



Project Oriented Learning Environment
University of Applied Science Aargau, Switzerland

An Interdisciplinary Learning Platform
for students of European Universities
using Modern Information and
Collaboration Technologies

POLE EUROPE 2K'3

architecture and the body
summerterm program 2003

for students of
architecture, landscape architecture
construction management, sport science
civil engineering and process management

Organisation POLE EUROPE



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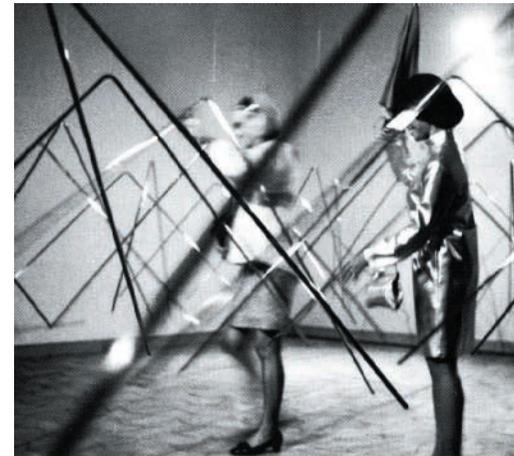


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The University of Applied Sciences Aargau decided to geographically merge its five faculties on one site. During this ongoing process the demand for a new sports centre has emerged. It shall be located in Brugg or Windisch, in one of the two Swiss towns involved.



Due to this, the sites have to be evaluated and the planning of a functional infrastructure has to be induced.

Pole Europe is a university-innate platform that addresses such complex projects and offers students from different disciplines and different universities an opportunity to participate and contribute to the intellectual process in international teams.

Homo sapiens is prepared to shape his natural destiny with his own scientific/technical hands: In vitro fertilization, stem cell research on embryos and the likelihood of a first cloned baby in the near future are cause for both hope and concern. Ever since Johann Gottfried Herder (1744-1803), the common assumption that the cultural evolution of man is a continuation of his/her natural evolution has been thoroughly questioned at the beginning of the 21st century.

Moreover, there is subtle evidence of a new dynamic relation of man to his body. Piercing and tattoos for instance can be understood as a tendency to playfully challenge one's own biological condition on the surface of the body.

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Project goals

Architecture Discourse of the new body perception and the formulation of a respective physicality. Integration of cultural heritage. Planning of a club program with new contemporary and future orientation alongside with the traditional needs of sports facilities. Development of possible solutions. Integration of the university campus into the existing urban context.

Landscape Determination of the relationship between used, empty and peripheral space. Consideration of the existing topography. Creation of an attractive peripheral area for the whole population.

Sports & Medicine Provision of a visionary exercise regime for a broad population. Integration of new social needs into the current social context. Creation of attractive and flexible institutions for the intended body culture. Assessment of potential to include knowledge in bio-technology.

Economic factors Feasibility concept with practical applications. Information on costs, investments, construction deadlines and maintenance costs. Marketing proposals.

Engineering Development of program-specific ideas. Information on relationships between body and materiality. Technical applications within an environmental frame. Concepts of building hygiene and the structural, mechanical and technical transformation.

Social aspects Integration of current and future needs. Potential political application of the planning processes. Definition of actual users.

Culture and History Sensitive handling of cultural heritage. Awareness of the site, its history, as well as of ephemeral conditions.

Between the radical ideologies that strive for the 'ideal' physical shape of the human body on the one hand and these rather harmless attempts to change one's aesthetic appearance on the other, lies the incessant search for new and diverse ways of physical exercise: Raving, dancing, snowboarding, bungee-jumping, body building and so on can all be interpreted as strategies that look for new physical levels of comfort. Sport, originally created as a popular pastime activity by English royalty, has developed into a soft variant of a self-induced evolution of mankind. The Pole Europe project 'Architecture and the Body' will discuss this new social relationship to the human body and its effect on the design of sports facilities.

Notably, we are standing on a threshold to a new awareness. The role of leisure time in planning, especially in urban planning, is fundamentally changing. During the last decades sport has increasingly drifted towards hedonistic activities away from its traditional understanding as a ritual act. This difference demands new concepts in planning. The current demand for pastime activities renders traditional public parks and recreational areas obsolete. Governmentally decreed leisure and sports programs, which usually follow a top-down structure, are being replaced by new exercise systems which develop from bottom up out of special demand. Such activities which can clearly be observed in the built environment can be understood as a result of 'anti-planning'. They show the shortcomings of urban planning that obviously failed to address new social practices and consequently lack an improvement in the standard of leisure time.



