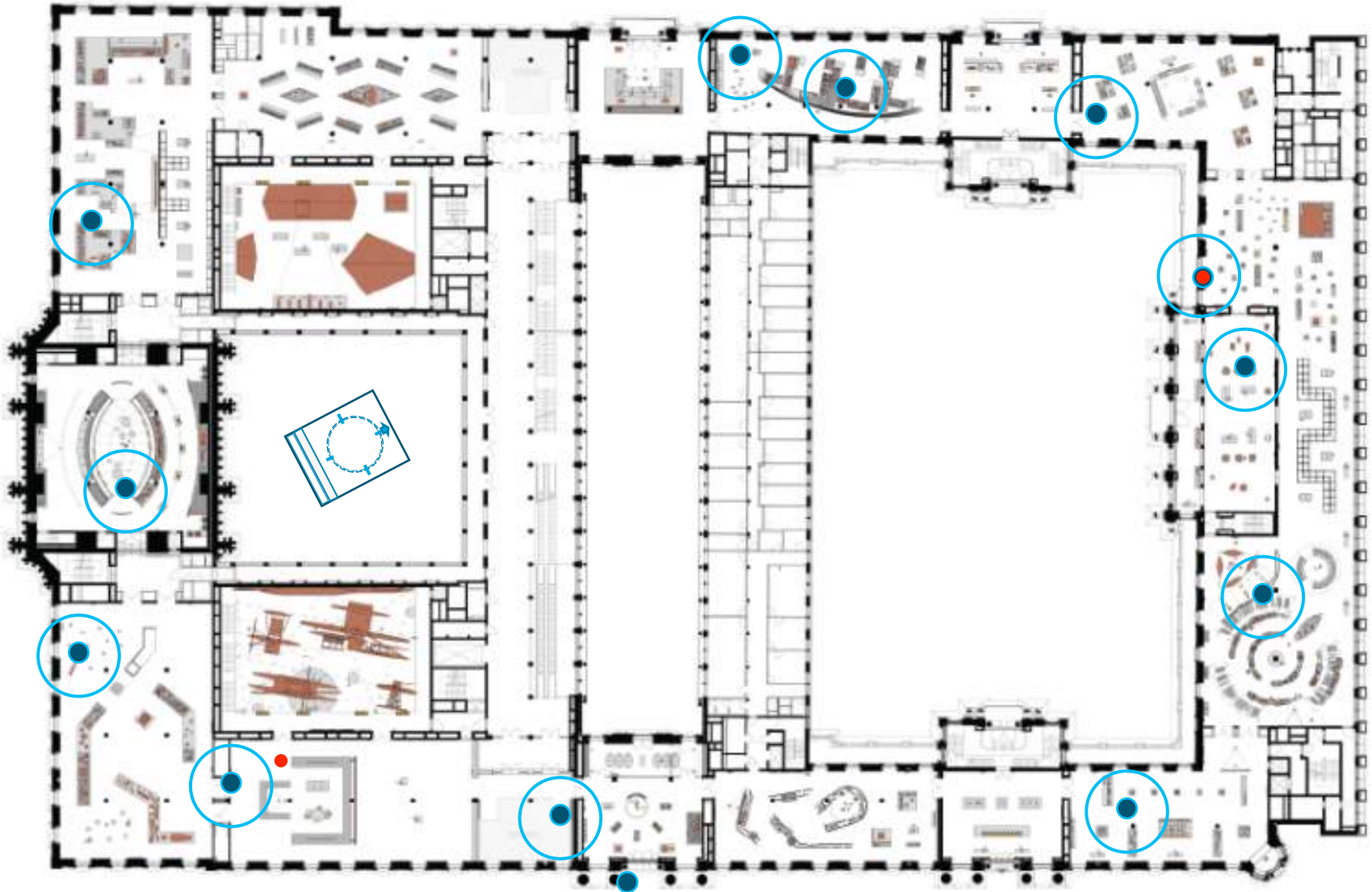
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