

NTK

50°6'14.083"N, 14°23'26.365"E

Národní technická knihovna
National Technical Library

210 mm

National Technical Library

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Synopsis

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- History
- Project
 - Vision
 - Goals
 - Dates
 - Facts & Figures
 - Lessons learned
 - Pictures
- Conclusion

History

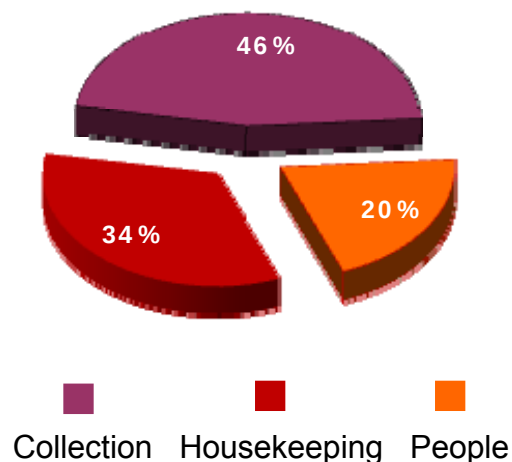
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- **1718** – Former military engineer **Willenberg** gets Imperial accreditation to teach „Ingenieurkunst“ and gets **300 florins** to buy books, models and instruments
- **1831** – The founder of Royal Czech Estates School F. J. Gerstner charges later professor of fermentation chemistry and rector of the Polytechnic **K. J. N. Balling** with the concentration of books to an indexed, subject arranged collection – advent of the library
- **1869** – after the split of the school to the Czech and German ones, the Library remains a common one, financed from the Country budget
- **1935** – an up-to-date library is built for the Library of Technical Universities (Czech and German) in the eastern wing of Clementinum
- **1960** – Library separated from Technical Universities
- **1991** – back under aegis of Ministry of Education
- **2009** – back to Technical Universities to the Dejvice campus

The past in Clementinum - 2008

210 mm

- financed by the Ministry of Education
- 2/3 of clients students of the CTU, ICT and other technical schools
- reading room, reference centre, computer study
- books, textbooks, standards, Czech law, ~1,2 mil. volumes + e-books
- subscription 1700 printed + 4000 e-journals
- opening hours Mon-Sat, 67 hrs/week
- projects:
 - e-resources for R&D
 - TECH portal
 - Virtual Polytechnic Library
 - National repository of GL
- budget 5.3 M € (2008)
 - out of it 2.2 M € collection development



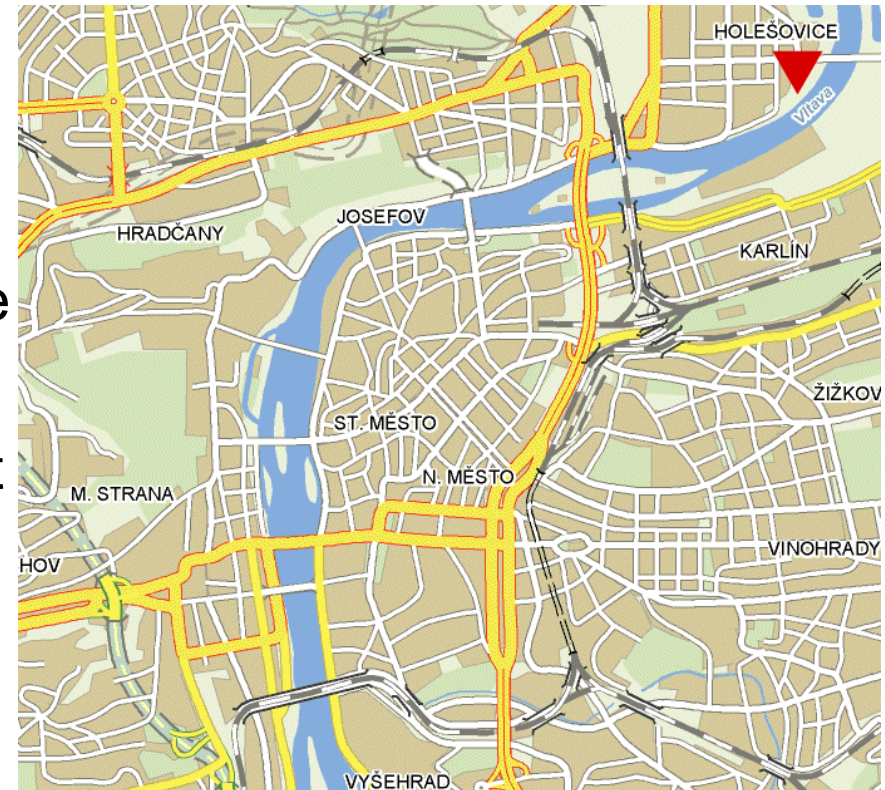


History of the project

210 mm

- 1963 Maniny
- 1974 head of Nusle bridge
- 1992 Rohanský isle
- 1995 Dejvice – Vítězné square
- 1999 heart of the Dejvice
campus – Technická street

