Conceptual framework of a specific model solution according to the prototype of

mind(21)factory
a factory of the future in which producing means the same as learning _vilém flusser

serving the basis for an international competition for students and graduates in architecture from all European universities. The competition takes place in the summer term 2006 and is organized by the Institute for Housing Research, TU Graz, in cooperation with the project developers mentioned below.

LOCATION: The decrepit Franciscan Monastery in the main square of Kremnica, Slovakia

DEVELOPER: mind(21)factory Stuttgart_Frankfurt/M_Berlin, Germany, in cooperation with the Faculty for Architecture, STU Bratislava, and City of Kremnica, Slovakia

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"A decisive thing is that the factory of the future has to be a place where *homo faber* is going to become *homo sapiens sapiens* because he will have recognized the fact that fabricating means the same as learning, i.e., information acquisition, processing and distribution." (Vilém Flusser)

I. INTRODUCTION: *Being at home in a foreign home*

a) Since Mai 1, 2004 the "Old and New Europeans" have been living in their common house Europe. A successful integration of so many different neighbours in one house assumes active participation of all parties in creating their common future. Currently, the main barrier to reach that aim is not differing politics and economics, but still a spiritual divide between East and West. To overcome this divide, it is necessary to stimulate more joint projects and less round-table conferences – here and now. It is the ambition of our competition to be one such project – here and now.

b) In certain respects, globalisation makes all of us homeless (heimatlos*). In order to avoid superfluous suffering under this new *condition humaine*, which easily can lead to malign social phenomena like general mistrust, hate and violence toward the others, we should take initiative and start, early enough, learning "constitutional principles of a transnational identity landscape" (*transnationale Identitätslandschaft* > Ulrich Beck). The "principle of cosmopolitan empathy and change of points of view" is one of them, which we will intensively apply in our competition.

II. THE BRIEF FOR THE *MIND(21)FACTORY* MODEL IN KREMNICA

1. The overall context: *From Gold to Information*

1. 1 Kremnica and its surroundings

The central Slovak town of Kremnica became known in the Middle Ages as the "Heart of Europe". The Kremnica area produced a vast amount of gold in the past. In the fifteenth and sixteenth centuries, about 75 percent of all gold mined in Europe had its source in Kremnica, making the town a symbolic centre (heart) of Europe. Furthermore, it is said the geographical centre of Europe lies there, too, approximately five kilometres from the town, close to a small chapel on Jánsky Hill.

Kremnica – the "Heart of Europe" – nowadays shows hardly any signs of life. Blood stopped flowing in its golden veins a long time ago. Kremnica's gold mines have been closed for more than thirty years. Except for the state mint, which in the Middle Ages

produced the famous Kremnica ducats, highly valued for their high gold content, there is no other industry in the area of any size or importance. Today's balance sheet of this town – and of many other former Eastern European provincial "metropolis" as well: a rich past, a sad present and next to no future. The "Heart of Europe" deserves better.

1.2 General concept for the sustainable revival of the "Heart of Europe" with application options for similar locations in Europe

The basic idea for a spiritual and economic revival of the "Heart of Europe" is quite simple: Dealing with Immateriality instead of Materiality. Data Mining & Data Processing instead of Gold Mining & Gold Processing. Result: The "Heart of Europe" is beating again, this time digitally.

With this in focus, two crucial conditions necessary for the success of complex projects such as *mind(21)factory* are fulfilled: the *genius loci* (gold mining and minting) and the *genetic code* of local people (miners and mint workers) are addressed by metaphor. Hence, this move into the future brings no radical break. Instead, the continuity of cultural heritage will be sustained. *mind(21)factory*, then, acts both as a local identity stimulator and, at the same time, as an integrator of the local into the broader context of the global, according to the next constitutive principle of a "transnational identity landscape" – the mélange principle (Melangeprinzip > Ulrich Beck). That means: "Local, national, ethnic, religious and cosmopolitan cultures and traditions get connected, penetrate each other, mix: Cosmopolitism without provincialism is empty, provincialism without cosmopolitism is blind."

