

Saturday May 28th, 2016

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“A New School of Thought (NEST) is a set of ideas and new approaches on methods of knowledge creation and on forms of knowledge transfer, that a group of people dedicated to architectural design and spatial planning share about architectural education.” —RESEARCH GROUP NEST

Since the late twentieth century, architectural education in Europe has been reshaped by key factors such as new policy regulations, internationalisation and digitalisation. Given these circumstances, schools of architecture have been seeking ways to differentiate themselves, whether through content in research and teaching, methods of knowledge creation and transfer, or shifts in their organisational structures. In parallel, new, alternative sites of knowledge production and reflection upon architecture have arisen that successfully bridge the gap between academia and practice. Their ability to attract a wider audience through a much more public profile brings into question possible symbiotic collaborations and the emergence of new schools of thought within the expanding field of architectural education.

This publication provides an insight into the ongoing research project “New Schools of Thought” (NEST) led by the University of Liechtenstein and conducted in collaboration with scholars from the Architectural Association School of Architecture in London, the Institute for Art and Architecture at the Academy of Fine Arts Vienna, the Faculty of Design Sciences at the University of Antwerp and Umeå University School of Architecture. It investigates and identifies current contexts, possible tendencies and reveals teaching practices and alternative educational models. It does not intend to offer conclusions and solutions but to highlight trends, personal discoveries and observations of the status quo. Just like the perpetually evolving NEW in “New Schools of Thought”, it is a mere snap-shot in time, a *Zeitschrift* in its true sense.

In line with its ephemeral status, “New Schools of Thought” is accompanied by an event with the same name. As a special guest of “Salon Suisse” and organised by the University of Liechtenstein, it takes place on 28th May, 2016, the opening day of the 15th International Architecture Exhibition, La Biennale, in Venice. A series of conversations between members of the research consortium and invited guests, some of whom are also represented in the publication, encourage further discourse that continues to challenge the frontiers of architectural education.

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NEW SCHOOLS OF THOUGHT IN ARCHITECTURAL EDUCATION

Challenging the Frontiers of Architectural Education

PETER STAUB, VERA KAPS,
JOHAN DE WALSCHE

Challenging the frontiers of architectural education
Today, schools of architecture are no longer solely focusing on teaching and research. In order to justify their relevance, they are often required to bridge the gap between academia and practice and to address a wider audience. By doing so, they start to venture into the expertise of institutions that specialize in fostering public awareness for the built environment. New symbiotic partnerships are required.

Since the late 20th century, architectural education in Europe has been affected first by parameters determined by educational reforms and more recently by economic pressures. The former could be summarized by the Bologna Process, which was initiated in response to a globally changing world and has resulted in increased internationalization facilitated by mobility and digitalization: student bodies and teaching staff are composed of multiple nationalities; international internships, research projects and institutional cooperations are encouraged and lead to the expansion of academic networking around the globe; English serves as the common language; online, live stream lectures and distant learning are prevalent.

In this process, education and thus knowledge production are increasingly understood as globally marketable products, and the public and private bodies that fund education demand easier accessibility to education and research in terms of better communication of its outcomes

to stakeholders and the public. This means that higher education and research are no longer matters solely for educators and researchers. The outcome of academic education and research needs to be mediated to society, addressing and involving people from outside academia—practitioners, policymakers and society as a whole. Given its societal and multidisciplinary nature, architectural education is a field in which these tendencies are particularly at stake. The domain today is challenged to tackle the trifold gap between academia, practice and society. It has almost become an obligation to address a wider audience, to mediate to the public in order to make the output of educational institutions more accessible and to justify their existence and relevance.

It can be observed that particularly for smaller institutions, fulfilling the requirements stated above proves to be a substantial challenge because it requires specific knowledge in a broad range of fields that is often beyond their capacities, which are generally focused on knowledge production or public mediation only. Hence we raise the question: What schools of thought have emerged regarding the production and dissemination of knowledge in architecture?

NEW SCHOOLS OF THOUGHT

The ongoing research project “New Schools of Thought” (NeST), initiated by the Institute of Architecture and Planning at the University of Liechtenstein, aims to uncover emerging initiatives that are tackling the challenges described in the introduction by highlighting new positions, new strategies and alternative ways of thinking, and by revealing their underlying motivations and rationales. A new school of thought is understood as a set of ideas and new approaches on methods and forms of knowledge creation and transfer, which a group of people dedicated to architectural design and spatial planning share about architectural education. However, schools of higher education are no longer the only privileged place for thinking. New sites of knowledge production and reflection have arisen, giving rise to new types of schools of thought. Besides traditional, publicly funded academic institutions, these also include entrepreneurial initiatives that mediate between academia, practice and the public. While academic institutions are requested to conduct research and to teach future architects, nonacademic initiatives strive to improve the built environment by establishing productive networks and simply encouraging public and political discourse. In addition to higher education, the research group also identified secondary education, research and public mediation as expanded fields of architectural education.

EXPANDING FIELDS

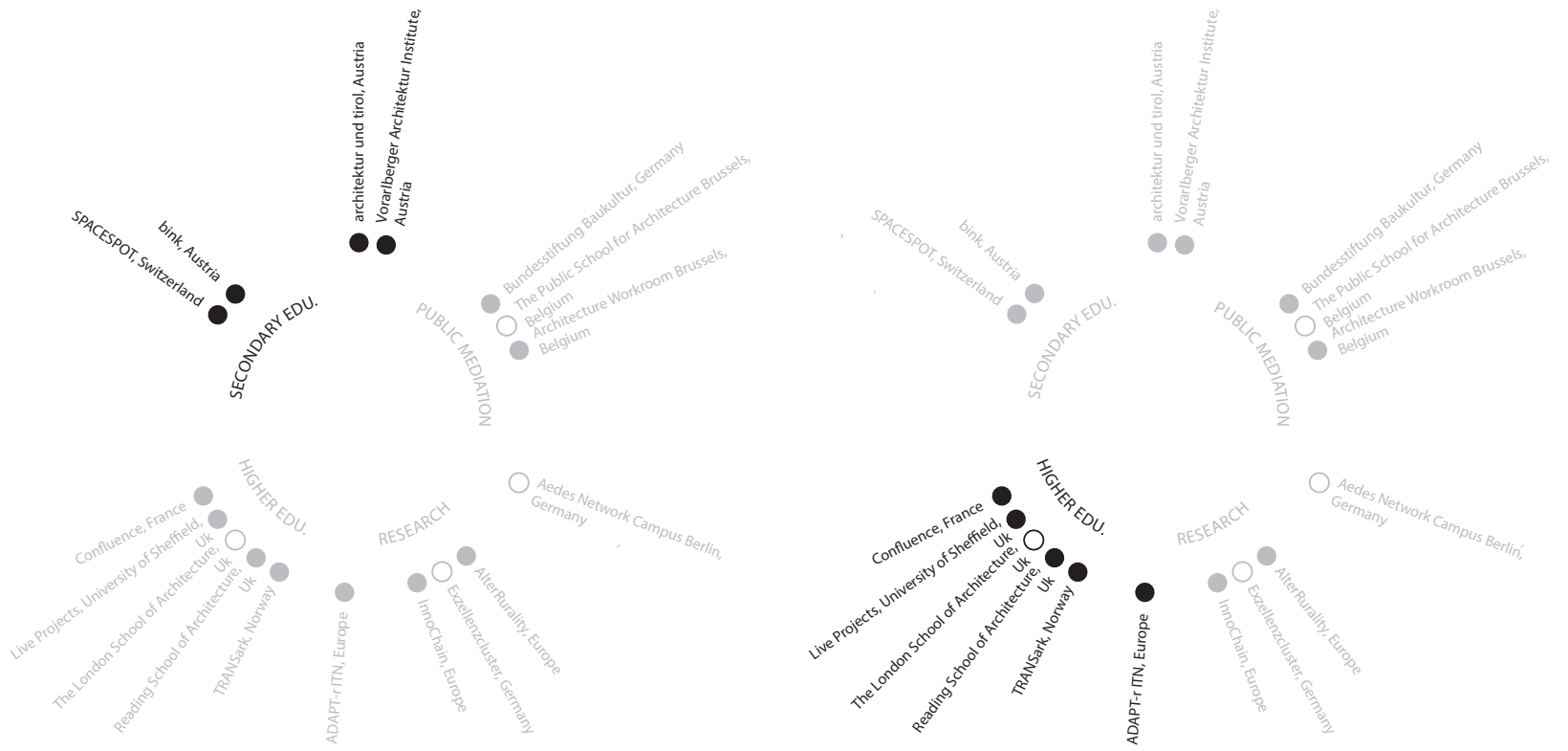
Children and young people are the architects and decision makers of our future. Therefore, it is important to instill in them an awareness for the built environment as early as possible, and to help them develop an opinion about and also argue for it. Schools of thought operating in the field of secondary education aim to implement architecture as a topic in school curriculums, since architecture is not yet established as a teaching subject. They also seek to create a network that connects architects and schools. By doing so, parents and teachers will also be prompted to reflect on architectural topics.

Academization of higher education has put pressure on architecture programs to become research-based. Architecture education was “scientified” in the 1970s, mainly by research that introduced methods and topics borrowed from other sciences (sociology, psychology, anthropology, etc.). During a flourishing period for cultural studies and critical theory, architectural theory became an established field of its own. Additionally, the awareness grew that the competencies, methods and tools intrinsic to the discipline of architecture themselves allow for the development of a research culture based on the field’s particular knowledge base, mode, scope, tactics and strategies. The ascent of design research, artistic

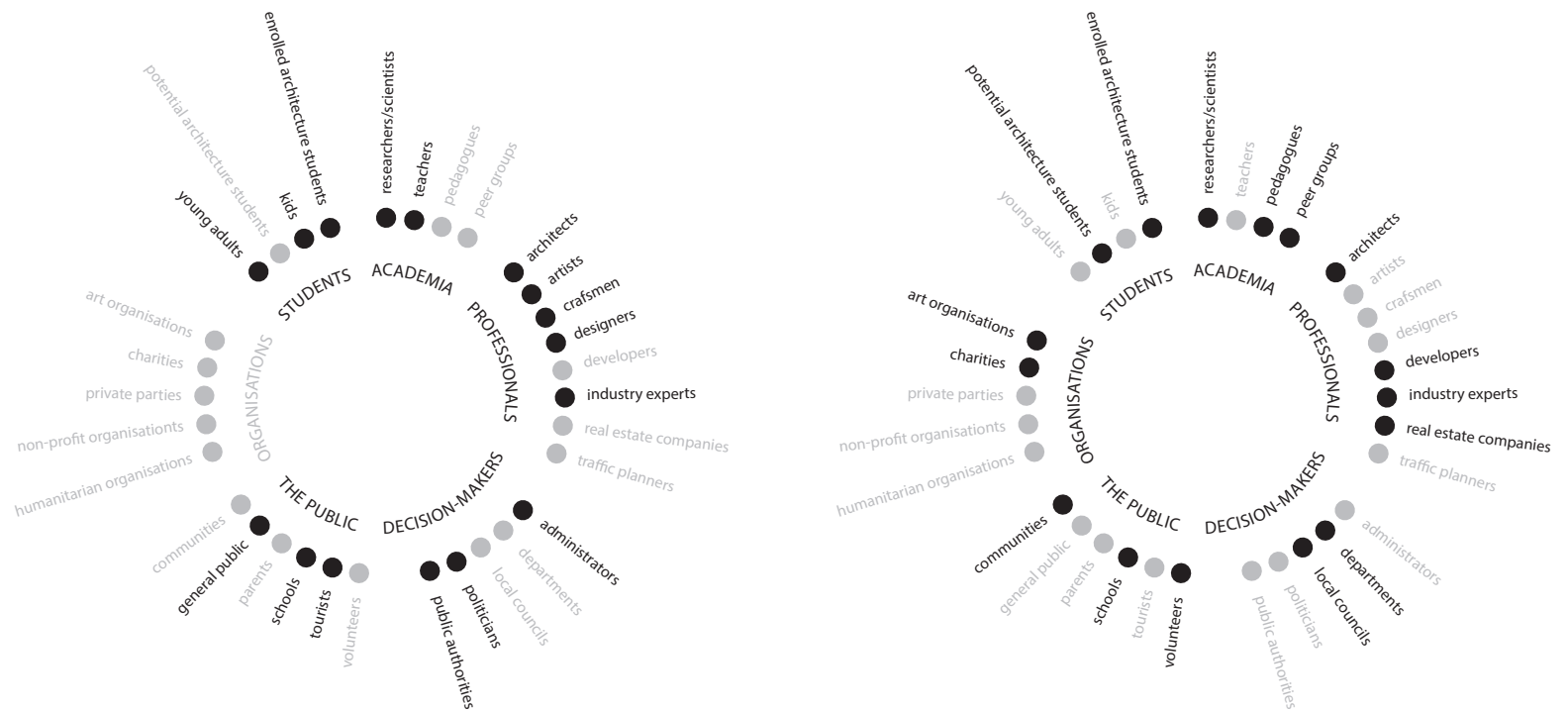
SECONDARY EDUCATION

HIGHER EDUCATION

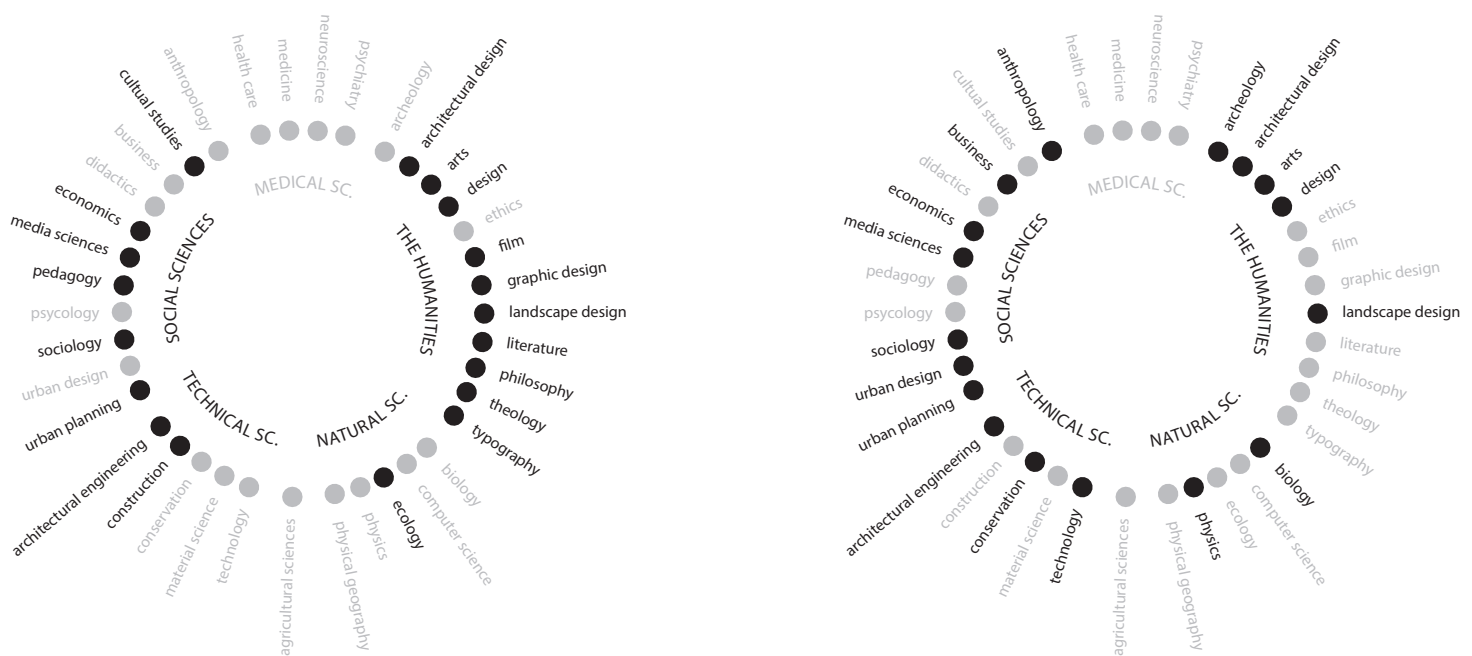
CASES



AUDIENCE



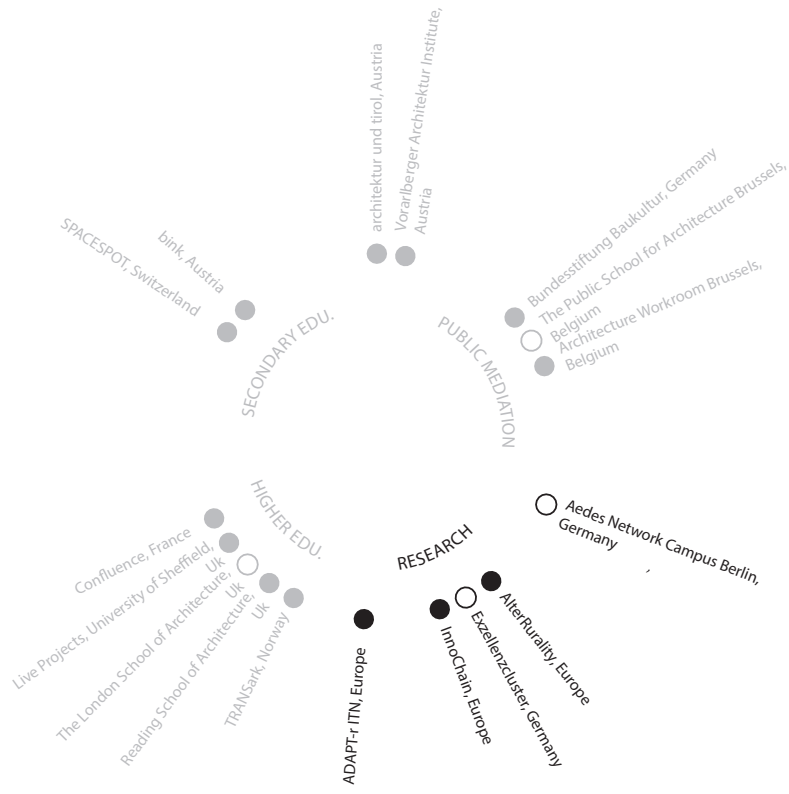
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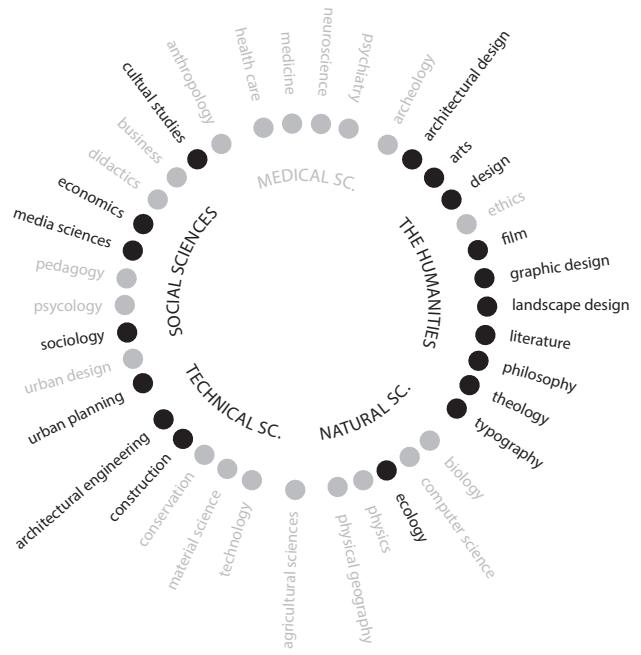
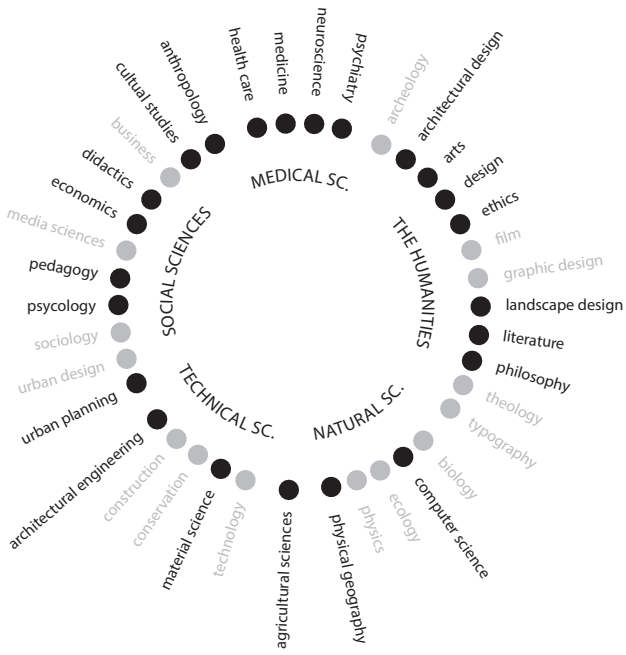
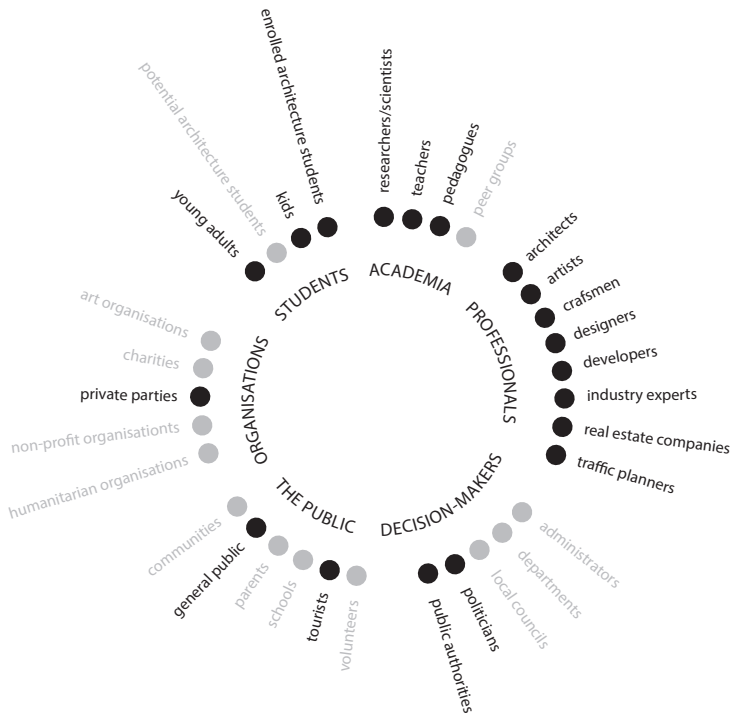
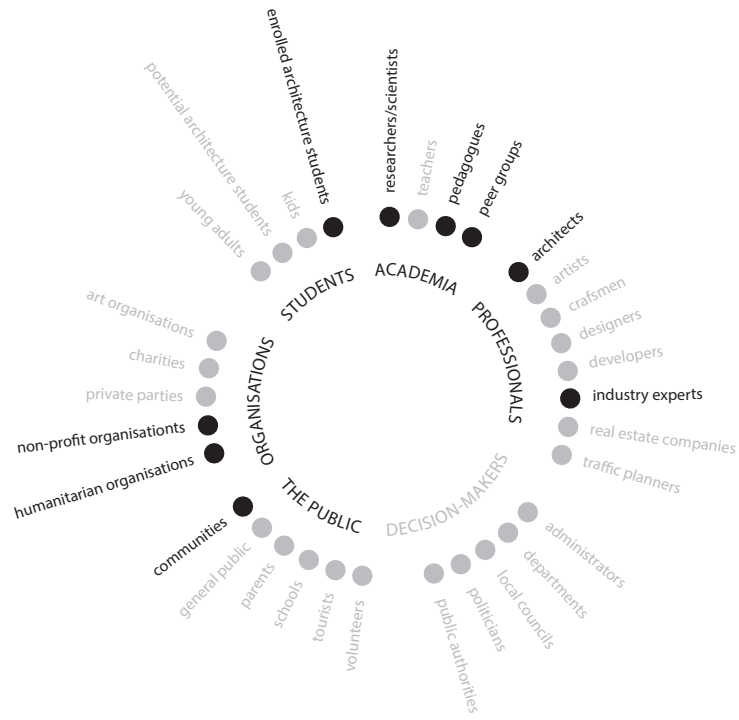
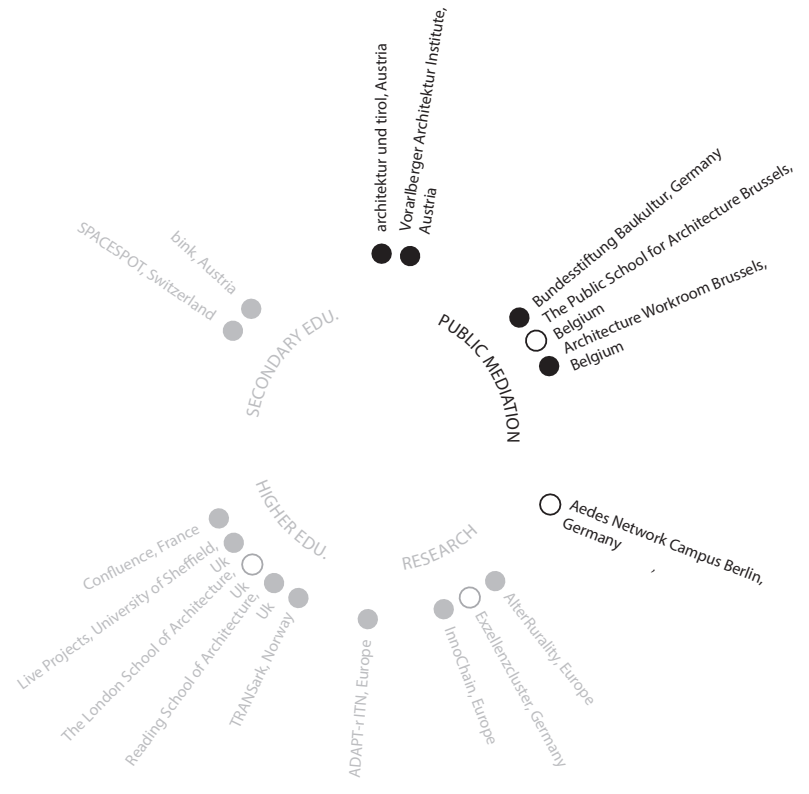
FOUR TYPES OF ARCHITECTURAL EDUCATION
 Based on the survey in which 13 cases participated (black dots, top row), we identified four types of architectural education (secondary-, higher education, public mediation and research) which accordingly address certain audiences (middle row) and disciplines (bottom row).

