

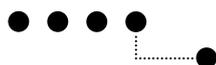
Accreditation
Complemented edition
2009



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Ecole d'ingénieurs et d'architectes, Fribourg (EIA-FR)

Haute école du paysage, d'ingénierie et d'architecture de Genève (hepia)



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August 2009

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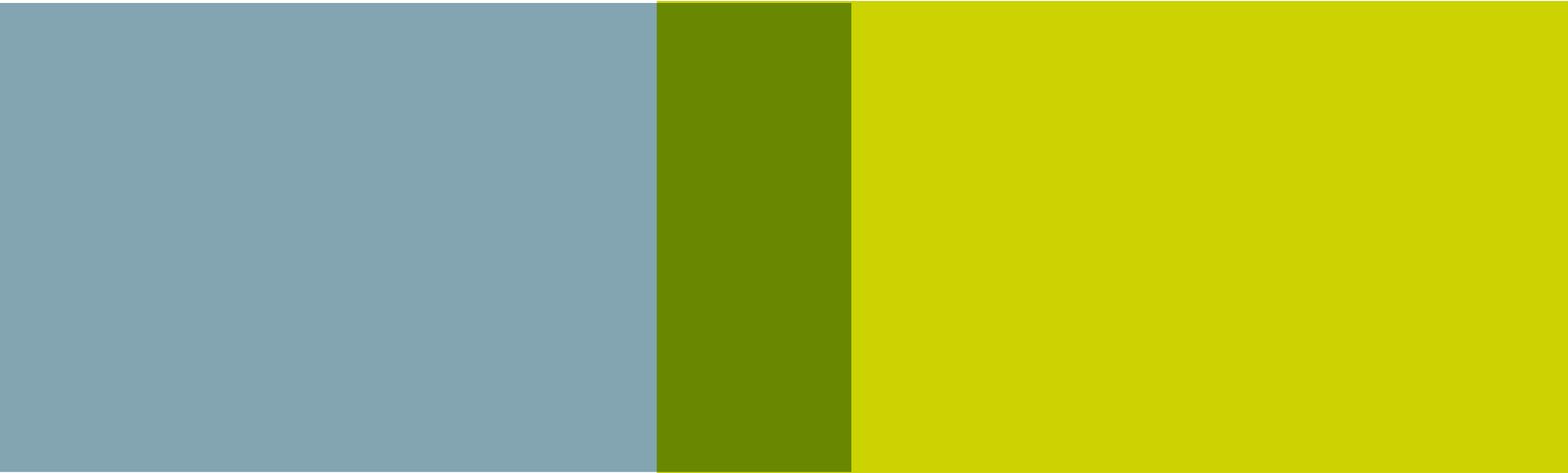
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0. Introduction

Two years have passed since the visit of the experts in the spring of 2007, and the education cycle of the joint master of architecture (jma) has been consolidated and further elaborated in the meantime. The students continue to make progress, the Erasmus exchange has been intensified, and a growing number of foreign students are enrolling. Simultaneously to the increase in students' quantity, the teams have been enhanced at the three locations, where each partner university has access to four to seven lecturers.

The curriculum of the joint master bases on the traditional characteristics of the UAS, and therefore the practical orientation is the center of the master cycle. This is the reason why the areas of study are increasingly brought into line with the working world (cf. the practical exercises in the seminars and their relation to the design work). The connection between teaching and research creates a critical perspective on the standard practice; it enlarges the occupational field, and questions regarding a new way of environmental design arise (city, settlements, landscape, nature, and house). The research projects of the joint master of architecture comprise the following areas: Politics, Economics, Geography, Sociology, Psychology, and Agriculture (see chapter 1.1 research outline).

Another increase has been registered in the international network of the joint master of architecture, consisting of Erasmus contracts with European schools, international agreements, workshops abroad, and English as a language in which lessons are taught. In February of 2009, a website was set up primarily intended as a platform for internal communication. The magazine jmag will be published in the fall of 2009. Already back in April of 2008, the administration of the joint master of architecture brought forward a motion at the ad hoc committee regarding the accreditation by the European Union. The motion was adopted. It will be implemented in January of 2010 within the scope of the revision of the Bilateral Agreements between Switzerland and the EU.

Involving the students in the process of decision-making has been institutionalized. The changes of the curricula have been adapted according to the requests of the group of experts and in accordance with the students' delegates. The offer of the joint master of architecture corresponds to the market demand both within Switzerland and Europe: every single jma graduate found employment.

Development of student numbers of the joint master of architecture:

	Total number at the three locations	Erasmus	From partner universities	From other universities	Graduates	Study termination	Full time	Part time
2005–06	19	0	9	10	0	3	14	5
2006–07	36	1	9	11	9	1	25	11
2007–08	45	3	10	46	8		27	18
2008–09	58	9	35	25	7	3 (break)	18	42
2009–10 *	75	12	45	35				

* Projections

The Engineering Schools of Geneva and of Lullier have merged and are now the new Haute école du paysage, d'ingénierie et d'architecture (hepia) (UAS for Agriculture, Engineering, and Architecture Geneva). hepia is divided into four units (departments or poles):

- Study courses Architecture, Landscape Architecture, and Civil Engineering
- Study courses Agriculture and Life Technologies
- Study courses Design Engineering and Micro Engineering
- Study courses Computer Science and Telecommunication

The synergies between the study courses Architecture and Landscape Architecture within one school are used intensely.

Appendix 4.1: List of foreign partner

1. Requirements

1.1

HES-SO and BUAS have to demonstrate how they intend to strengthen the research profile within the field of Architecture

The architectural research developed within the joint master of architecture, including the research approach of the neighboring disciplines (Visual and Graphic Arts, Social Sciences, Natural Sciences, Communication) is focused primarily on the design. This form of research is most compatible with the practical approach of the UAS. Regarding the architectural research, the three schools lay emphasis on the following areas:

- architectural design as a process and committed, reflected practice;
- sustainable development as an architectural and territorial practice;
- construction and its technical and environmental aspects;
- processes of planning, conception, realization, and development.

Additionally, each school has its research priority / competence center and therefore a specific profile within the joint master of architecture:

BUAS-AWC

- Infraurbanism and Infratourism
- Composite Construction Wood, Metal, and Concrete
- Restoration, Renovation, and Building Physics

HES-SO EIA-FR

- Domesticity and Rural Landscape
- Architecture/Sustainable Development

HES-SO hepia

- Public Space and Urban Landscape
- Sustainable Energies, Quarters, and Buildings
- Renaturation

Research and teaching

The training course joint master of architecture introduces the students to architectural research and promotes, together with the faculty, the connection of theory and practice by means of R&D projects. Research is conducted under laboratory conditions. The themes, methods, and means suggested by studio designs and seminars are directly connected to the research axes, or research projects. External national and international researchers participate in teaching. The jma actively takes part in the setup of research networks within the area of architecture on the levels of UAS (student council), the Federal Government (Architekturrat, Swiss Architecture Council), as well as the international collaboration (EAAE).