■ campus
■ library

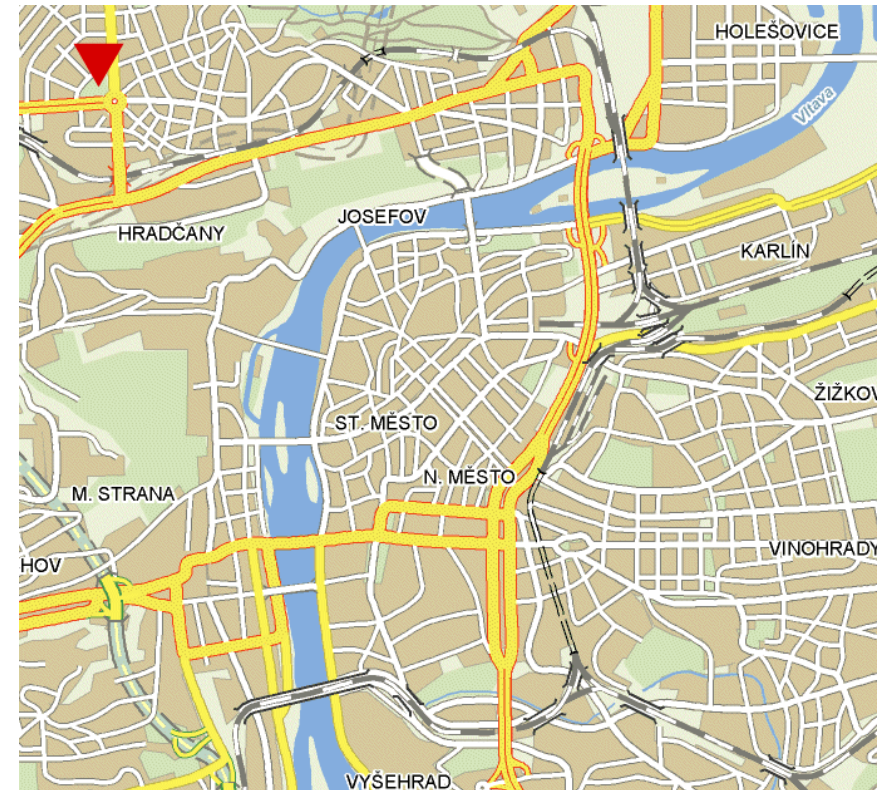


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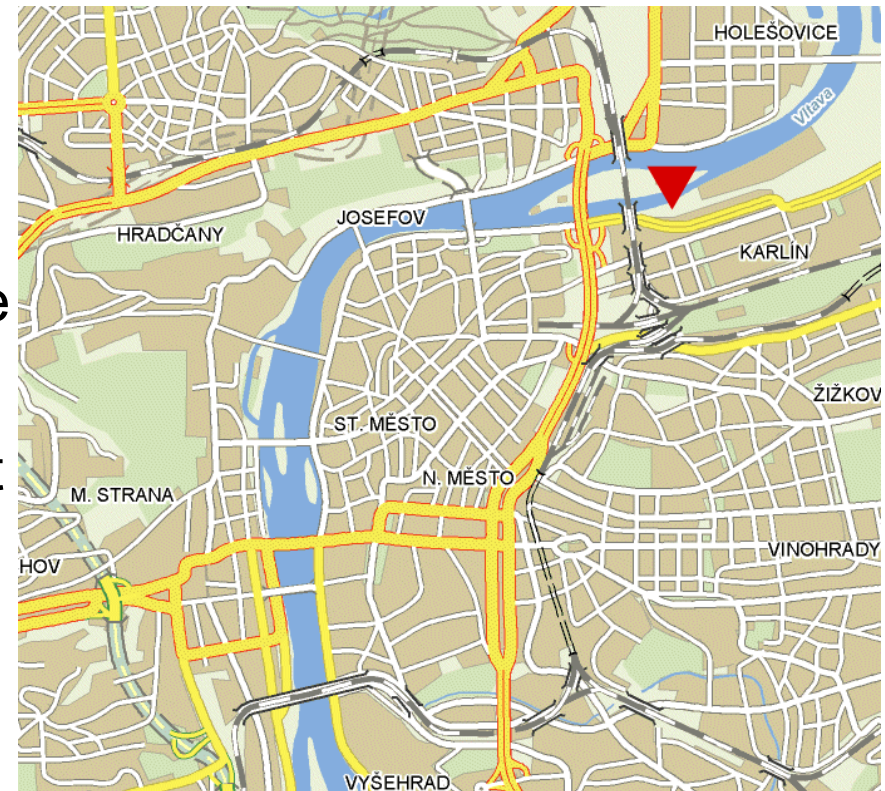


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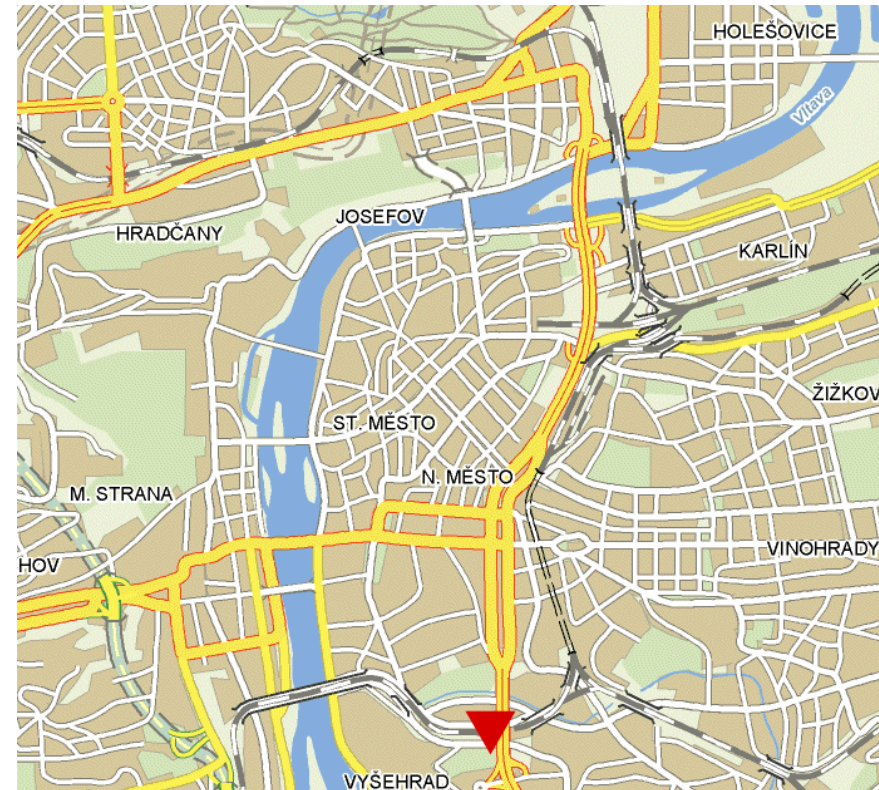