Concept: Vera Kaps, Johan De Walsche
 Graphics: Ekaterina Nagibina

RESEARCH



PUBLIC MEDIATION



research and practice-based doctorates, as well as an increased fascination for interdisciplinarity and a growing advocacy for transdisciplinarity, gave birth to new forms of research conduct and communities, and to a transformation of the interplay between architectural education and research.

More recently, one can discern an increasing number of initiatives for public mediation arising in the field of architecture and planning. The general assumption is that sufficient discussion and action is lacking on the built environment, building culture and the building process. Schools of thought operating in the field of public mediation aim to spur political and interdisciplinary discussion about these three topics and to develop pertinent and meaningful responses to crucial social challenges. By addressing a wide-ranging audience within a broad set of disciplines, they create a far-reaching network.

As part of the NeST project, a survey among several institutions, initiatives and programs was conducted in December 2015. Among the participants were: Architecture Workroom Brussels (Joachim Declerck), aut/Architektur und Tirol (Arno Ritter), bink (Barbara Feller), Confluence Institute for Innovation and Creative Strategies in Architecture (Odile Decq), Estonian Academy of Arts/Faculty of Architecture (Toomas Tammiss), Federal Foundation of Baukultur (Heiko Haberle), Live Project and Live Works by the School of Architecture/University of Sheffield (Carolyn Butterworth), Spacespot (Marko Sauer), University of Reading/School of Architecture (Lorraine Farrelly), Vorarlberger Architektur Institut/vai (Verena Konrad). Given their different mandates and goals, a direct comparison of these institutions is impossible. However, two pressing issues relevant to all of them could be identified: (1) bridging the gap between academia, practice and society, and (2) attracting a wider audience and mediating to the public. In the following paragraphs, selected extracts from the survey have been combined to provide insight into these two themes.

BRIDGING THE GAP BETWEEN ACADEMIA AND PRACTICE

The first key topic that was addressed by many participants is the wish to bring academia closer to practice. They intend, on one hand, to combine research and teaching by implementing research-led studios or methods such as “research by design” and on the other, to bring academia closer to industry. This can be tried in multiple ways: by incorporating practical training into academic curricula, by forming active and productive collaborations among academics, policymakers and industry, or by simply running projects implemented within academia.

ESTONIAN ACADEMY OF ARTS “Through the latest discussions within the faculty, we see our architecture education in general developing towards what might be called ‘radical contextualism’, where the object of architecture is as much the design practice as it is the space of forces that influence the preconditions for and the process of design in its widest meaning. We are developing among other research areas ‘the creative practice research model’, which looks for the production of new knowledge within the architectural practice. We seek ways to increase the role of design research within studio work so as to move gradually towards research-led teaching throughout the curriculum.”

READING The most fundamental characteristic of the newly established Reading School of Architecture is “a strong belief that good quality research must underpin good quality teaching and a positive attitude to multi-disciplinary education and research. Good quality teaching is informed by the pedagogies that surround the subject. For architecture this would be studio- and lecture-based teaching. It should be responsive to student needs, and it must be peer assessed to ensure that there is a required and understood ‘quality’ and that it responds to constructive criticism from students and other academic staff. I believe that the best teachers

are ‘reflective practitioners’ who respond actively to the comments of those in their community, which includes students, academics and professionals involved in their discipline. Good quality teaching is also about ensuring that the teaching content is dynamic. In a professional subject it must respond to all pertinent validation requirements, but the content should also be relevant to current practice and thinking around the subject. Professional education must be informed by positive relationships with practice and industry. The ambition at the School is to connect with the disciplines that surround architecture professionally and academically. Collaboration between the Reading School of Architecture and industry has already begun before the students arrive. We have held a series of structured workshops, events and discussions with a range of firms from not only the architectural community but also the building industry. Once the School has started, this forum and dialogue will continue to ensure we have a relevant curriculum. The subject cannot survive on its own; it needs to recognize its partners and collaborators in terms of research and practice so as to reflect the changing context of the architect in practice.”

SHEFFIELD “We became aware of the disconnection between our teaching—mainly via studio work and lectures—and the socially-engaged ethos we promote. Therefore we came up with the concept of so-called Live Projects, which are intended to close the gap between academia and practice while creating space for reflection on both. “On a simple level, ‘community engagement’ in our Live Projects requires students to work with local groups who will use or be affected by the processes and outcomes of the project. The complexity of this reveals itself very quickly to students when they start to try to define both community and engagement. Live Projects give students the opportunity to explore and understand the specific types and structures of communities in any project context. They are initially introduced to a particular client group with a specific interest in the project, but then, in the spirit of mutual learning, the student and client groups are both encouraged to map further communities that are affected or have a stake in the project. This reveals the complex relationships between gatekeepers and the ‘hard to reach’, between new and existing communities, and between groups with different degrees of capacity to act and be heard. Once understood in greater detail, it then becomes essential to utilize types of ‘engagement’ that suit the diversity of groups within any one project—using Sherry Arnstein’s ‘Ladder of Participation’ to assist this process. “Our projects are ‘live’ not ‘real’—they do not seek to replicate normative practice nor merely deliver to a client brief. The ‘liveness’ (as opposed to the ‘reality’) of the project offers an opportunity for critical thinking, reflection and an evolutionary approach to project and design development. The project emphasizes collaboration and participation and is an opportunity to develop socially engaged methodologies of alternate and expanded models of architecture research and practice. Live Project outcomes are extremely diverse (neighborhood plans, built projects, designs for existing buildings, participation toolkits, sustainable strategies) but are linked by their social ethos. The ‘Live Works’ initiative is defined by the connections it demonstrates between the teaching, outreach, research and practice of socially engaged architecture. It is the first permanent university-backed ‘Urban Room’ in the UK and seeks to highlight the creative role that universities can play in the development of cities. To sum it up: Our students should have an opportunity to learn through doing—to actively experience the connection between theory, practice and community engagement.”

CONFLUENCE “A freedom for learning by doing means that students must become autonomous and this is a challenge. The aim of architectural education is not to educate professionals but to provide an education that helps students understand who they want to become and how they can act in the world. We also need to understand that the way our students will build their architectural life will not be the same as ours.”

ATTRACTING A WIDER AUDIENCE AND MEDIATING TO THE PUBLIC

The second aspect that we identified as a common concern is the necessity to attract and mediate to new and alternating audiences. Some state that their principle aim in doing so is to heighten collective awareness and, as a result, improve the built environment. Others mention political engagement or the formation of networks as a means to create funding opportunities.

VAI “Our institute, based in Dornbirn, was founded in 1997 to promote the quality of architecture and to work for a better built environment with a coalition of architects, clients, professionals, craftsmen, politicians, scientists and the broader public. We are an open space and think tank for everyone who wants to discuss the conditions, meanings and effects of architecture and building culture. We work interdisciplinarily, in collaboration and on equal footing.”

AUT “Our ‘house of architecture’ in Innsbruck was never solely interested in pure aesthetics nor solely into exhibitions and lectures, but fundamentally about heightening collective awareness of the notion that the quality of people’s lives is improved through the sophisticated design of our environment. Events and exhibitions, but especially the promotion of a broad culture of discourse about architecture, and thus the establishment of a social network, are aimed at creating substantive impulses for discussions about issues shaping our living environment, from architecture’s internal discussion to public debate and especially ‘political’ dialogue.”

FEDERAL FOUNDATION OF BAUKULTUR “In Germany there was no ‘official’ political discussion about how good building and planning looks and how it works. We intend to establish an interdisciplinary dialogue—providing building and planning as a culture of general interest—through regular interdisciplinary public events with lectures, discussions, exhibitions, project markets and through polls to find out what public authorities and private persons think about building and planning. We write a biannual report about the state of Baukultur in Germany. Other institutions may concentrate on one profession and perspective when they talk about building, planning and cities. But our aspiration is to be interdisciplinary.”

AUT “Constructive dialogue and the choice of language have always been very important, because from the beginning we were actually involved with teaching and communication, with the exchange of opinions, and with debate, whether as part of our program, internal discussions and public events, or in dialogue with the political sphere. An essential part of aut’s genetic code is its role in fostering social networks and the broad-based communicative aspirations, which means that although architecture have always been the primary substantive focus, art and design, philosophy and theory, landscape and civil engineering, film and photography, graphics and books, and the aesthetic education of children and adolescents are also an integral part of aut’s activities.”

ESTONIAN ACADEMY OF ARTS “Even though our school tries to be highly relevant to society by raising critical issues within the curriculum, we experience difficulties in getting our results through to a wider audience of decision makers, stakeholders and other interest groups.”

AUT “Since 1998, representatives from aut have assumed decisive positions within the Tyrolean Chamber of Architects and Chartered Engineering Consultants. This collective force has also produced an open and productive culture of discourse in the political realm as well as with the media, which are essential to raising public awareness and increasing the perception of architectural topics. That’s because without continuous and widespread coverage in radio and the print media, and without the emphatically anticipated dialogue with political leaders, we would not have received productive resonance for our program and our critical position.”

SHEFFIELD “‘Live Works’ developed from a desire to assist in continuing the legacy of ‘Live Projects’. After students have delivered a ‘Live Project’ to a client group that enables the project to develop to the next phase, the client returns with funding for us to employ graduates to deliver later projects on a more professional basis. Our city-center location also gives us the opportunity to collaborate with a much wider and diverse set of community groups and to disseminate our teaching and research to a broader public. The relevance of architectural education needs to be proven by testing its ideas outside the academy, the profession and the discipline. Students need to understand the societal value of their research and design skills and how to communicate these to the communities who can benefit from them. This can’t be simulated within the institution. Students need a public audience to gain feedback and critical reflection upon their work and skills, their role and how they can make a difference to society in meaningful ways.”

BINK “People spend almost their entire life within designed environments and a large portion of their earnings for buying or building a house, for paying rent and operating costs and for mobility, like trips to and from work or for leisure activities. Thus architecture and land-use planning have a direct and inescapable impact on everyday life. Nevertheless, there are few people who perceive their environment consciously. And just as few are aware that its design makes an essential contribution to our own well-being and, moreover, constitutes a central part of our cultural identity. Hence the recognition of architecture needs to be learned! And it seems to me to be important to get started early with this work. And for that purpose, publicity is necessary.” **bink** presents itself as a platform for “Built Environment Education for Young People”. We realized that some people are working, both individually and in small groups (usually as associations), on mediating architecture and building culture to a young audience, both within and outside the school system. Networking strengthens not only the common goal but also enriches each party’s work. Initially the exchange took place informally at collective gatherings. Then a specific project emerged: **bink** was established as an association.”

ARCHITECTURE WORKROOM “As a think-and-do tank, we are keen to form alliances with other parties who are concerned with the development of our physical environment. The atelier is the key element of our working method, as it is the think tank in which local experts and politicians can exchange with international experts and designers on the challenges and potential solutions for specific territories. We focus on changing the culture of city-making and territorial development by initiating or participating in planning and development projects and studies. It is our conviction that new evolutions and tendencies in society require specific and non-standard responses in order for spatial policies to make a difference.”

SPACESPOT **Alexander Henz, Emeritus Professor at ETH Zurich, started various projects with secondary schools in 1998. In the following years, various Swiss architecture organizations formed the association Spacespot. By organizing courses for young people and creating educational curriculums for schools, museums and after-school art and architecture initiatives, we aim to promote the implementation of architectural themes at an early stage of the educational path. “So far we have only a few teachers collaborating with us because architecture is not part of their regular curriculum. It is hard for us to find a way to enter the classrooms. We plan a platform in order to enhance exchange between educators and architects, engineers and others.”**

SYMBIOTIC PARTNERSHIPS

In addition to their core tasks of teaching and research, (higher) education institutions are increasingly required to mediate to new audiences. In addition to the academic and research community, this now includes prospective students, sponsors, political authorities and the wider public. As a result, new

forms of mediation, communication and marketing are required, expertise that is often not present (or funded) at such institutions. Moreover, the additional focus on communication with the outside world is often regarded as subversive distraction from academia's core tasks of teaching and research. Nonetheless, nonacademic initiatives often communicate more successfully and more prominently than academia does, addressing a broad range of stakeholders involved in the production of space and building culture. They focus primarily on the mediation without fulfilling academic goals, aiming instead for societal impact. Yet some also begin to venture into the field of research and teaching. In short, initiatives operating in both the traditional as well as the expanded field of architectural education increasingly pursue similar goals and thus their boundaries become blurred.

How could these initiatives benefit from one another? One could imagine that common research or knowledge clusters could potentially help to bridge the gap between academia, practice and society. Strategic partnerships could even provide new funding models in the form of public-private partnerships. It seems inefficient to think that both models should pursue similar agendas when their expertise is by definition complementary. Symbiotic partnerships between academia and initiatives from secondary education and public mediation would surely be enriching, most importantly by broadening audiences and the overall debate about architectural education and building culture.

This article was also published in *archithese* 2 | 2016.

17 Cases

**VERA KAPS, CELINA MARTINEZ-CAÑAVATE,
JOHAN DE WALSCHE, EKATERINA NAGIBINA**

Young people are the decision-makers of the future.

[survey "New Schools of Thought", December 2015]

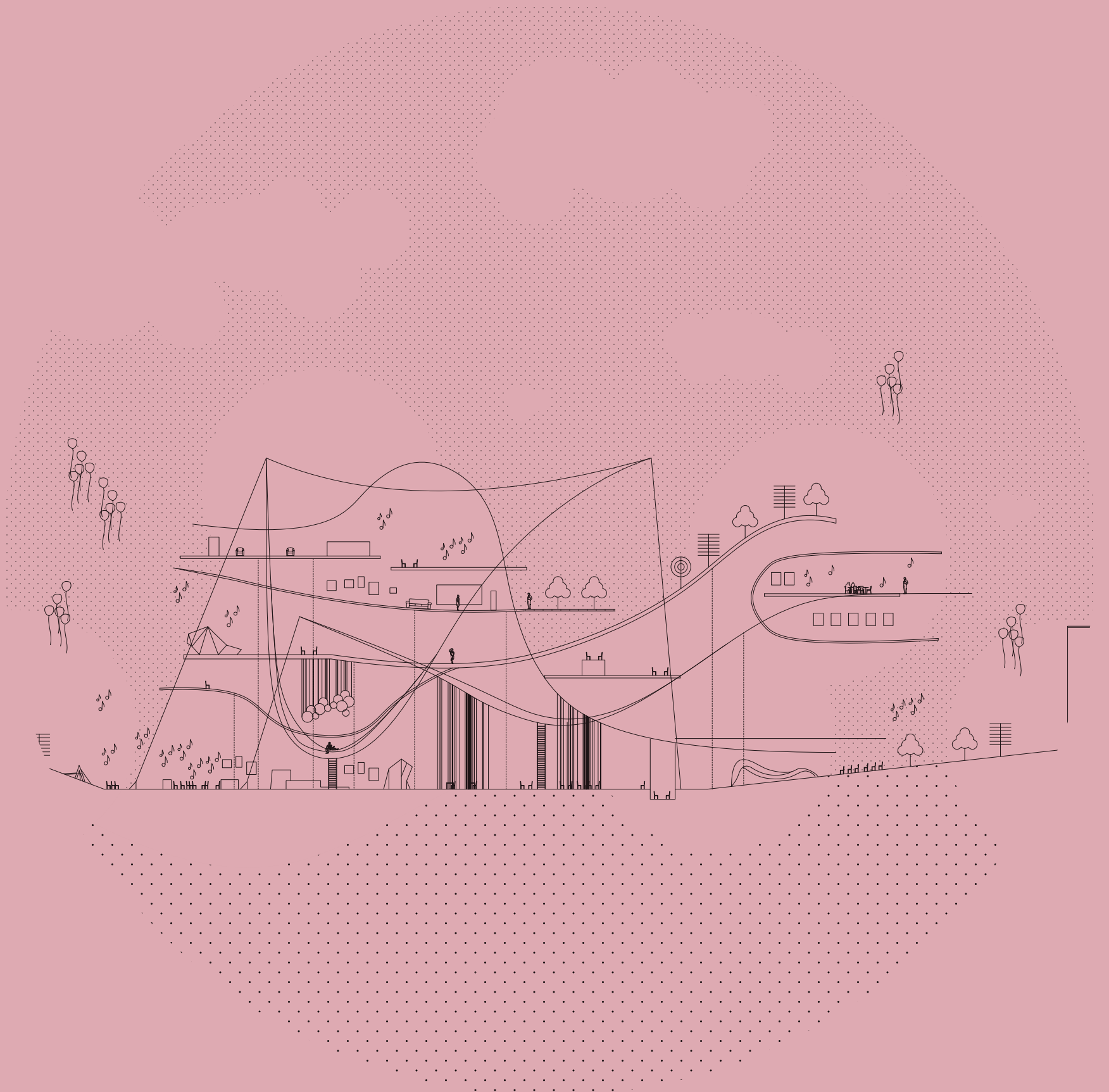
Full title **SPACESPOT**
Location **BIEL, SWITZERLAND**
Founded **1998**
Managing director **MARKO SAUER**
Type **SECONDARY EDUCATION**
Website **SPACESPOT.CH**

Alexander Henz, Emeritus Professor at ETH Zurich, started to organise various projects with secondary schools in 1998 and since then has supported them with great dedication. In the following years, various Swiss Architecture organisations formed the association SPACESPOT.

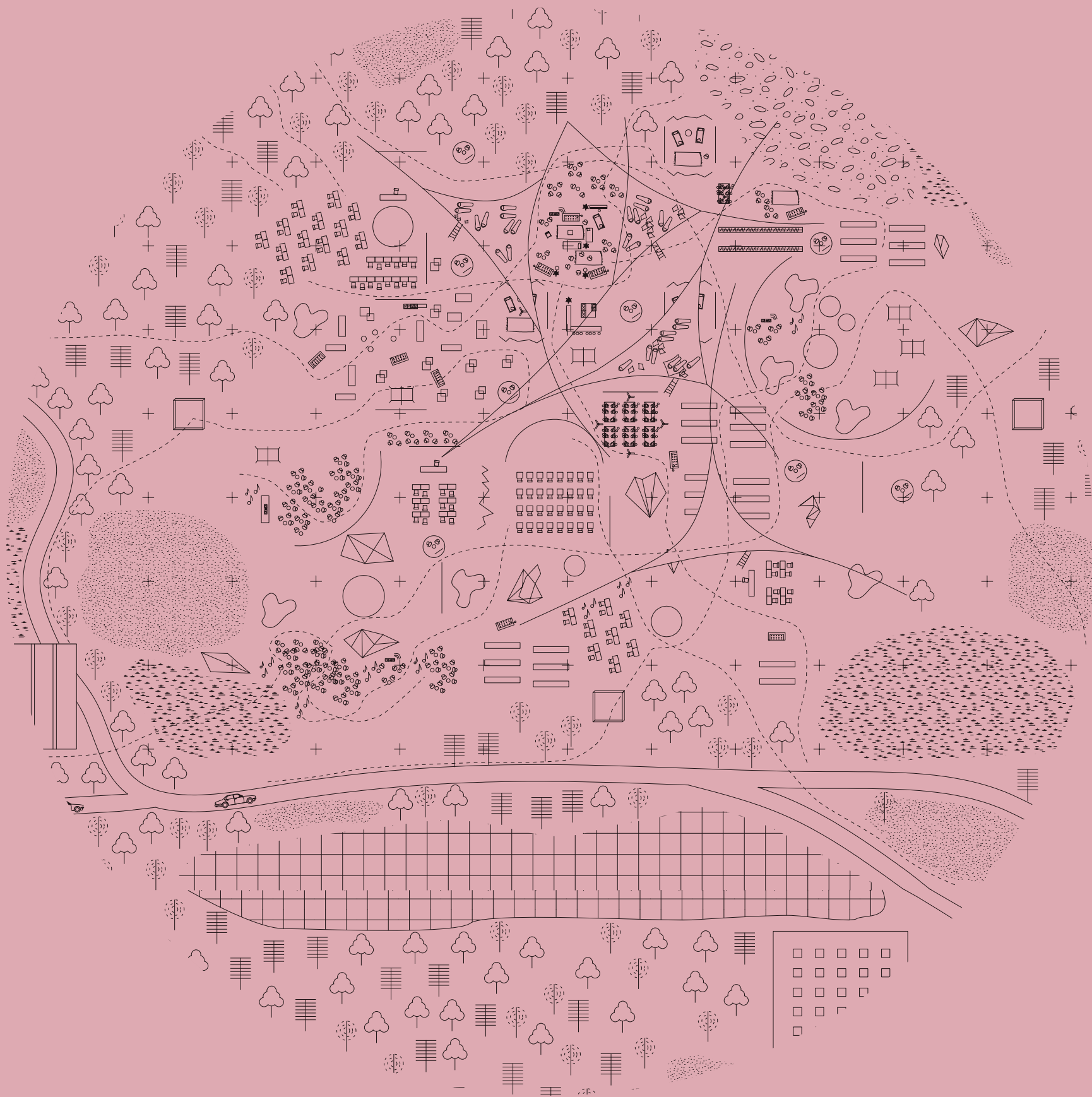
Its goal is to raise public awareness of the built environment as a living space and draw attention to the many possibilities of designing and maintaining our cultural landscape. The initiative is aimed primarily at children and young people,

but also addresses adults. Apart from developing educational methods and tools, it ensures their implementation in private actions and in the context of educational training programmes. The association is committed to involving politicians, the authorities and teachers as well as professionals in the architecture and planning industry in order to support their activities throughout Switzerland.

In the initial phase of SPACESPOT the association's financing has been secured through start-up capital from the founding organisations. Furthermore, the collective members and other sponsors make annual financial contributions. By organising courses for young people and creating educational curriculums for schools, museums and after-school art and architecture initiatives, SPACESPOT aims to promote the implementation of architectural themes at an early stage of the educational path.