Burgdorf: Due to the implemented structure reforms for the connection of the R&D projects with the lessons that were made in 2008 within the BUAS-AWC, lecturers and researchers are able to be present in the studio during the course of one year and subsequently focus on research during another year. This change enables the continuation of the studio projects within the research work and vice versa. In addition, the students become part of research. The research conducted in Burgdorf focuses on infraurbanism, infratourism, and wood construction. Since the spring of 2009, there is a new transdisciplinary research axis based on the school's competency in the field of wood. The goal of this axis is the analysis of the rapid progresses made in the wood industry and timber technology as well as the investigation into their importance for architecture as such and the architect's work. In particular, the focus is on the influence such processes have on the quality of architecture and life in general as well as on the issue of sustainable development. Research is conducted in close collaboration with the bachelor and master course in wood technology of the BUAS-AWC and with partners from the wood industry.

The research within the joint master of architecture is strategically and operationally supported by the research field titled „Architectural Processes“. It guarantees the implementation of the requirements stated in the policy paper for research and development („Grundsatzpapier zur Forschung und Entwicklung“, September 21, 2005) of the Rector's Conference of the Swiss Universities of Applied Sciences (KFH) regarding the Knowledge and Technology Transfer (KTT) between teaching, research, and practice. One of the goals is to demonstrate the competitiveness of the research unit and the joint master of architecture by means of third-party funded research projects. Project topics are assessed by considering currentness, complexity, as well as practical and economic relevance. The aim is to cover transdisciplinary research areas that develop long-ranging synergies between the studios and the research fields. The lecturers are responsible for the third-party funded research projects; they are supported by specialists, scientific collaborators, and assistants of the corresponding research unit.

During the course of 2009, two new master degree courses will complement what the BUAS-AWC has to offer: the Master of Engineering in Wood Technology and the Master of Science in Engineering. The conception of the three master cycles enables substantial synergies in the areas of research and teaching.

Link to the project database:

<https://portal.bfh.ch/pdbsearch/>

Link to the R&D homepage of the AWC:

http://www.ahb.bfh.ch/ahb/de/Forschung/Kompetenzzentren_Forschungsfelder/Architektur.htm

<http://www.kfh.ch/uploads/empfd/doku>

Geneva: The founding of hepia by means of merging the Engineering Schools of Geneva (EIG) and of Lullier (EIL) has resulted in synergies in teaching as well as research of neighboring disciplines. The lecturers and the students of the master cycle are partaking in research programs of the Institut de l'Espace Urbain Bâti et Naturel (INES). Thanks to its competencies, INES participates in national, cross-border, and European projects and executes more and more third-party mandates, especially in the areas of landscape planning, construction, infrastructure, and energy.

The Institut de l'Espace Urbain Bâti et Naturel (part of the former EIG) promotes an urban landscape of a high living standard. Building activity and design of the city are based on a substantial implementation of sustainable development targets, mainly

- the conservation of natural resources and the promotion of a healthy management of energy resources;
- the containment of damaging effects on the environment;
- the enhancement or the preservation of a high standard of life (mobility, transports, socio-economic, and cultural aspects).

Research at the Institut de l'Espace Urbain Bâti et Naturel comprises four strategic areas:

- Territory
- Buildings and Environment
- Infrastructures
- Urban Planning

The Landscape department of the Institut Terre Nature Paysage (part of the former EIL) concentrates on the study course Landscape Architecture and is based on three research areas:

- Urban Vegetation
- Computer-based Landscape Modeling
- Landscape Planning

A work group was established within the scope of creating hepia that looks for synergies between the different research institutes.

Fribourg: Research within the joint master of architecture concentrates on the recognition and upgrading of a core area of architectural research: the design. As there is no theoretical basis for which the design could serve as application, design, experiment, theory, as well as the basics and implementation are closely connected. Research differs from service in that it reflects and transcends the traditional methods and modes of thinking of architecture.

Research focus is on the dwelling aspects within living environments that surround us. The researchers follow a transdisciplinary approach. Their research comprises the areas of Architecture, Urban Development, Visual Arts, History of Architecture, Construction Physics and Energy Balance, Geography, Philosophy, Forest Management, Hydrology, and many more.

Design research: Deals with the recognition and upgrading of design as a core area of architectural research.

Domesticity and village landscape: Research focuses on the dwelling aspects of living environments that surround us.

Architecture/Sustainable Development: A transdisciplinary approach communicating with Visual Arts, History of Architecture, Geography, Forest Management, Computer Science, and many more.

Research inputs from the practice

In Fribourg, priority is given to research projects that exceed standard designs (service offerings from architecture studios), demand a creative and reflected practice, and call on the relationship between society and culture, sustainable development, economy, and politics.

Projects

Urbnat – Renaturation as a means of urban planning

Flexisurf – Testing of work group environments

Archigenre – Investigation of different perceptions regarding architecture and spatial planning based on gender and women's issues

Modulo – Survey and discussion regarding a project on implementing modular structures into an industrial zone

1.2

Evidence has to be provided of how the theory seminars fit more adequately into the rest of the lessons regarding time and content

The seminar modules convey a transdisciplinary education, incorporating specialists from various fields of expertise. The goals are (1) acquisition of knowledge and professional tributary competencies, (2) knowledge transfer within the project, and (3) adoption of the fundamentals for an individual research task.

As part of the curriculum of the joint master of architecture, the theory seminars are interwoven with the other modules in terms of time and content. Each of the five-week seminars is divided into four phases:

