

Libraries in the age of a digital fire

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Libraries

- Encouragement of learning
 - Promotion of public access to knowledge
 - Access to printed material
 - Access to technology enhanced by expertise
 - Special collections
 - Cultural interaction
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- In ancient times even a symbol power

Libraries as centers of research

- The concept of combination huge library with a complex of research institutions known already from initial 300 or so years of Library of Alexandria
- Libraries until recently undisputed warehouses of accumulated knowledge within every university

Libraries, Technology, and the Costs

- Expanding book and journal collections
- Escalating costs of acquisition and storage of scholarly books and journals within recent decades; subscriptions often rising tens of per cent a year
- Digital forms of information exchange, storage and catalogizing
- Declining costs of storing and manipulating digital information versus rising costs associated with printed material

Digitization as a replacement for print?

- Digital subscriptions existing in paralel with paper ones
- Access to e-books and e-journals
- Economizing on multiple forms of information collected
- General availibility of digital repositories (professional and/or publisher)
- Free access initiatives such as Google books

Digital burning of traditional libraries?

- Lure of complete transition to digital formats
- Short history of digital formats/standards
- Unsecure prospects of commercial activities such as Google books – for-profit side of such an activity cannot be ignored in longer term
- Books still more flexible for manipulation than e-materials, and likely stay so for considerable time
- Unresolved IP issues, likely to generate conflicts

Open access initiatives

- Open access as well as e-learning certain to generate demand for digital materials
- Yet unlikely to substitute printed material fully
- Diversity of sources encouraging librarian services
- Meta-information needs (cataloguing, locating, cost negotiating, etc.)

Aesthetic values

- Printed books
- Library buildings
- Multi-function spaces

Masaryk university - personal experience

- Rector of Masaryk university 1998-2004
- New University Law effective since 1998 transferred real estate to universities
- Opening new possibilities for development
- Second Czech university founded in 1919
- Until 90's relatively small institution
- Unfulfilled plans for provision of campus-like set of buildings

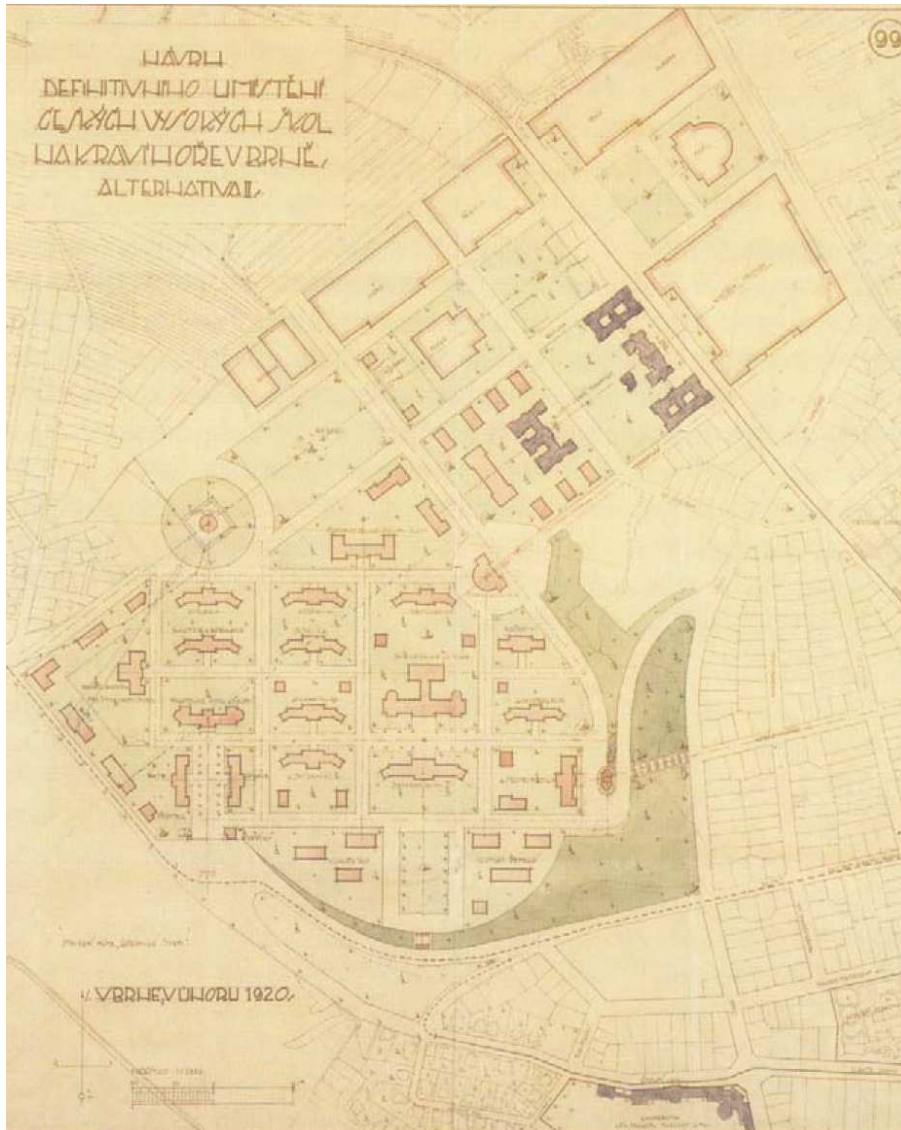
Bulding a digital dimension of the university