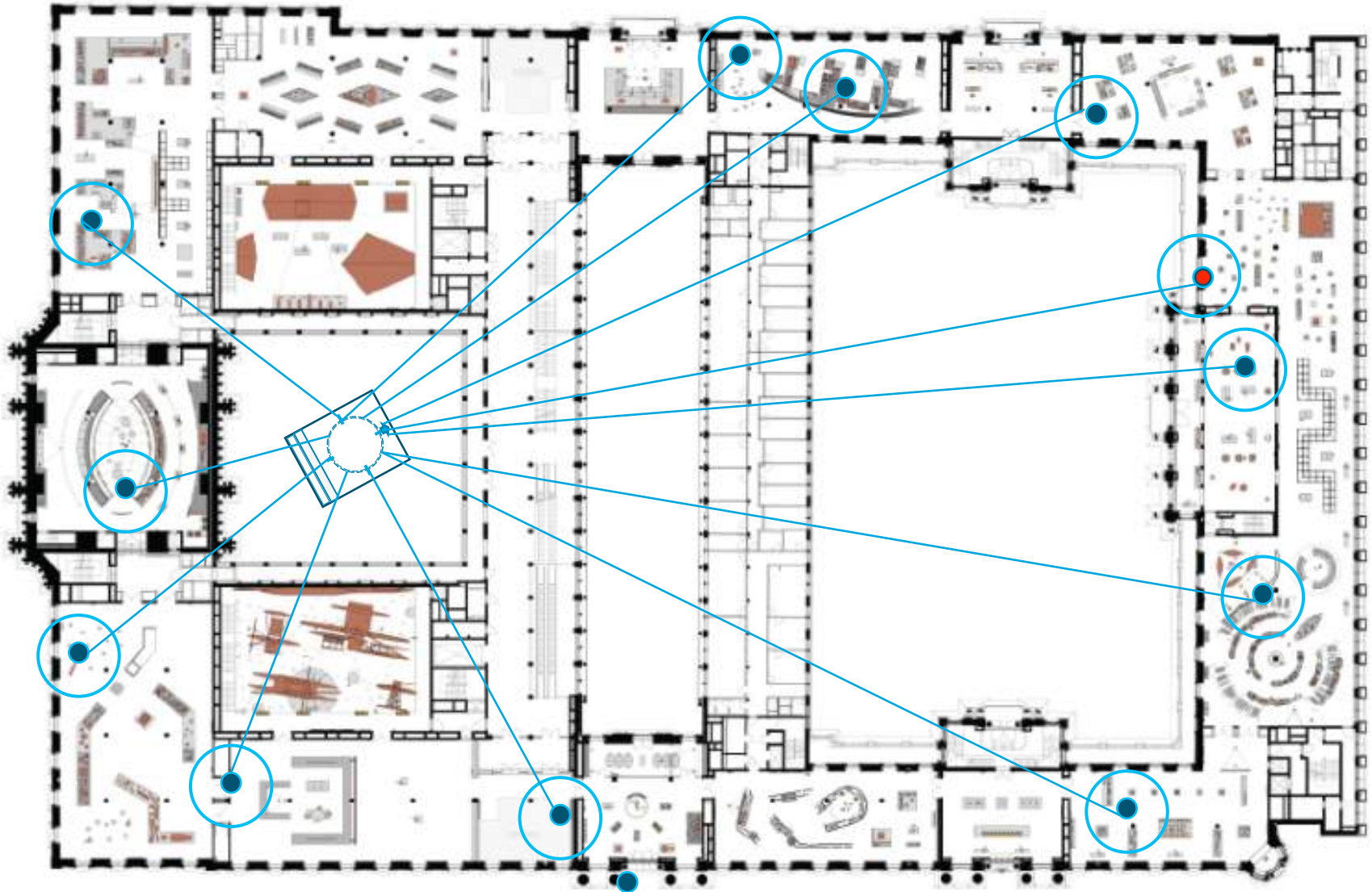
CONTENT COMPASS