LEARNING ATMOSPHERE (SECTION)
by Lun Ka Hei (Studio Staub/
Papathanasiou, Summer Semester
2016, Master's Degree Programme
in Architecture, University of
Liechtenstein)



**LEARNING ATMOSPHERE
(FLOORPLAN)**

by Paulina Julia Frankowska
(Studio Staub/Papathanasiou,
Summer Semester 2016, Master's
Degree Programme in Architec-
ture, University of Liechtenstein)

The recognition of architecture needs to be learned! And it is important to get started early with this work. [survey, 2015]

Full title **BINK, INITIATIVE BAUKULTURVERMITTLUNG FÜR JUNGE MENSCHEN**
 Location **AUSTRIA**
 Founded **2010**
 Chairwoman **BARBARA FELLER**
 Type **SECONDARY EDUCATION**
 Website **BINK.AT**

The Austrian network *bink* (Built Environment Education for Young People) was founded in 2010 and emerged from locally operating initiatives, projects and people from different provinces of Austria. This cooperative action allowed individual assets with similar goals to reach greater results. The main objective that brought all of them together was to create public awareness for the importance of mediating building culture to children and youth. The network currently concentrates its attention on several activities, including an online platform, teaching materials,

Technology Moves Week, networking, and exchanging ideas. Especially for teachers, the main aim of the online platform is to make accessible the knowledge that *bink* already possesses. There not only may one find results of already finished projects, classroom learning materials and calendars of events, but equally importantly it provides a platform for common discussion and exchanging experiences. The teaching material available through the website is there to help teachers better integrate the topic of the built environment into their school programmes. The Technology Moves Week, which is held all over the country every autumn, aims to interest young people in such technical studies as architecture, engineering and regional planning, and to highlight the influence that these topics have on our everyday life.

Bink represents a unique non-profit organisation, supported by public authorities, which brings together regional groups and individuals working in the field of built environment.

The quality of people's lives is improved through the sophisticated design of our environment. [survey, 2015]

Full title **AUT. ARCHITEKTUR UND TIROL**
 Location **INNSBRUCK, AUSTRIA**
 Founded **1993**
 Director **ARNO RITTER**
 Type **PUBLIC MEDIATION**
 Website / Source **AUT.CC**

aut (Architektur und Tirol) was established as the fourth *house of architecture* in Austria by an independent foundation of architects from Innsbruck in 1993. With the aim of addressing and raising questions about the quality of the built environment and the societal and legal basis for it, the foundation started their official programme one year later. Today, it operates on the interface of the architectural profession, the public and politics by initiating activities concerned with building culture.

Besides several spaces for exhibitions on architecture, art and design, *aut* also created the *aut:lounge*—a central space for communication where lectures, discussions and symposia take place. Additionally, the space houses a small library as well as a media library open to the public. Besides in-house activities, the foundation runs guided tours, excursions and on-site talks about current buildings as well as a programme for children and young people in order to create awareness for architecture and the built environment. Additionally an online database containing a catalogue of Tyrolian buildings, the *Tiroler—Baudatenbank*, provides additional access to information about the local building culture.

Funding for *aut* and its many activities is guaranteed through public funds as well as contributions from the private sector, membership fees and consultancy.

Building culture is a very complex phenomenon. It reflects on nearly every aspect of society. [survey, 2015]

Full title **VORARLBERGER ARCHITEKTUR INSTITUT (VAI)**
 Location **DORNBIRN, AUSTRIA**
 Founded **1997**
 Director **VERENA KONRAD**
 Type **PUBLIC MEDIATION**
 Website **V-A-I.AT**

The Vorarlberger Architektur Institut (*vai*) started as an initiative organised by the members of the Architects Association of Vorarlberg. The main purpose of the association—which was founded in 1997 by twenty architects, representatives of building authorities, and developers—was to strengthen building culture in Vorarlberg.

The *vai* acts as an interface in the realm of building culture and seeks to establish a network between planners, designers, building owners and business people as well as politicians and researchers. It conveys architectural quality through

exhibitions, awards, local press, educational programmes and project initiatives in cooperation with universities. Additionally, it offers a citizen's advisory service and holds further training events for qualified architects, thereby addressing the social, political, ecological, cultural and aesthetic aspects of architecture in its specific settings.

The funding for the *vai* comes primarily from the Economic Department of the State of Vorarlberg, the Federal Ministry of Education Arts and Culture, the city of Dornbirn, and the Chamber of Architects and Consulting Engineers for Tyrol and Vorarlberg. Furthermore, it is supported by its members, sponsors and partners from industry, and through services such as studies, guided tours and lectures.

The *vai* offers a wide variety of people the possibility to engage with architecture through a range of different formats and projects announced on their website and in their newsletter.

The surrounding space and buildings affect everyone but not many have a conscience on how to describe or influence it. [survey, 2015]

Full title **FEDERAL FOUNDATION OF BAUKULTUR**
 Location **POTSDAM, GERMANY**
 Founded **2006**
 Chairman **RAINER NAGELTYPE**
 Type **PUBLIC MEDIATION**
 Website **BUNDESSTIFTUNG-BAUKULTUR.DE**

The Bundesstiftung Baukultur (“Baukultur Foundation”) was established by decree in 2006 as a foundation under public law. Its boards were constituted a year later at the founding convention in Potsdam, where the foundation began its work in 2008.

Bundestiftung Baukultur is a platform for German and international protagonists whose activities involve building culture. Its main objectives are to make the quality, sustainability and achievements of planning and construction in Germany better known, both nationally and internationally.

Furthermore, its aim is to stimulate discussion throughout the country about quality standards in urban planning and in the construction and housing industries. The formats used to communicate to a wider public range from pedagogical approaches to various media such as films, television programmes and the Internet as well as exhibitions, workshops and symposia.

The foundation is supported by an annual grant from the federal budget and by the work of the Association of Friends of the Baukultur Foundation.

As a lobbyist for good planning and building, the foundation aims at heightening awareness and sensibility towards all aspects of the built environment among an interested public. Through debates on quality and social relevance in architecture, the Baukultur Foundation works as an informative and educational platform that continuously mediates relevant architectural topics to society.

The school’s mission is to create a new public for architecture while opening up architecture for the public.

[www.psfa-bxl.org]

Full title **THE PUBLIC SCHOOL FOR ARCHITECTURE BRUSSELS**
 Location **BRUSSELS, BELGIUM**
 Founded **2014**
 Founders **COMMON ROOM, TELIC ARTS EXCHANGE AND RECYCLART (WITH SUPPORT FROM KU LEUVEN CAMPUS SINT LUCAS, AND CITY3)**
 Type **PUBLIC MEDIATION**
 Website **PSFA-BXL.ORG**

The format of the Public School was firstly initiated in Los Angeles in 2007, and currently exists in 14 different cities around the world. The Public School for Architecture Brussels is a self-organising institution with no fixed curriculum. The school aims to establish a platform for an open engagement in and beyond the discipline of architecture in the unique context of Brussels. By opening the architectural

discussion to non-professionals, the school offers the unique opportunity of negotiating public space to all interested parties, no matter what their occupation may be.

The programme is constantly being re-created through the website and Facebook page of the school, where everyone interested can propose a topic of an upcoming event. Once a certain number of people have expressed their desire to participate in the proposal, the moderators turn the proposal into a class. The public not only suggests topics and speakers, but can also influence the choice of location and time for an event. Participation in the class is always free of charge unless stated otherwise.

The fact that the school has neither a grading system nor any sort of certification for participants distinguishes it drastically from traditional educational institutions. The school is not interested in conventional concepts of success and failure.

Architecture Workroom Brussels focuses on changing the culture of city-making and territorial development, by initiating or participating in planning and development projects and studies. [survey, 2015]

Full title **ARCHITECTURE WORKROOM BRUSSELS, EUROPEAN CENTRE FOR INNOVATION IN ARCHITECTURE AND URBANISM**
 Location **BRUSSELS, BELGIUM**
 Founded **2010**
 Founders **JOACHIM DECLERCK, ROELAND DUDAL**
 Type **PUBLIC MEDIATION**
 Website **ARCHITECTUREWORKROOM.EU**

Architecture Workroom Brussels (AWB) is a think-and-do tank for innovation architecture, urban planning and other fields related to spatial design, based in Brussels. Among its objectives AWB highlights the aim to become a cultural operator to be able to collect knowledge, organise workshops and share its results with a wider audience. AWB is also interested in forming collaborations with other parties, who are concerned in development of the architectural and urban environment.

AWB defines its fields of action as spatial design (developing an intellectual framework for the city), social challenges, evolving planning culture in collaboration with all responsible and concerned parties testing new solutions and gathering knowledge. By providing publications, workshops and exhibitions AWB strives to involve a wider audience in the processes of thought, exchange and decision making, regarding their future working and living environment. As a result, AWB has already set up a number of cooperative projects with cultural organisations in order to be able to develop the most relevant design proposals for current urban developments.

By being active and initiating projects (whether in form of exhibition, competition, discussion or spatial design) AWB attempts to bring changes to the architectural profession from within. Operating as cultural player, the workroom tends to create an open discussion with a diverse audience.

Traditional architectural training no longer suffices to answer the complexity of our urban situations. [ANCB brochure 2014 on homepage]

Full title **AEDES NETWORK CAMPUS BERLIN (ANCB), THE AEDES METROPOLITAN LABORATORY**
 Location **BERLIN, GERMANY**
 Founded **2009**
 Founders and directors **KRISTIN FEIREISS & HANS-JÜRGEN COMMERELL**
 Type **PUBLIC MEDIATION, RESEARCH**
 Website **ANCB.DE**

The Aedes Network Campus Berlin (ANCB) is a Public Urban Platform, a place for Alternative Urban Education, founded in 2009 and based in Berlin, Germany. Convinced that urban form and social life are inseparable and that traditional architectural training is not sufficient to answer contemporary urban situation, the ANCB strives to bring together a wide variety of researchers, practitioners and

students from the fields of architecture, urban planning and related disciplines. Organised exhibitions, university design studios, public debates as well as collaborative research projects and a living archive have as their main goal an investment into an exhaustive approach towards architecture and urban planning. All of the facilitated events and activities are there not only to generate insights, but also to develop positions and offer solutions to the contemporary critical urban questions. ANCB challenges architects, urban designers and planners to act as Cultural Communicators. The model created by ANCB engages public into collaborative thinking processes, which is focused on crossing of the conventional boundaries between disciplines, and development of the alternative thinking process, opened for collaboration, and political engagement.

By connecting researchers and inducing new trans-disciplinary leads and attitudes (from production to fertility, from building to caring, from planning to maieutics), the ARENA rurality network aims to explore new sensibilities for the future of human habitat. [arena-architecture.eu/projects/alterrurality]

Full title **ALTERRURALITY**
 Location **PSYCHÉ, FRIBOURG (CH)**
 Founded **2012**
 Director **PIETER VERSTEEGH**
 Type **RESEARCH**
 Website **ARENA-ARCHITECTURE.EU/PROJECTS/ALTERRURALITY, PSYCHEARCHITECTURE.NET/ALTERRURALITY**

AlterRurality is a network project, initiated by a small group of academics, gathering trans-disciplinary teams, addressing territorial transformation from an expanded scope of expertise beyond the architectural discipline. It mobilizes philosophical, psycho-analytical, ecological, societal, economic, cultural, humanistic, political, and architectural thought. The network advocates a shift from the currently predominant focus on the city and urbanity, towards a reconsideration of the territory as a whole. To reach this, it explores

prevailing notions about rurality in different parts of Europe, whereby emerging economic, societal and cultural stakes are tackled. Through the broad and diverse range of perspectives, new trans-disciplinary leads and attitudes are induced, from production to fertility, from building to caring, from planning to maieutic. By conceiving new alternatives which incorporate lost or hidden values and potentials of rurality—viz. *alter-rurality*—the network aims to explore new sensibilities for the future of human habitat. The network was initiated in 2012, and operates under the ARENA Architecture Research Network. It involves schools and research centers in Switzerland, France, Belgium, Ireland, UK, Greece, Italy, Serbia, Portugal, Spain. It is a hybrid platform connecting schools of architecture and research institutes, and addressing simultaneously students, researchers, academics and practitioners. It operates through seminars, workshops, conferences and publications.

Complex problems cannot be solved within the boundaries of a single scientific discipline. [www.interdisciplinary-laboratory.hu-berlin.de]

Full title **IMAGE KNOWLEDGE GESTALTUNG. AN INTERDISCIPLINARY LABORATORY, CLUSTER OF EXCELLENCE AT HUMBOLDT-UNIVERSITÄT ZU BERLIN**
 Location **BERLIN, GERMANY**
 Directors **PROF. DR. HORST BREDEKAMP, PROF. DR. WOLFGANG SCHÄFFNER**
 Type **RESEARCH**
 Website **INTERDISCIPLINARY-LABORATORY.HU-BERLIN.DE/EN**

Image Knowledge Gestaltung is an interdisciplinary laboratory where the knowledge and expertise of researchers from various fields of science are united in a cluster of excellence. The laboratory is based within Humboldt-Universität zu Berlin and comprises more than 25 different disciplines that investigate fundamental Gestaltung processes. The goal of the programme is to promote, support and advise junior

researchers in interdisciplinary research in the fields of Image, Knowledge, and Gestaltung. Research is thereby not confined to thematic questions and methodological processes; the entire proceedings of the cluster are themselves a research project and experiment that must undergo Gestaltung. This self-reflexivity requires its own platform for observation and action, which produces feedback and conclusions for the work of individual base projects as well as the entire structure of the cluster. The main research area “Designing interdisciplinarity” establishes a laboratory of the laboratory. The interdisciplinary laboratory regards itself as a local site with a global character. Its model rises to the challenge of explicitly combining global practices with locally determined knowledge. It is designed entirely as an open lab that submits final and provisional results to public scrutiny using a variety of formats and media, such as publications, events and exhibitions.

With a strong inter-sector focus, InnoChain connects “research in practice” with “research in academia”. [www.innochain.net]

Full title **INNOCHAIN ETN NETWORK**
Location **CENTRE FOR INFORMATION TECHNOLOGY AND ARCHITECTURE (CITA) / ROYAL ROYAL DANISH ACADEMY OF FINE ARTS**
Founded **2015**
Director **METTE RAMSGAARD THOMSEN (CENTRE FOR INFORMATION TECHNOLOGY AND ARCHITECTURE)**
Type **RESEARCH**
Website **INNOCHAIN.NET**

The InnoChain ETN network is a shared research training environment that brings together 6 European educational institutions focused on computational design in architecture and engineering with 14 industry partners from the fields of architecture, engineering, design software development and fabrication. The network aims to use simulation to investigate how development of digital design tools challenges building

culture, as well as to train researchers with a strong industry focus that has the ability to effect the existing approach in thinking, designing and building the physical environment. Although InnoChain’s training programme focuses on individual research projects, the network also offers common ground for collective research in the form of workshop seminars, colloquia, summer school and research courses. The interdisciplinary character of the programme gives young researchers opportunities not only to develop new skills both in architecture and engineering, but also to test and implement those new skills with the support of the industry partners’ facilities and knowledge.

By establishing a strong network of partners from academia as well as practitioners with common focus of computational design, InnoChain brings together research in terms of both practice and design.

We need to build a new generation of creative practice researchers and research-led practitioners that are able to meet the complex and often competing demands of contemporary Europe. [www.adapt-r.eu]

Full title **ADAPT-R ITN (INNOVATIVE TRAINING NETWORK)**
Location **EUROPE**
Founded **2013**
Coordinator **JOHAN VERBEKE**
Type **RESEARCH**
Website **ADAPT-R.EU**

The main goal of the ADAPT-r ITN is a significant improvement of the European research environment through a unique research model. At the model’s core is the development of a sustainable initial training network across the range of design and art disciplines. As pointed out on the website of ADAPT-r ITN, the network’s main focuses are in training new researchers, increasing supervisory capacity, creating partnerships with SMEs in research projects, providing

substantial opportunity for real-world testing of the research and for real-world training, and introducing creative practice research methodologies to a new generation of practitioners. One of the crucial elements to the organisation of ADAPT-r are so-called Practice Research Symposia, where researchers present their findings in the fields of architecture, design, and art to an international public. The ADAPT-r ITN will unite 40 fellowships, 8 conferences, a major research conference, an exhibition, 3 publications, and a publicly accessible website with the research results and a calendar of events.

By bringing up a new generation of researchers and research-driven practitioners who are to face the challenges of contemporary Europe, ADAPT-r aims to contribute to meeting EU 2020 priorities.

The aim is to contribute to developing the next practice in education and be a spearhead arena, where courses in architecture and planning engage in experimental learning methods. [survey, 2015]

Full title **TRANSARK, CENTRE FOR TRANSFORMATIVE LEARNING IN ARCHITECTURAL EDUCATION, NTNU (NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY)**
Location **TRONDHEIM, NORWAY**
Founded **2014**
Director **GRO RØDNE**
Type **HIGHER EDUCATION**
Website **NTNU.EDU/TRANSARK**

Hosted by the NTNU Faculty of Architecture and Fine Art, the Centre for Transformative Learning in Architectural Education was opened in November 2014. One of the main arguments of TRANSark is that contemporary challenges call for rethinking traditional architectural education. As opposed to instrumental learning (a conventional means of higher education), the centre strives to develop transformative learning, which is challenging for both the learner and

the teacher. The irreversible changes at both the practical and the theoretical level constitute one of the objectives of the centre’s ongoing exploration. The process of transformative learning is being implemented by TRANSark through the use of specific courses divided into work packages such as Making is Thinking, Live Studio, Complexity and Depth, Sustainability and Threshold Concepts. The results gathered within each of the packages will be used to redesign the courses and eventually the Master’s programme itself. The knowledge and experience is planned to be communicated to a broader audience of interested people through research, publications, conferences and public discussions.

TRANSark has been developed as a response to a fast changing global situation, by professionals who realise the need for changes in conventional architectural education to enable their students to develop mental flexibility, personal responsibility and open-minded creativity.

Professional education must be informed by positive relationships with practice and industry. [survey, 2015]

Full title **UNIVERSITY OF READING, SCHOOL OF ARCHITECTURE**
 Location **READING, UNITED KINGDOM**
 Founded **2015**
 Director **LORRAINE FARRELLY**
 Type **HIGHER EDUCATION**
 Website **READING.AC.UK/ARCHITECTURE**

The opening of Reading School of Architecture was first announced in the beginning of 2015. In the winter semester of 2016, University of Reading's new School of Architecture is going to welcome students for the first time. One of the main objectives of the newly established school is to equip students with required technical and professional skills which will help them to succeed in their future careers. The new

programme very much relies on the strengths that University of Reading has, such as world-class research in architecture and associated fields, and a network of architecture firms and the construction and property sectors. By using already existing connections, the school aims for as much practical experience as possible for its students. As part of this approach, a Live Learning Laboratory is organised by the school together with the architectural practice of Hawkins\Brown. This laboratory will not only offer lectures and sites visits for students, but even more importantly, it will engage them into the revitalising Live Projects.

Apart from pursuing its academic goals, the school, working in collaboration with local architects, strives to become a platform for open discussion on the future development of the city of Reading.

We will have no fixed physical infrastructure, but use the city as a resource and create an itinerant institution afresh each year. [www.architectural-review.com/8653692.article]

Full title **THE LONDON SCHOOL OF ARCHITECTURE**
 Location **LONDON, UNITED KINGDOM**
 Founded **2013, FIRST ACADEMIC YEAR 2015–2016**
 Founder **WILL HUNTER**
 Type **HIGHER EDUCATION**
 Website **THE-LSA.ORG**

The London School of Architecture (LSA) evolved in 2013 from the ARFA—Alternative Routes for Architecture—research group, established in 2012 by Will Hunter. Among its main objectives, the founders of the school highlight the desire to prepare professionals for the architecture practice of tomorrow; to make architectural education more affordable, which means more accessible; and to create a platform within the industry to bring together academia and practice. The School is offering a two-year postgraduate programme of studies, where the first year is the *Inter-Practice Year*

(when students work in the office of one of the network partners for three days per week and the remaining two days are spent in school) and the second is the *Proto-Practice Year* (when students work on their final project five days per week). The fact that the LSA does not have a fixed physical space is considered to be a deliberate choice, rather than a necessity, in order to make education more affordable. The school searches for a new location each academic year and uses the city of London as its infrastructure, both physical (buildings and facilities) and non-physical (network). By establishing a new educational and economic model in the field of architectural studies, the London School of Architecture tries to fulfil its ambition to define a new critical practice for architecture and create powerful relationships between academia and practice, and between the institution and the city.

Live projects close the gap between academia and practice while creating space for reflection on both.

[survey, 2015]

Full title **LIVE PROJECTS, UNIVERSITY OF SHEFFIELD, SCHOOL OF ARCHITECTURE**
 Location **SHEFFIELD, UNITED KINGDOM**
 Founded **1999**
 Founders **PRUE CHILLES, CAROLYN BUTTERWORTH, JEREMY TILL**
 Type **HIGHER EDUCATION**
 Website **LIVEPROJECTS.ORG**

Live Projects is a pioneering educational initiative introduced by the University of Sheffield School of Architecture. For six weeks every autumn, students work in groups with real clients, among which are local communities, health organisations and regional authorities. The projects' scale and character usually differ, ranging from an actual building or design of an urban master plan to consultation exercises. What always remains the same is that all the projects are

real and involve real people. The initiative aims to get students out of the ivory tower of academia and into the real world, where they can establish "an awareness of the social responsibility of the architect" (*A Handbook for Live Projects*, 2013). Apart from the practical skills that the initiative offers to students (working efficiently and creatively in a group, negotiating with complex client teams, staging effective participatory events, managing resources and communicating through visual and verbal means), Live Projects establish awareness among students of architects' social responsibility.

Within the Live Projects, students develop skills in approaches such as communication and participatory practice, collaborative ways of working that are essential for the future practitioner but often neglected by conventional architectural education.

The way our students will build their architectural life will not be the same as ours. [survey, 2015]

Full title **CONFLUENCE INSTITUTE FOR INNOVATION AND CREATIVE STRATEGIES IN ARCHITECTURE**

Location **LYON, FRANCE**

Founded **2014**

Type **HIGHER EDUCATION**

Founders **ODILE DECQ, MATTEO CAINER**

Website **CONFLUENCE.EU**

The Confluence Institute for Innovation and Creative Strategies in Architecture is a private university in Lyon, France. It was founded by Odile Decq and Matteo Cainer, and opened on 29 October 2014. According to Odile Decq “the Confluence is not only the name of the site of the school but it is the core concept on which the school’s pedagogy and teaching is founded upon. Architecture must no longer be reduced to a professional or specialized education: it is a discipline that

opens to the world, to a way of seeing the world and a capacity to act in the world. Architecture today needs to have a more humanist ambition”. The five thematic fields developed at the Confluence are neurosciences, new technologies, social action, visual art and physics. They are approached in a transversal and non-hierarchical manner in order to reinforce the student’s independent and critical thinking. The teaching body is composed not only of architects and planners but of an interdisciplinary and constantly changing group of instructors. Confluence fosters local and global networks, and includes the world outside the academic institution by including practical experiences, by fostering associations, and by communicating with the outside world through workshops, conferences, research laboratories, exhibitions, publications, FabLab, etc. (source: confluence.eu/IMG/pdf/confluence_pr-3.pdf)

A Manifesto For a New School of Thought

**STUDIO PETER STAUB /
GEORGIA PAPATHANASIOU**

Summer Semester 2016,
Master’s Degree Programme in Architecture,
University of Liechtenstein

STUDENTS

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LENKA STARONOVÁ
ZITA SZÉPLAKI
RUSUDAN
TKEMALADZE
LEANDER TOMMELEIN
KA HANG YU**

N.O.M.A.D. is a new architecture school with main aim to inspire the new generation of architects to work directly with the built environment and to become creators of space.

We believe that the architect is the one who is committed to the creation of space both with theoretical and physical contributions.

This can occur only when we:

Respect the culture and heritage.

Are keen to learn.

Accept the different values.

Have a commitment to uphold moral, ethical and political dispositions.

The school consists of:

the base, the core and the project.

The school re-constitutes itself with each project,

meaning that it re-creates itself every time a new project starts; by setting up a new challenge.

The base is the physical manifestation of the school.

It is a place where the first decisions are been made.

It is a place where knowledge exchange can happen.