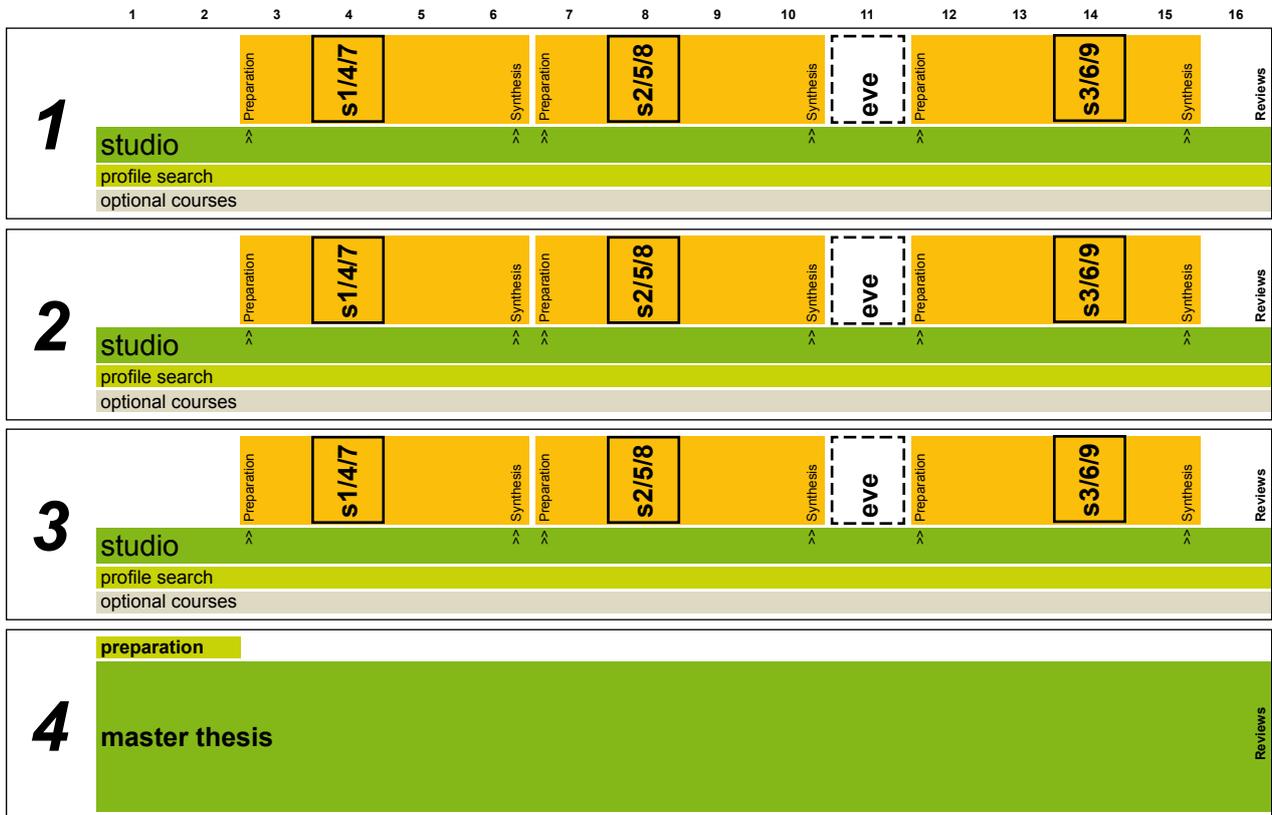
- Individual preparation based on the documents distributed before the seminar
- Active participation in the seminar
- Individual task (indepth discussion of the seminar's topic) resulting in a paper to be delivered three weeks later
- Participation in the seminar synthesis

The contents of the theory seminars are closely connected with the other elements of teaching, design work, and research:

- The seminar's topics complement the themes of the design studios and research tasks.
- The seminars are based in the design topics as regards their practical exercises.
- In the module titled "Profile Search", all students may implement aspects of other, personally important modules into their own view.

The experience collected in the theory seminars lead to new questions that enrich the design. The theoretical aspects of the design have attained a new distinction ever since the theoretical curriculum of the studios has been enlarged and assumed by the lecturers responsible for the seminars.

Interaction between the theoretical modules and the studios



Theory Seminar S4

http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/education/burgdorf_seminars/officecontextes2

Theory Seminar S5

http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/education/fribourg_seminars/s5_gender_intimacy

Theory Seminar S6

http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/education/geneva_seminars/s6spacepublic

Curriculum

<http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/about/curriculum>

1.3

The studies' optional disciplines have to be expanded

The range of optional disciplines is being further developed constantly based on two principles: (1) The general optional disciplines of other facilities permit the students of the UAS to exchange experiences and ideas with colleagues from universities, technical universities, and other disciplines. (2) The students receive answers to their specific questions within the optional disciplines offered internally.

Optional disciplines in the study year 2008-09

French

- Esthétique du paysage
- Globalisation régionalisation
- Introduction à la biologie du comportement
- Je crée mon bureau d'architecture
- Rome – génie du lieu
- Anthropologie
- Sciences de la ville
- Droit du logement et de la construction (unimail)
- Dessin académique (HEAD)
- Séminaire de statique appliquée

German

- Wissenschaftlich methodisches Seminar
- MAS Denkmalpflege: Schweizer Architektur vor 1914, Steine Mörtel, Ethik, Denkmalpflege an Bauten des 20. Jahrhunderts, Gartendenkmalpflege, Holzbau, Geschichte und Theorie der Denkmalpflege, Historische Tragwerke
- Deutsch als Fremdsprache Intensivkurse
- Deutsch als Fremdsprache Mittelstufe: Grammatik und Schreiben, Wortschatz, Sprechen
- Nachhaltigkeit
- AHB-Specials
- CAS 1 Immobilienbewertung – Basismodul
- HKB Zeichnen

English

- France, international timber workshop: challenges of coniferous wood
- Seminar in Brno: Sustainable development
- Summer School India

Appendix 4.2: List of optional disciplines

The students' perspective

Robin Schori, location Fribourg
diploma in 2009

■ The typical semester during the joint master of architecture consists of several modules which enable the students to broaden their knowledge in specific areas or fields related to architecture.

The theory seminars ask for an intense involvement in a subject so that the students are able to deepen their knowledge on a certain field in relatively little time and after an appropriate preparation (lectures, references, films, etc.). The synthesis work which is to be handed in at a later stage allows for the information received to be assimilated and one's personal opinion on the topic is being developed.

The optional disciplines enable students to acquire specialized knowledge in an area close to architecture. Said area can be chosen by the students themselves, depending on their specific interests or questions that arise from the offers of the various locations of the joint master of architecture or other study courses. The optional discipline module allows the students to deepen their knowledge in specialized areas that they themselves wish to further develop in order to create their own view on architecture.

The module „Profile Search“ provides for the autonomous development of the students regarding the acquisition of specialized knowledge of a certain topic, which allows for a personal positioning. The topic chosen is of general relation to issues discussed in the studio and the theory seminars. It is a research work on a topic relevant to the student for which he or she wishes to acquire specialized know-how in order to ultimately reach a substantiated personal position.

The modular structure of the joint master of architecture gives students the opportunity to attain theoretical knowledge to personally important topics by means of different approaches (concentrated theory blocks, units based on personal interests, research work, etc.). This means that the students will want to revert and refer to these topics and implement them in the studio. The goal is to simulate these topics in an architectural design. As one is constantly moving back and forth between theoretical knowledge and practical challenge during the design process, one manages real absorption of the specialized topics by confronting the actual design.