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CONTENT COMPASS



CONTENT COMPASS



Resources (accessibility for purposes of this course must be confirmed)

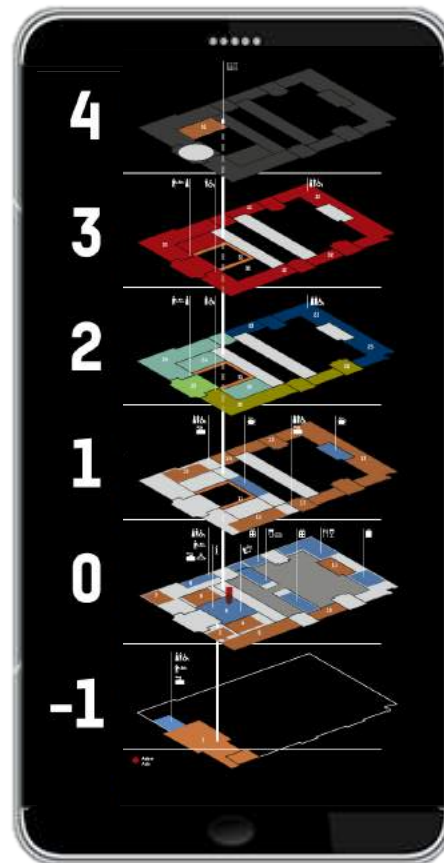
- 3D Model of the HF Forum Foyer (Cinema 4D)
- Q-GIS Maps of all rooms
- 2D Plan drawings of all public-accessible areas
- Chart of names and numbering for rooms and destinations
- Overview of exhibition contents for each exhibition area
- Source code for the Visitor Guide prototype from the „Laut“ exhibition

THE RED THREAD

This use case concerns AR solutions for Indoor Navigation in a large museum complex. It poses the challenge of developing **an intuitive AR-based wayfinding and tracking function for museum navigation** using smartphone or another mobile technology. The task is as follows: for a visitor walking through the Humboldt Forum, conceive and prototype a virtual “Ariadne’s thread” which unspools drawing a thread-like track of the visitor’s path in augmented visual space, and which respools if the visitor retraces his or her steps, or at the end of the visit, retaining information of the path and points visited in a form that can be reviewed later. In a further step, the solution could show museum tours or routing information as threads or tracks, as well as the paths of other visitors.