Future trends and new ways of exercise

The need for a new sports centre has developed out of the decision to restructure the present university zone in Brugg-Windisch and the proposal to develop a new campus area. A test planning is being carried out to evaluate the location, the analysis of intended utilizations, practical possibilities and to define the desired network between the university and other social elements. The planning should not only explore the potential for sports facilities within the general framework of an exercise centre but also generate new ideas. The interdisciplinary and international teams which are formed with participants of the Pole Europe project, will develop a project on the given sites that respects the new understanding of the social body culture and actively engages in these issues. The result should be an integration of cultural, technical, organisation-related, economic and ecologic aspects.

Between provocation and courage

Two different sites have been identified for the project: At present, one is used as an enclosure for deer (Tiergarten) with an adjacent 19th century park, the other contains a Roman amphitheatre (Vindonissa) and an adjacent heath. The two significant elements on the sites, the historic park as well as the Roman ruins, embody potentials and obstacles at the same time. What needs to be sought is a new concept of how to handle cultural heritage. Both

approaches, the one of maximizing the other by marginalizing its potential, have to be evaluated. It may be anticipated that an equilibrium of progression and respect could lead to a re- definition of a novel understanding. The project to be worked out shall allow the planning on the two perimeters, each with very distinguished characteristics. The area of the Tiergarten, in the park of the ancient monas-



tery Koenigsfelden now is ill-defined: Border and threshold at the same time, also an area with bizarre use. The relationship between the university campus and the two cities as well as the program for the future use of the area will determine the specific quality of the place. The second perimeter consists of a heath and contains the Roman amphitheatre, a structure of high historical and cultural importance. The project is in search of a new concept for dealing with heritage. Thus, the team members will be sensitised and will sharpen their awareness for the handling of historical sites. According to the university's requirements the program envisages a triple-use gymnastics hall (26x46m), an outdoor sports ground (24x50m), a playground (50x90m), running tracks (100m), long jump and shot put facilities etc. plus facilities for the sports club. The program involves a broad spectrum of requirements; thus a solution has

to include e.g. architectural, economic and engineering aspects and can only be found successfully in a multi-disciplinary cooperation.

Leaps between levels

The sizes of the two potential sites are 25,000m² and 16,000m², respectively. The project will be treated interdisciplinarily, involving architecture, landscape architecture, sports medicine, economics, process management, and various fields of engineering and social sciences as well as aspects of cultural history.



During the test planning phase these topics will be combined to successfully meet the requirements of a traditional sporting facility as well as to integrate new possibilities for the new body perception in a spatial manner.

Leaps between lines

The Project Orientated Learning Environment POLE, the organisation that inspires this project, is a learning platform for students at European universities. As a fundamental principle POLE aspires to implement 'real' projects in order to combine one's own discipline with those of others and by working in the project transcend cultural and social barriers. POLE offers the opportunity to extend one's subject-specific knowledge in the team and work out solutions for complex interdisciplinary tasks.

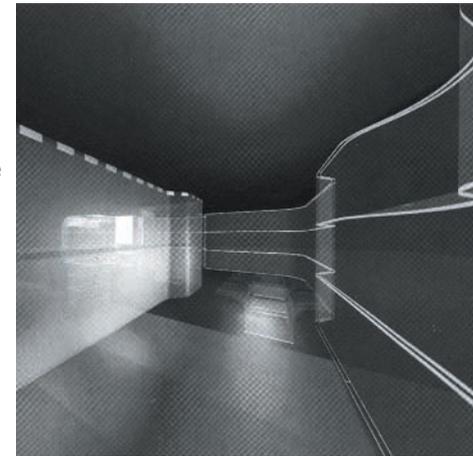
The engagement in POLE results in a better understanding of mutual dependencies and enhances the subject-specific, social and communicative skills of the participants. Through a combination of the special disciplinary knowledge of each participant in his/her team, the complexity of the task will be managed. The result is a broader scope and more integrated approach in the final work. In order to guarantee efficient collaboration, POLE uses modern information and collaboration technologies (ICT). The number of participants is limited; the planning anticipates a maximum of eight teams for the summer semester 2003.