2. The Franciscan Monastery as the future *mind(21)factory*

2.1 Functions and Content

"As this millennium gives way to the next, the economy is undergoing a deep change. It is shifting steadily away from the brute force of manufacturing into the forces of mind, from the processing of bulk materials into the processing of digital representations. It redefines products. It redefines markets. It creates new structures." (W. Brian Arthur)

The Franciscan Monastery with a church in the main square is one of the significant monuments of Kremnica. The monastery was built between 1653 and 1660 and served its purpose until the beginning of the 1950s, when the communist government confiscated the monastery and used it for various other purposes. The monastery has been left unoccupied since 1990 when the Franciscans obtained it back from the government. Only the monastery church still serves its proper purpose.

Within the decrepit Franciscan Monastery, a multifunctional complex is to be established, where tradition and innovation, *High-Mind* and *High-Tech*, can live together in a symbiosis. The complex will provide space for 1) <u>Franciscan monks</u> as well as for 2) a <u>Digital Domain</u>, where they will work together with local and foreign *techies*, and 3) a <u>Knowledge Sphere</u> for the general public.

2.1.1 Franciscan Monastery – Precise functions and requirements for a monastic life are to be stipulated in discussions with the Franciscan monks in Slovakia and Austria. The monastery will also provide accommodations for Global Netizens of outstanding merit, longing for a predictable monastic life *intra muros* (new asceticism).

2.1.2 Digital Domain

The Digital Domain will be a place of income-generating production in order to secure the independence and multi-functionality of the monastery precincts. It will comprise three divisions: *Software Assembling*, *Knowledge Engineering and Knowledge Design*, and *Smart Web Services*.

a) Software Assembling

Software is a new physical infrastructure of the Information Society and is significant for economic, scientific, and educational success. With hardware prices decreasing, demand for intelligent software solutions and for qualified workers in this field will increase in the long term. Additionally, software in the future – similar to hardware today (e.g. Dell Computers) – will not be produced as "one piece" and delivered to clients as one physical product. Rather, tomorrow's software will be assembled "somewhere", such as in Digital Domain Kremnica, from several components from various producers, according to the individual demands of clients. This personalized software will be both delivered and maintained via the high-speed Internet or Grid – to the great satisfaction of clients, who will not need to employ as many in-house programmers and IT maintenance staff. As a result, software production will become a continuous service – Application Service Providing (ASP), requiring many qualified workers. For this reason, the big software producers will outsource not only the software assembling but also ASP services and will themselves concentrate on the high-quality software design. Hence, the chances for our *mind(21)factory* in Kremnica to be commissioned with work are quite good.

b) Knowledge Engineering and Knowledge Design

Information is not knowledge. Information is the opposite of knowledge. The more information I have, the less I know how to act when I need to. Information is a raw material that first has to be processed and designed so that it becomes *prêt-à-porter knowledge* that you can use when you actually have to act – just like a raincoat when it rains.

In the division Knowledge Engineering and Knowledge Design, *prêt-à-porter knowledge* will be made to order, following the production chain from data mining and data processing (data becomes information – the new gold), to knowledge engineering (diffused information becomes condensed information – knowledge), and finally to knowledge design (abstract, amorphous knowledge becomes applicable, wearable knowledge – just *prêt à porter*). This kind of knowledge will enable end users to orientate and act successfully in complex, rapidly transforming environments of the Global Net. And this is exactly the market niche for us.

c) Smart Web Services

In this division, as by-products of *Knowledge Engineering and Knowledge Design*, such as mobile e-commerce applications (B2B and B2C), information and consulting services, and other, currently unconceivable, smart Web services will be offered to various clients. (Like in case of the Franciscan monks, specific business activities will be defined after consulting sessions with IT experts has taken place.)

Individual divisions of the Digital Domain will work as networked production units, which complement each other. According to the type of order, the Digital Domain Kremnica will function either as the supplier or the sub-supplier or the independent content provider.

The Digital Domain is a solution-driven, talent-based company that will be managed as a modern monastic school. The secret key to its success will be a new managerial approach – *mind management*.

2.1.3 Knowledge Sphere

Knowledge Sphere is a place where the public will be able to try on/try out *prêt-à-porter knowledge* produced by Digital Domain. It will work as a distributed cultural and educational center, where visitors will take part in cultural and educational events offered by means of new visualization technologies such as Augmented Reality (AR) or Mixed Reality (MR). For example, visitors will be able to enjoy digital projections of classic 2D or immersive interactive 3D programs, either in a digital cinema, a digital library, a digital art gallery or a digital church, depending on actual demand and temporary site definition. In short, these AR spaces will provide visitors with on-line communication tools enabling

them to participate in the huge potential of World Wide. And all that could be offered without the need of expensive digital storage devices.