Content and organization of the des joint master of architecture as well as the development and testing of specific topics during the first three semesters provide the students with the tools necessary for developing autonomously a personal and substantiated thesis problem statement whose solution justifies the curriculum. During the module “Thesis preparation”, the students also learn to locate the marginal conditions of the situation with which they will work as well as to propose topics that they wish to discuss during the development of the design. These topics originate from student research projects completed during the different modules of the joint master of architecture and that resulted in specific specialized knowledge.

The connection between the different modules of the joint master of architecture is one of the essential points of this master degree course. The students are being confronted with different topics and they may concentrate on the ones they find most interesting; they can enlarge upon these topics and test them at a later stage on a specific design (studio or thesis). Hence, there is no uncreative implementation of dry knowledge but a further development of special know-how in a constant shift between theory and design. Besides, this experimental approach unveils previously unknown characteristics.

The students of the joint master of architecture highly appreciate this integration as it enables them to develop a personal tool that has a connection to the areas relevant for them. The organization in different, yet connected modules is an effective, productive, and substantive way to master architecture in both theory and practice.

Alexis Maeder, Fribourg
diploma joint master of architecture in 2008

■ The master studies within the scope of the joint master of architecture allowed me to enlarge my education within areas that were inaccessible before as a UAS student. Those areas were a bit off the practical necessities and the basic craft of a UAS architect, nevertheless they were just as required in order to responsibly further develop the contemporary building culture.

The joint master of architecture offers an education based on different modules: design studio, theory seminars, option modules. At first sight, they appear to be isolated from one another. However, the theory seminars influence to a great extent the simultaneously running works in the design studios and leave open the figuring out of one's own, personal path. As a student, I was able to develop a personal position which I demonstrated and complemented with the help of appropriate option modules within the scope of the „Profile Search“. I spent the last regular semester at the Technical University in Dresden, where I acquired additional, complementary competencies regarding my area of research and interest.

The synthesis of this pathfinding was eventually combined in the master thesis. Today, as a freelancer, I try to carry on the derived position and analysis and thus contribute to the contemporary building culture. However, it is an illusion to believe that the path continues straight-line after the master studies. The competencies acquired during the bachelor studies are just as great a part of it all as the personal evaluation and decision skills that are being taught during the joint master of architecture. The different parts of the education have to be understood as a whole and have to be linked accordingly.

As regards content, the master studies within the joint master of architecture are extremely rich and intense. New subject fields can be developed under laboratory conditions and complemented by means of the competencies of other locations and cultures (Fribourg, Burgdorf, Geneva, foreign universities, etc.). These multifaceted possibilities are enriching, however, they may also be confusing for the student. In order to be able to profit entirely from these vast opportunities, it is essential that the different elements and possibilities show a specific profile and are coordinated among each other. This organizational work across several areas of research, locations, and languages is a highly complex and substantial chore, however, in my opinion, it is the backbone for the success of this specific study model and I am committed to its contentual values.

Florence Mani, Burgdorf, part-time student master thesis in progress

Development of the classes

From the students' view, the familiar further development of the classes is mainly sensible within the academic staff, where some of the internal professors are present more frequently and invited professors ensure a high quality of studio modules. The expanded introduction into architecture enriches the material and shows the different realities of the discipline. This educational situation clearly enhances the personal motivation and the quality of students' works.

„Profile Search“

The „Profile Search“ is the most individual module offered to the students during the master program. Here, they can find a topic autonomously that is of personal interest to them. The choice of topic is not necessarily the result of one of the issues discussed during the seminars or in the studio, but may result from a more profound issue that already exists. Naturally, the seminars and studios help to develop and sharpen the mindset and discourse of the students as regards the corresponding topic.

Connection between theory and studio

Depending on whether the student chose to study full time or part time, the connections between the theory seminars and the studio modules may not become visible in real time. A topic discussed during a theory seminar may not reappear in a studio module until after one or two semesters. However, this is a sign of quality, as the students will have to apply their competencies throughout their entire professional life. On the other side, topics approached in the studios may receive their theoretical background only at a later stage. The students already familiar with the topic can base their deliberations on actual experience.

The benefit of the studies in the working world

Those who complete the master in architecture on a part-time basis besides working are able to test the information gathered from the different modules in a real context and are thereby possibly more relaxed when it comes to certain issues which may lead to new solutions. The professional practice is advantageous when it comes to looking at things from an experienced angle during a studio or a seminar. These differences between full-time and part-time students are of benefit for both sides. The view biased by the reality of the discipline of the part-timers meets the fresh vision of the full-timers and enables them all to gather new ways of looking at things and experiencing new horizons.

2. Recommendations

2.1

The technical orientation has to be applied specifically on perfecting the study courses. The different locations have to better align their teaching and research in an interdisciplinary way with the competencies of the individual departments.

The entrenchment of the UAS in practice and the technical skills of a majority of the students with a professional degree are the basis for the specific profile of the architectural studies. The bachelor studies resulting in a professional qualification build on this basis, continued by the master cycles which are the necessary supplement for a balanced training to become a general practical expert.

The technical grounding is reflected in the strong interdisciplinarity. The bachelor courses base on construction-related, technical basic knowledge (Energy, Construction, Administration, and Civil Engineering). The master cycles enlarge the range with human scientific disciplines (Management, Design, Health, Landscape Architecture, cf. 2.6), complemented if required by indepth technical competencies (Timber Technics, Complex Structures). The form of the interdisciplinarity aims at an increased technical orientation visible in most educational elements (design studio, seminars, optional disciplines, thesis) and it connects the design practice vital for the architect with technical and human science minor subjects, whereby the practical aspects are given priority in order to allow for indepth reflexion in the core areas of the three locations.

Within the scope of this intensified framework, the joint master of architecture maintains relations by means of teaching and research with the Higher Technical Schools HF Wood Biel, the ECAL University of art and design Lausanne, the École d'ingénieurs in Lullier, unit of landscape architecture (part of the new hepia), as well as the UAS for Health Fribourg (Hochschule für Gesundheit Freiburg). Partnerships with the master courses of civil engineering are planned.

One of the essential issues for teaching within the joint master of architecture is interdisciplinarity.

- It connects the design process to the technical and human science neighboring disciplines
- and demands for an indepth examination of the specific competencies of each school.

Interdisciplinarity is mainly reached by integrating experts from other departments (HES-SO and BUAS) as well as from neighboring universities into the studio and thesis work, the seminars, and research.

As of the spring 2009, the elope (embedded learning-oriented project environment) project, supervised by Burgdorf, gives students of the joint master of architecture the opportunity to participate in a project within the scope of humanistic medicine, lead by interdisciplinary and international teams.