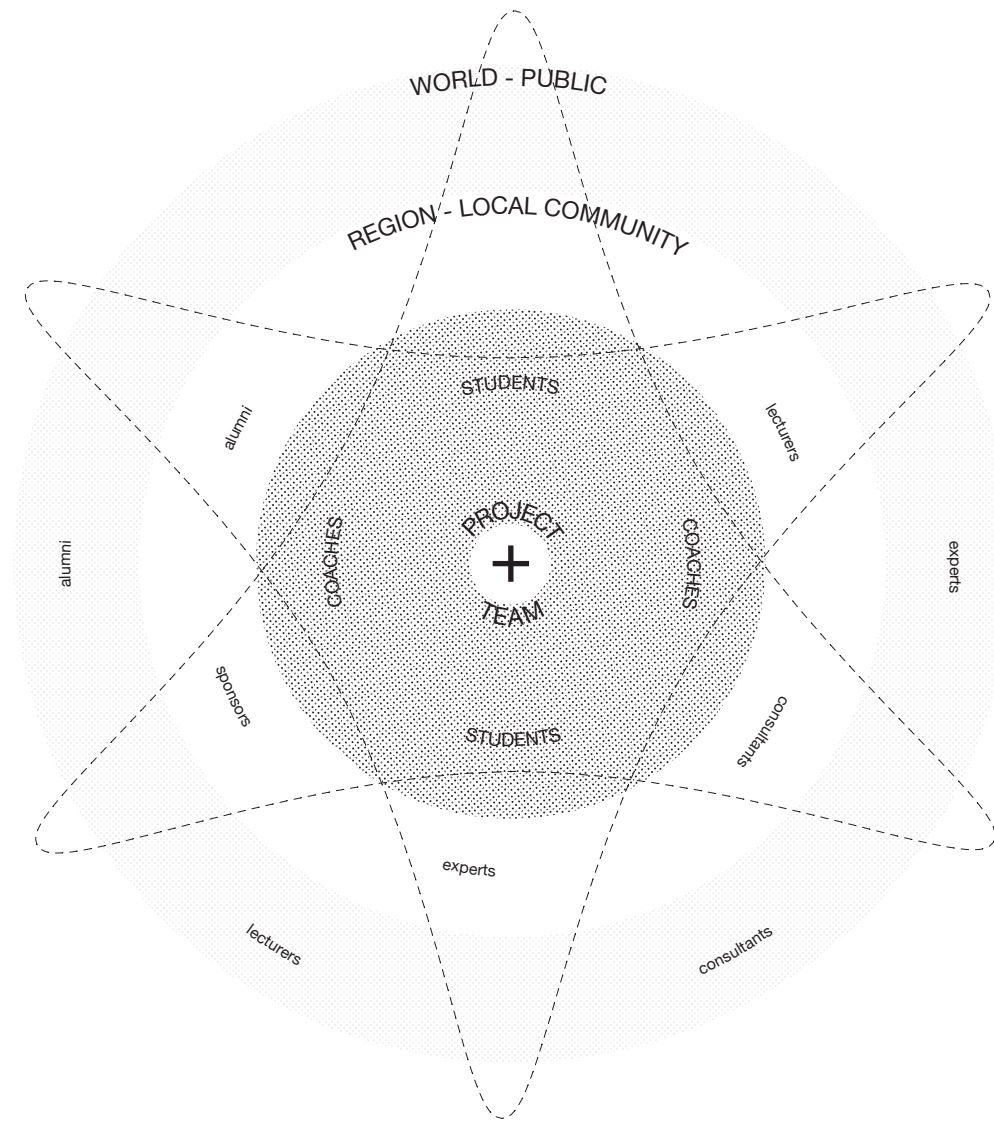
It is a place that connects the school with the public.

The core is the institution responsible for the administration.

Each project is an enterprise in itself. Each project relies on the responsibility and the commitment of its project team.

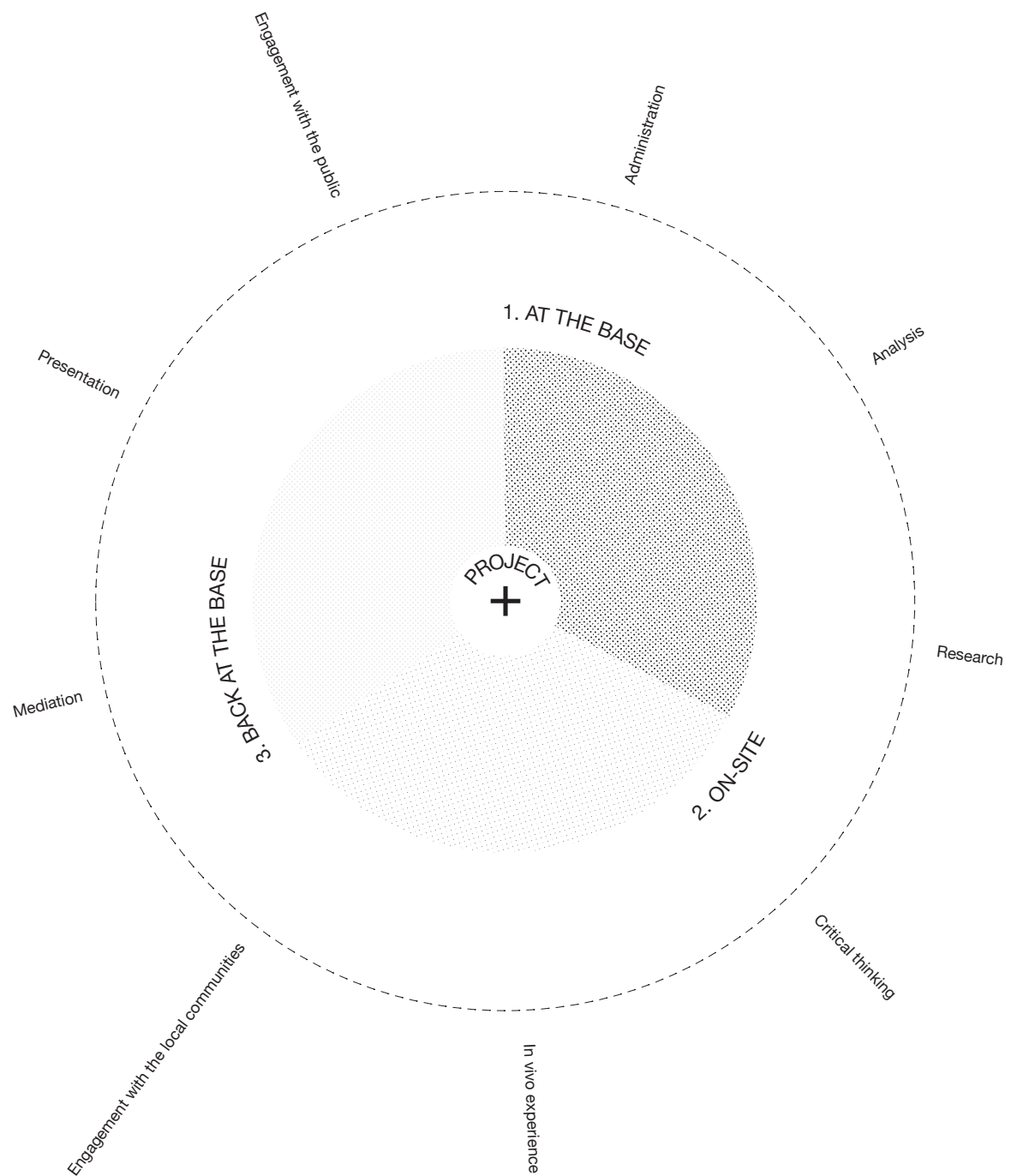
Each project:

- A) is developed by the project team which includes students and coaches
 - B) engages the local and regional communities
 - C) incorporates a global audience.
- Consultants, lecturers, experts, sponsors and alumni contribute to any of the above groups.



Each project is developed in three stages:

1. the concept is developed at the base
 2. it is implemented on site
 3. its dissemination and mediation is again coordinated at the base
- In each stage, students gain important experiences and develop necessary skills



The project team, first located at the base, is constituted by a group of students and coaches who in collaboration with the core establish the framework for each project; a set of criteria that identify the project.

The school conducts on-site projects that enable face-to-face engagement with local communities.

We use in-vivo and in-vitro methods for developing our projects.

Our main goal is to foster students' responsibility for their education and to challenge their comfort zone.

Within our projects we deal with bigger picture issues (i.e. climate change, urbanization, mobility, inequality, demographic change, advancing technology) that can then be taken into the context of a community level.

The experience during a project challenges participants to become pragmatic and visionary self-initiators.

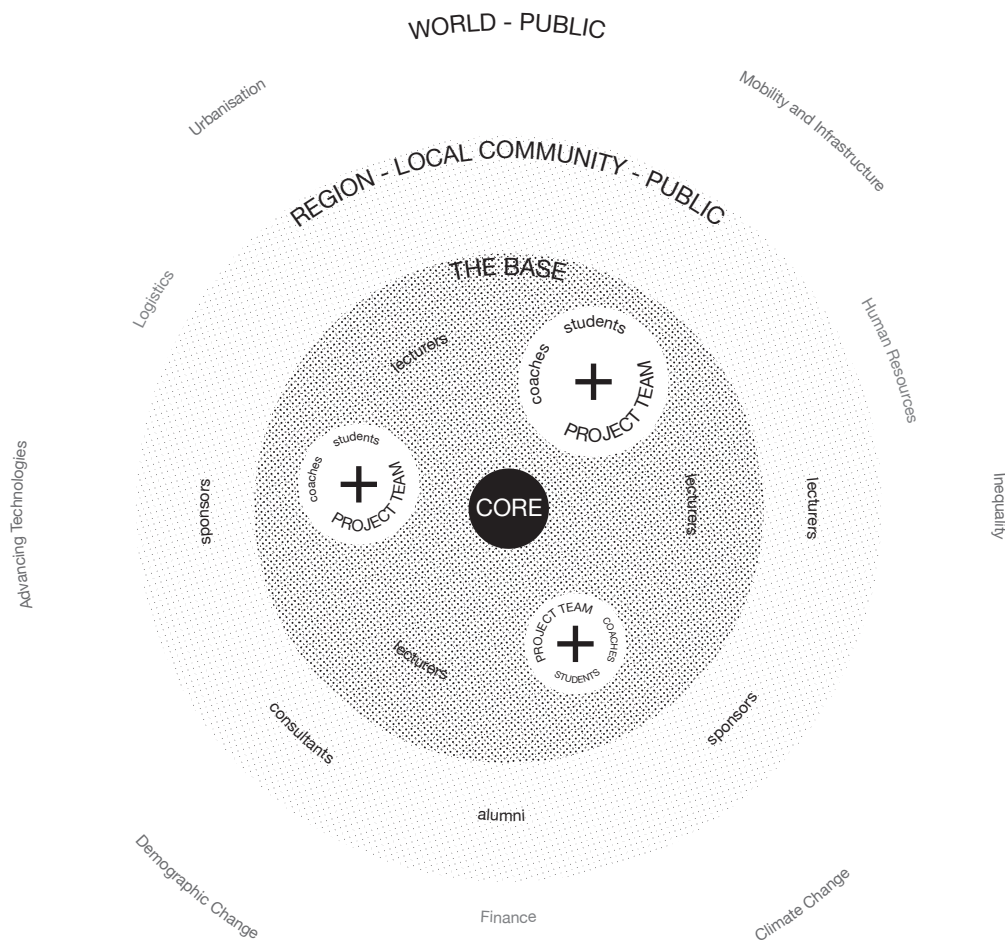
N.O.M.A.D. works with a global network of collaborators and communities in order to have a greater awareness of pressing issues, and potential opportunities to build partnerships.

For us, education is a "learning by doing" process, a constant engagement with the creation of space; either theoretical or physical.

Each project team works always in collaboration with the core.

The projects addresses bigger picture issues (i.e. climate change, urbanization, mobility, inequality, demographic change, advancing technology).

The school can develop and conduct multiple projects simultaneously.



What is a New School of Thought for You?

A school of thought (German: Denkschule) is not a school in terms of an educational institution. Rather, it refers to a community which is in our case connected to architecture, design and planning and which possibly consists of different professions that find each other by some reason or for some instance. Therefore, a school of thought can also be a network or a loose group of people, which can nowadays be located anywhere in the world. Of course, this does not exclude educational institutions. A school of thought is always formed by people. It is their constellation, their purpose, their methods and their language that potentially lead to a common understanding. It concerns their mind-set, not as something personal but as a common set of ideas and values that are being shared among like-minded people.

A school of thought is not necessarily affiliated with education, but definitely concerns knowledge transfer. Knowledge transfer happens automatically when a group shares its (new) mind-set and engages with a wider public. This is a critical point, because a school of thought is not a book club. The moment one starts to take that mind-set beyond its inner circle and make it public, one can talk about the creation of a school of thought. All of a sudden it is perceived as something to appreciate or disparage. This also differentiates a school of thought from a think-tank. A think-tank is often exclusive. To the contrary, a school of thought is inclusive—it is much more engaging, much more open to external influences. To be perceived as a school of thought its members would have to constantly engage in a debate, in a discourse which allows it to change as well.

A school of thought cannot consist of only one person. At a certain scale, however, a school of thought can no longer function. The core of the school that transforms and creates new thoughts (and likewise follows those thoughts) cannot comprise hundreds of people. Although its members and followers can be infinite in number, they do not necessarily challenge this school of thought. Thus it is very hard to say a whole university is a school of thought, because a university generally represents too many different thoughts.

A school of thought is not something physical, nor is it about physicality, but rather about an attitude. In the best case, the physical element of such a school supports, underscores and brings those attitudes and mind-sets—which we describe as thoughts—to the fore.

Defining a new school of thought it is almost like taking a Polaroid snapshot somewhere in time. The definition can only be made in hindsight or when seen from outside. While one is part of it, one cannot define it. Or it comes from someone else.

“New” doesn’t necessarily imply being up-to-date, because the “new” in “new schools of thought” refers instead to a fundamental change in the methods used to approach detected challenges and the mind-sets about those challenges. It is not so much the people who are changing, but it is the focal point of the team. In the moment the team starts engaging with a new idea, it agrees with each other on a certain mind-set and produces something new, or a better alternative.

PETER STAUB, VERA KAPS, CELINA MARTINEZ-CAÑAVATE, EKATERINA NAGIBINA,
GEORGIA PAPATHANASIOU **University of Liechtenstein**

What is a New School of Thought for You?

As a school of fish consists of fishes, a “school of thought” consists of thoughts. The school is an identifiable entity as a whole, which—at its turn—consists of a gathering of individual, substantiating constituents—thoughts. The constituents benefit from being closely together; forceful gathering is the strategy to exist and survive, in a world with divers and conflicting logics. Schools are distinctive by the intense entanglement of its constituents. Their strength is to move collectively in a same direction. They are resilient too: damage to one or to some of the individual constituents, doesn’t affect the strength and identifiability of the whole. As a leaf may have the shape of its tree, so have some schools of fish the shape of a fish. Likewise, the gathering of thoughts, may in itself represent thought. Distinctiveness and commonality, resilience and identifiability thus, are major features of such a school.

But instead of a strategy of fading into the mass, in order not to be caught, thoughts want to be caught. Just as knowledge always needs a knower, thoughts want to reach a thinker. A school consisting of thoughts, has the agency and goal to have insights effectively shared, both within the group, and with the outside world. Thoughts, once in schools, aim to be shared.

There is a difference between a new school of thought, and a school of new thoughts. Both are important. While the latter indicates a concentration of new ideas, which have not been formulated yet, the former includes the option of reconsidering ideas that have been abandoned too early, or that have regained new relevance. But even more illuminant is it not to make the distinction, and consider new schools of thought as both new schools of new thought(s) as well as new schools of old(er) thought(s).

JOHAN DE WALSCHE University of Antwerp, Belgium

ARCHITECTURE'S EDUCATIONAL CONTEXT

Trends in architectural education

VERA KAPS, CELINA MARTINEZ-CAÑAVATE,
JOHAN DE WALSCHE, JÜRI SOOLEP

In a complex world, the field of architecture faces various challenges such as climate change, globalisation, urbanisation and social transformation. Furthermore, policy regulations such as the Bologna Process in Europe in 1999 have changed the way schools are run and architecture is taught. This context has led to the emergence of a few trends in architectural education.

In recent years there has been a common effort to close breaches between academia and practice: Firstly, there is an increasing requirement for dual-role professionals, which includes people who are expert in a specific architectural discipline and likewise have pedagogical abilities. Secondly, there is a shift in the way knowledge is created; students are not confined to studio work in classrooms but increasingly motivated to engage in real live projects and work with communities in order to gain experiences. This also benefits both public awareness and the availability of financial means, as it brings the opportunity to involve stakeholders, power brokers and the like in design processes and to gain the acceptance of a wider audience.

The theme of architectural mediation and how we as architects communicate to society has itself become a crucial topic in architectural education. Especially in democratic contexts, where people have the chance to participate in and decide on the development of their built environment, it is important to find a suitable language for architecture in

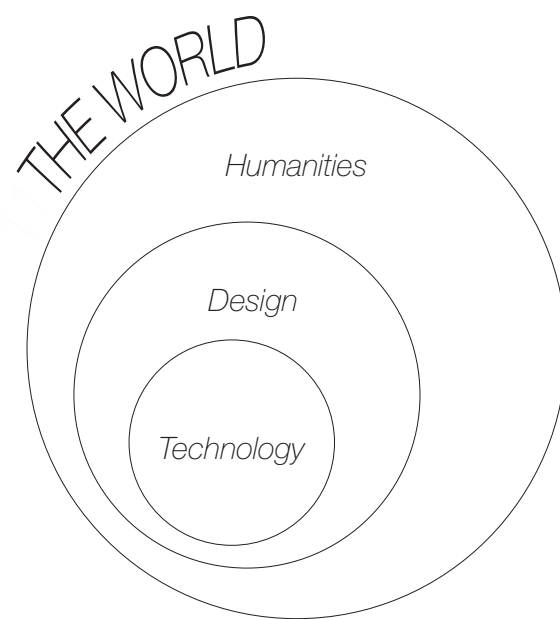
spoken words, images and spaces. Only then will it be possible to communicate and engage with people outside the discipline. Moreover, it will be essential to reverse the architects' own marginalisation and reassert their crucial role of contributing to society. These issues are dealt with innovatively by institutions of architectural education in organising public symposia, workshops and participatory events.

Scientification in architectural education has been affecting the way we read and value architecture. An increased emphasis on digital tools may have shifted our understanding of architecture as a physical object. As a response, many educational institutions revert to the idea of hands-on projects, which allow the quality of architecture to be experienced through the embodied matter. This leads to the ongoing discussion about knowledge production in architectural research and how the broad variety of new tools is contributing to new learning formats. These formats continually combine the techniques and contents of research with studio design, leading to research methods like "research by design," as described by Linda N. Groat and David Wang in their book *Architectural Research Methods* (2002). Consequently these new approaches of investigation lead to the question of appropriate evaluation and validation techniques in architectural research—a topic in itself to be dealt with in architectural education. Similar to architectural production, architectural education is a highly competitive field. The pressure and demands regarding research outputs grow continuously; in order to gain credibility, institutions are forced to disseminate their results to an academic audience (through papers, conferences, etc.). As architecture lies on the edge of many other disciplines, more and more interdisciplinary experiments, collaborations and projects are the result.

The financial pressures of having to regularly present results and receive validation leads to the question of quantity over quality. Due to commercialisation in architectural education, there has been a shift from the qualitative value of creativity to an economic one. The initiatives need to be understandable and conveyable to a wider public, and hence they are challenged by increasing pressure for simple messages and strong images. Although collaborations and funding from external partners bring greater financial resources, the work of reporting back to the involved stakeholders increases. Organisational and administrative work and the management of institutions consume time and money and allow little space for critical thinking, reflection and innovation: "The core values of architectural education as a generator of innovation and critique of the discipline and profession are being eroded. Design skills cannot thrive within an environment of commercialisation where efficiencies of space and resourcing are prioritised over quality of the creative environment. It is very difficult for students and staff to make time and space for risk-taking, experimentation and reflection in the design process. Outputs are becoming more homogenous and predictable because of this—innovation is being squeezed." (Carolyn Butterworth, University of Sheffield, School of Architecture)

Three models of architectural higher education

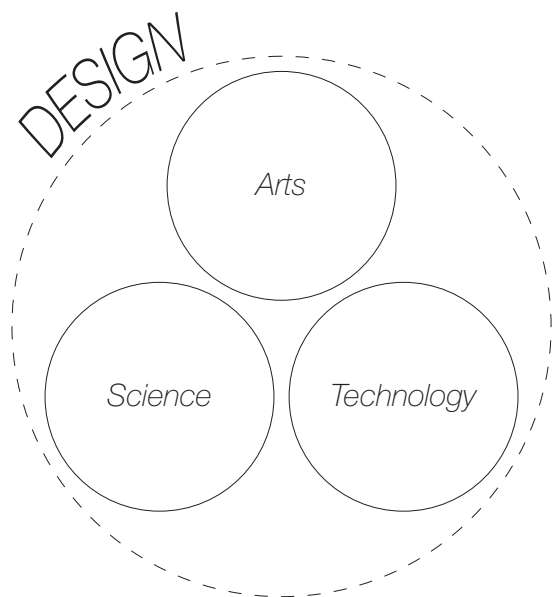
JOHAN DE WALSCHE



NEW HUMANISM
2013–...

LIBERATING BREAK-OUT—A NEW HUMANISM

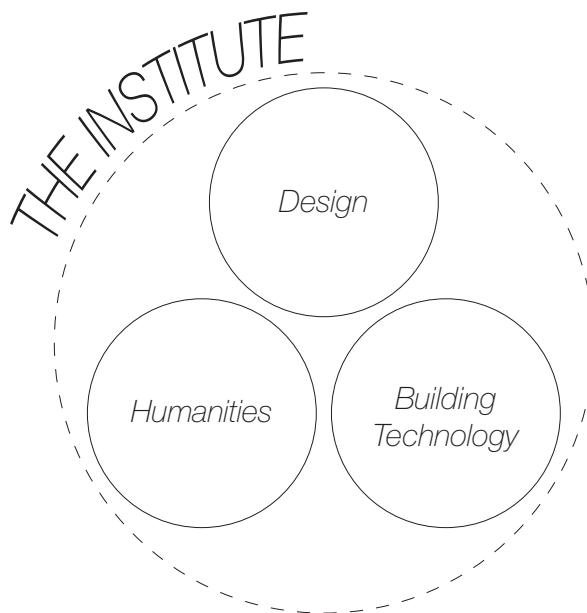
Architecture is built culture, and impacts society. Architectural design education belongs to society. It is part of the world *of which* it is a manifestation, *to which* it aims to bring change. The world is the matter of concern. Therefore, architectural design education relies on what can be done (technology) to mobilize it to do what ought to be done (humanities).



BAUHAUS
1919–1928 / 1937–1955

A NARROW FOCUS ON DESIGN (TO CONQUER THE WORLD)—UNIFYING FIELDS

The Bauhaus archetype of architectural design education. Architectural design education happens through design practice. Design is the matter of concern. Design is a “New Unity” (Gropius, 1923), a coincidence of art, technology and science. (Figure after Findeli (2001))



NHIBS/HAIR/HVDV-INSTITUTE
ca. 1970–2012

GATHER WITHIN WALLS—SCIENTIFICATION OF INSTITUTIONS; INSTITUTIONALIZING SCIENCE

Scientific operationalization from the ‘60s on. Architectural design education should be built on scientific ground. Applied sciences provide such ground. Architectural design education needs an institution in which these sciences can be found. The institute is the matter of concern. It has to host the three distinctive and paradigmatically diverging realms of (applied) building sciences, (applied) human sciences and (the newly invented) (applied) design science.

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Between Labyrinths of Brussels and Tower of Bologna: Architectural Education, Europe, 2016

JÜRI SOOLEP, JOHAN DE WALSCHE

Since the middle of the 20th century, the educational landscape in Europe, including architectural education, has been reshaped by key factors such as new policy regulations, internationalisation and digitalisation. Several trends that can be described are significant in the process. For the current research we believe the following are important to investigate:

- massification and globalisation of higher education,
- legislation by the European Union,
- new systems of accreditation, validation, evaluation and ranking,
- Bologna Process and the resulting applications and decisions, and
- possible future changes due to the development of communication and information technologies.

The phenomenon of educational massification started to appear in the second half of the 20th century. In some developed countries, 40% of the population aged 30–36 have a higher education. In the age group of 18–24 it has grown from 13 million in 1960 to 79 million in 2000 and is expected to reach 125 million by 2020.