- Implementing state-of-the-art information system
- Teacher-student interaction, comprehensive administrative support
- Digitization of interaction:
 - applications for study
 - study materials
 - digitization of theses
 - plagiarism detection
 - e-learning and/or blended learning
 - research papers repositories
 - etc.
- Several prestigious awards:
 - Enis Elite Award in 2005
 - Intel Itanium mission critical system finalist in 2008
 - winner of Evaluation Campaign on Plagiarism Detection and Wikipedia Vandalism Detection in 2010
 - several national awards

Expansion in mission, scope and size

- The first university in the Czech Republic to put in place a structured three-cycle curriculum based on a credit system compatible with the European Credit Transfer and Accumulation System (ECTS)
- One of the fastest growing and most sought-after universities in Central Europe
- The biggest in the Czech Republic in terms of applicants for study as well as numbers of students at its primary location

First plans for university premises

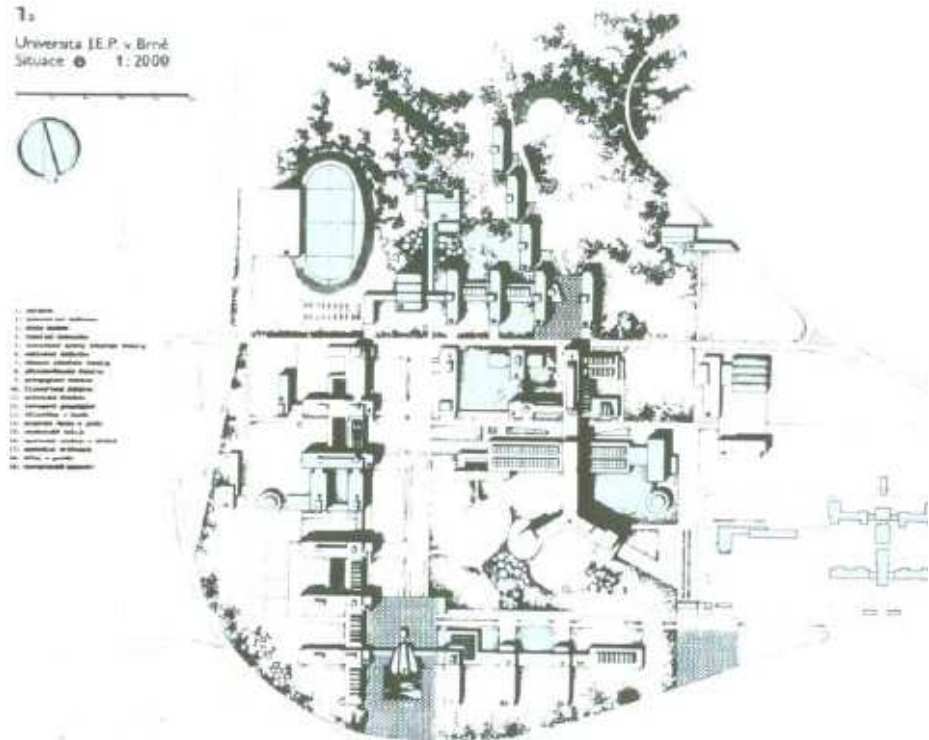


Plans from 1920's
(M. Laml, J. Grunt, J. Šálek)