Appendix 4.3: Project elope

2.2

The previous mentoring and the control in a portfolio with recommendations is canceled, given that the subjective point of view of the mentors might impede the students' development and restrict the compatibility with other European universities.

The modules "Mentoring" and "Portfolio" that were criticized in 2007 by the group of experts were canceled on July 3, 2006 upon a decision by the strategy workshop of the joint master of architecture. The module titled „Profile Search“ was introduced as a substitute. During the course of this module, the students may determine their personal profile and decide on the goals and topics of their master thesis from the very beginning of their studies. Priority is given to communicative and creative aspects. The "Profile Search" modules may be attended at all locations regardless of the location of enrollment.

The module „Profile Search“ connects the different parts of the classes, the theory seminars, and the design work. The students and lecturers can herewith reflect critically on the competencies acquired. The last one of the three "Profile Search" modules is part of the module focusing on preparing the thesis.

Didactic form

The modules consist of group education with lectures and exercises as well as one-on-one tuition by means of conversation. The didactic basis of the "Profile Search" module is the development of the students' autonomy, the ability to reason, as well as self-criticism.

Pedagogic goals

The module works with the personal expectations, interests, questions, and objections of the students. Hence, it can collect the personal experiences made during the semester and the students acquire the content of the curriculum. The module runs during three semesters, allowing therefore for an absorption and expansion of the topics. The lecturers are chosen anew each semester.

Procedure

Personal conversations upon agreement, (one-day) group education with a presentation of the works per location.

Description of the modules

<http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/about/curriculum>

2.3

The number of freely accessible works from the technical literature, apart from the stock that can be ordered electronically, has to be enlarged significantly. In addition, more international journals regarding architecture have to be available.

Ever since the establishment of the joint master of architecture, the stock of bibliographic resources (books and journals) has been constantly expanded. This allows for a broader view on the specific field of architecture as a whole on one side, and on the other side on works from the areas of human science that are little represented. The libraries of the three locations are connected in a network called NEBIS which unites libraries and documentation centers from all across Switzerland. More than eighty libraries of universities, universities of applied sciences, and research institutes from all language regions are connected via the Network of Libraries and Information Centers in Switzerland (NEBIS). The NEBIS catalogue contains three million titles: books, series, journals, and non-book materials. Most of the documents may be ordered online and the students are registered as users of their library and can order books from every internet workstation. The books are sent free of charge to the student's library. <http://www.nebis.ch>

In addition, the Consortium of Swiss Academic Libraries offers access to the students and lecturers of the universities of applied sciences to various electronic resources which may be consulted from every internet workstation at school. The offer is an important contribution to the activities of applied research and development. <http://www.kfh.ch>

Burgdorf: The Burgdorf location has increased its staff as well as the number of books available and visible on site. The number of international journals is continuously growing.

Geneva: The Haute école du paysage, d'ingénierie et d'architecture hepia comprises the two locations of the former schools for engineering Lullier (EIL) and Geneva (EIG) and has two libraries to this date, one at each location. The library in Geneva was enhanced by contracting a librarian in charge and the donation of a part of the library of the Architecture Institute of the University of Geneva. The three thousand works are now being included into the NEBIS stock and network.

At present, there is a dynamization project running regarding the adaptation of libraries to UAS information centers (FH-Infotheken).

Fribourg: One of the priorities of the Architecture department is the constant expansion of stocks on books and journals. They are supported by the project regarding the new acquisition of literature by means of Gilles Barbey's personal fund. Barbey is a Swiss architect and sociologist.

Appendix 4.4: List of journals in the library

2.4

The temporal structure for part-time students has to be improved so that the content of the studies may be better supported.

The organization of the mobility of the joint master of architecture with three interspersed seminar weeks lowers the costs and transportation times between the three locations. These three seminar weeks are also a welcome break from the design process by which the theory may be focused on the design topics. This temporal structure is ideal for the absorption of the topics from the seminars and guarantees the exchange between the students. Thanks to the block seminars, the part-time students may divide their efforts between gainful employment and studies more efficiently. This arrangement is unanimously appreciated by the students.

The students may choose from two different part-time models. The first model contains three years and connects theoretical and practical education elements in each semester. The second model takes four years and theoretical and practical education elements are running separately from each other.

At any rate, it is recommended to work at most fifty percent and to focus the professional work on the summer weeks where there are no lessons.

Assistant positions have been created for the students of the joint master of architecture, in order to balance work and studies and to pool them at one location. These positions take into consideration the work load during the semesters and allow for compensation during the times with no lessons.

The students may choose from two different degree course schemes. The first one enables the conclusion of the cycle within three years and contains a combination of design and theory modules in each semester. The second scheme runs for four years and divides the design modules from the theory classes.

Upon implementing the theory classes into the studios and the creation of the module "Profile Search", the interaction between the individual parts of the curriculum has become more intense and the part-time studies run in a more harmonic and coherent way.

The students may switch from the part-time to the full-time program and vice versa during their studies.

The deadlines for certain modules, for example the thesis preparation and the master thesis, are set depending on the professional workload of the students.

Appendix 4.5: Organization of the part-time studies

Calendar

http://www.jointmaster.ch/jma/ch/de-ch/index.cfm?page=/jma/home/about/calendar_09

2.5

Raising awareness for the involvement of the students into the decision process has to be continued permanently and the involvement has to be fostered.

In the fall of 2007, the students of the joint master of architecture have founded an association. Ever since, its members are represented in the decision-making bodies of the joint master of architecture. The delegates of the students (one person per location) are invited to the working sessions, the strategy workshops and, if required, to the meetings of the board. The students' first action was to put together a list with motions (see appendix 4.10) which were adopted. Since 2008, all claims and suggestions are discussed in the meetings of the Fachhochschulrat (Council of the UAS) and the strategy workshops.

Everybody involved in the joint master of architecture is therefore part of the decision processes. The heads of the different locations, the experts, the board of the joint master of architecture, the academic staff, the assistance as well as the students come together every year for two days and discuss the arrangement of the study course.

2.6

The training options have to consist of more human science disciplines (Sociology, Psychology, and Cultural History)

In order to increasingly integrate the human sciences into the curriculum, lecturers from the corresponding disciplines have been hired. At the same time, contacts to close universities have been established to promote the exchange of specialized competencies. The number of human science disciplines in the theory seminars and studios was increased.

Burgdorf: Professor Tim Kammasch, philosopher, is now responsible for the human science disciplines (Literature, Art History, Film History, Philosophy). Sociology is taught by Maik Hömke, a city sociologist. Science Methodology is taught by Michel Schaer, Professor of Cultural Studies.