The massification has been influenced by the ongoing elements of globalisation: increasingly integrated world economy, new forms of ICT, emergence of a new international network of knowledge and the privileged role of the English language.

Higher education is regarded in the knowledge-based economy as an intellectual resource that has gradually taken over the position of the material resources and physical labour. This will only be heightened and accelerated by the Third Industrial Revolution, which gave way to the emergence of a knowledge society and is driven by a knowledge economy. Meanwhile, knowledge has become a commodity. In this knowledge economy—more particularly in the frame of the Lisbon Strategy—European higher education, and more precisely the universities, have been considered “obvious key players” to reach the strategy’s goal of competing with the US and emerging Asian economies.

As a result, one can say that higher education has been transformed into a segment of world economy, which has its own mass product: knowledge that is created, gathered, transferred and sold. It became clear that scientists, technology, scholars and teaching were not needed so much for describing and predicting reality but as the means for quickly increasing productivity. Science and knowledge became the productive force.

The “Temple University” of Fichte, Schleiermacher and Humboldt was based on the myth of the university as an institutional place for “auto-motion of universalising speculative spirit”. It was built on the authority of the institution, which, in turn, was dependent on the authority of its professors.

Economic growth, an emerging global information revolution, increasing democratisation and a spectacular rise of positivist science and technology paved the way for massification of higher education. The Lisbon Strategy was a European attempt to restore the balance and make Europe “the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion” by 2010.

As a result of mass higher education, the universities—as key players to reach the goal of the Lisbon Strategy—have delivered several cohorts of knowledge producers. In this new condition, as one can observe, knowledge production is no longer limited to the universities but takes place at a variety of sites. In this knowledge society, with its sprawl of knowledge production sites, the relationships between science, technology, society and higher education institutions, as well as science and research conduct in themselves, have drastically changed.

The contemporary university and actual science producers do not legitimise themselves through such ideological schemas as the Humboldtian “modern” university, but supports itself through experts and the new cooperative networks, transgressing disciplinary borders, and responding to new economical logics. The prominent position of experts and the repositioning of the university’s own research units as nodes in networks of various kinds—large, international, multi- and transdisciplinary—expanded the scope of researchers and impacted institutional structures of universities. An important change in higher education is the question of usage of public money. This has often brought forward renewed discussion on the public role of the university and a totally new and increasing burden: the requirement to prove its quality through self-appraisals, accreditations, validations and quality assurance processes. It will be the experts who decide the value and relevance of the university.

Massification of higher education has led to a renewed attention to secure minimal quality requirements of some particular professions, which traditionally have been subordinate to professional regulation. Medicine and architecture are two such regulated professions. As early as 1985, fourteen years before the Bologna Declaration was signed, a professional directive was launched, containing detailed descriptions of programme requirements. Although the description includes a hybrid mix of competencies and knowledge fields, it can be argued that with the professional directive, medicine and architecture were pioneers in the learning-outcome based approach which would be adopted in the (educational technology of the) European Higher Education Area (EHEA). It can probably be explained on the basis of an assumption that it was difficult to formalise these professions in the institutional evaluation system because of their “existential” nature, which meant they are studied for a relatively long time with a “master”, who had to teach how to apply general and expert knowledge, skills and abilities to professional practice.

The Directive by the European Council was adopted in 1985. In architectural circles it was called the “Architects Directive”, but it was part of the same process that mostly covered the medical professions: doctors of medicine, nurses, dental practitioners, veterinary surgeons, midwives, pharmacists, etc. In 2005 they were synthesised into the more general Qualifications Directive. The Qualifications Directive incorporated most of the criteria of previous directives but also added quite a number of professions that should be registered in Member States. The directive 2005/36/EC was amended and updated eight years later in Directive 2013/55/EU.

The work for negotiating the 1985 Directive was difficult and took almost 18 years. In private discussions, the officials of the Advisory Committee on Education and Training in the Field of Architecture admitted that no such a taunting job would ever be taken up again. The report says:

Unlike the Directives recognizing medical qualifications, Directive 85/384/EEC does not lay down minimum training requirements for architecture but merely provides for qualitative and quantitative criteria (Articles 3 and 4 respectively) whereby a diploma can be recognized at Community level (Articles 7 and 8 contain the relevant procedural rules). Directives recognizing the qualifications of certain medical professions reflect the fact that architecture is a complex, sensitive and problematic area. The main reason for these difficulties was the sometimes

very pronounced differences between regulations in the field in the Member States. The enlargements of 1973 and 1981 meant that, four additional legal structures had to be taken into account, and this initially made the negotiations even more complex.

The 1985 Directive very clearly set certain criteria for the education of architects. These are known as the “11 points”, and each of the following directives and amendments have so far included these criteria. The 11 points are abilities, knowledge, skills and understandings that refer to the generic learning outcomes of a person who has the right to “pursue activities under the professional title of architect” in all the Member States.

The directive did not provide for complete harmonisation of the training in the Member States. It clearly allowed that the training courses in architecture that did not comply with the directive were lawful within the jurisdiction of the Member State. The Directive referred only those formal documents, which were to be used for free movement of labour between the Member States.

The 11 criteria used to describe the education were very broad limits. To ensure the comparability of high educational and training standards of education throughout the Community, the Advisory Committee on Education and Training in the Field of Architecture was established. The constitution of the Committee was broad and democratic: it asked for 3 experts from each Member State, consisting of one expert each from the practicing profession, the universities or equivalent teaching institutions, and the competent authorities of the Member State. This structure of very general but essential criteria and the broadly based advisory committee largely explain why the Directive and 11 points have been so stable and operational.

The most recent version of the directive still contains the same set of 11 points, but ambivalences exist. While at its origin in 1985 this list could be considered as a precursor of the competence-based learning-outcome approach of the EHEA, today it is to some extent contradictory to the European Higher education policy. The list of 11 points consists of a hybrid mix of competencies, duration of study, and curricular content. While listing competencies is in line with the educational technology of the EHEA—implemented through the Dublin Descriptors—the use of curricular content and duration in study years is not. In the EHEA logic of competence-based learning outcomes and in the lifelong-learning philosophy, qualifying is a matter of proving acquired knowledge and developed skills, and demonstrating achieved competence (in terms of autonomy and responsibility) at the required level, irrespective of the duration of study, and irrespective of having passed any formally compliant curriculum. While initially it was an early step towards homogenisation in order to reach transparency for comparability and compatibility, today it is an additional set of homogenised requirements. The Advisory Committee on Education and Training in the Field of Architecture gradually changed and with it changed the interpretation of the 11 points. Even when matters of sustainability became widely debated, the directive needed no adjustment as the issues of environment were already generically emphasised in 1985. The change presumably started in 2005 when the new directive changed the advisory committee to comprise officials of the Member States. Nevertheless, the experts from academia and the profession still participated in the decision-making process as deputies to these officials or as members of delegations. Approximately in the last 3 years the meetings have ceased. The power of decisions has moved in practical terms to the European Network of Architectural Competent Authorities (ENACA). This forum consist of “contact points” in each Member State, responsible for supervising the free movement of architects and solving the problems that might occur.

The first process of European evaluation had already been started with the 1985 Directive: it set the criteria and established a process of evaluating diplomas, certificates and other evidence of formal qualifications on the basis of the

curriculum of the particular architecture school. This created a context of comparability between architectural education in the various Member States. Different evaluations and quality assessment have been taking place for quite some time on a national basis. At the moment of writing, 24 European countries have accreditation which complies with a unified and referential qualification framework—the European Qualifications Framework (EQF)—14 more are close to completion, and 7 countries have begun the implementation process. Only 3 are still in preparatory stage of implementation. Beyond the European scale, both RIBA and NAAB evaluations/accreditations have become de facto international as study programmes outside of the UK and the USA/Canada seek the distinction gained through these processes.

For architectural education, the massification of education on the global level as well as the creation of directive legislation on a European level have both resulted in increasing layers of accreditation.

The Architects Council of Europe (ACE) agreed on the definitions of accreditation, validation and the like, but after the pilot run of a survey, it decided not to use them in the questionnaire. Even with the definitions, it was clear that the terms *accreditation*, *validation* and *quality assurance* would be understood differently by different countries. The outcome was very diverse and quite unexpected: of 18 EU member countries who responded, 5 had no formalised approval system for the Professional Qualifications Directive, 4 did not have a system in relation to meeting national educational standards or professional bodies, 4 did not have a system for approving access to market requirements, and 3 did not have a university quality assurance process.

After the 1985 Directive, several political steps advanced the reshaping of higher education in Europe, which had a decisive effect on architectural education and its institutional forms. In 1988 the *Magna Charta Universitatum* was proclaimed by the rectors of European universities. It mandated the abolition of boundaries within the European Community in the ensuing four years. The first fundamental principle of the document deals with the autonomy, diversity and culture of universities. It also demands moral and intellectual independence of all political authority and economic power. The fourth principle promoted the exchange of ideas and as a means to ensure the mobility of teachers and students. In 1999 the *Joint Declaration of the European Ministers of Education* was signed in Bologna, which became known as the *Bologna Declaration*. Out of this declaration developed the whole EU policy called the *Bologna Process* and the *European Higher Education Area*. The Bologna Declaration was signed by the ministers responsible for research and education. It was in line with the *Magna Charta* but already indicated goals other than autonomy and diversity of universities.

The last objective (promotion of European dimension in higher education) was paraphrased in the next paragraph in a balanced equilibrium of diversity and homogenisation: “within the framework of our institutional competences and taking full respect of the diversity of cultures, languages, national education systems and of University autonomy—to consolidate the European area of higher education”. It also made a very practical demand from the point of view of single market and unified labour supply: “The degree awarded after the first cycle shall also be relevant to the European labour market as an appropriate level of qualification”.

The Berlin Communiqué of 2003 proposed to include the doctorate in the Bologna Process as a third cycle, subsequent to the first (bachelor) and second (master) degree. From then on, the doctorate—which previously was seen in terms of scientific contribution to the epistemological body of a discipline—was seen as a level of education with predefined learning-outcomes in terms of knowledge, skills and competence, and focussed on the achievements of the PhD student. Moreover, next to the need to enhance the *competitiveness* of European higher education, the inclusion of the doctorate

Another Hypothetical Conversation

VERA KAPS

As part of the research project NeST, a survey among several institutions, initiatives and programmes was conducted in December 2015 (see article “Challenging the Frontiers of Architectural Education”, page 6). Among the participants were: ADAPT-r ITN (Johan Verbeke), AlterRurality (Pieter Versteegh), Architecture Workroom Brussels (Joachim Declerck), aut/Architektur und Tirol (Arno Ritter), bink (Barbara Feller), Confluence Institute for Innovation and Creative Strategies in Architecture (Odile Decq), Estonian Academy of Arts/Faculty of Architecture (Toomas Tammiss), Federal Foundation of Baukultur (Heiko Haberle), Inno-Chain (Mette Ramsgaard Thomsen), Live Project and Live Works by the School of Architecture/University of Sheffield (Carolyn Butterworth), SPACESPOT (Marko Sauer), TRANSKark (Gro Rødne), University of Reading/School of Architecture (Lorraine Farrelly), Vorarlberger Architektur Institut / vai (Verena Konrad).

Given their different mandates and goals, a direct comparison of these institutions is impossible as stated preciously. However, a common issue highlighted by almost all the participants is the need to address other disciplines besides architecture and furthermore to bring architecture (work) to a wider public. Participants name the close connection between architecture and society, which urges architects to interact with disciplines outside of the profession. They also understand architecture as an holistic field to be addressed from different perspectives. Finally, they identify the need for a common language to mediate their work.

Another key aspect affecting their work is a general sense of commercialisation. Some of the participants report on the transfer from the qualitative value of creativity to an economic one and a decrease of critical thinking, reflection and innovation. Others talk about the pressure to incorporate measurable activities, or administrative and organisational management. However, some use commercialisation as “live pedagogies” in order to teach students to think economically.

The last issue to be discussed is scientification. In this respect, some participants refer to the pressure for appropriate evaluation and validation techniques as well as to competition of research outputs. Others mention new scientific methods within architecture such as “artistic research”.

The following hypothetical conversation is assembled from the participant’s answers from the survey.

INTERDISCIPLINARITY AND PUBLIC ACCESSIBILITY

NEST Besides the architectural disciplines, why do you address other disciplines?

VAI Architecture reflects on every aspect of society and culture and combines technology with economy and design. We try to involve professionals and interested people from all sides, with different approaches and interests to discuss on the highest level possible.

CONFLUENCE Architecture is not an enclosed field dedicated to itself. If we think like that we will continue the star system of architecture as objects.

Architecture is a discipline dedicated to people and society and turned toward the future living. Architecture students must have the curiosity about prospective visions of the world’s evolution. As educators we have to open their eyes 360° and their ears, and the doors for giving them the appetite of what is happening and will happen.

EAA Architectural production has become increasingly regulated from a legislative point of view. In addition it has become constrained by demands and expectations regarding its technological and financial performance as well as its cultural and intellectual adaptability to the changing needs of the society. These increasing demands cannot be faced by one professional nor addressed by one single curriculum, but signal a need for a wider interdisciplinary collaboration.

AUT Because it concerns the design of our environment and this is not only accomplished through architecture.

ALTERRURALITY Interdisciplinarity is the main basis for a holistic understanding of the subject.

TRANSARK We have the aim of developing a “next practice” of learning in architectural education and in higher education in general. Our interdisciplinary collaboration aims firstly towards a deeper understanding of complex learning processes in a holistic field, encompassing cognitive, intuitive, creative, emotional, physical and cultural processes. The field of pedagogy and didactics provides new areas of theory and methodology. The fields of medicine, neuro science and psychology will provide deeper insights into interrelations between perception, thinking and action (the body-mind connection as opposed to the Cartesian split). The educational field of medicine in Norway has obvious generic and transferable similarities with architectural education in terms of complexity, holistic approach and problem based didactics. Architecture is a holistic field and the TRANSark project has generic and transferable aspects like i.e. dealing with complexity, lateral- and creative thinking.

SHEFFIELD As well as offering creative and transferable learning opportunities for our students we want the work of Live Projects and Live Works to make a difference to our community clients. Mobilising interdisciplinary teams around a client project can help to maximise the impact for that client in terms of sustainability, deliverability and funding.

SPACESPOT We also incorporate pedagogues, because they are professionals in mediation. And they help us to make a reality-check for our aims.

BINK Regrettably, there is barely any exchange between the fields of education and architecture/building culture. Between these groups there are very different approaches and little contact. Strengthening this contact seems to me to be very important—in terms of educational projects about architecture and the built environment as well as in terms of contemporary educational buildings.

INNOCHAIN Computation is fundamentally interdisciplinary. Firstly, through the way it is used in practice creating a new shared digital platform that allows architects, engineers, owners, municipalities and other partners of the building process to communicate. Secondly, because the key concepts of modelling, representation and fabrication are interdisciplinary.

NEST Why do you think is it important to make your work accessible for different target groups and events?

READING A School of Architecture is part of the community academically and culturally—it needs to connect with those around it to understand the architectural issues it needs to engage with. To be successful it needs to recruit good students who understand the type of study they will be involved with at the University.

EAA Firstly, it is important to present novel ideas and approaches to themes and questions that are relevant to wider (or specific) audiences. Secondly, it is important to ensure the position of academia in society as the source of new knowledge and expertise.

CONFLUENCE It is fundamental to make the work public for many reasons: being recognized; developing networks; attracting students, teachers and a general public; better understanding of what is architecture, what is its aim, which is not only designing buildings but helping people and communities to live better; opening the mind of the general public to architecture; developing partnerships with industries, technologies, cities...

ALTERRURALITY It is necessary to generate different, non urban-centered viewpoints on the nature and the future of human habitat; the need to disseminate didactic methodical explorations; the need to construct interdisciplinary articulated insights.

ARCHITECTURE WORKROOM The “atelier” is key of AW’s working method, as it is the think tank in which local experts and politicians can exchange with international experts and designers on the challenges and potential solutions for specific territories.

AUT The aspiration behind establishing our association was a socio-political one, meaning it is the reason why public perception and discussion form a central component and objective of aut.

TRANSARK To contribute to the international discourse in rethinking architectural education in particular and higher education in general and raise awareness about the learning processes.

FEDERAL FOUNDATION OF BAUKULTUR The surrounding space and buildings affect everyone but not many have a conscience on how to describe or influence it.

INNOCHAIN Because different audiences communicate in different ways and expect information at different levels. Public dissemination aims to expose the broader public to the research questions, methods and results. The aim here is to invite non-specialists into the research context and communicate the overall aims of the research. Scientific dissemination: aims to share and critically discuss research at the highest scientific level. Industry dissemination: aims to disseminate results to the wider industry context. This is done through the seminars and publication in the professional industry press.

VAI To get the people involved with the aim to help them to participate in decision processes, to help them to find a language for architecture, and to reflect on a high level for better decisions.

COMMERCIALISATION

NEST We assume that the increasing commercialisation is affecting architectural education. Which indicators do you observe?

SHEFFIELD There is pressure to increase fee income via increased student numbers, pressure to reduce student contact time in order to create more time for research, and pressure to cut back on space and resources allocated to teaching—lack of appreciation of core requirements of adequate studio space and workshop facilities.

VAI I think there is more influence by marketing strategies and new sorts of media than 20 years ago and there is less criticism.

TRANSARK The building industry expects fully developed professionals fresh out of education with the ability to deliver on a given specification. The societal responsibility of “questioning everything” is in a lesser degree asked for.

The terms efficiency and effectiveness are often mixed up. In the building industry we experience a heavy focus on efficiency with less time and budget for developing projects and less focus on effectiveness and impact of the built environment on users and society. Research shows however that investment in good design processes will increase the societal value of a building and reduce mishaps and faults.

Principles drawn from the business sector are to a certain degree being transferred to the university where activities that can be measured and counted are more likely to get rewarded.

ALTERRURALITY The commodification of everything, and mainly the negative evolution to human habitat as a series of commodities; architecture as a commodity; education as a commodity; research as a commodity; mechanisation of professional activity through the abuse of so-called quality processes; the disappearance of privacy; etc.

AUT Behind that is a fundamental issue, namely the question of the importance of creativity and the economic weight it is given. In our neoliberal-imbued system of thought, culture and the creative achievements of architects are seen as a soft factor and tend to be undervalued. Following this logic, education is also recoded as training in which literature, art, and aesthetics no longer have any significance, culture is assessed in terms of ratings, and architecture is viewed purely as an investment or demoted to a trademark. At the same time, art becomes stock and is bought by those who previously argued for the abolition of subjects like art and literature by using instrumentally rational and market-oriented reasoning. Yet life itself, especially culture and particularly architecture, are in the true sense an achievement of pure squander and thus—for me at least—have such high value that it cannot be measured by either numbers or purely economic premises.

NEST Do you consider being affected by increasing commercialisation as a blessing or a threat and why?

ALTERRURALITY As a threat, through the disappearance of human qualities and values.

SHEFFIELD Most definitely a threat. The core values of architectural education as a generator of innovation and critique of the discipline and profession are being eroded. Design skills cannot thrive within an environment of commercialisation where efficiencies of space and resourcing are prioritised over quality of the creative environment. It is very difficult for students and staff to make time and space for risk-taking, experimentation and reflection in the design process. Outputs are becoming more homogenous and predictable because of this—innovation is being squeezed.

TRANSARK The Norwegian context still leaves a high degree of independence for educational institutions which allows us to approach commercialisation with an open and constructive mind set. In our education we approach commercialisation by involving the students in real live projects in the framework of “live pedagogies”, allowing the student to “learn the game” in small scaled 1:1 deliveries. We are also developing platforms for entrepreneurship competences enabling the students to engage with stakeholders in society.

EAA In general the competitiveness brought along by increasing commercialisation can be seen having a certain positive input for academia (including architecture education) that is increasingly forced to be understandable and communicative for a wider public. However the commercialisation has also put on an increasing demand for reporting and administrating, pushing academic institutions into similar institutional formats as big corporations. This runs a danger of shifting the focus from academia and knowledge to administration and presents the biggest threat to higher education in general and architecture education as part of that.

SCIENTIFICATION

NEST We assume that increasing research orientation/scientification is affecting architectural education. Which indicators of this tendency do you observe?

ADATP-R More staff is doing research. There is more focus on knowledge and research output.

TRANSARK Quantity and quality in research publications influence the income of the faculty. Production in education also influences the income, but we experience a heavier pressure for deliveries of quantity and quality in research than in education. Each academic position has 50/50 teaching and research responsibilities.

READING The expectation from potential students is that they want to be taught by experts and the research credibility of a University affects the “ranking” of the University and therefore the quality of students who apply.

NEST Do you consider this as a blessing or a threat and why?

TRANSARK Both! It is definitely a blessing provided there is a synergy between teaching/learning and research. But a threat if teaching is not valued at the same level as research.

READING Good quality research should inform our education model, as a discipline we need to be constantly developing and improving our knowledge base and expertise.

CONFLUENCE It could be a threat if we forget the pragmatic approach of architecture. Not everybody could be an intellectual in architecture. Fantastic architects are not forced to write. Architecture is a too complex discipline to be given only to researchers in Universities. We still and for long time need practitioners, intuitive people, the ones out of the systems.

NEST Which other indicators for scientification do you observe?

TRANSARK In the Norwegian legislation, artistic research and academic research are defined as equal, but there is a lack of principles for registration and validation of the artistic research. A method for internal peer review of artistic production and research is under development at our university.

CONFLUENCE Architecture is an activity of research. A project (whatever the project) must be understood as a research activity. Research on material, on technology, on digital practices, the way that all these fields are affecting and transforming our life are research in the field of architecture.

VAI Definitely no! Research and thinking or reflecting is not the same! There is a new trend to label everything as “research”. I think it should be normal in a designing process that students, teachers and also later architects think and reflect about what they do and why and to find the best solutions. This is no research. This is just professional working. Research is a long term and hard work with its own professional standards.

AUT In my opinion, there is the risk of digital formalisation and “pseudo-scientification” of architecture. At the University of Innsbruck, we see that digital design methods are becoming more prevalent and the importance of forming theories is growing, while at the same time it can be noted that fundamental architectural themes—socio-political and social aspects—are increasingly receding into the background.

FEDERAL FOUNDATION OF BAUKULTUR Technical or material innovations are dominating questions of spaces!

SHEFFIELD However, increasingly architecture projects within schools are required to propose solutions to problems that have been already defined—students feel a responsibility to design pragmatic designs that could be delivered in the “real world” to tackle climate change, gaps in public service provision etc. In the context of the new “civic university” local government and other public sector partners are starting to expect clear measurable deliverables and impact from architecture schools (as well as other departments).

ALTERRURALITY Firstly, a mutation of awareness of professional stakes, postures, subjects in architectural education, secondly, an increasing interdisciplinary dimensions, and thirdly, new methodical explorations can be seen.

NEST Do you consider this as a blessing or a threat and why?

ALTERRURALITY A blessing: the three indicators challenge current tendencies of commodification and mechanisation of educational practices; they challenge the commodified understanding of architectural practice.

SHEFFIELD The increase of research orientation/scientification or “instrumentalism” of architectural education is squeezing the vital role of architectural education to speculate and problematise through making design propositions. There is a danger of architectural education becoming merely a service provider rather than setting the agenda on innovation for built environment futures.

EAA Research orientation has its dangers of moving too far from design practice, but the overall development could still be seen fairly positive for the architecture education. As the profession is challenged by an increasing demand for both technologically and culturally advanced and adaptable solutions it is unavoidable to provide research platforms to develop parts of the education and profession much deeper than the 5 year curriculum or professional practice would ever enable. Research is inevitable to keep architecture education viable and able to challenge and pioneer both the academic education and the professional practice. However, this means that design based research is accepted by the responsible institutions and it is not subordinated to pure academic writing.

OTHER TENDENCIES AFFECTING ARCHITECTURAL EDUCATION

NEST Do you see other tendencies which do fundamentally affect architectural education?

ALTERRURALITY Negative tendencies as mentioned above, leading to an educational system of universities “producing” non-critical professionals complying to common, directly economically exploitable practice. Dogmatic education based upon urban lifestyles rooted in capitalist forms of society. Disciplinary isolation.