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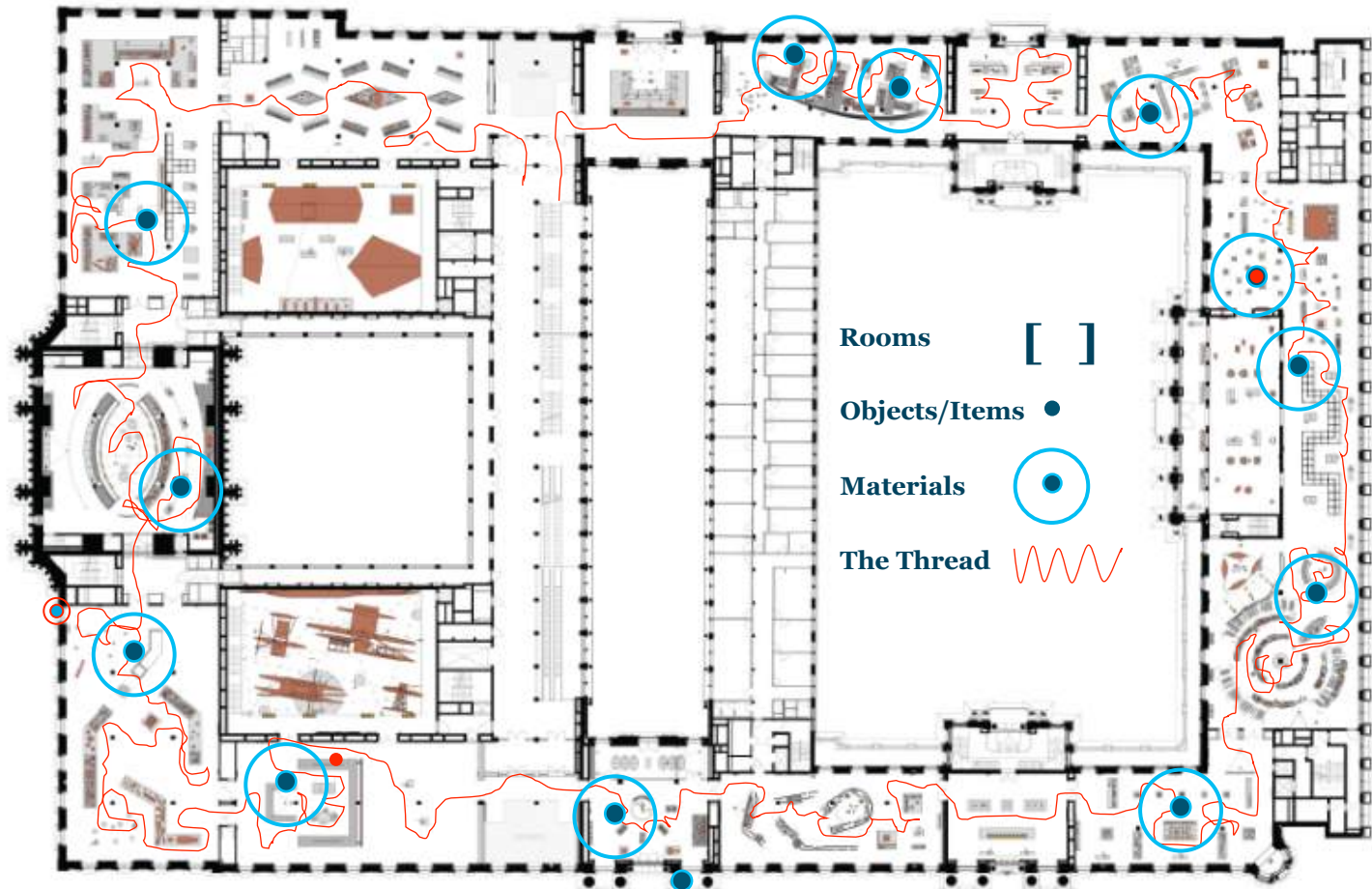
CONTEXT: VISITOR GUIDE incl. Visit Tracking