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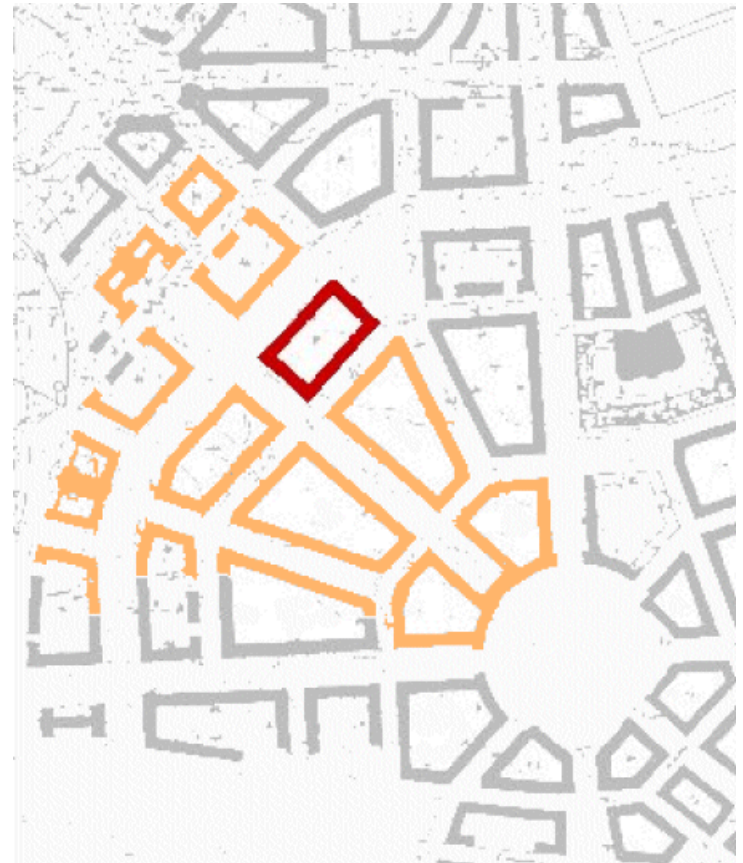


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Vision of the new library

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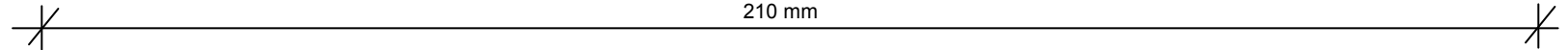
- transparent, permeable, understandable, flexible
- open, friendly, affable, inviting
- low energy and low operating costs house
- moderate use of hi-tech
- interior design – part of the overall building design
- architects: materialised textbook of contemporary architecture, civil engineering and technology

Project goals

210 mm

- Modern central common library serving universities, R&D and public in the technology and applied science area
 - national information infrastructure node for technology and related disciplines (e-resources licensing, national repository of grey literature, digitisation, EDD, ISSN centre, ...)
 - R&D laboratory of network technologies for library and information services
 - transform the library back to universities
 - release space in Clementinum for the National Library

Project dates



2000/07 – Gov't Resolution - Project NTL approved

2001/01 – Architectural contest - Projektil



2001/07 – Memorandum of Agreement ČVUT-STK-VŠCHT

2004/02 – Gov't Resolution - budget

2004/10 – project design started



2006/06 – permits acquired, contractor tender

2006/10 – the first dig



2008/12 – take-over

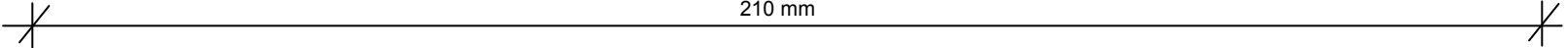
09/09/09 – opening of NTK to public

Library spaces, volumes

210 mm

- 1 322 study seats, mostly w/ network access + WiFi ubiquitous
- 562 relaxation seats
 - 29 individual study rooms (of it 2 for physically disabled and 2 multimedia study rooms suitable for visually impaired)
 - 18 group study rooms for 8-10 people
 - 4 computer study rooms (1*30, 3*50 seats)
 - 1 night / complementary reading room
 - 1 journals reading room, >2000 journals + 15000 e-journals
- 34 OPAC terminals + user PCs throughout the building
- >350 000 volumes in open stacks arranged by LCC
 - + ~ 150 e-textbooks
 - + 1.2 million volumes capacity in closed stacks underground

Other functions

- 
- social functions for the campus in the ground-floor:
 - conference hall 230 seats
 - exhibition hall 370+410 m² (90+50 seats)
 - café/restaurant 150 seats
 - municipal library branch Praha 6 (32 seats, 25 000 vol's)
 - university bookstore; IT store & accessories
 - training centre with 30 seats in variable setup
 - drink and snack machines on each storey
 - baby changing boards
 - + first-aid room in the basement
 - 300 parking places, 200 bike stands
 - 900 000 clients/year

Building

210 mm	
11 740 m ²	building plot area, out of it
5 000 m ²	built-up area
172 258 m ³	total building volume, out of it
118 411 m ³	above ground
53 847 m ³	under ground
38 661 m ²	useful area of all storeys
9	storeys, of it 6 above ground, 3 under ground
6	elevators and 5 staircases throughout the whole building
2 352 MWh	expected annual energy consumption, out of it
1 258 MWh	heating
1 094 MWh	cooling

Construction

210 mm

49 380 m ³	of earth excavated
55 711 t	weight of load-bearing structure, of it
102 t	steel structures
38 t	steel roof of the atrium
51 628 t	concrete without armature
400 t	tendons
25 m ³	pre-stressing channels
600 t	pre-fabricated stair wings
5 399 m ²	outer shell – glass form-pieces
6 320 m ²	outer shell – sheet glass

Costs

210 mm	
Overall project cost	85.17 mil EUR
<i>out of it</i>	
building – carcass	43.35 mil EUR
technologies except IT	19.83 mil EUR
IT	4.70 mil EUR
interior – mobiliary	4.65 mil EUR
project management	2.66 mil EUR
project documentation	2.80 mil EUR
engineering supervision	0.49 mil EUR
financial services	6.69 mil EUR