CONFLUENCE Procedures, procedures, procedures and especially administrative ones that don't allow experimentation and new visions on education. Everybody around me in the field of architecture thinks I am crazy to create a new school with an other vision on how to teach. But I strongly believe that it is the only way to escape the trap that is the conservative approach which is no longer effective for today's students and the coming world.

SHEFFIELD Educating for practice as defined by professional bodies (ie ARB, RIBA) which are ALWAYS in late with the pace of time. The definition of architecture through education has to look into the future, explore new agendas and influence rather than be controlled by exiting professional bodies. New forms of practice (which are not necessarily regulated by these bodies) more interdisciplinary, more participative, should be encouraged through teaching curricula in architectural education. Live projects at our schools try to do this.

VAI Most architects do not learn to use a library, to work with texts, to argue for their designs and to speak about their work. This is something that university education should really improve.

TRANSARK Potentials: In a world which increasingly becomes more complex and fragmented, there is a growing understanding and need for the architect's competence in complexity-thinking and holistic approach.

Being a cognitive, ethically and emotional “owner” of these global complex societal challenges, we are ideally suited to need and invite other disciplines in co-disciplinary processes. In a rapidly changing society, new roles of the architect, are emerging. Who and how is the architect for an unknown future? Serious challenges concerning global climate crisis, economic crises, cultural crisis and existential crisis, force us to rethink the role of architecture and make education more relevant regarding these fundamental challenges.

Threats: Increased digitalization may influence the understanding and quality of architecture as a physical and embodied matter. A tendency toward superficial image-making and reductionist system-architecture seem to be unescapable aspects of the alliance between BIM, new public management and capitalism. The “architect” has contributed to his/her own marginalization for many years by allowing other disciplines to take over large and vital parts of the processes producing architecture. Even for core aspects of our profession, such as creativity, other disciplines such as design have developed a much stronger rhetoric and narrative, placing designers in a more potent position with “design thinking” than architects with “XXXX”. There is a strong need for research, development and formulation of our contribution in society.

EAA One of the important factors affecting architectural education is the weakening position of the profession, where the increasing legislative, technological and financial demands for the project have often reduced design decisions to a mere decorative layer whereas system building decisions are more often taken elsewhere. That has also a direct effect on the turnover and revenues of the architecture offices. The result for academia in this case is that the more able student candidates might choose other fields of study and in the “higher education market” architecture could be losing out.

into the Bologna system was argued by the education-oriented mission to “*maintain and improve the quality of European higher education*”.

Also in Berlin, the ministers encouraged the member states to commonly express their intentions of higher education in terms of *workload, level, learning outcomes, competences and profile*. “Workload” was considered a feasible indicator to secure comparability and transparency of study programmes, and will be operationalised through the general adoption of the ECTS credit system; “level” refers to Bologna’s bachelor and master degrees; “profile” addresses the distinction between academic and professional qualifications: “outcomes” and “competencies” would be the subject of a new qualifications framework. This common structure and vocabulary was a decisive step in the implementation of the EHEA.

The institutional developments and the changes in European higher education policy had a profound impact on architectural education. This can be followed through such networks as the European Association of Architectural Education (EAAE) and the European Network of Heads of Schools of Architecture (ENHSA).

We can summarise that when the 1985 Directive made recommendations about the content of architectural education and kept the institutional recommendations minimal (four years of predominantly architectural education in the university or a comparable institution), the Bologna Declaration made mostly institutional recommendations. For architectural education these two developments intertwined. In the beginning of the 2000s, a majority of the architecture schools of the EAAE rejected the two-cycle education and wanted to keep the continuous five-year education (four years in some cases) but a decade later, the situation had reversed and most of the schools had adopted the 3+2 model. This happened through institutional and political influence filtered down to schools from ministries and other institutions of EU Member States.

The result of the adoption of the two-cycle model and ECTS points was not only formal or institutional—it influenced the whole system of contact hours and teaching methods. The ECTS system was based on study hours, but as the historical systems of education were different in different countries, the amount of hours also differed greatly (EU recommended 25–30 hours). In some cases this new system severely shortened the education. The reason being that the study hours that transformed into ECTS points had to be homogenised in international comparison but also within the institutions, where different professions had quite different traditions.

On top of the Brussels and Bologna processes, architectural education also faces the ongoing industrial and technological revolution.

Recently we were introduced to Amelia. She can speak 20 languages, understand concepts and learn from her mistakes. She can read several textbooks in a day and can probably be replicated an infinite number of times. She is an algorithm, “a learning cognitive agent” designed by IPsoft. She could be your job interviewer or your new boss. You can probably customise how she/he/it looks. This is bad news for those who believe that the human mind and intelligence are not just a network of circuits on chips and access to data. A Hong Kong venture capital fund has gone a step further: they have appointed a new board member—intelligent investment analysis software VITAL. That algorithm has voting power on the board—it really is making decisions for humans.

In October 2014 *The Economist* published a special report on the world economy. It was about the new industrial revolution called the “third great wave”:

A third great wave of invention and economic disruption, set off by advances in computing and information and communication technology (ICT) in the late 20th century, promises to deliver a similar mixture of social stress and economic transformation. It is driven by handful of technologies—including machine intelligence, the ubiquitous web

and advanced robotics—capable of delivering many remarkable innovations.

Recently it has been not so much the hardware that has developed but several productive innovations: cloud computing, more efficient algorithms and more powerful translating software have pushed forward the digital revolution. This means that several jobs we have today can be computerised. A report by Oxford University scholars showed that 47% of 700 professions analysed are at high risk of being automated away in America. ICT also means that the labour market becomes more competitive on the global level.

There is also an efficiency lag built into the ICT development. It is pushing salaries up for the selected few, but the general reorientation of the workforce and efficiency gains brought by this new technology have not happened yet. And it might not start automatically as several sections of the workforce in some professions may become obsolete. One of the areas set to go through radical changes is education. Online offerings are improving and expanding. Big and strong institutions build their own, often free online courses to match their curricula. Some are already offering complete online degrees. Education thus becomes more flexible and definitely significantly cheaper. Online courses can make a huge number of lecturers and docents unnecessary.

Within the described processes that have, since the 1980s, intertwined for higher education in Europe and particularly for architectural education, we can see the strong preconditions for homogenisation. These processes have reached their full development and maturity today. Learning outcomes, subject-specific competencies, institutional evaluations, professional accreditations/prescriptions, research assessments and suchlike have developed a strong grip on architectural education.

A question remains to be asked: How much has this homogenised our education and are there new schools of thought emerging? We would like to conclude with the hesitation of Jürgen Mittelstrass:

Quality assessment procedures for higher education institutions in Europe were first developed in the mid-1980s. Most European countries have systems of quality assessment or quality assurance at their disposal. This development has been spurred by the desire to give more autonomy to higher education institutions and to ask for efficient accountability. This is a noble aim, but the methods chosen to attain it are wrong. The danger is that by attempting to subject the academic practice to standardised criteria, it may lose its essential capacity. In the case of science, this essence is in the discovery of what is new. This may come in many ways, well-known and new. Therefore, optimal methods are not easy to lay down from the start and cannot be restricted by rules to be followed and controlled, for example in terms of quality. This is related to the fact that in science—as in many other social areas—people are the essential factor, not the routines they follow (in which people are viewed as interchangeable commodities). It is the researcher who is at the centre of successful research, not the research system, be it assessed or not.

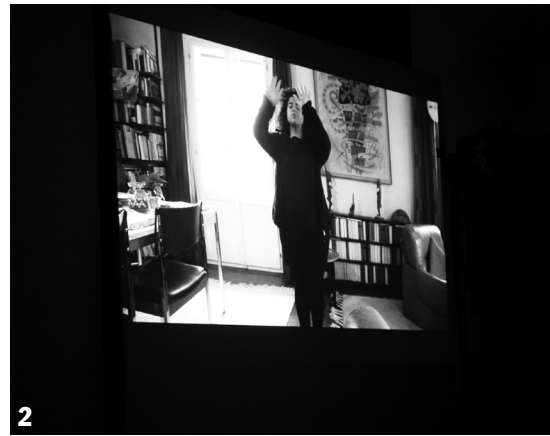
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Bauhaus on Stage

ANGELIKA SCHNELL

HTC Design Studio (taught by Angelika Schnell, Achim Reese, Lisa Schmidt-Colinet, Antje Lehn, Werner Skvara), BArch, 5th semester, winter 2015/2016

„Erziehen ist eine verwegene Sache ...“
JOHANNES ITTEN

THE BAUHAUS

It is well known that there is one school that changed the global map of architectural education more thoroughly than every other school in the 20th and 21st centuries. Even though the Bauhaus existed only for fourteen years it was a New School of Thought par excellence.

In the late 19th Century one might study architecture either at one of the Beaux-Arts-Academies, where students imitated the masters, or at one of the upcoming Polytechnical Schools, where students learned rather the technical rules of building. Even though most of these schools did not change their institutional name—they remained Academies or Universities—, their curricula incorporated the major ideas of the Bauhaus' ground-breaking educational and pedagogical concepts in the course of the 20th Century: apart from architectural design they started to offer a broad set of different subjects (art, structures, sociology, philosophy, economy

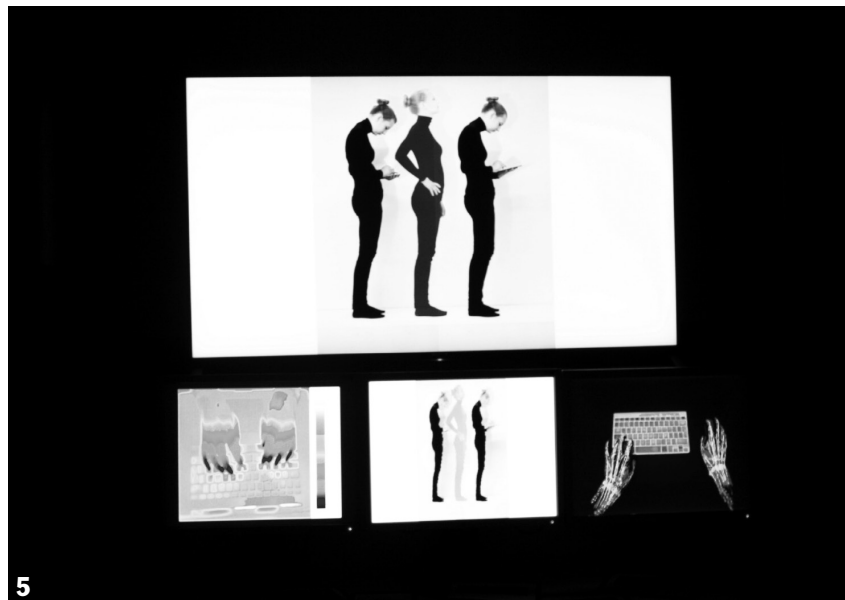
etc.), which should provide a comprehensive knowledge about the society we live in. Various workshops should serve as crucial tools to link theory to practice, and above all at least one elementary course in the first year of study should teach the beginners of all classes (art, design, architecture) the basic rules of designing, which were not to be found in abstract law, but rather in each individual student. In particular the latter example, derived from the famous Vorkurs at the Bauhaus, was never really abandoned in most architecture schools in Europe and America. Three major intentions are at least an implicit part of every architectural education: 1. Designing is a practice that everybody can learn, 2. Designing is a practice that everybody should learn in order to actively shape the environment, and 3. Designing is a creative and liberating practice.

Historically, within the Bauhaus this idea of “designing the world” was embedded in the entire social, cultural, aesthetic, technical and political ambitions of the modern movement. Even though the Bauhaus never had a long-lasting and coherent programme or ideology, it doubtlessly counts among the major outcomes of the avant-garde of the early 20th Century. To design the world literally meant to shape the world, but also to shape modern man. At the Bauhaus this ambition was deeply rooted in the influence of reformist pedagogies on the one hand (Friedrich Fröbel, Johann Heinrich Pestalozzi etc.), and on the other hand on the long-lasting effect of Friedrich Schiller's “Über die ästhetische Erziehung des Menschen”, where an ideal homo ludens was described whose drive for beauty becomes a political instrument to liberate mankind.

What is left today, is the design studio, the experimental core of every architectural education, a protected little island, where students do en miniature what the Bauhaus



4



5

1–2 **MAXIMILIAN KLAMMER** and **DUHA SAMIR** reconstructing the “harmony” course by Gertrud Grunow, a less-known teacher of the Bauhaus, whereby students should find out the right configurations between colours, sounds and forms by movement. photos by Angelika Schnell

3 While the audience still is doing yoga exercised **FLORIAN BETAT** as Walter Gropius (first director of the Bauhaus) opens the play by recalling the more than 40 inner and outer conflicts at the Bauhaus. photo by Angelika Schnell

4–5 **NADJA KRAUSE** and **LISA UNGERHOFER** act as Kunstfiguren according to the mechanical figures of Oskar Schlemmer’s Triadisches Ballett; accompanied by a film animation. photo by Kristyna Svecikova (4) and Angelika Schnell (5)

once had offered as a comprehensive programme: they learn to design according to their individual gifts and ambitions, and they also may design everything they like. Yet, this freedom is limited to the borders of the studio or the school; very rarely it has any impact on the exterior world.

ARCHITECTURES OF LEARNING

In the winter term 2015/2016 the Institute for Art and Architecture at the Academy of Fine Arts Vienna tried to challenge this enclosed world of the design studio by implicitly testing the teaching format itself: Architectures of Learning. According to the different platforms each studio approached the topic with different means and goals. Within the HTC (History | Theory | Criticism) platform students and teachers were addressing the Bauhaus itself and its “ground-breaking pedagogical concepts. Design the World—Keeping up with the Bauhaus was the title of this Bachelor design studio. The students were asked to choose one personality of the Bauhaus teachers (well known or less known) and to re-enact their teaching practice. In cases where there is little known about it they should speculate about it. Bringing the students back to the roots of modern architectural education should encourage them to reflect and also to reorganise their own way of studying architecture within the so-called Bologna structure, which tends to homogenise the curricula on a mere administrative level.

The students quickly started to think about a performative format for their presentation. Inspired by the interdisciplinary Bauhaus Bühne they decided to present their individual research work within a stage setting, which had to be commonly designed. Including yoga exercises, light-form-movement live performances, re-enactments of the concrete practice of some of the Bauhaus teachers, documentaries

based on interviews with witnesses, film animations, reproduced objects and play readings, the final presentation of the students’ work recalled one of the oldest and at the same time most contemporary formats for “learning”: the stage! Playing/acting the own work and the role of a historic person unfolds according to Oskar Schlemmer, master of the Bauhaus Bühne, “the naïve lust for creating and shaping, without asking for value and non-value, sense or nonsense, good or bad”. The illusionary world of the stage—with its proximity to costumes and party on the one hand, and with its ability to directly create space by human movement on the other hand—might still be a perfect (old) New School of Thought for architectural design education.

Altogether the studio consisted of 17 students and three studio instructors, supported by two teachers for workshops. The students were: Florian Betat, Iklim Dogan, Ella Felber, Joanne Friess, Jakob Grabher, Florian Hofer, Maximilian Hertz, Maja Karska, Maximilian Klammer, Nadja Krause, Lea Pflüger, Marina Resch, Duha Samir, Svetlana Starygina, Lukas Strigl, Lisa Ungerhofer, Patricia Vraber. The design instructors were: Angelika Schnell, Achim Reese, Lisa Schmidt-Colinet, supported by Antje Lehn and Werner Skvara. The students have chosen the following Bauhaus teachers and the following performance format:

JOSEF ALBERS

Iklim Dogan and Patricia Vraber; Lecture on Albers’ theoretical and personal relationship to John Dewey

THEO VAN DOESBURG

Jakob Grabher; Play based on a fictitious press conference on the mysterious disappearance of Theo van Doesburg and his “notorious” De-Stijl courses in Weimar today



6 Paul Klee (= LEA PFLÜGER) explains the enigmatic relationship between point, lines and planes and requests the students (= audience) to follow by exercises. photo by Angelika Schnell

7 SVETLANA STARYGINA re-enacts the authoritarian teaching of Ludwig Mies van der Rohe who had no teaching experiences at all before he came to the Bauhaus. photo by Angelika Schnell

8 Theo van Doesburg by JAKOB GRABHER; based on a fictitious press conference on the mysterious disappearance of Theo van Doesburg and his “notorious” De-Stijl courses in Weimar today. photo by Angelika Schnell

WALTER GROPIUS

Florian Betat; Play about the more than 40 inner and outer conflicts the first director of the Bauhaus had to encounter and to manage

GERTRUD GRUNOW

Maximilian Klammer and Duha Samir; Documentary based on interviews with René Radrizzani—is one of the few persons who can practice the not very well-known synesthetic “Grunow-Lehre” today—and with Ewald Moser, biologist, who criticises the ideas of a harmonious relationship between colour, form and movement as nonsense

LUDWIG HILBERSEIMER

Ella Felber; Live reading of various texts from and about Ludwig Hilberseimer, which demonstrated how little is known about this man “in the shadow of Mies”

WASSILY KANDINSKY AND PAUL KLEE

Maja Karska and Lea Pflüger; Play based on the writings by Kandinsky and Klee that showed the enigmatic and even absurd content of their educational concepts

HANNES MEYER

Florian Hofer; Lecture on the enigma of the “Coop interieur room”, a famous picture of an exhibition installation by Hannes Meyer, which had a career of its own

LUDWIG MIES VAN DER ROHE

Svetlana Starygina; Play where the student acted as the authoritarian teacher Mies van der Rohe, as one insecure student of Mies and as the Nazi Alfred Rosenberg, who forced Mies to close the Bauhaus

LÁSZLÓ MOHOLY-NAGY

Lukas Strigl; Multi-media installation based in particular on Moholy-Nagy’s writings on photography

OSKAR SCHLEMMER

Nadja Krause and Lisa Ungerhofer; Animated film collage about the contemporary advancements of Schlemmer’s idea of the modern Kunstfigur, a creature without consciousness, which has direct contact to the Spieltrieb

JOOST SCHMIDT

Joanne Friess and Marina Resch; Interactive website about the HTC design studio, according to Schmidt’s role as being the chief designer and public relation manager of the Bauhaus outcomes

GUNTA STÖLZL

Maximilian Hertz; Installation and documentary about the real practice of weaving, accompanied by interviews with the two daughters of Stölzl, living in Tel Aviv and Groningen

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What is a New School of Thought for You?

The expression “school of thought” probably originates from the Middle Ages where schola referred to philosophical traditions within scholasticism. The first “schools” were established in monasteries for translation, exegesis and wider hermeneutics of religious texts and later established their own identity and served as ontological, epistemological and axiological background for particular interpretations. In philosophy the concept also goes back to ancient philosophers who established their teaching through students and followers.

The expression “school of thought in architecture” primarily reminds me of the culture and structure of schooling within architecture. It refers to a much larger context than a particular curriculum, institution or established rules. It takes into consideration the traditions of the school, the ethos of the school and the holistic atmosphere created by the professors and teachers of the school. Very often these, usually not formalized or weakly formalized mechanisms and local knowledge, have much greater impact on the learning environment than established rules. Within this culture and structure of schooling different visible or invisible currents emerge, easily being contradictory to each other but nevertheless establishing the elements or building blocks of the school as a whole. Sometimes this holistic atmosphere establishes itself also from the direction of a student body—then the participation in studies and lectures; discussions and parties as well as official and unofficial studios enable the sharing and transformation of skills and knowledge in the traditions of a “school”.

The particular “school of thought in architecture” can be represented and recognized in different media produced in the school by teachers and students: Firstly, most obvious but also most difficult to interpret fully, are the architectural and planning projects produced during the curriculum. They exhibit the same difficulties of interpretation as professional architecture for architectural criticism. It is rather difficult to explode the full set of meanings, intentions and ambitions of an architectural artefact, especially if it is only described in the specific language of architecture. Still we can evaluate the graphics, themes, composition, values, area of interest, traditions, background etc. Secondly, we can interpret the philosophical or theoretical setting of the school from its programmatic documents—mission or vision statements; introductory speeches of heads and deans; lay-outs of the course projects as well as from the advertising and prospectus production. The difficulty here is to evaluate if the missions, visions and other ambitions have been fulfilled or if they have just remained good intentions. Thirdly, we can interpret the research and theory output of the school to see the general holistic tradition of the school’s focal interests and agendas, as the result of particular efforts of the faculty as a whole. Lastly, we can just ask the senior members of the staff as well as the faculty as a whole, what they find specific and unique of their school to be interpreted as a “school of thought”.

JÜRI SOOLEP University of Umeå, Sweden

What is a New School of Thought for You?

Is there a school of thought? There is a multitude of schools of thought and ways of thinking. And our school embraces that fact. At the Architectural Association School of Architecture (AA), each of the 30 undergraduate units, each numbering about 12 students, is an independent “school of thought”. Add to that at least 20 to 30 more in the graduate school and about 60 in the AA Visiting School. Which would make 120 different schools of thought. Are there really that many? I’d like to believe so. The question then becomes one of scale. How many schools of thought can a single institution support? At a certain point someone tends to want to start grouping them together—thankfully, that someone doesn’t exist at the AA—and instead of understanding and nurturing individuality, a process of identifying projects of a supposedly bigger, collective framework sets in. I’m wary of that. That’s how the UK university sector operates. It goes something like this—“We have x number of staff and y per cent of this staff produces something that could be broadly labelled as research. So let’s take what ‘A’ is doing, what ‘J’ is doing, and what ‘W’ is doing, and group them together to fabricate some tremendously artificial and tenuous ‘school of thought’, aka the ‘research group’”. That’s terrifying and bewildering in equal measure.

I think about this a lot in the context of the AA. Units are diverse worlds teeming with research. But who recognises that? It’s a crucial question. In order to operate independently and create your own environment, you have to engage externally. Our students come to Bedford Square from 90 different countries; in turn, the AA is now operating globally in at least 30 different countries. That’s a heady mix. In the past it might have been claimed that the AA was too introverted. Those claims no longer hold. Within my own unit there’s determined resistance to hermeticism. We may construct our own planet (from an admittedly singular starting point), but it’s still crucial that we speak a language everyone understands. That’s the delicate balance to be struck by the unit system. Not becoming so self-obsessed that you’re not communicating any more, but at the same time not being so generalised that you lose your impact and relevance and everything becomes easy to dismiss. The only way to challenge this is to engage more externally (for me the AA Visiting School is a big part of that) and to learn externally—also to admit that you learn externally.

CHRISTOPHER PIERCE
Architectural Association, London

SHORT STORY

by Paulina Julia Frankowska
(Studio Staub/Papathanasiou,
Summer Semester 2016, Master’s
Degree Programme in Architecture,
University of Liechtenstein)

ENVIRONMENTS OF ARCHITECTURAL EDUCATION

Five Schools—Places for Thought?

JOHAN DE WALSCHE

“What do you study when you study architecture?”, asked Andrea Deplazes, by means of an exhibition in the Schweizerisches Architekturmuseum in Basel, 2006. Can architecture be taught? Or can it only be learned? “Learning is better than teaching because it is more intensive; the more we teach, the less students can learn” said Albers in 1928, when he was teaching in the Bauhaus.

The student who goes to the architecture school, does (s)he want to become an architect? Or rather to get a master degree in architecture? I remember a student who, after her third year of studies, suddenly confessed: “I started my studies intending to become an architect, but now I realize that I am studying *architecture*.” Does a school which aims to train architects look different from a school that aims to generate academic masters in architecture?

What is a school? Is it a collection of thoughts, a coherent set of ideas, beliefs, convictions, that have the intention to be transferred? Or is it a collection of teachers, a distinguished selection of academics, or a weird amalgamation of sophisticated egos? Or is it rather a building, a constellation of dedicated empty space, appropriate for teaching, and design?

And if the school is a spatial concept, how is life within? Is the school a set of buildings to house thoughts? Or to house academics? Or to house sophisticated egos? Or to house students? Or to house a hybrid community of them all?

Is the school the spatial ritual, leading to the intimate room of the master, who is waiting for his students,

providing them the elitist occasion of cohabitation, while they adore the master, enjoy his presence? Or is teaching a matter of playful anticipatory imagination, where teachers and students are at an equal basis confronted with challenges which ask for new solutions? “Beide sind für die Wissenschaft da”, said Von Humboldt. The school then is mainly a playground or a laboratory.

No, real life happens outside the walls of academia, outside the atelier of the master. If one is to learn in school, its walls have to tumble down. Students have to break out, and leave it, to enter the city, where real life takes place. “Architecture school” is an oxymoron. It is a contradiction in its own words. Architecture education doesn’t need walls.