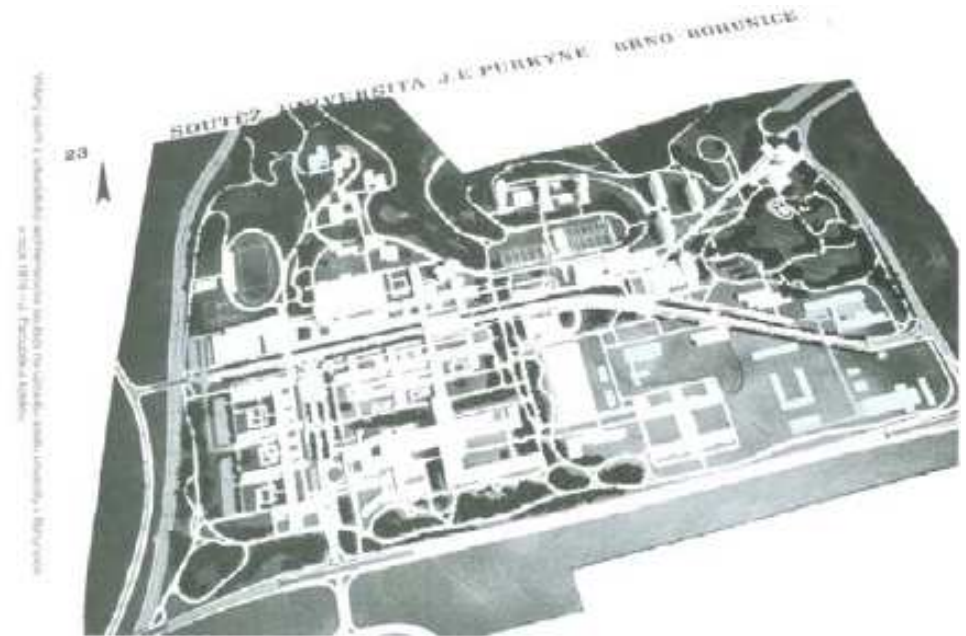
Only one building completed
in 1933 (A. Dryák)