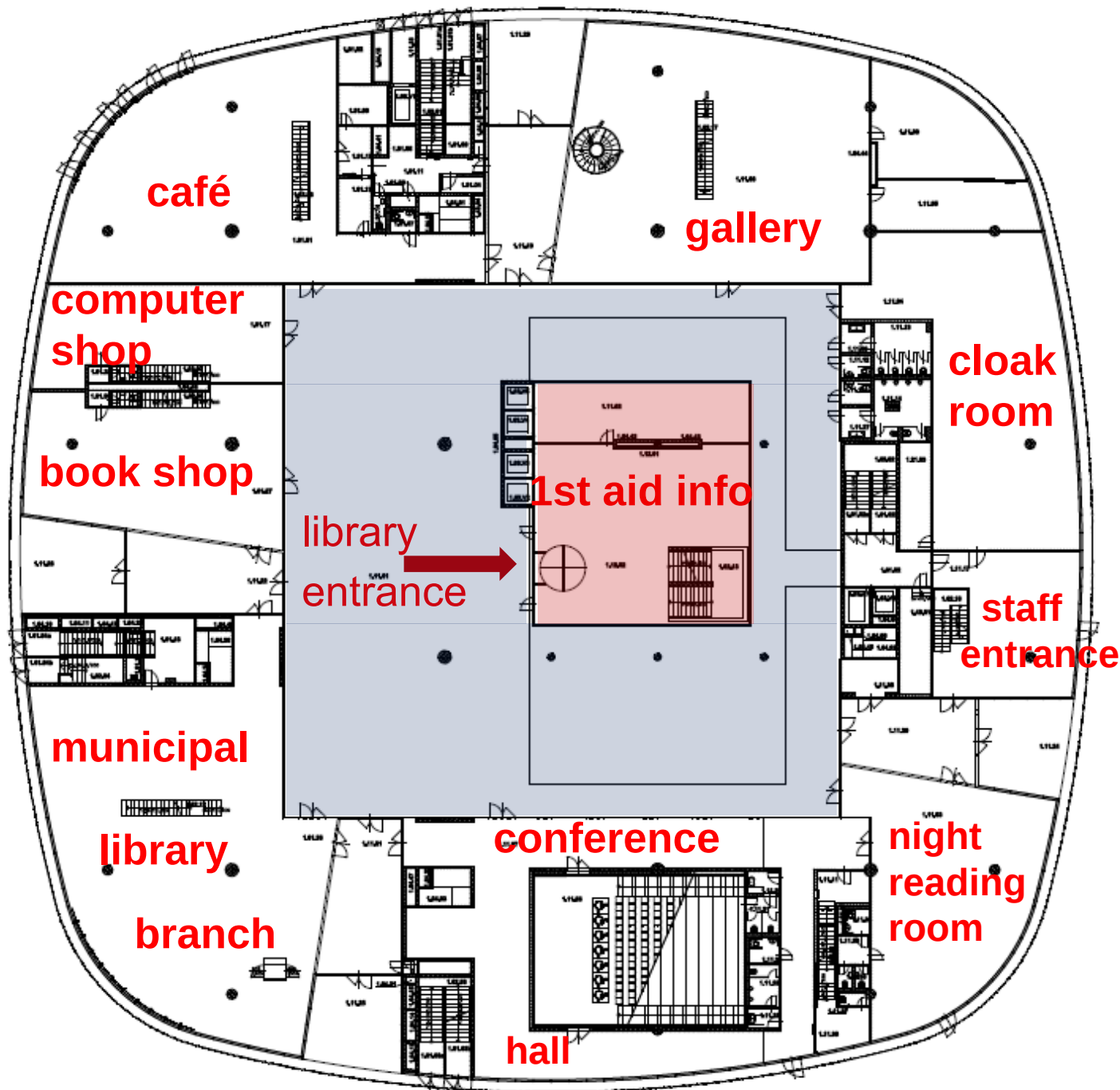
„Guinness book“ figures

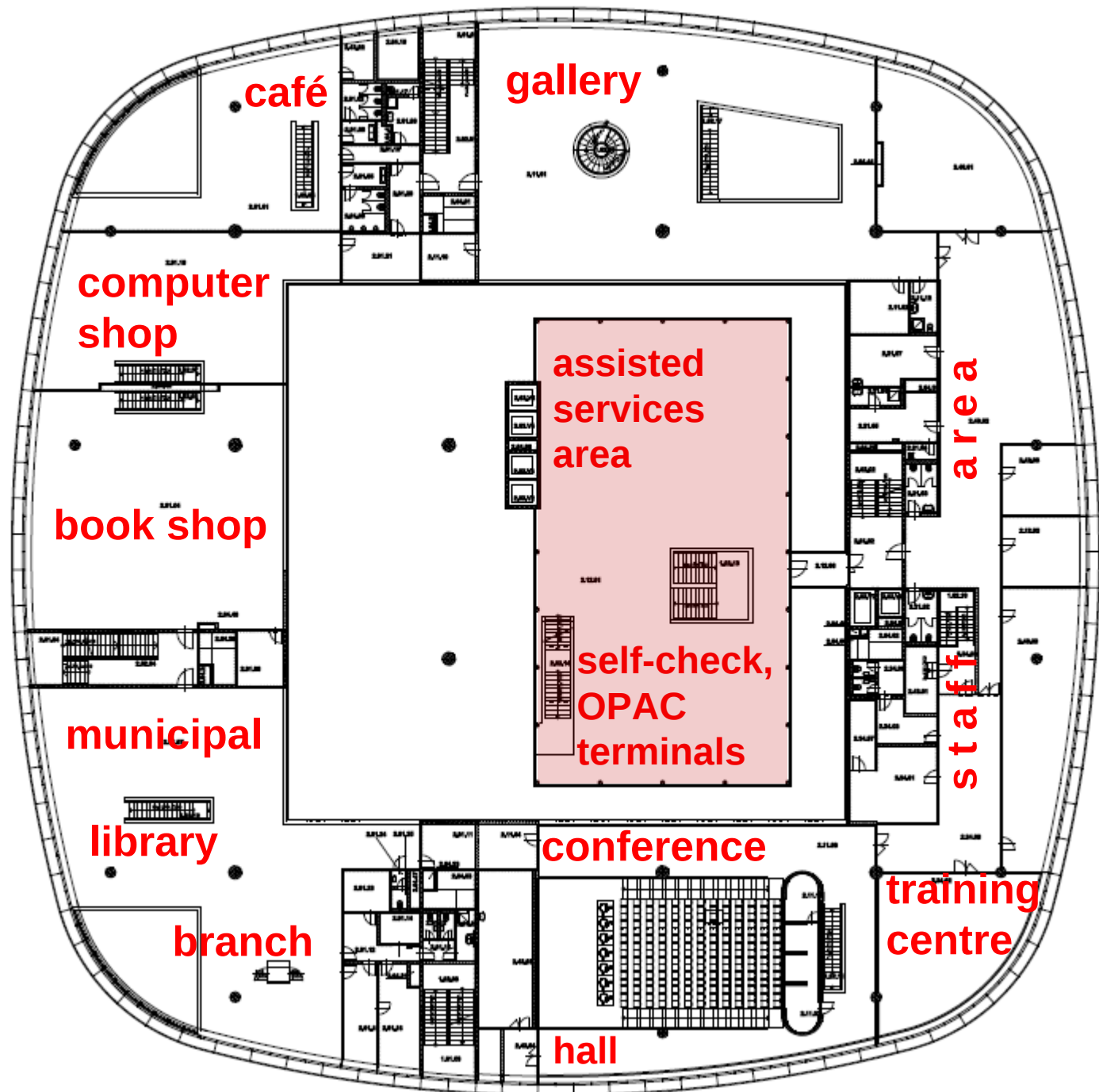
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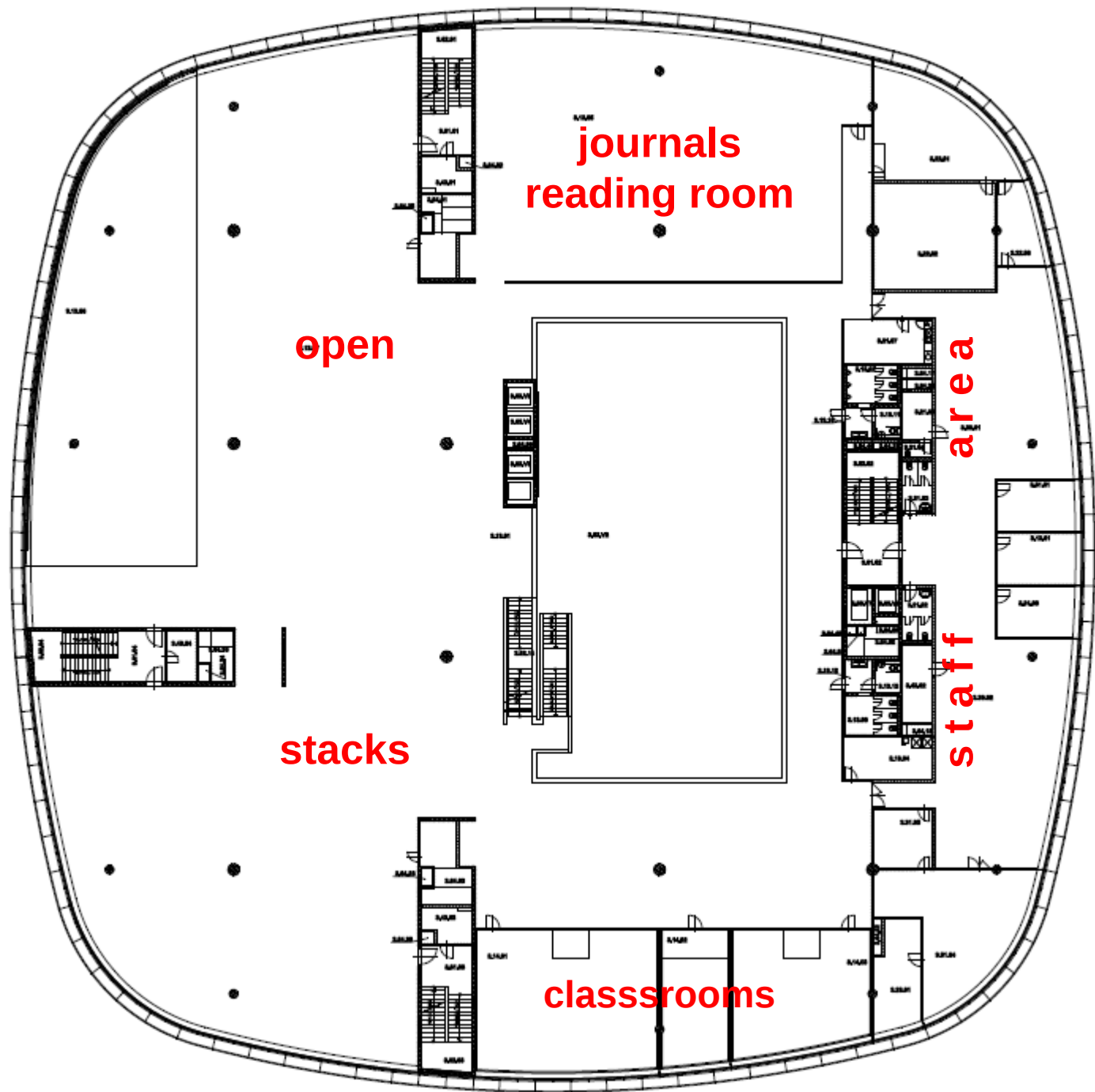
190 km	light-current cabling
1,100,000	cable clips
256	acoustic motion detectors
117	cameras
46 km	heating/cooling piping in floor slabs
3 600 m ²	floor heating in ground floor
21 670 m ²	rubber flooring
4 125 m ²	bituterazzo in the ground floor
2 600 m ²	sound absorbing lining
20 km	pipes of high pressure extinguishing system
4 110	nozzles of high pressure extinguishing system
1346	automated combustion gas detectors
410 m	automatic smoke & heat screens