The learning impact of such a cultural and educational hub is to cultivate the culture of independence and self-employment as well as to foster a global sense of community (transnational identity) so that local citizens become global citizens who see in the current process of globalisation a chance rather than a menace.

CLOSING REMARK: *mind(21)factory* will be a model of a "factory of the future, where fabricating means the same as learning" (V. Flusser). It will be a production domain, monastery, art gallery, educational centre, communications hub and church in one. For the resource digital Information makes manifold metamorphoses possible without need of additional space capacities. In short: *mind(21)factory* is a multi-layered life park for schoolchildren as well as adults. A multiverse expanding in all possible directions.

III. THE PURPOSE OF THE COMPETITION

Within the interdisciplinary cooperation of numerous economic and scientific institutions, innovative living and economic forms for the European cultural landscape of the 21st century will be explored. The purpose, therefore, will be to create practice-oriented model solutions, where common synergies between the private and public participants, between *High-Tech* and *High-Mind*, which could accelerate the integration of disadvantaged regions (provincialism) into the broader context of the global (cosmopolitism), are intensively utilized.

The development of unconventional architectural approaches to preservation of historical buildings, particularly in mixing both the Old and the New, the Virtual and the Real, will also play an important role.

IV. THE TIMELINE

An official announcement will be launched in December 2004 and executed in Winter Semester 2005-2006.

Phase 1 – Summer Semester 2005

Within a five-day-workshop on location in Kremnica in March, all relevant data and documents concerning the current state of the Franciscan Monastery (site plan, sections, ground plans etc.) will be collected for further evaluation and processing. The result should be a detailed site documentation.

Workshop participants: students and teachers from faculties of architecture in Graz, Innsbruck, and Bratislava (perhaps also another from Budapest or Györ).

Phase 2 – Summer Semester 2005

Collecting data continued … This time the content and functions of *mind(21)factory* are in the middle of concern at the Faculty of Architecture at TU Graz. Regardless of the guidelines of the project developer described in Part II, the cryptic terms *mind(21)* and *factory(21)* will serve as triggers for a "serious play" called *Projecting the Future.* Parallel to that, consultations with the Franciscans and IT experts take place (refer to 2.1.1 und 2.1.2 c)

The challenge for students will be to find out whether there is something in coming that we could call the *mind of the 21st century* – a kind of a new paradigm, which will in the next hundred years or so influence our perception of the world, influence our ways of life. If yes, which essential features will it have? Where will it feel at ease? Which kind of architecture could prompt its development? Is it he or she?

The same thing will concern *factory(21).* When knowing that "the economy is undergoing a deep change, that it is shifting steadily away from the brute force of manufacturing into the forces of mind (...)", we will be asking how such a factory of the future should be conceived and designed, and, furthermore, how an old monastery should be rebuilt to fulfill the requirements of such a factory – *mind(21)factory* –, which is commensurate with the *mind(21).* Further on: Will there be in future still a sharp distinction between working and private life, between inside and outside, between the real and the virtual, between object and subject? And: Under which conditions a cohabitation of High-Mind with High-Tech in general, and Franciscan monks with techies in particular could work there fine?

At the end of the semester, a comprehensible manual of new proposals concerning the functions and content of *mind(21)factory* will be made as a base for amendments during a discussion with the project developer. The most original proposals will be considered later in the competition brief.

Phase 3 – Winter Semester 2005–06

A pan-European competition for students of architecture and planning – *mind(21)factory* takes place. Invited to participate are faculties of architecture from all European countries (geographically defined).

V. CLOSING REMARKS: *Creating Responsible Globality*

By implementing information technology infrastructure for open, distributed, and heterogeneous high-performance application environments (grid and autonomic computing, ubiquitous and quantum computing) in the future, and by embedding the virtual in architectural spaces powerful distributed knowledge spaces can be created, enabling higher-order acting of individuals – acting locally (1) and globally (0) at once. The result is a perfect architectural *mélange,* enabling competing ways of life in the "transnational identity landscape" of a *Responsible Globality*.

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