Revised plans in another location



B. Rozehnal, 1971

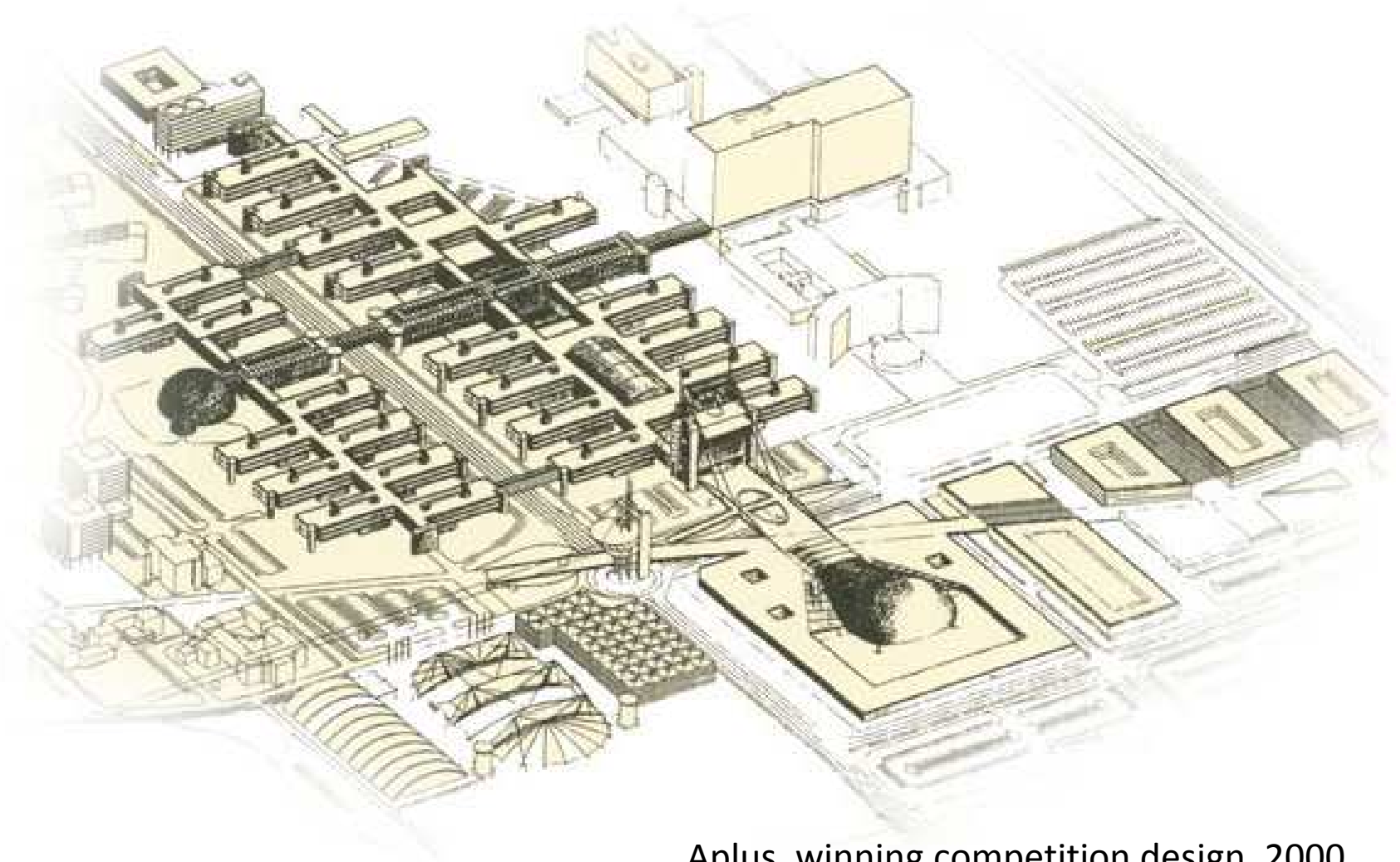


J. Paroubek a kol. 1976

Expansion plans in 1998-2004

- Funding from European Investment Bank
- Biggest EIB educational project supported by EIB outside of EU
- Architectonic competition for Bohunice campus in 2000, so far just one of two examples praised by the Czech Chamber of Architects in the sector of Education after 1990

University Campus at Bohunice



Aplus, winning competition design, 2000

Masaryk University development

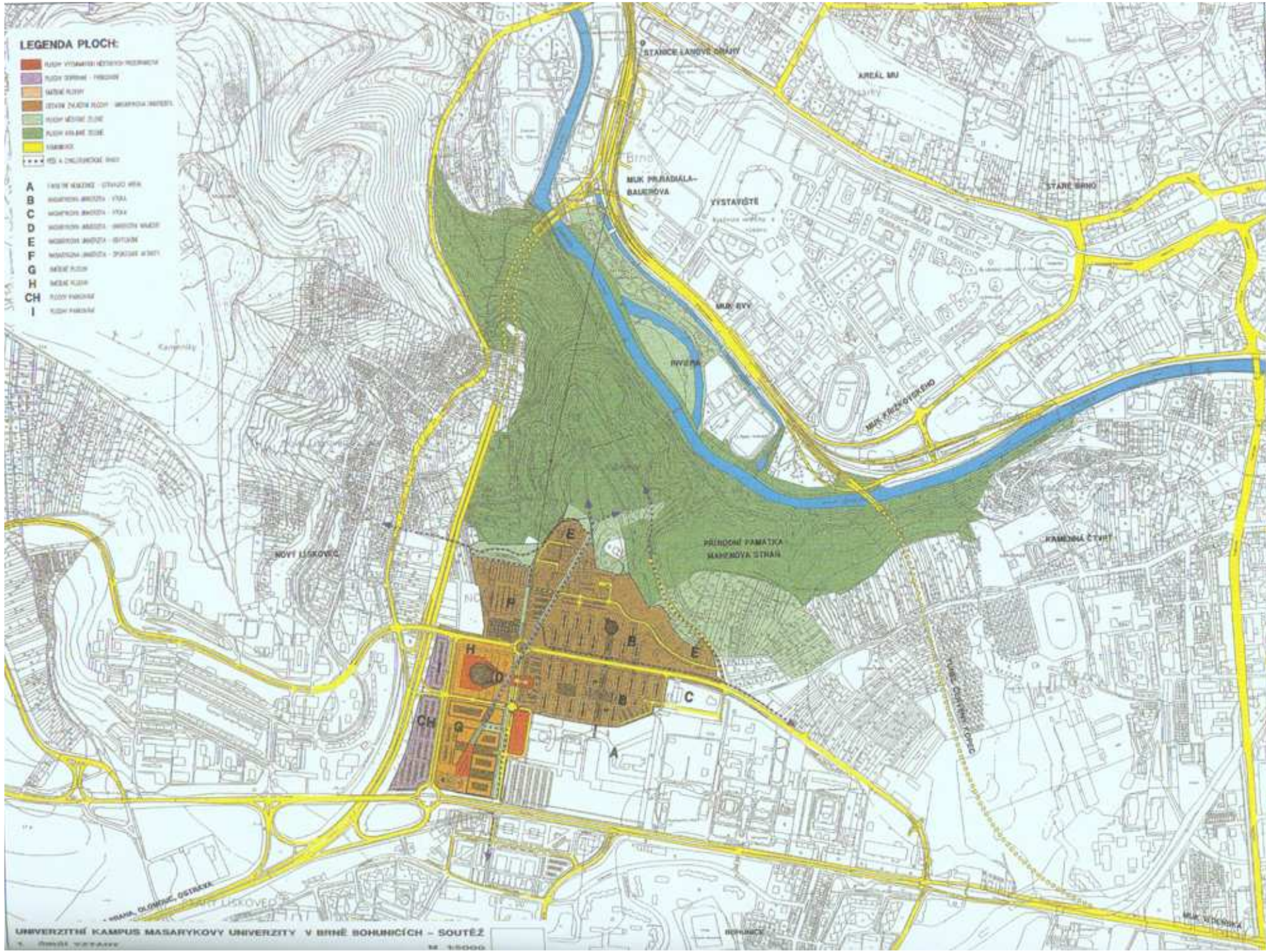
- Academic Quarter plans date back to 1920s
- The founding Law of MU from 1919 assumed new buildings for the University within ten years
- After 1945 plans for campus development in Bohunice
- Before 1990 part of the allocated area used for building the most modern hospital in Brno
- Structural development of MU after 1990 meant doubling numbers of students before 2000; Bohunice lot no longer sufficient for whole University
- New plans for campus from 1990s oriented towards faculties with intense biomedical research for Bohunice and development of social studies in the traditional locations
- Combination of conditions for top-quality research and extensive quantitative development of MU