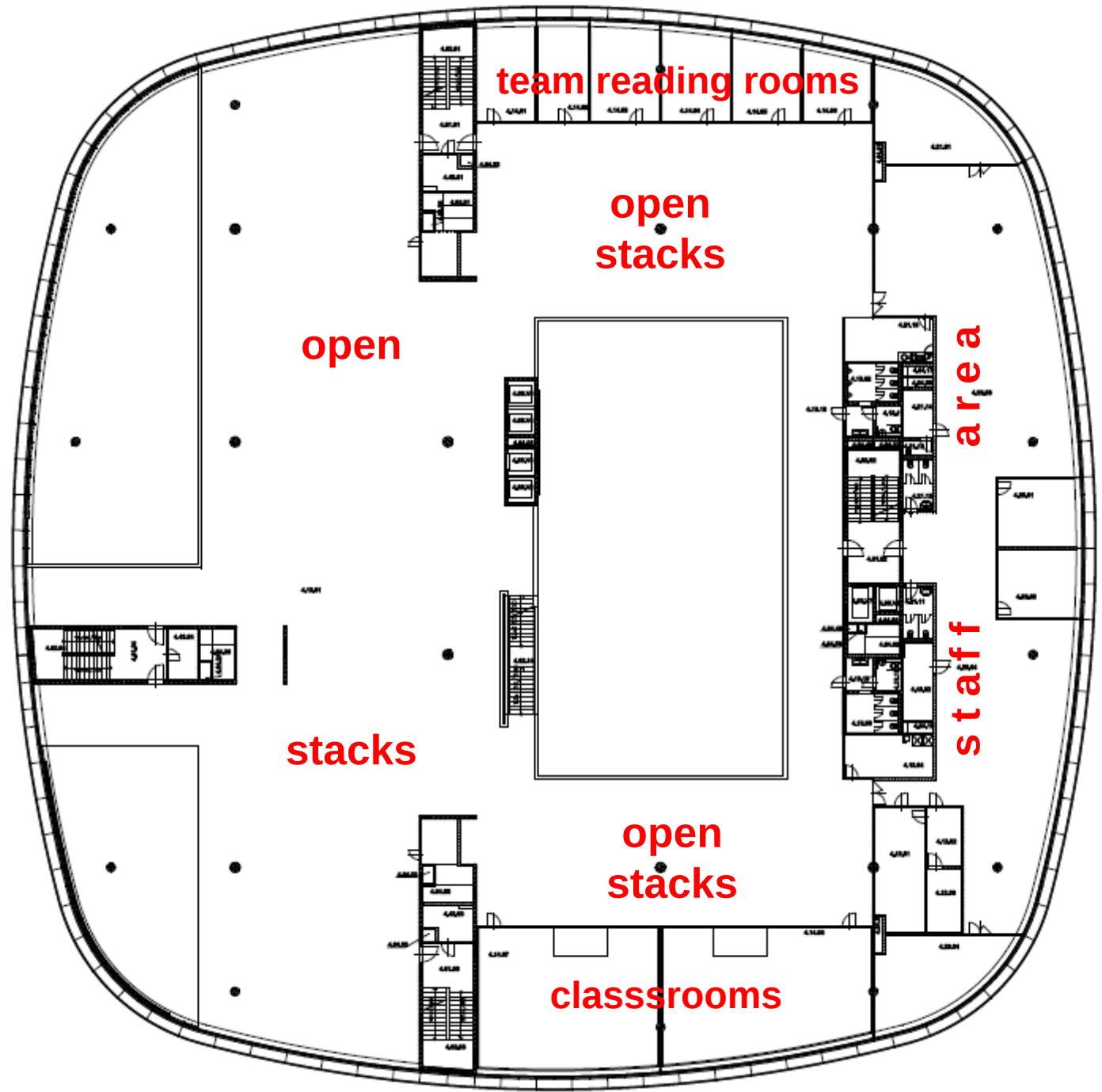
public area

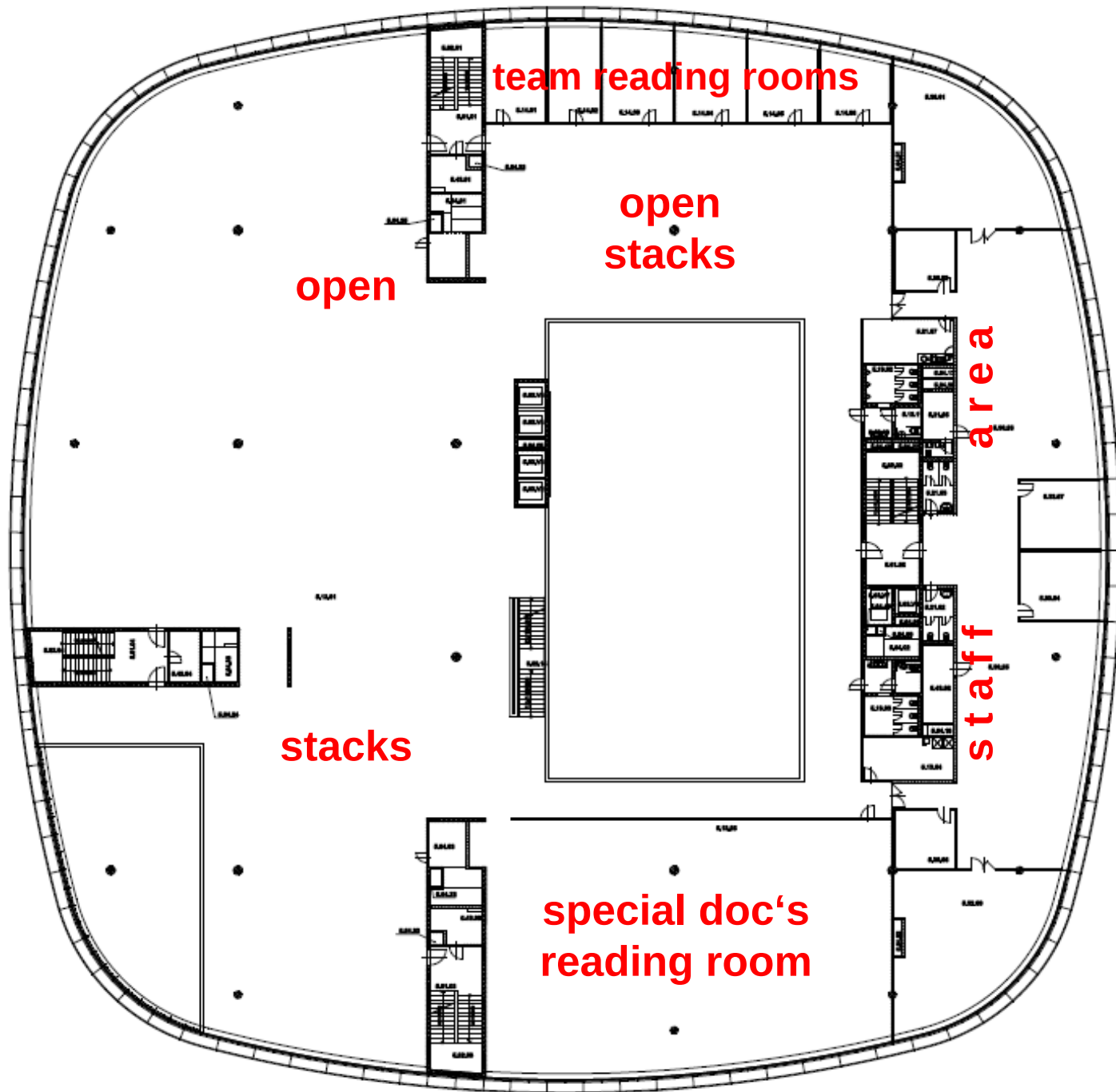
- covered square
- exhibition hall
- conference hall
- night reading room
- public library branch
- book and computer accessories shops
- café