Geneva: For Architectural Science and Architectural Culture, Geneva was able to attract professors of the University of Geneva and the EPF Lausanne as partners. In addition, faculty of the university complement theory education in the studios and the theory seminars (Geography, History, Art History, Sociology, Economics, Political Science, Environment, Visual Arts, and Graphic Arts).

Fribourg: The human science disciplines have clearly gained in importance within the range of the jma, both in terms of the seminars (Psychology, Social Studies, Anthropology, Cultural History, Nursing Practice, Art Therapy, and Pedagogics) and the optional disciplines (Cultural History, Anthropology, and Geography).

3. Conclusions

Over the past two years, the process suggested by the group of experts has initiated a positive self criticism. The enhanced structure of the joint master of architecture and the newly created entities guarantee an enduring evaluation and evolution process.

The still young education cycle of the joint master of architecture has come of age and has developed a strong position. The great interest it attracts in schools and especially in the public demonstrates its good positioning and high acceptance. The special cultural dimension of the joint master of architecture, too, arouses more and more interest. The feedbacks from graduates regarding their further career confirm the goals and quality of the education. The critical mass of students and lecturers has been reached.

A constant goal of the joint master of architecture remains the further development of research as well as making the cross-linked education cycle more broadly known. High priority is also given to the internationalization of the study course by means of contacts with European universities in order to establish exchange programs, especially collaborative seminars. The use of several languages in class is being promoted. The website launched in February of 2009 has been designed primarily as an internal exchange platform; however, it also acts as an international business card.

Appendix 4.1

Detailed list of foreign partners

Denmark

Aalborg Universitat

Germany

Technische Universitat Dresden

Technische Fachhochschule Berlin

Fachhochschule Dusseldorf

Fachhochschule Konstanz

Fachhochschule Munster

Fachhochschule Nurnberg

Belgium

Institut superieur d'Architecture de la Communaute franaise – La Cambre, Bruxelles

Institut Superieur d'Architecture Intercommunal Lambert Lombard

Institut Superieur d'Architecture Intercommunal: Institut Victor Horta, Bruxelles

Institut Superieur d'Architecture Intercommunal: Institut de Mons

Spain

Universidad de Sevilla

France

Ecole Nationale Superieure d'Architecture de Paris-Belleville

Ecole nationale superieure d'Architecture et de Paysage, Bordeaux

Holland

Academie van Bouwkunst

Italy

Instituto Architettura Urbanistica Venezia

Universita degli Studi di Firenze

Universita degli Studi di Sassari

Mexico

Instituto Tecnologico Monterrey

UE

Martin Centre for Architectural and Urban Studies, University Cambridge

Portugal

ISCTE – Instituto Superior de Ciencias do Trabalho e da Empresa, Lisboa

Czech Republic

Brno University of Technology

Australia

UTS University of Technology of Sydney

University of Tasmania

University of Melbourne

Canada

University of British Columbia, Vancouver

China

Tongji University, Shanghai

India

CEPT Ahmedabad

KRVIA Mumbai

Japan

Chiba University

Appendix 4.2

Detailed list of the optional disciplines

SCHOOL	OPTIONAL DISCIPLINE	PROF.	CONTACT (phone)	Course dates	Number of course dates
Geneva					
hepia	Esthetics of a landscape	M.Jakob	michael.jakob@hesge.ch phone: +41 22 759 95 52		
HEAD	Figure and research drawing	M.Saini	pmsaini@bluewin.ch		
EPF Lausanne	Globalization – regionalization	Schuler Martin et Ratti Remigio Costantino	martin.schuler@epfl.ch phone: [+41 21 69] 33424,38002,34162 fax: 021 693 38 40		
University of Geneva	Introduction to behavioral biology	A. Langaney, Ass. D. Roessli	david.roessli@anthro.unige.ch phone: +41 22 379 69 66		
unimail	Housing and construction laws				
Fribourg					
EIAF	„I create my own architectural practice“	M. Dousse	michel.dousse@hefr.ch	Winter semester	
EIAF	„The construction of Rome“	M.P. Fritz	michael.fritz@hefr.ch phone: +41 26 429 6672	Summer semester	
University of Fribourg	„Anthropology“	F. Ruegg	François.ruegg@unifr.ch	Summer semester	
EPF Lausanne	Urban sciences	J. Levy		Summer/ Winter Semester	
Burgdorf					
BUAS-AWC Burgdorf	Scientific methodical seminar		Michel Schaer Michel.schaer@bfh.ch	Every Monday evening HS/FS	
BUAS-AWC Burgdorf	MAS Historic Preservation, module D23 Swiss architecture before 1914			8.8. – 5.9.08	5x on Fridays
BUAS-AWC Burgdorf	Module D5 Stones, Mortar			12.9. – 10.10.08	5x on Fridays
BUAS-AWC Burgdorf	Module D1 Basic course 1 / Ethics			12.9. – 10.10.08	5x on Fridays
BUAS-AWC Burgdorf	Module D15 Historic preservation on buildings of the 20th Century			21.11.– 19.12.08	5x on Fridays
BUAS-AWC Burgdorf	Module D2 Basic course / methods			FS 09	
BUAS-AWC Burgdorf	Module D11 Historic preservation of gardens			2010	

SCHOOL	OPTIONAL DISCIPLINE	PROF.	CONTACT (phone)	Course dates	Number of course dates
Burgdorf					
BUAS-AWC Burgdorf	Module D14 Timber technology			2010	
BUAS-AWC Burgdorf	Module D9 History and theory of historic preservation			2010	
BUAS-AWC Burgdorf	Module D26 Historic supporting structures			2010	
BUAS-AWC Burgdorf	Module D3 Practical historic preservation			2010	
BUAS-AWC Burgdorf	Module D8 Inventory / Documentation			2010	
BUAS-AWC Burgdorf	Module D12 Windows and glass painting			2011	
Bern University	German as a foreign language crash course			1.9.– 12.9.08	Every day (12 days)
Bern University	German as a foreign language level I			23.9.– 18.12.08	Every Tuesday and Thursday
Bern University	German as a foreign language upper secondary level: grammar			23.9.– 16.12.08	Every Tuesday
Bern University	German as a foreign language upper secondary level: grammar and writing			22.9.– 18.12.08	Every Monday and Thursday
Bern University	German as a foreign language upper secondary level: speaking and vocabulary			24.9.– 17.12.08	Every Wednesday
Bern University	German as a foreign language upper secondary level: speaking			24.9.– 17.12.08	Every Wednesday
Brno (Czech Republic)	Sustainability			cw 44	1 week
Epinal France	Défis du Bois International Workshop			07.3.– 14.3.09	1 week
Cantercel	Workshop timber			May/June	1 week
	Summer School India Substitute for Eve				
BUAS-AWC Burgdorf	AWC specials (more information and registration at http://www.ahb.bfh.ch/ahbspecials)			HS 08/09	Every Wednesday afternoon
BUAS-AWC Burgdorf	CAS basis module			11.2.– 14.5.09	13x on Wednesday + 1 excursion week
BUAS-AWC Burgdorf	CAS 1 real estate assessment – initial module			16.10.– 4.12.08	8x on Thursdays
BUAS-HKB	Design and art				

Appendix 4.3

elope (embedded learning-oriented project environment) A Platform for Learning and Teaching

Settings

The initial elope courses had been launched as a result of the ever increasing demands in the current building trade, which is of a highly complex, segmented, and competitive nature.