Given this range of contradictory options, is a school really a format which is able to educate architects? And if so, what should this school consist of? Inspired by a lecture of the Flemish philosopher Bart Verschaffel, I will picture five types of schools. At the end, I will explain why I am convinced that architecture needs *school*. Up to you to make up your own mind.

SCHOOL IS A SHIELDED WORLD OF IDEA(L)S

The University is a center of learning, a refuge of thinking. It houses a concentration of knowledge. Since knowledge always needs a knower, the university hosts knowers. This concentration of knowledge and knowers leads to intensive thought. Within the walls of that academia, a climate of intellectual ambition governs. Freed from the bias from the outer world the inside area gives way to debate and discussion, in the old tradition of the Greek academies of Plato and Aristoteles. The best architects and the best researchers are attracted, addressing a selective cohort of committed students. Exempted from daily life affairs, cares and worries, both student and teacher are fully dedicated to thinking, reflection, debate.

Such a school secures its status by a strong selection of who is allowed to enter, both for students and for teachers. The whole setting is thought to attract “the right persons”, in order to shape “the right persons”. If this is secured, then the splendid concentration of knowledge and knowers is maintained and refreshed. The elitist stay, near the masters, brings the student to heights (s)he could never have thought of.

This place of ideas and ideals, is ideally shielded from the hustle and bustle of daily business. Think of the Greek Academy, an isolated place dedicated to exercise and study. Or think of Thomas Jefferson’s classicist pavilions dedicated to science and arts, in a park of lawns and ranges. Or think of the sacred space, as studied by Pier Vittorio Aureli in his investigation on the Politics of sacred spaces—“rituals and walls”. As a sacred space, the school is a geometrically defined perimeter. A geometrical island in the middle of the organically organized outer world. Within the walls, there is no production, no trade, there are no fights, no sex, but mainly talk and thought. A space which serves to generate free time—non-productive time, time freed from all concerns which prevent deep thought.

Or it could be a quiet place in nature: four trees, their shadow, and some benches.

SCHOOL IS A SAFE TRANSITION, A SPLINTERED RITE OF PASSAGE

Architecture may be an academic discipline, its concretization takes place outside the walls of academia. Architecture is embedded in real life. It comes into existence through interactions with the world, and is embedded in social, cultural, economic and political controversy. Shielding architecture education from this reality is no option. Rather than a shielded idealistic world therefore, architecture school should confront its students with complexity, uncertainty, contradiction, contingency and controversy—as it happens in real life. But it is no option to leave the students to fend for themselves.

Unprepared and unrehearsed immersion in that unreceptive world would be fatal. Therefore, school is providing an intermediate stage. A stage of transition between the careful domestic nest and the hostile jungle of contractors, real estate, lawyers and big business. Failure is allowed, care is provided. School is a safe haven; it is not only a matter of *coming to know*, but of *becoming*.

And so, from childhood on, school is offering a twenty-year long transition. Along this way, many trials are provided, key-markers in transition from one stage to the next. School induces metamorphoses through a sequence of trials and controlled confrontations, as a splintered rite of passage—a slow but steady and systematic preparation for the big entry into the “real” world.

As the student nears his/her entry in the world, the more precise the preparation gets. Complex cases are mimicked, and the student is asked to respond to a perceived reality, which is assumed to be similar enough to a certain reality to provide the right and formative interaction. Training as an architect typically consists of gradually becoming part of the community of practice—“the favoured circle” as Stevens calls it. Therefore professional practice is simulated during five years. The school then, is the simulator or a stage for acting a role play, the teacher the scenario-writer and repetiteur.

But, as it is acknowledged that future roles of commitment have to be trained through entering society and engaging in concerns of local communities, more authentic and confronting rites of passage are imposed. Mimicking is soft and fake. Real edifying experience only occurs in real confrontation. So, students leave for a while, but will come back soon, as witnesses of their own experience. Although the notion of the intermediate stage of transition is acknowledged, the school is no longer a simulator. Rather, it is a headquarter.

SCHOOL IS A HEADQUARTER

Since training for real live consists of being immersed—little by little—the student now leaves school, well-prepared, cheerful and full of expectancy for what will come. (S)he leaves for a while—a day, a week. At the end, (s)he will return, full of impressions and new questions. Having come back to be briefed again, for the next campaign. What remains of the school is a place of instruction and debriefing—a refuge, or rather a headquarter.

The rationale behind such a school is that education no longer has a monopoly on “learning”. Many things are learned outside school better and faster. The new information and communication technologies have made more clear than ever that learning is not bound by time or place. Learning is ubiquitous. The less is taught, the more can be learned. Less and less, the school is seen as an environment designed to provide the right conditions for intended learning—these have to be found elsewhere anyway.

For the student, transition happens between two poles: the headquarter and the field. Education consists of commuting between both. Learning occurs on trails of iterative trials. The student on exile: stay away for a while, come back and report on your personal change. Teaching is replaced by dispatching and anamnesis.

The headquarter can take several shapes. It can be a basecamp, which provides rest, distance, new energy and material for the next campaign. It can be a meeting room of commuting fellows, caretaking coaches, and interested passersby. It can be a consultation center for briefing and debriefing about assignments and accomplished missions. It can become a place of dissemination and witness, an exhibition space for experiences and insights to be shared. Or it can be an organizational headquarter, dedicated to dispatching and logistics. The more the concept of school as formative and performative space dissolves, the more school becomes ephemeral and intangible. But higher education aims to provide a formal qualification. So, the minimum that has to remain is a contractual construct.

SCHOOL IS A CONTRACTUAL CONSTRUCT

Society has high expectations regarding its academic graduates. To assure them, to be precise, transparent, and comparable, these expectations are formalized as statements in qualification frameworks. In Bologna jargon, qualification is to be understood as a formal confirmation, through a certificate issued by a competent authority, attesting the successful achievement of pre-set standards. Higher education then is framed in a set of rights and obligations, laid down in contracts. It is a system of agreements and arrangements, assigned to predefined learning results. The provision of education is no longer an *obligation of means*, but an *obligation of results*—pre-specified learning outcomes.

The student is—in terms of the Bologna idea—the “independent learner”. (S)he is in charge of his own trajectory. Education is an offer. Architecture addresses many fields and many disciplines are involved in architecture. This however, may be no problem for the student. For the complicated job of assembling the set of competencies the student is aiming for, guidance is provided. Moreover, the offer is well-organized. The aims of education are translated into learning outcomes. The curriculum is replaced by a framework containing an encompassing stock of educational material. The relation with the learning outcomes is mapped—preferably in matrices. This stock then, is divided into manageable bits and pieces. The individual study programme of the student—i. e. the assemblage of these atomic bits and pieces into a bigger shape—is officialized by means of a mutual contract between the student and the institution, thus securing consequent qualification.

The school basically is the institution which administers these contracts, and which manages the whole flux of information and involved actors to provide the services which are needed. Managing, monitoring and quality control are its basic tasks. School is a matter of good operation, effective production, reliable products.

In its most comprehensive understanding, the school is a provider—knowledge has become a commodity anyway. In its minimal understanding, the school is an authorized test base, where assessment takes place, and certificates are granted to who succeeds. In terms of a building, one could think of a vehicle inspection. One part consist of the test base, but at least a similar surface is needed for administration. It probably looks like an office building—with a public ground floor. But really, it doesn't matter.

SCHOOL IS A PLACE

It is understandable that for such expensive endeavours as higher education, contracts have to be made, and quality of the outcome—graduates—has to be assured. But learning can only happen when the right conditions are created. And as teaching is expensive, it should take place in optimal conditions. Optimizing conditions for teaching entails optimizing spaces for teaching. School thus, is a matter of space. In contrast to previous conception—that school mainly is a contractual construct—school now has become a spatial construct; the building does matter.

The school is a carefully designed spatial articulation, an optimized environment for learning. Spaces are accessible for all, rooms will have good daylight when daylight is needed, and will be darkened when there is projection. Ex-cathedra teaching implies a front and a public zone. It has a logic of sight lines and it needs good acoustics for speech, which is different than for music. Group discussions take place in seminar rooms, with a flat floor, and furniture allowing for flexible configurations. Similar reasoning defines place for drawing and design studios, coffee-breaks and services. The school is a spatial structural offer.

And within this spatial structure, infra-structure is provided, consisting of both physical and digital facilities, rooms and devices. ICT, media and new technologies link the

school as a hot-spot to the world-wide web of learners and massive-open-online-course-providers. The school, a Fab-lab for minds.

But despite this conception of school as structure and infrastructure, it cannot be argued that it is a matter of function only. Carefully designed and dedicated spatial configurations also serve and shape the ritual. Look at the sophisticated configurations of the Egyptian pyramids, or, look at the ninth century type plan of the abbey of Saint-Gall, carefully inscribing the ritual of daily life, consisting of praying, eating, working, sleeping, worship, caretaking, meeting, thought and debate. An optimal layout exist. School thus, is such a matter of layout—a carefully designed conglomerate of designated space, aimed at facilitating rituals for teaching and learning.

WHAT I REALLY THINK: SCHOOL IS A SET OF PRINCIPLES.

I think that a school is a place for thought, indeed. But this is the case because the concept *school* is not a place, but a set of principles. Read the (online open-access) book “In defence of the school. A public issue”, from the authors Jan Masschelein and Maarten Simons, and be convinced. In this book, the authors make a plea for reconsidering the notion *school* in its original—radical—meaning of the Greek σχολή (scholè).

Scholè refers to the act of *freeing up time*. *Scholè* is time, made free form productive time. In Latin, school was indicated as “*ludus*” which means “game” or “time for playing”. In this condition of time, freed from productivity—and thus “*free time*”—the teacher and students gather. The teacher puts a piece of the world in their midst. This piece of the world is brought into *suspension*—i. e. temporarily rendering it inoperative. It is taken out of production, it is released, lifted up from its normal context.

“School as a matter of suspension not only implies the temporary interruption of (past and future) time, but also the removal of expectations, requirements, roles and duties connected to a given space outside the school. In this sense, scholastic space is open and unfixed. Scholastic space does not refer to a place of passage or transition (from past to present), nor to a space of initiation or socialisation (from the household to society). Rather, we must see the school as a sort of pure medium or middle. The school is a means without an end and a vehicle without a determined destination. [... It is] middle ground where teachers draw young people into the present” (Masschelein & Simons, 2013, p. 36).

Now a process of *profanation* takes place. The piece of the world is de-privatized, de-appropriated, de-sacralized, made ungodly. As a result it becomes *publicly available*, and *accessible*. The teacher then induces a process of creating *inter-esse*—i. e. make all the students aware that this piece of the world is now in their midst, it has become a matter between them, and belongs with them. As this state of *inter-esse* of this piece of the world, which has been made accessible through the state of suspension and the process of profanation, is reached, the teacher *directs the attention* of the students, and installs *a principle of equality*. Everybody is *enabled to begin*. Provided with *knowledge for study*, and *skills for practice*, the piece of the world now *comes into play* (meanwhile the school acts as the playground of society—cf. the Latin word *ludus*). Even when the players, dedicated to study and exercise, meet difficulties, the teacher facilitates them to *be able to begin*, repeatedly, again and again. This is because the teacher is an *amateur* and a *lover*. It is more crucial that the teacher is a passionate amateur that an expert, a professional or a charismatic authority. He loves both the piece of the world that (s)he has selected to put on the table, and the (young) students which are gathered around the table. This amateurism—i. e. the fact that (s)he does this out of

love—makes him/her become a master, mastering the material which is at stake, put on the table, brought into play. Mastery as an aim of higher education, (rather than expertise, craftsmanship, or excellence) includes taking care of the world, and taking care for oneself in relation to that world. The master then opens up a world, offers the opportunity to get inter-ested, and hence invites others to care for the world and for themselves.

School is a set of principles—principles about expropriation, de-privatization and de-sacralisation, and thus, about the radical. To these principles, it adds care, dedication and mastery. Once these principles are implemented—carefully and with love—among this dedicated community of uninhibited young freed and opened-up minds, unforeseen things can, and will happen. One might consider *school* now, as potentially revolutionary—an environment of thought, creating opportunities to radically renew the world. (For this reason, Masschelein and Simons argue, the whole history of school is a history of being tamed.)

The previous picture, redrawing a model of *school* as a set of principles, relies almost entirely on wordily references to Masschelein & Simon’s book. The book addresses education in general, but it reads as if it is conceived for architectural education. Once read with architectural education in mind, its metaphors become the things themselves.

School is a privileged and communal place. It is a public issue, primarily meant for opening up the world—rather than being a matter of unlocking individual learning needs or talents.

School is a matter of inducing unforeseeable processes of conceiving what could be done, and what ought to be done in the world. School is a set of principles which makes these processes occur. This can happen in a building, on the bench in the shadow of four trees, or in the city. School is not a place, but in any case, it *likes* the architectural—a bench, a house, the city.

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Spaces of Architectural Education—Six Narratives of Spatial Flexibility

GEORGIA PAPATHANASIOU

Architectural education is a dynamic condition. It can happen every day, every hour, every minute around us. In a conventional sense, the main education that an architect gets as a student is usually structured in a series of different courses. The courses most often address multiple disciplines: social sciences, applied sciences, arts, etc. Depending on the policy, character and ambitions that an architecture school has, its students may receive more training in one discipline and less in another. Depending on the discipline, the learning methods that an architecture student experiences can vary—ranging from classroom studies and designing to building or even performing. Moreover, students learn a lot through spaces that they experience. The power of spatial experience forces us to wonder about the spaces of architectural education and to investigate them. Do the spaces of architectural education influence the architectural education? And if so, how?

The main aim of this article is to shed light on spaces of architectural education. The different systems of architectural education are examined through selected examples in order to investigate if and how the system of architectural education has an impact on space or, vice versa, if and how a space can influence the system of architectural education. The selection of the following examples is based on cases studies that are currently being investigated by the Master's studio Staub/Papathanasiou at the Institute of Architecture and Planning in Liechtenstein. The examples are presented here by means of floor plans accompanied by quotations addressing the creation of their spaces and their educational system. In order to talk about architectural education in spatial terms and examine the spaces of architecture schools—spaces that are usually open for appropriation—spatial flexibility is the main criterion by which the following examples are assessed.

1 The open floor plan

[IIT COLLEGE OF ARCHITECTURE, COOPER UNION,
NANTES ENSA]

2 The self-contained rooms

[AA, FAUP]

3 The simple box

[SCI-ARC]

4 The pavilion

[ILEK]

5 The mobile space

[AA/AD/POLYARK]

6 Any space

[LSA]

A COLLEGE OF
ARCHITECTURE OF
THE ILLINOIS
INSTITUTE OF TECH-
NOLOGY
1986

B IRWIN S. CHANIN
SCHOOL OF ARCHI-
TECTURE OF THE
COOPER UNION
1974

C NANTES SCHOOL
OF ARCHITECTURE
2009

D ARCHITECTURAL
ASSOCIATION SCHOOL
OF ARCHITECTURE
1971

E FACULTY OF
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PORTO
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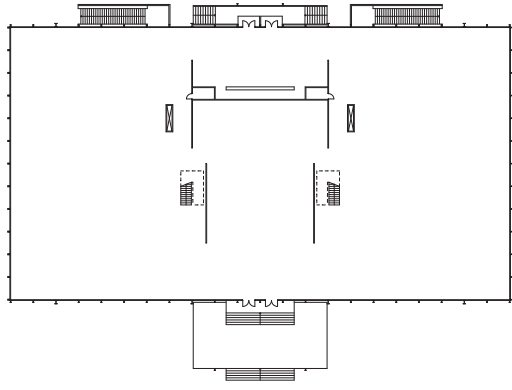
F DEPARTMENT OF
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G DEPARTMENT OF
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STUTT GART
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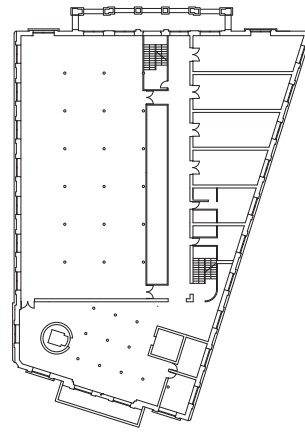
H JOURNAL
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The plans have been
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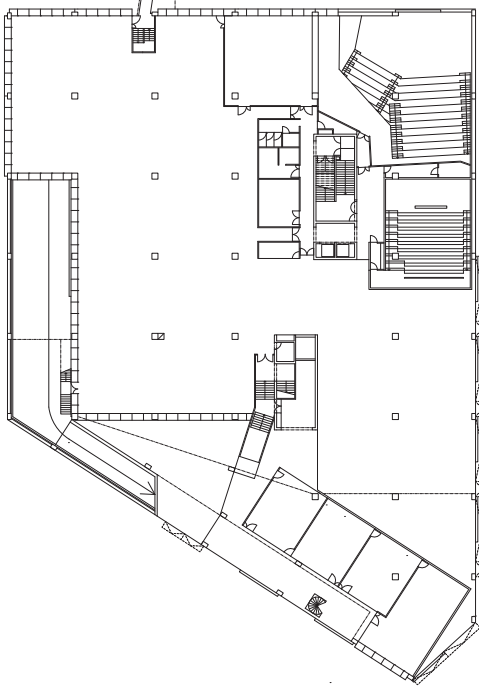
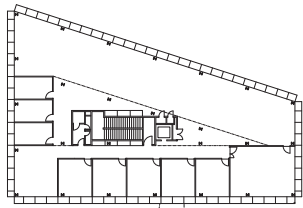
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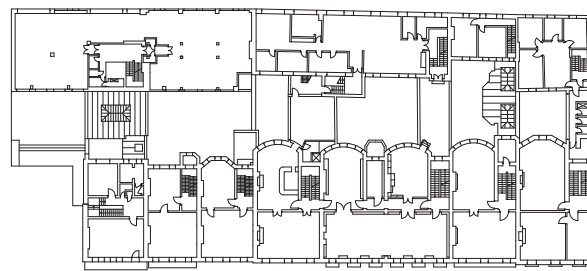
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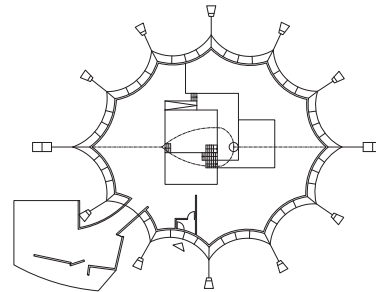
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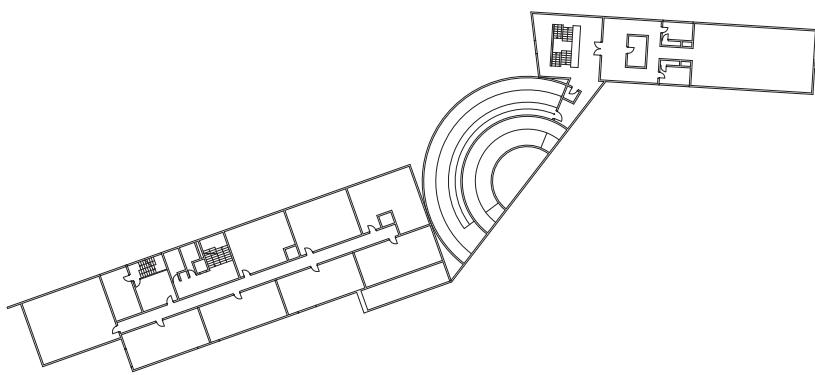
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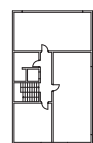
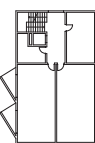
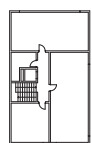
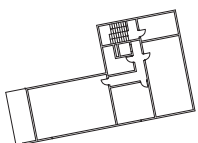
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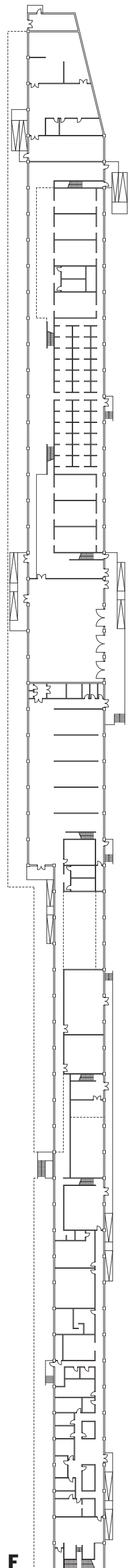
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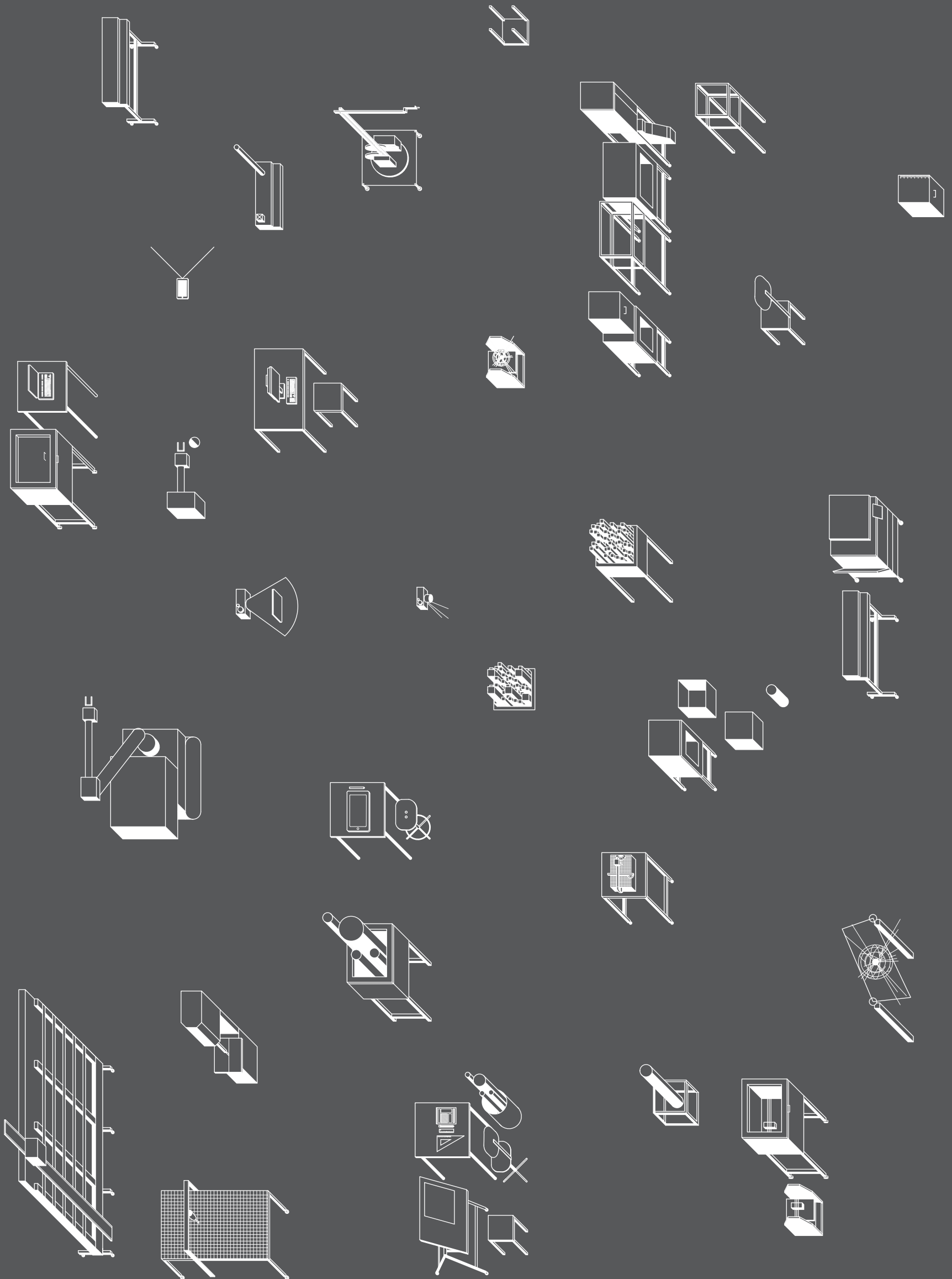


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THE OPEN FLOOR PLAN

More often than not, the idea of the open floor plan is connected with the notion of spatial flexibility. The open floor plan is typically translated into large spaces defined by freestanding structural elements. These kinds of spaces have the potential to change with the introduction of new spatial elements—whether mobile or stable—promoting a special character of flexibility. In architecture schools, the floor plan can emerge from the design concept for new construction as with the College of Architecture at the Illinois Institute of Technology (IIT College of Architecture) and the Nantes School of Architecture (ENSA), or by appropriating existing buildings, as in the case of the Irwin S. Chanin School of Architecture of the Cooper Union in New York.