Process

The actual team work will begin with the kick-off week in mid March 2003. During this initial phase the process will be planned and a first analysis of the task will be made. After the workshop the teams will return home to continue their work from their universities. All necessary communication will be accomplished using net meeting, discussion fora, e-mail and telephone meetings. A web portal will serve as the main hub for exchanging data, allowing for centralized access. The course supports members in the use of ICT tools. Assistance for discipline related problems comes from 'mentors', people with professional experience who coach students with their know-how. Questions are handled bilaterally by e-mail, phone, or through the official means. Disciplinary advice will be given by the faculty members of the home universities. Finally the teams will present their work in July 2003. The project will be judged and assessed by a panel of jurors, mentors and faculty. In a second round, the presentation will take place in front of the client and people of interest groups from universities, the public and politics. The projects will be published in the internet.

Framework

ICT/iRoom The introduction and use of state of the art information and collaboration technology (ICT) in the learning process, including prototypes of the latest generation is an important characteristic of the 'Project Oriented Learning Environment' (POLE). Questions as to how processes can be guided by new technologies and whether and which new qualities and improvements can be achieved are relevant questions with regard to professional opportunities and practical application



in the market competition. Here the borders between education, research and development blur; education as part of the methodology of process-based learning (PBL) partly contains experimentation in a laboratory environment. The i-room (interactive ICT facility) should enable a highly interactive working environment which effectively supports decision-making processes of interdisciplinary groups in ICT meetings. Participants of the meeting connect their computers - regardless of performance and power- to the i-room. The information relevant for decisions will be presented on big screens. The ICT tools then allow direct interaction of all applications. 'What if'-scenarios can thus be backed up by presenting qualitative information which help the decision finding and facilitate simulations which in turn also support the validation process.

Curriculum of the course

Individual disciplines Acquisition of knowledge and practice in the individual profession through the culturally diverse content of the program. Development of conceptual and target-focussed thinking.

Socio-cultural discipline Articulation of socio-cultural trends and scientific investigations which lead to a more dynamic and perceptive understanding of the body.

Economic discipline Support of decision making by indirect and researchable criteria of related disciplines; Consideration of the emotional sales-value; Adding value by developing a sustainable and determined strategy.

Built environment discipline Continuous reflection on the ethic values with respect to topicality, the social sphere and the ecosystem. Recognition of opportunities and risks of constructional, organisation related and procedural aspects.

Methodological discipline Use of new communication technologies, their advantages and disadvantages as well as evaluation of their potential as collaboration tools. Application of innovative methods for visualisation (4D-representations).

Social discipline Improvement of self-discipline; fostering team-work skills; refining communication techniques.

Individual discipline Recognition of one's own strengths and weaknesses in the process; differentiation between self-image and external perception.

Hard- and Software requirements

Participants need and are responsible for the following hardware and software tools for the course:

- 24 hours/day access to workstations and communication tools (Windows 2000 PRO or Windows XP)
- International telephone lines for internet conferences
- Webcam /Headset
- Support of IT facilities (firewall/standard support)
- Internet access with 256 kBit/s transmission speed minimum
- Office incl. Powerpoint and Frontpage, Acrobat Reader, ZIP- program and FTP-program
- Students with notebooks are kindly requested to bring them along to the kick-off week



Support

The FHA provides the following applications and services for the project:

General

- Interactive platform for data exchange and communication
- Support of the platform by Nemetschek AG
- Allplan / Allplot
- Cinema 4D

during Kick-Off-Meeting

- Introduction to the platform
- Introduction to communication methods on the web
- Introduction to Allplan/ Allplot/ Cinema 4D
- Handbooks (German/ English)
- PC with peripheral devices

in the Reviews

- Conference connection with international call lines
- IT support of the platform

during Final Presentation

- PC's with peripheral devices
- Smart Boards for the presentation in the studio
- PC for the presentation of webpages
- i-room

Kick-off

The course will commence on March 13, 2003 with the 'kick-off week' in Brugg- Windisch. The week's main objective will be the familiarisation with the project task, formation of teams and introduction to the ICT tools. Moreover, the emphasis lies on dealing with the task itself with the aid of models and on planning the process of cooperation and collaboration. Apart from all this, participants are invited to enjoy the location.