Nowadays, students are increasingly challenged within their specific core disciplines; in addition however, they are also supposed to develop skills in order to apply this particular knowledge in practice. This ideally goes hand in hand with a sense of maturity of the individuals' characters vis-à-vis the social, cultural, and economical environment. The practical application of theoretical knowledge can thus only be implemented successfully, if these three basic elements are taken into account. The curricula for studies in architecture and architectural process management at the Bernese University of Applied Sciences are fundamentally based on this comprehension.

elope sees itself as a learning system cooperating in a network of international universities and industry partners. It does so within a reflexive context, taking into account the various cultures involved in order to create new methods of resolution regarding teaching and learning. The students are at the core of this concept, and are given the opportunity to develop process-oriented expert knowledge through interdisciplinary teamwork and the use of information and communication tools. Furthermore, elope respects the paradigm shift from supply-pushed to demand-pulled learning, i.e. to replace the swatting of facts by process knowledge. A further characteristic of elope is an increasing tendency for the overlapping, or even amalgamation, of various lines of work in order to give way to new, holistic and trans-disciplinary perspectives. elope is a comprehensive platform which gives students the chance to contribute their full potential. Each individual's attitudes, characteristics, and abilities are taken into account in order to allow as much space as possible for independent development of students' responsibilities and skills. A contribution to the concept of 'campus in mind' is made by elope in providing the multi-disciplinary teams with learning facilities that are based on experimental and interactive technologies.

elope is not only about to significantly remould the landscape of teaching and learning at universities. It also intends to yield substantial influence concerning decision-making and the creation of practical work processes. In association with university teaching staff, the mentors are instrumental in contributing expert knowledge and regular feedbacks to the teams, while they are also actively involved concerning the evaluation of processes and related products. The latter will be of increasing importance in the future, as scientific research has been initiated in connection with reflections of certain PBL processes. It is the intention of this kind of research to support students with regards to the awareness of their personal learning styles. The findings will then be made accessible for future work in a broader context.

Pedagogic Model

The students are in the centre of elope's working model. They build multidisciplinary teams with one or two student coming from each profession. Since they originate from different universities around the world, they have access to an attractive set of faculty coaches. The configuration of the disciplines is depending on the specific semester project.

Semester structure: After a kick-off week, the students work in non-located, distributed, interdisciplinary teams – as they would do in practice – each administering his/her disciplinary contribution but also taking responsibilities for the entire process and product as a team member. The faculty members of the partner universities and the mentors from industry act as consultants and coaches on call of the teams.

The evaluation of the project results are in duty of an international jury, which is formed by one member of each discipline. Each team receives a jury report with an acknowledgement of the contributions according to initially specified criteria. elope puts a strong emphasis on the assessment and self-assessment of the processes by systematically requesting the students to reflect on the lessons learnt – keeping Søren Kierkegaard's statement in mind that, life is lived forwards, but only understood backwards.

elope topica focus / Architecture & Health

in our continuously growing urban society the health of human beings is increasingly influenced by the built environment. Therefore, the dependence of health and architecture shall be investigated: Health-related and design process. Strategies of change are sought for which allow for a (re-)design of the built environment in such way that negative influences can be reduced or avoided and positive elements are fostered and strengthened. A continuously growing kit of architectural elements, socio-cultural measures and trans-disciplinary methodologies shall support and allow for an adequate development of design processes which have the «healing building» as their objective.

An existing framework in today's context shall form the focus of our investigation with the aim to identify potentials for change and to develop effective strategies towards a sustainable health-driven architectural design.

Spring Semester 2009 | Project Humanistic Medicine

The intrinsic crisis in modern health care systems is spiritual in nature rather than financial. Therefore, the «idea of man» on which our culture bases its actions gains importance. The theme of elope's project in the spring 2009 addresses this finding by aiming at the transformation of the concept of «Human Centred Medicine» (Hess, Christian & Hess-Cabalzar, Annina, Menschenmedizin Frankfurt a.M. 2006) into an architectural setting by designing a vision for a Swiss regional hospital which puts the wholeness of body, mind and soul of humans into the centre of all planning activities. The present elope course offered during the spring/summer semester 2009 brings together the disciplines of architecture, landscape design, psychology, the arts, product design, hospitality, process management with students and faculty from the Bern University of Applied Sciences (as leading house), the Swiss Federal Institute of Technology EPFL, Ecole Hôtelière de Lausanne, (Switzerland), Tecnológico de Monterrey (Mexico), European Graduate School EGS, Wimbledon College of Art, London (UK), Bauhaus University Weimar (Germany), Stanford University (USA).

Contact and further information: www.ahb.bfh.ch/ahb/en/Master/elope/

Appendix 4.4

Stock of periodicals in architecture

Abitare, italiano
AA files, Architectural Association School of Architecture London, english
AD Architectural design, english
AD Architectural Digest Wiley, Bognor Regis english
AMC – le moniteur architecture, Groupe Moniteur Paris, français
Anthos, français
Archiscopie, français
Architects' Journal, english
Architectural Record, english
Architectural Research Quarterly, english
Architectural Review Emap London, english
Architecture and urbanism, english
Architecture d'aujourd'hui, dernière parution 2007, français
Architecture formes fonctions, français
Architecture intérieure CREE , français
architektur.aktuell, Springer Verlag Wien, deutsch / english
Architektur + Wettbewerbe, deutsch
Archithese, Archithese Verlagsgesellschaft mbH Sulgen, deutsch / français
archplus, Arch+ Verlag Aachen, deutsch
AS Architektur Schweiz, Anthony Krafft Pully, deutsch / français
Bau & Architektur Künzler Bachmann Medien AG St.Gallen, deutsch
Baublatt Springer Science + Business Media Schweiz AG Rüslikon, deutsch
Bauen mit Holz Bruderverlag Karlsruhe, deutsch
Baumeister Callwey München, deutsch
Baurecht, Schulthess Zürich, deutsch/ français
Bauwelt Bertelsmann Fachzeitschriften GmbH Gütersloh, deutsch
Cahiers de l'ASPAN, français
Casabella, italiano
Chantiers et rénovation, français
CRB bulletins, français
Detail Verlag Architektur + Baudetail München, deutsch / english
Domus Domus Milano, italiano / english
Du Sulgen, Niggli, deutsch
ecologik Architectures à vivre Paris, français
El Croquis El Croquis Editorial Madrid, espanol / english
Faces Institut d'architecture de l'Université de Genève, français
Fassade – Façade, deutsch / français
Forum Raumentwicklung ARE Bern, deutsch / français / italiano
GA Document, english
GA Houses, english
Giornale dell'architettura, italiano
Glas Architektur und Technik, Konradin Medien GmBH, deutsch