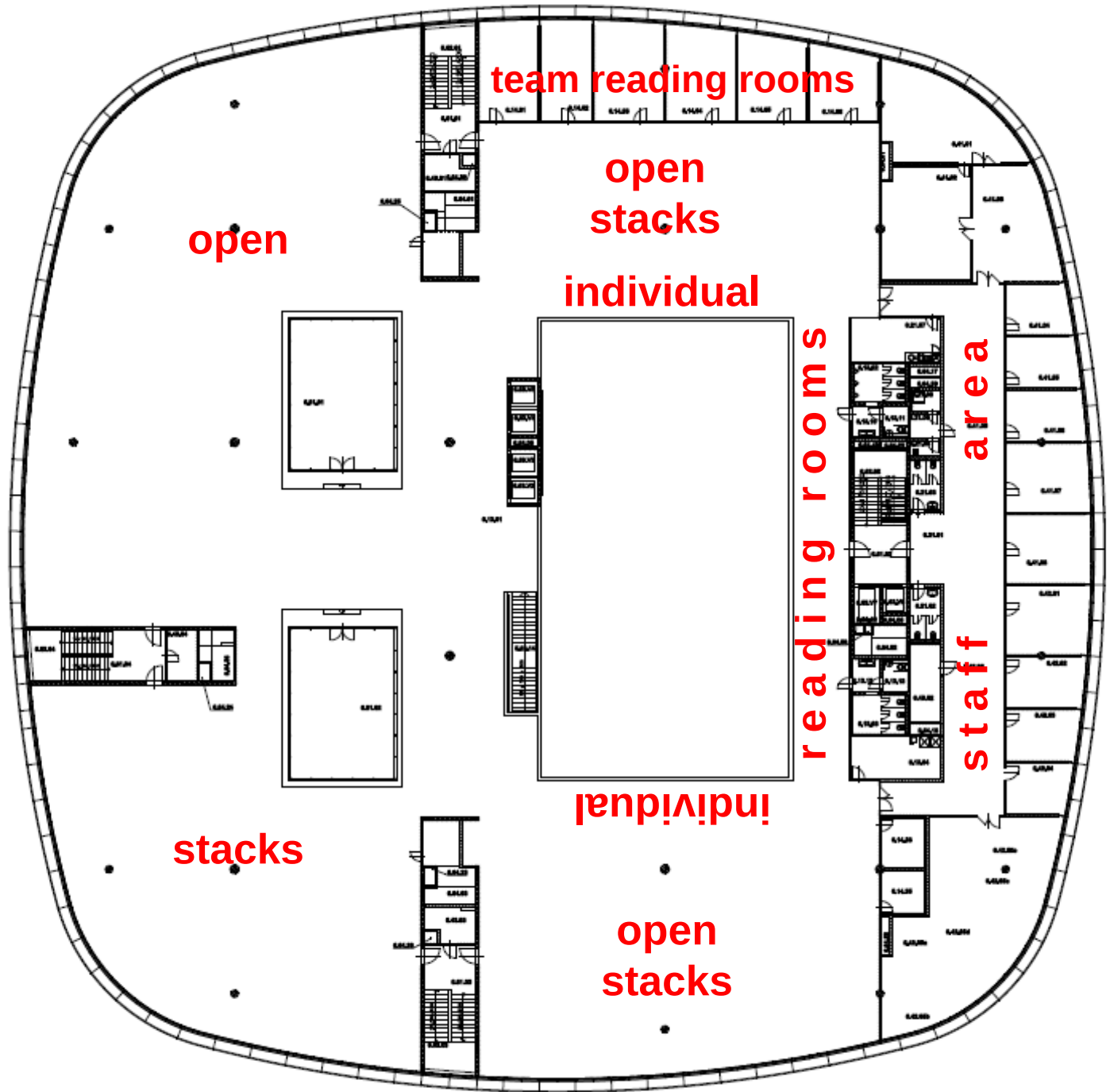




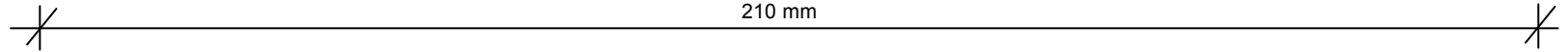








Lessons learned



- **P**lot – fundamental, otherwise risky business
- **P**ecunia – not just the volume, the certainty is what counts
- **P**artnership – in-house, governing body, architects, designers, contractor, ...
- **P**erspective – design for the [unknown] future
- **P**hlexibility – both in project and in decisions

People

210 mm

Everything told above, that is the idea, the design and a construction of the new building, in parallel with the working “old library” shaping up for the reincarnation in the new environment; this all starting with authors of the initial idea, through archeologists, architects, artists, assemblymen, building team, businessmen, designers, developers, draughtsman, economists, gate-keepers, IT people, lawyers, librarians, managers, organisers, suppliers, quantity & quality surveyors, trustees, etc. is a result of a collaboration of dozens of people.

I would like to thank all who endeavoured to accomplish this Gesamtkunstwerk.

In stead of a conclusion

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We are social creatures and we need to be considered members of a broader group; that gives us power and strengthens our feeling of gregariousness. A society built exclusively on virtual on-line communities cannot end up but virtualized and dissubstantiated. Libraries – beside other institutions – correspond to our inner human need of community in the foggy expanses of cyberspace.

Lukez, Paul. Whither://multi-media.(cyber).libraries? In: Library Builders. London : A.D. Academy Editions, 1997.