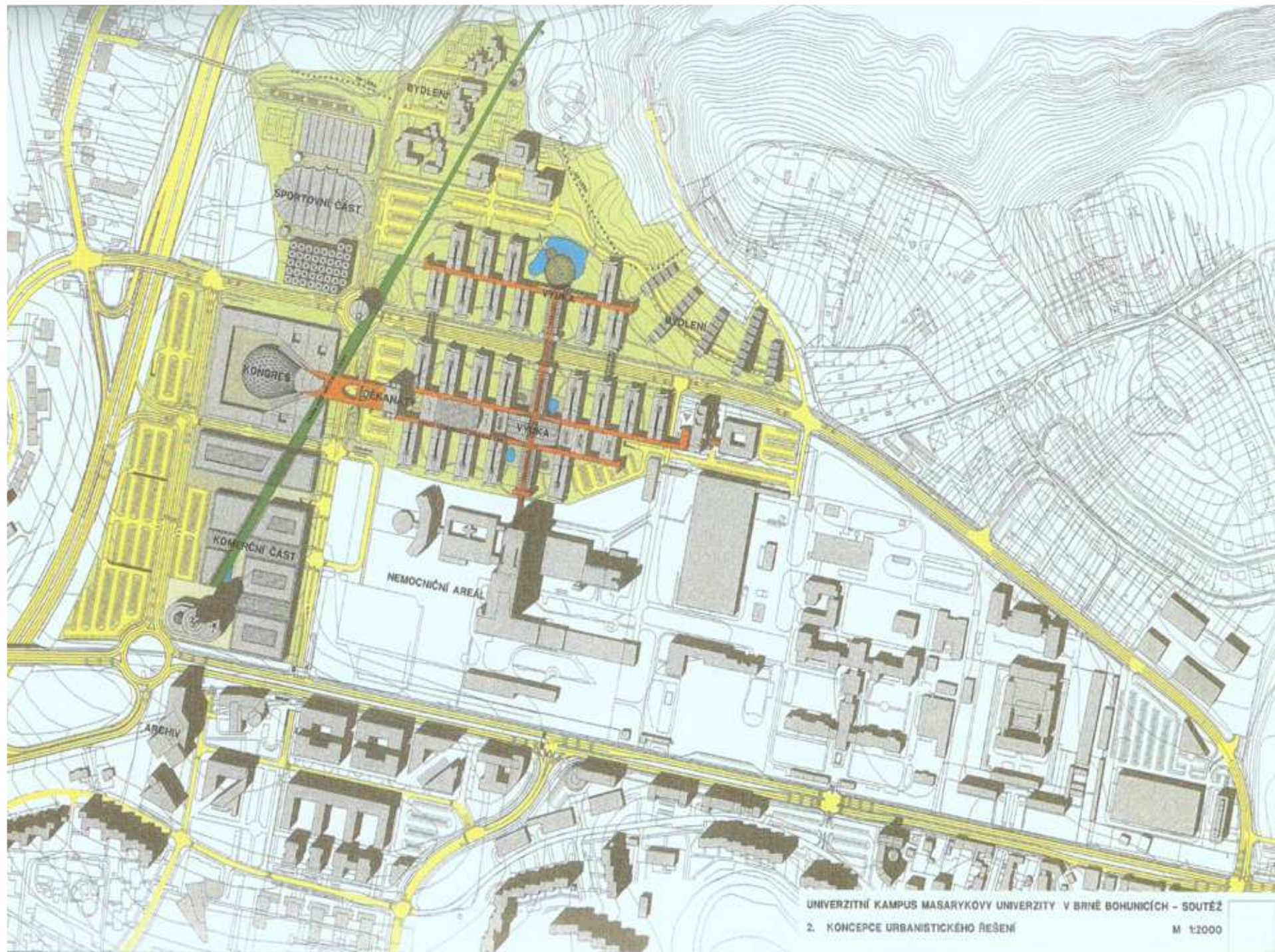
University Campus at Bohunice

- International architectural competition based on requirements of the European Investment Bank Loan 2000
- Feasibility study for University Campus from 2001
- Plans for overall development of MU within range of euro 190 million
- EIB proposes loan
- Spring 2002: Government approves plans for euro 95 million loan from EIB
- Construction of the main part started in 2004, completion of last pavillions pending within (approx. 2014), majority of the complex up and running since 2010.

LEGENDA PLOCH:

- PLOCH VYJADRUJÍCÍ HISTORICKOU NEBO PAMĚTNOU
 - PLOCH STŘEDNÍ - PŘEDNÍ
 - MĚKČÍ PLOCH
 - JEVNĚ ZNATNĚ PLOCH - NEJEDNÁ O MĚKČÍ
 - PLOCH MĚKČÍ - ŽIVĚ
 - PLOCH MĚKČÍ - ŽIVĚ
 - VÝMĚRŮ
 - ŘEČKA A DĚLÁCKÉ ÚPRAVY
-
- A** VÝŠNÍ NEBO ŽIVĚ - STAVBA VEK
 - B** NEBOVNĚNĚ MĚKČÍ - VÝŠNÍ
 - C** NEBOVNĚNĚ MĚKČÍ - VÝŠNÍ
 - D** NEBOVNĚNĚ MĚKČÍ - MĚKČÍ MĚKČÍ
 - E** NEBOVNĚNĚ MĚKČÍ - ŽIVĚ
 - F** NEBOVNĚNĚ MĚKČÍ - ŽIVĚ
 - G** MĚKČÍ PLOCH
 - H** MĚKČÍ PLOCH
 - CH** PLOCH PAMĚTNÝ
 - I** PLOCH PAMĚTNÝ





UNIVERZITNÍ KAMPUS MASARYKOVOY UNIVERZITY V BRNĚ BOHUNICÍCH - SOUTĚŽ
2. KONCEPCE URBANISTICKÉHO ŘEŠENÍ M 1:2000





Campus Library

- Campus development with central library located in the heart of building complex
- Traditional library combined with social events center



Campus Library cnt.



Faculty of Arts – traditional university library together with IT access center



Dominant architectonic feature within the complex of Faculty of Arts building complex (L. Kuba, T. Pilař; Grand Prix OA 2002)

Information Center at Kotlářská location of the Faculty of Science



R. Květ, 2004

Center for Education and Research in Information Technologies 2012-14

- **CERIT Research&Education**

Extending research and education infrastructure for Informatics – approx. \$20M investment

- **CERIT Science Park**

Close collaboration with IT companies with substantial R&D, incubating new ones – approx. \$8M investment

- **CERIT Scientific Cloud**

Installing computational and storage grid as a part of the national R&D infrastructure – approx. \$8M initial investment



Libraries & IT co-development

- Libraries present important part of physical infrastructure development
- IT development in the forefront of Central European universities
- Repositories, open-access initiatives, plagiarism detection
- E-learning and blended-learning support and development
- Synergic development of traditional paper/based as well as digital infrastructure as vital ingredients of successful development

Fate of the Library of Alexandria?

- Digital access and use of digitized materials seen as enhancement to traditional library infrastructure
- Burning down traditional libraries, even in figurative sense by “digital fire” of modern electronic information resources highly unlikely in the decades to come.