Greenbuilding, Schiele & Schön Berlin, deutsch

Habitation, français

Heimatschutz, Schweizer Heimatschutz Zürich, deutsch / français

Hochparterre, Hochparterre AG Zürich, deutsch

Hochparterre wettbewerbe, Hochparterre AG Zürich, deutsch/ français /italiano

Holzbulletin, Lignum Holzwirtschaft Schweiz Zürich, deutsch

Industria delle costruzioni, italiano

Information immobilière, français

Jahrbuch Yearbook ETH DARCH ETH Zürich, deutsch / english

Japan architect, english

Kunst + Architektur, Gesellschaft für Schweiz. Kunstgeschichte Bern, deutsch / français / italiano

Kunst-Bulletin, Kunst-Bulletin Luzern, deutsch / français / italiano

Kunstdenkmäler der Schweiz, Gesellschaft für Schweizerische Kunstgeschichte GSK Bern, deutsch / français / italiano

Kunstforum, Kunstforum International Ruppichteroth, deutsch

Lignatec Lignum Holzwirtschaft Schweiz Zürich, deutsch

Lotus international, italiano

Materia, français

Metamorphose, Bauen im Bestand, Konradin Relations GmbH Leinfelden-Echterdingen, deutsch

NIKE, Nationale Informationsstelle für Kulturgüter-Erhaltung Bern, deutsch / français

Parkett, Parkett-Verlag, Zürich, deutsch / english

Professional lighting design, english

Revue polytechnique, français

Revue urbanisme, français

Rivista tecnica, italiano

SAM / Schweiz. Architekturmuseum Basel, Christoph Merian Verlag Basel, deutsch / english

Schweizer BauJournal Robe Küttigen/Aarau, deutsch

Schweizer Energiefachbuch, Künzler-Bachmann AG St. Gallen, deutsch

Schweizer Holzbau, AG Verlag Hoch- & und Tiefbau Zürich, deutsch

SIA-Normen (elektronisch und Print) SIA, Zürich, deutsch / français

SNV bulletin, français

SNV information switec, français/ deutsch

Steel doc: construire en acier, français

tec 21, Verlags-AG der akademischen technischen Vereine Zürich, Fachbereich Bau, deutsch

Techniques et architecture, français

Tracés, Société des Editions des Associations Techniques Universitaires (SEATU) Lausanne, français

Viso Docu Media Schweiz Rüslikon, deutsch / français

Werk, Bauen und Wohnen, Verlag Werk AG Zürich, deutsch / français

XIA, Intelligente Architektur, Verlagsanstalt Alexander Koch Leinfelden-Echterdingen, deutsch / english

Zodiac, italiano

Zuschnitt ProHolz Austria Wien, deutsch

digital

arq: Architectural Research Quarterly. Cambridge Journals Online.
(journals.cambridge.org/action/displayIssue?jid=ARQ&volumeld=12&issueld=01&iid=1844164#)

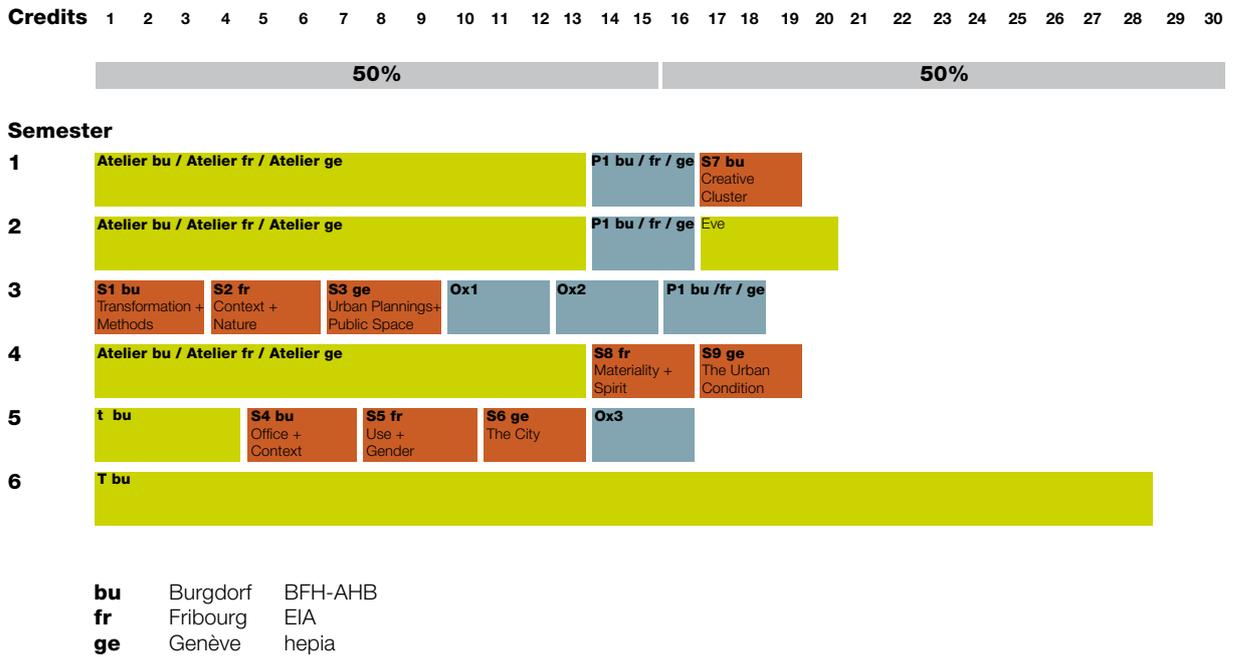
Bau und Architektur - Schweizerische Technische Zeitschrift STZ
(www.swissengineering-stz.ch/specials_bau.php)

NSL – Netzwerk Stadt und Landschaft
(www.nsl.ethz.ch/index.php/content/view/full/96/)

The majority of journals can be found in all three locations.

Appendix 4.5

Organization of the part-time studies in three years



Organization of the part-time studies in four years