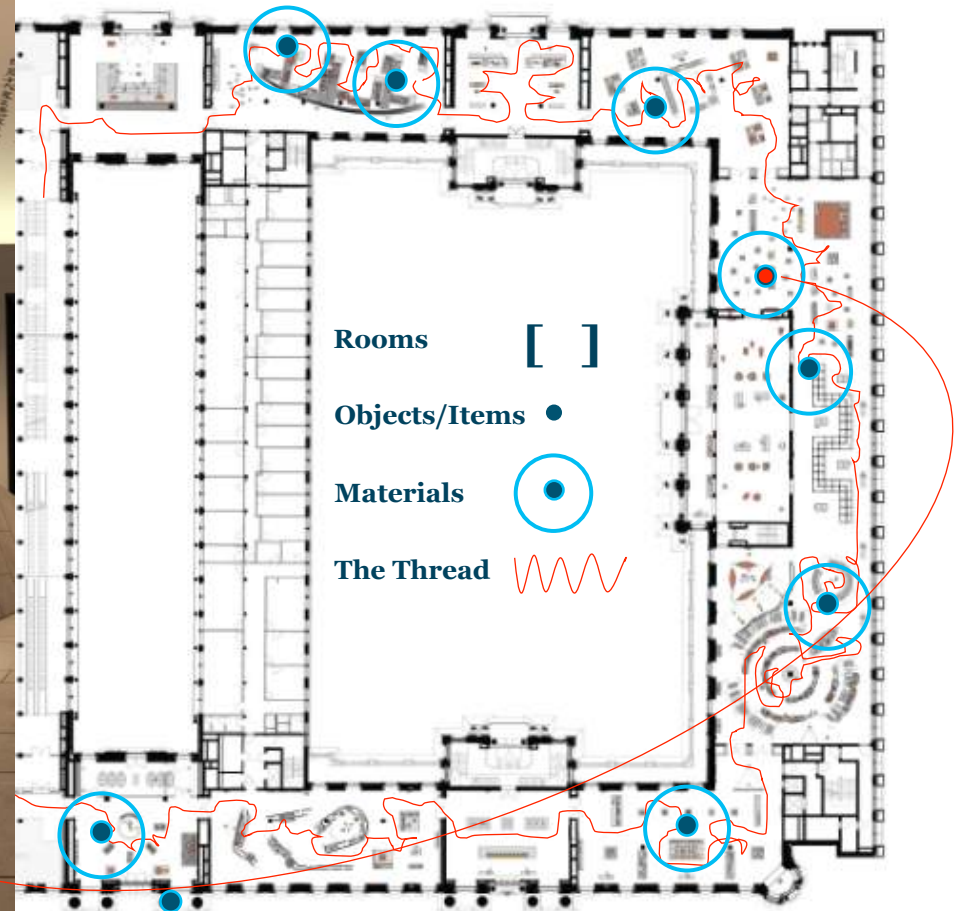
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CONTEXT: VISITOR GUIDE – device independence / design for all



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PALAST-ATTRAPPE

This use case concerns the location-specific communication of historical architectural information. In particular, it calls for the development of **an AR “reconstruction” of the Palast der Republik to be experienced on its historical site**, now occupied by the Humboldt Forum. The visualization should make the vanished Palast der Republik visible again to visitors by augmenting the physical walls of the HF that trace its former footprint with AR imagery of that building’s historical façades.

*Schloss-Attrappe (or Dummy Castle) is the term used in German for the façade simulation that stood from 1993 to 1994, realized in painted canvas over scaffolding at 1:1 scale, to promote the proposal of reconstructing the historical Berlin City Palace. (See: <https://berliner-schloss.de/das-historische-schloss/die-schloss-simulation-1993-1994/>) Many Berliners associate the decision to do so with the prior removal of the Palast der Republik, an important cultural landmark for the former DDR. This use case proposes erecting a Palast-Attrappe, or Dummy Palast der Republik, in AR.

PALAST-ATTRAPPE

Humboldt Forum 2019 (architect's rendering)