Some pictures

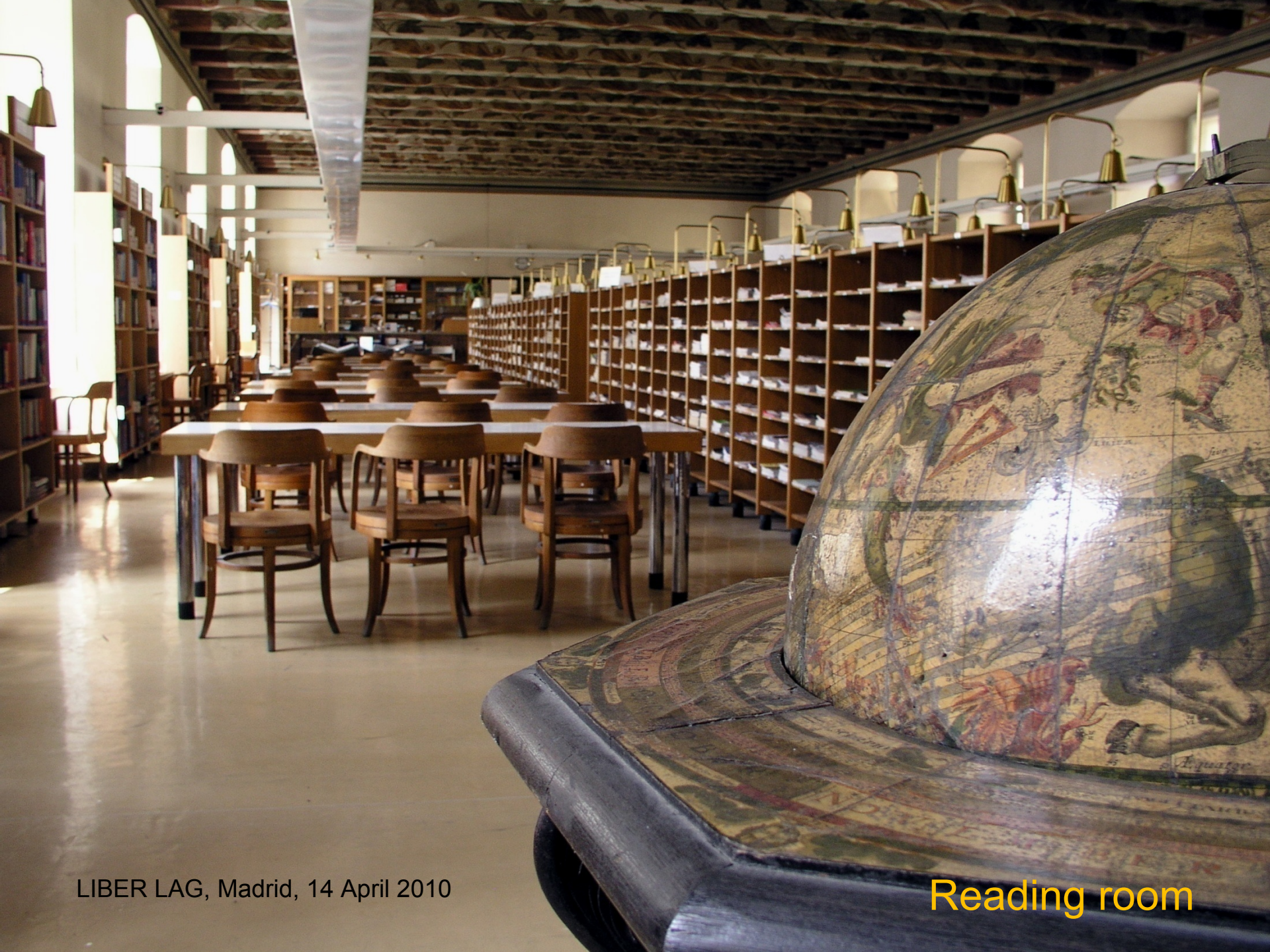
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LIBER LAG, Madrid, 14 April 2010

Check-in check-out counter



LIBER LAG, Madrid, 14 April 2010

Reading room



archeologists

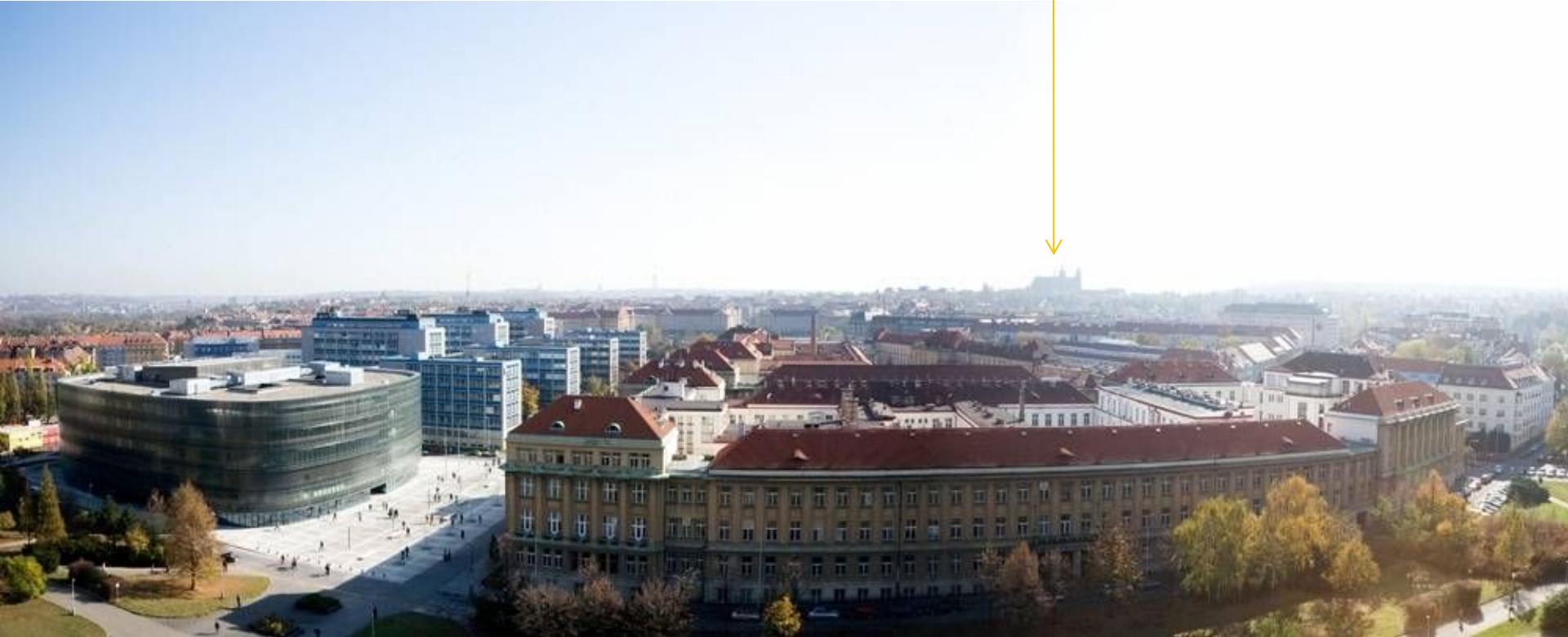
Excavation started



LIBER LAG, Madrid, 14 April 2010

Jan 2007

Prague castle



Panoramic view



Moving from Clementinum



NTK 3

263 m

A photograph of a modern building entrance with a glass facade. A large tree trunk is in the foreground on the left. The entrance has a set of concrete steps and a glass door. The text "NTK 2" is overlaid on the glass facade.

NTK 2









Main atrium









13

6.14.15

ON
OFF

IQ 185

16

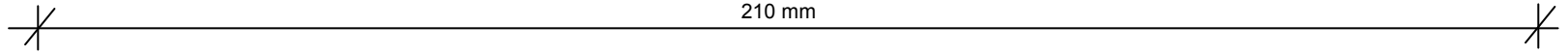
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Cabling is not hidden



Thank you for your attention
Martin Svoboda
martin.svoboda@techlib.cz

Sir Tim Berners-Lee

for Nobel prize !