Cyber-lectures / Reviews

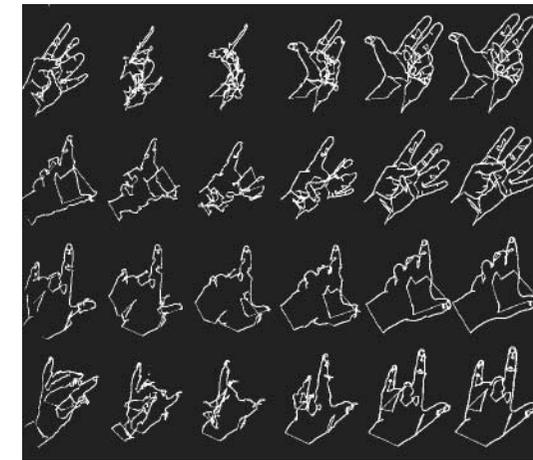
Throughout the whole process feedbacks and acknowledgements will be communicated by faculty members and mentors via the internet. The team will thus receive the necessary confirmation and have the opportunity to get a deeper understanding of specific issues.

Field trip

The topic of 'body perception – body worlds – body forms' will be accompanied by a field trip. During the trip discussion will evolve around issues of the so-called 'Blobs - organic forms in architecture from the antique to current architectural projects'. Participation is on a voluntarily basis; it has to be funded by the individual students. The trip starts on May 18, 2003 and ends on May 24, 2003.

Mentoring and Faculty support

Support for discipline related problems comes from 'mentors', people with professional experience, who assist the students with their know-how. Questions are handled bilaterally by e-mail, phone or through the official fora. Responsibility for disciplinary education remains with the faculty members of the home university.



Final presentation

The teams will present their projects at the final presentation. The projects will be judged and assessed by a panel of jurors, mentors and faculty. In a second round, the projects will be presented to the client and a group of interested people from universities, the public and politics. The projects are published in the internet.

Teams

The teams consist of students of architecture, landscape architecture, civil engineering, sports science, construction management and process management. The project organisation is in the responsibility of the process management students as representatives of the client.

| Chronology | | Windisch | Home University |
|---------------------|-----------------------------|-----------|----------------------|
| 13.03.03 - 18.03.03 | Kick-Off | | |
| | | | Teamwork Teammeeting |
| 29.04.03 - 30.04.03 | Review I | Review I | |
| | | | Teamwork Teammeeting |
| 04.06.03 - 05.06.03 | Review II | Review II | |
| | | | Teamwork Teammeeting |
| 01.07.03 - 06.07.03 | Final Week and Presentation | | |

Costs

The students have to contribute € 150 for the kick-off week and € 150 for the final presentation. This covers: lunch, working materials, plots and printing costs and documentation. Travel expenses and other additional costs are not included and remain in the responsibility of each participant.

Who can take part?

In order to meet the requirements of the course the participants have to be prepared to commit themselves to personal contributions, to think competitively and explore personal limits through hard work. Basic skills in English language and some IT knowledge and IT interest are required. Candidates are usually students who are about to complete their diploma, masters degree or individuals who have completed their studies recently.

At present, the partner universities are:

- University Aalborg, Denmark
- Bauhaus Universität Weimar, Germany
- Eidgenössische Technische Hochschule Zürich, Switzerland
- University of Applied Sciences Zentralschweiz, Switzerland
- Fachhochschule Trier, Germany
- Politecnico di Milano, Italy
- Technical University Delft, The Netherlands
- Universidad Politècnica de Catalunya, Spain
- Stanford University, USA.

How to apply

- Contact your tutor or academic advisor
- Register on the internet: www.pole-europe.ch and fill out the registration form by clicking on 'announcement' in the menu
- Send a confirmation (co-signed by your advisor) to

University of Applied Sciences Aargau,
Switzerland
POLE Europe
Prof. Daniel Kündig
Klosterzelgstrasse
CH-5210 Windisch, Switzerland



Site map of Brugg/Windisch

Upon receipt of your application we will send you a confirmation and later (about 3 weeks before kick-off) detailed information on the program.

For further information, visit www.pole-europe.ch or send an e-mail to m.alberati@fh-aargau.ch

Application deadline is February 12th, 2003

Media

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