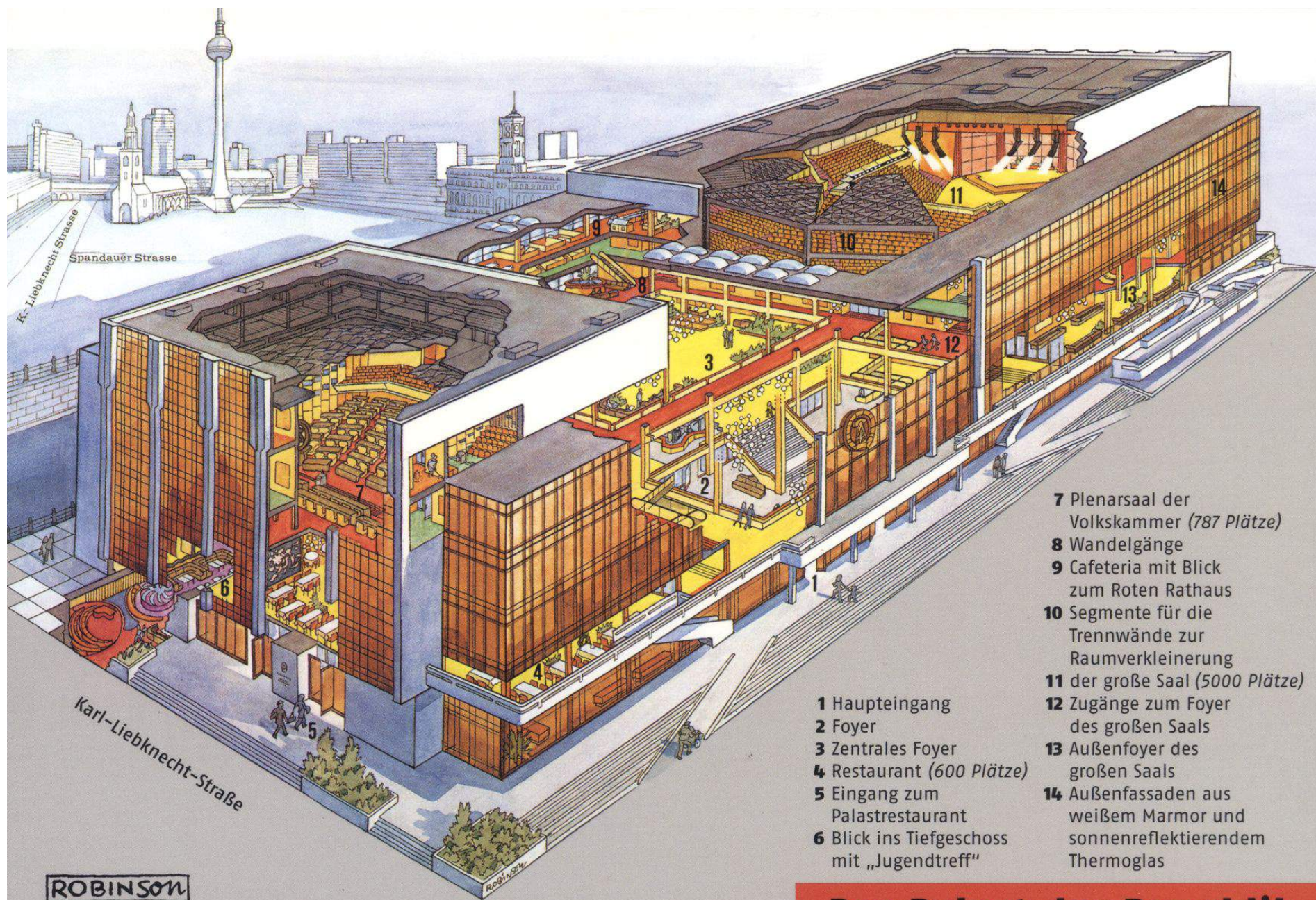


PALAST-ATTRAPPE

Palast der Republik 1976-2006



Photo: 1977



- 1 Haupteingang
- 2 Foyer
- 3 Zentrales Foyer
- 4 Restaurant (600 Plätze)
- 5 Eingang zum Palastrestaurant
- 6 Blick ins Tiefgeschoss mit „Jugendtreff“

- 7 Plenarsaal der Volkskammer (787 Plätze)
- 8 Wandelgänge
- 9 Cafeteria mit Blick zum Roten Rathaus
- 10 Segmente für die Trennwände zur Raumverkleinerung
- 11 der große Saal (5000 Plätze)
- 12 Zugänge zum Foyer des großen Saals
- 13 Außenfoyer des großen Saals
- 14 Außenfassaden aus weißem Marmor und sonnenreflektierendem Thermoglas

Der Palast der Republik

SCHLOSS-ATTRAPPE



1993/1994

SCHLOSS-ATTRAPPE



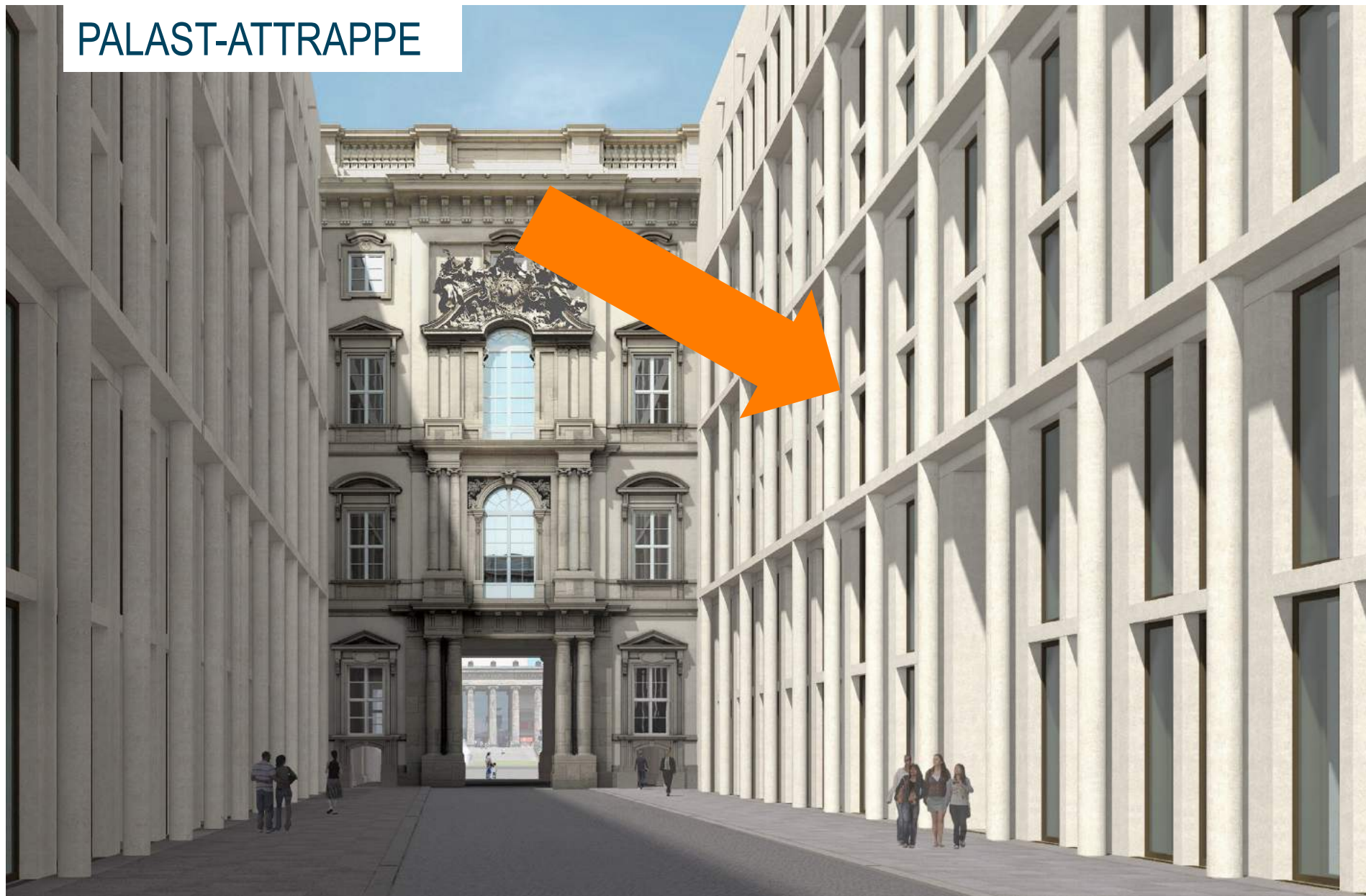
1993/1994

SCHLOSS-ATTRAPPE



1993/1994

PALAST-ATTRAPPE





PALAST-ATTRAPPE



Artist's proposal for 30 Anniversary of the Fall of the Berlin Wall, Nov 4-10 2019 – Kulturprojekte Berlin

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THANK YOU