In 1956 Mies van der Rohe designed the College of Architecture of the Illinois Institute of Technology, which is formally named S.R. Crown Hall. The building has two levels: a ground level and an underground level. The workshop areas are located below ground and the teaching and studio areas are on the ground level. The ground level is based on the idea of the open floor plan, partially subdivided by freestanding partitions, to provide a flexible space for appropriation. With the creation of this building, Mies van der Rohe states: “The essence of space is not determined by the mere presence of limiting surfaces but by the spiritual principle of this limitation. The true task of architecture is to let the structure articulate the space; it is not the building that is the work of art but space” (Mies van der Rohe, 1986, p. 86). The space promotes a pure architectural language, consistent with the language that is being taught in the school. Mies van der Rohe transported the Bauhaus educational system to the IIT College of Architecture; it is a system that is based on teaching the craft of drawings, planning skills and architectural theory.

In 1974 John Hejduk, the first Dean of the School of Architecture, redesigned the Foundation Building. The main purpose of his renovation was to align the pedagogical programme of the school with the structure of the building: “John Hejduk retained only the four facades of the building and the Great Hall, inserting into this envelope a columnar structural grid, to suggest a series of loftlike spaces that serve as classrooms, studios, a library, and an exhibition area” (Deborah Nevins, 1977). John Hejduk attempted to reinforce individuality within his teaching practice. A series of classrooms offer the possibility for courses like poetry, painting and the like to be taught to small groups of students. The main working space (studio) is located on the fourth floor of the building in an open floor plan that is defined by vertical and diagonal structural elements. It is worth mentioning that this one open space functions as common working space for all the students of Cooper Union and there is no separation between the Bachelor and Master students. “When students at other schools set up ghetto workshops, at Cooper Union they learn how to put buildings together. They believe in the well-made joining as well as in the dignity of man” (Ada Louise Huxtable, 1971, p. 24). Moreover, the basic pedagogical goal of the school at that time was to give its students practice in the basic architectural problems of space and form. The renovated school manifests, in a sophisticated manner, the fundamental principles of architecture: form and spatial composition. It is also worth mentioning the importance of the Great Hall. Designed to serve as a mecca for all those interested in serious discussions and the vital issues of the day, it is still considered a communal place for the public in New York.

Built in 2009 the Nantes School of Architecture can be perceived as an open structure that offers a wide variety of spatial qualities. It combines open areas with enclosed spaces. The enclosed spaces host functions like educational, administrative and service facilities. These enclosed spaces interrupt the open floor plan of the building, which intertwines areas for parking with areas for teaching, learning and working in a fluid manner. Apart from the enclosed spaces that serve specific programmatic functions, all the other areas within the grid of structural elements are open for appropriation by the students, creating flexible floor plans. We have also to mention that the architecture school in Nantes can be considered as a counteraction to the homogenised landscape of architectural education: “The constant questioning and open-ended adaptability of the building is intrinsically linked to the Bologna Process” (Philip Ursprung, 2015).

THE SELF-CONTAINED ROOM

There are several architecture schools that follow a different approach towards their infrastructure spaces, by using a series of self-contained rooms. The spatial scale of the self-contained rooms plays an important role in the educational model that is produced. Although the self-contained room provides a limited space, different patterns of flexibility and appropriation can arise. These kinds of spaces appear in schools such as the Faculty of Architecture of the University of Porto (FAUP) and the Architectural Association School of Architecture (AA) in London.

In 1917 the AA moved to its current location at Bedford Square. The occupied building is essentially a late 18th century Georgian townhouse: “Despite some alterations the domestic character and layout of an upper middle-class home, or a gentleman’s club, has been largely maintained over the years, and to this day provides the framework for the school’s various programmes” (Oliver Domeisen, 2010, p. 42). In 1971 Alvin Boyarsky redesigned the unit system of education to be “based on a competitive framework of vertical studios, or “units”, that each offers tutors autonomous pedagogical territory for developing individualized architectural investigations” (Irene Sunwoo, 2010, p. 25). The educational system of the school and its spaces have an interdependent relationship; Brett Steele, the current director of the school states: “We are still a school defined by occupying houses that were effectively designed for groups of six or seven people, and that are now lived in by hundreds. One of the things that are interesting about the domestic architecture that we inhabit and grew up around is that there is a kind of domesticity to how we operate as a school: it is a series of small self-contained worlds that make up the bigger institution. But there aren’t these big, uniform, universal spaces that most institutions are sunk by in a modern type of architecture school” (Brett Steele, 2010, p. 42). On the one hand, the domestic scale of the building reinforces the production of the well-known unit system—a system that is based on small groups of students that work very closely with their tutors and produces a diverse architectural-oriented body of studios. On the other hand, the fact that the building is not designed on purpose as an architectural school but instead inhabits an old residential structure amplifies the essence of informality and leaves space for the unpredictable to happen.

The Faculty of Architecture of the University of Porto, built between 1985 and 1996, follows a similar pattern towards its educational spaces. The building, designed by Álvaro Siza Vieira, is a composition of volumes within the landscape. The architect took into consideration traces of former walls that crossed the site, and his concept of this composition of independent volumes was developed on an archaeological map that firstly established “its dominant position, its arrangement in a series of independent or semi-independent units and the importance given to the itinerary reminds one of an acropolis” (Cortés, 2013, p. 33). Apart from the main building, which is occupied by common facilities—lecture halls, auditorium, library and administrative spaces—the working areas (studios) are organised in the form of classrooms inside four individual towers. Through his design, Álvaro Siza Vieira reinforced the educational goals of the school; the classrooms offer the students the possibility to work in small groups while being part of a bigger community. Various routes within the complex connect all the individual volumes to each other and the main building, articulating an architectural promenade that combines open and closed spaces in its development. The spatial flexibility in this case crosses the borders of one space—one room; a combination of open and closed spaces, underground, elevated or semi-buried routes define a different pattern of spatial flexibility.

THE SIMPLE BOX

Although we typically expect architectural schools to employ either the idea of the open floor plan or the self-contained rooms for their working spaces, we also encounter schools that combine both spatial experiences in their facilities. The spatial flexibility is challenged by the introduction of vertical elements—stable or mobile—in an informal manner. The Southern California Institute of Architecture, SCI-Arc, can be considered an example of this kind of school.

SCI-Arc was founded in 1972 by a group of faculty and students from the Department of Architecture at California State Polytechnic University, Pomona. The main

aim of the school was to promote experimentation and the basic concept of the school was to create a “college without walls”. The school appropriates an existing linear industrial building that offers a large-scale space, a simple box. All the structural elements are embedded in the facades. We no longer have a predefined area of structural elements but rather a naked space that is open for appropriation. The space can be appropriated and changed according to programmatic and individual needs. The informal character of this kind of appropriation reinforces the variety of spatial qualities.

THE PAVILION

There are schools that offer their departments—architectural studios in this case—the possibility to be accommodated in separate structures within their university campus, like the Institute for Lightweight Structures and Conceptual Design (ILEK) at the University of Stuttgart. In this case, the pavilion structure and its location are determinative factors that challenge the spatial flexibility.

Built in 1967 by Frei Otto, the Institute for Lightweight Structures is developed as an isolated structure on the university campus. The enclosed space works as an open floor plan that welcomes appropriation: “The IL tent is embedded in a moulded, hilly landscape including an essentially closed yard for experiments and an open lecture theatre amid the greenery” (Burkhardt, 2005, p. 95). There is an immediate connection between indoor and outdoor space. This connection plays an important role. Educational practice can easily take place outside the built structure. These types of schools expand the space available for appropriation by including their immediate surroundings. Frei Otto’s research focused on lightweight and adaptable structures, and the principles of his research are manifested in the IL tent. “The structure is an early example of adaptable and ecological building. The experimental building is in the form of a 650 m² cable net with a membrane suspended beneath it, supported by a 12 m high tubular steel mast with a cable loop” (Burkhardt, 2005, p. 94).

THE MOBILE SPACE

Sometimes we encounter cases where architectural education radicalises the fixed built space, thereby challenging the notion of spatial flexibility. One such case, the AA/AD/Polyark project by Peter Murray and Cedric Price that took place in the United Kingdom, developed an unlimited network of built and unbuilt spaces by employing mobile spaces.

In 1973 Peter Murray and Cedric Price, in collaboration with the journal *Architectural Design* (AD) and the Architectural Association (AA) in London, converted a double-decker bus into a space of architectural education as a mobile space for teaching. The initiative was based on Price’s National School Plan for a network connecting Britain’s schools of architecture in order to “produce a range of architectural education investigation far more comprehensive than that now offered by any single school” (Price, 1966, p. 1282). On the one hand, the bus provides a limited space; on the other hand, the possibility of movement offered by the bus creates a network of unlimited spaces. The bus, as an enclosed space, is crucial and it is the place where part of architectural education takes place. Although it seems that architectural education as practice is limited within the enclosed space of the bus, the determinative aspect of the movement offered by any mobile structure radicalises the notion of spatial flexibility.

ANY SPACE

Another approach towards creating a flexible working environment is encountered nowadays in the employment of existing spaces within an urban environment. An example of this kind of architecture school is the newly founded London School of Architecture (LSA). In this case, the spatial flexibility is challenged every year as different spaces are occupied.

LSA is an architecture school that began in 2015. The school’s aim is to make architectural education affordable within the geographical borders of the UK. This has great consequence: the school does not have a fixed place for conducting its education; instead, it changes its spaces and therefore its location every year. The school approaches the city as a rich network of infrastructure and resources that can be used according to the specific needs of its projects. This notion of spatial flexibility also carries another meaning:

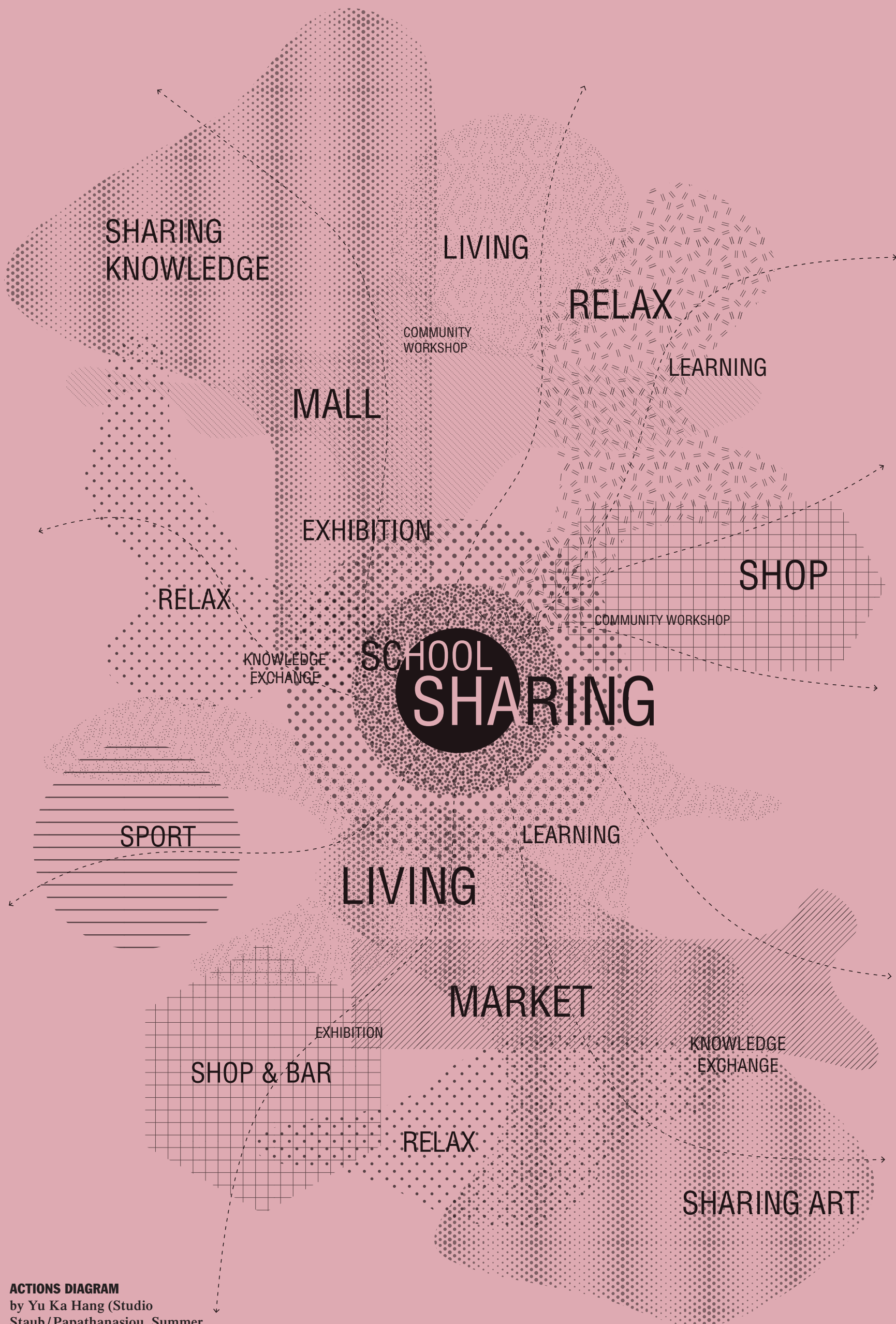
we are no longer talking about flexibility within the specific spatial borders of one space or one building, but about an expanding dynamic network of spaces that can be occupied according to specific needs. The projects of the school are related to the urban condition and therefore the urban environment plays an important role as a place where architectural education takes place.

CONCLUSION

The above cases aim to highlight the correlation between forms of architectural education and their spaces. In some, as with the AA in London and its link between the domestically scaled studio spaces and the unit system, this appears obvious. In others, like the IIT College of Architecture by Mies van der Rohe or the ILEK at the University of Stuttgart by Frei Otto, the connection does not take the form of an educational model but is expressed through the content being taught. Moreover, it seems that the term “spatial flexibility” embodies a different meaning in each case. Of particular note is that, as some of the cases demonstrate, spatial flexibility must not even be confined to the borders of the built spaces themselves.

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ACTIONS DIAGRAM
 by Yu Ka Hang (Studio Staub/Papathanasiou, Summer Semester 2016, Master's Degree Programme in Architecture, University of Liechtenstein)

Sunday Morning At School

A line of cockroaches was waiting to enter my bed. One of them was already scratching my ear. Suddenly, I woke up. An erratic sound was penetrating through the open window; somebody was cleaning the floor from caked paint. I opened my mosquito net, and through the pile of pillows and scattered clothes I climbed down the ladder.

Beatriz and Yuki were sitting at the smallest bubble drawing doodles on the board. I would join them later to help, but my task for today was to visit a family living two streets down and to take the kids to the exhibition. In a few minutes the lecture in the “Garden Auditorium” was about to start. Running to the kitchen for morning coffee caused my fall on a pile of fabric posters, the result of one-week work. Fortunately, none of them was destroyed. Quietly I backed away ... I took a drink and I went to meet other students, teachers and neighbors. On the way, a pink figure reflecting morning light beams coming through an orange glass attracted my attention. It was Lars, who overslept on the coach after yesterday’s review. Under his new sleeping place sat his dog. I took them with me.

After opening the doors, a bunch of chairs and small tables appeared. Following the irregular line of them I realized that half of them were located outside, warmed by the sun, abandoned. It was my first time in the “Garden Auditorium”. Here and there were small trees, lush greenery that effused an addictive perfume. The summer was coming. I chose a sunny spot. One week in the laboratory didn’t allow me to spend time outside.

The teacher was explaining us a drawing painted in the circle on the floor, around six meters wide. People came closer. The slope of the ground allowed all of us to see it. This idea of the construction was realized by my older colleague. I remember the construction site: what a crazy mess, no drawings, no plans. He just built it, like a bricoleur, using left-over wooden beams found in the surroundings.

Before I left for the family meeting, I decided to take a quick look at my sculpture, the result from last month workshop; an unfinished composition that will never be completed. My model was situated in the middle, in the red square, in front of the green couch. The visitor could decide to sit down or to interact with it. To my surprise, after one month without changes, today it had another form and something unpredictable had happened ... something was dripping on my head, every three seconds, again and again. My curiosity forced me to look up, and above my head a bucket appeared, from which water was dripping down, blurring the colors and the sculpture. A colorful path had been created ... the one that later on led me to the bar. Or was it the smell after all? Through the half transparent rounded wall I could see a few people producing the fog of smell.

From Architectures of Learning to Learning Architectures

WOLFGANG TSCHAPPELLER
LISA SCHMIDT-COLINET

In 2015/2016, inspired by the research project NeST and a sustained debate at the IKA on visions and realities of learning architecture, all design studios are exploring the question of how architecture can be taught and above all learned. “From Architectures of Learning to Learning Architectures” is the resulting working title. At the project’s half-time point, Lisa Schmidt-Colinet and Wolfgang Tschapeller interviewed their colleagues about their approaches.

Your architectural works are usually very precise, subjective statements. You refer more often to literature than to architecture. You teach architecture and, at the same time, you are sceptical as to whether architecture can be taught. Can you tell us more about that?

HANNES STIEFEL Architecture, situated in the rift between the world of facts and the immeasurable and incalculable realities of our diverse and contradictory environments, can hardly be imparted by didactic concepts. The quest for future forms and spaces of learning and teaching in the field of architecture raises the question of the potential and future functions of architecture within and between our dynamic societies. In methodological terms, our work takes place between the extremes of, on the one hand, revisionist translations of our predecessors’ works into different temporal and spatial contexts in the sense imagined by literary scholar Harold Bloom (*The Anxiety of Influence*) and transcriptions in the style of literary poacher Jonathan Lethem (*The Ecstasy of Influence*) and, on the other hand, of what we have learned (by way of Jacques Rancière) from Joseph Jacotot: that education cannot be awarded, but must instead be seized. The overdue paradigm shift in the practice and teaching of architecture could not only lead to increased and renewed investment into the exploration of other spaces, and thus of concepts of diversity and difference that engender more and new directions, but also to a completely new role for students in this process.¹

¹ **AMBIGUOUS ENVIRONMENTS**, Environments of and for Architectural Education [1]: Designing about Architecture, design studio, Master’s programme Platform Ecology | Sustainability | Cultural Heritage Faculty: Hannes Stiefel Workshops with: David Lieberman, Josh Müller, Dominik Strzelec Students: Felix Hecker, Valentin Heuwieser, Sophie Höfig, Marlene Lübke-Ahrens, Daniela Mehlich, Arianna Mondin, Patrick Pazdzior, Natascha Peinsipp, Benjamin Softic, Felix Steinhoff, Dennis Stratmann, Sara Zebec



Design studio **AMBIGUOUS ENVIRONMENTS**.
Photo: Felix Steinhoff/© studio205

Many of your architectures seem to form from intuitive chains of reactions, as if they emerged from internal discourses of the objects themselves. Your projects appear to be borne by razor-sharp intuitions. How can such an understanding of architectural production be translated into academic teaching? What is developing from your design studio?

ERNST FUCHS The well-known changes in communication and media technology, the increasing mobility of students and socio-political transformations all raise the question of whether and how all these changes will have an impact on the teaching of architecture. The working hypothesis—that institutes and disciplines at the Academy are being dissolved, and that there are no more learning goals, but instead a new mode of coexistence that stimulates the imagination—is an initial action based on a way of thinking in which anything is possible and can be begun anew. What has happened? The absence of gravity and its effect on spatial perception and posture has been explored; fractures have been introduced into the Theophil Hansen building; new technologies are being used; fungi have been cultivated and their biomorphic structures transformed into spaces; spaces have become mobile; the building envelope has become the interface for “Learning Architectures”, and the “arteries of the Academy” have been fictionalised as a socially permeable infrastructure, a building for self-sufficiency activists; openings in the existing structures have been expanded as linear volumes or bridge-like “active spaces”, extending into and participating in urban space. There is the “Metabolic Academy—a State of Mind”, where knowledge is produced and applied at the same time. There are four rooms that exhibit explicitly alien qualities in contrast to the existing building, e.g. the ritual room, the plant room... Experimental spaces as parallel worlds are proliferating independently within the existing building structure. Time has no meaning in a competence centre for the environment with great ethnic diversity.²



Design studio the Next college **DESIGNING THE NEW SCHOOL OF THOUGHT**, Ernst J. Fuchs

The focus of your work at IKA is on construction, material and technology. In the current project, the programming, use and dedication of spaces also play an important role. Where do you see the relevant roots of your teaching of architecture? Where would you start when you think about future and new practices of teaching and producing architecture? What do you consider “New Schools of Thought”?

MICHELLE HOWARD New Schools of Thought often emerge from very old schools of thought. Our experiment begins with the Peripatetic, founded in Athens around 335 BC by Aristotle. It derives from the Greek word for the colonnades of the Lyceum, and also refers to the act of walking. Aristotle liked to walk about as he thought and taught, so that his pupils literally had to follow him. One of the greatest changes in spatial thinking occurred in the 18th century with the emergence of the knowledge worker and the dominance of the sitting position. So much so that the most advanced (and fetishised) piece of furniture today is arguably the office chair. Working environments that require of us to remain within a reduced spatial terrain in a sitting position are efficient solely at the level of square meterage. We posit that real creative efficiency derives from the polar opposite, from dynamic interaction with an abundance of spaces. We propose that the only real efficiency lies in abundance of space and spatial qualities,

which in turn provoke abundance of movement. Our Studio Experiment began in a room of 72 m² floor area and 8m in height, a little too small in floor area but with an abundance of volume. The design of a series of architectural devices interacted with and gradually formed networks throughout the Academy building, itself perceived as a construction from which to hang and build.³



Wanderlust—Reciprocity Project, Christopher Gruber, design studio **THE PERIPATETIC ENVIRONMENT**. Photo: Christopher Gruber

Your understanding of buildings is frequently overlaid by regularities of landscapes. At the same time, you are interested in methods of representation and presentation of architecture. In the current studio project, the Academy building becomes a model and field for experimentation to try out architectural action and make the building legible as a landscape. Can you tell us how these approaches are reflected in your way of learning and teaching architecture?

KATHRIN ASTE The Academy building is the embodiment of a hypercontext.⁴ The building as such and the different spatial situations give an insight into architectural, artistic and intellectual creation at the Academy over more than a century. How does such an interdisciplinary environment impress and influence the attitudes of entire generations of architects and artists? If we understand the Academy of Fine Arts as a self-perpetuating, built context, it raises the question of how we read that context and what we learn in the process. In the design studio, new interpretations have emerged from the exploration of sculptural modelling techniques, from the digital transferral of the art of engraving, or from the insight that a door as

² the NEXT college _ **DESIGNING THE NEW SCHOOL OF THOUGHT**, design studio, Master's programme

Platform Analogue | Digital Production

Faculty: Ernst J. Fuchs

Students: Kristyna Sevicikova, Max Ganter, Anna Götte, Bahareh Mohammadi, Julia Obleitner, Severin Goidinger, Ronja Hye, Wolfgang Novotny, Veronika Suschnig, Raffael Schwaerzler, Anna Valentiny

³ **THE PERIPATETIC ENVIRONMENT**, design studio, third semester, Bachelor's programme
Platform Construction | Material | Technology

Faculty: Michelle Howard, Luciano Parodi

Students: Loreto Llanos Angulo, Marija Katrina Dambe,

Aleksandra Dobicka, Clara Fickl, Elisabeth Fölsche,

Burak Genc, Christopher Gruber, Sophie Hartmann,

Simon Hirtz, Jakob Jakobowski, Simon Lesina-Debiasi,

Marta Llop Santamaria, Madeleine Victoria Malle,

Brina Meze Petric, Stepan Nesterenko, Urban Niedermayr,

Mikail Smolski, Aysen Sulmaz, Antoine Vercoutere

⁴ Hyper—prefix; from the Greek ὑπέρ (hyper):

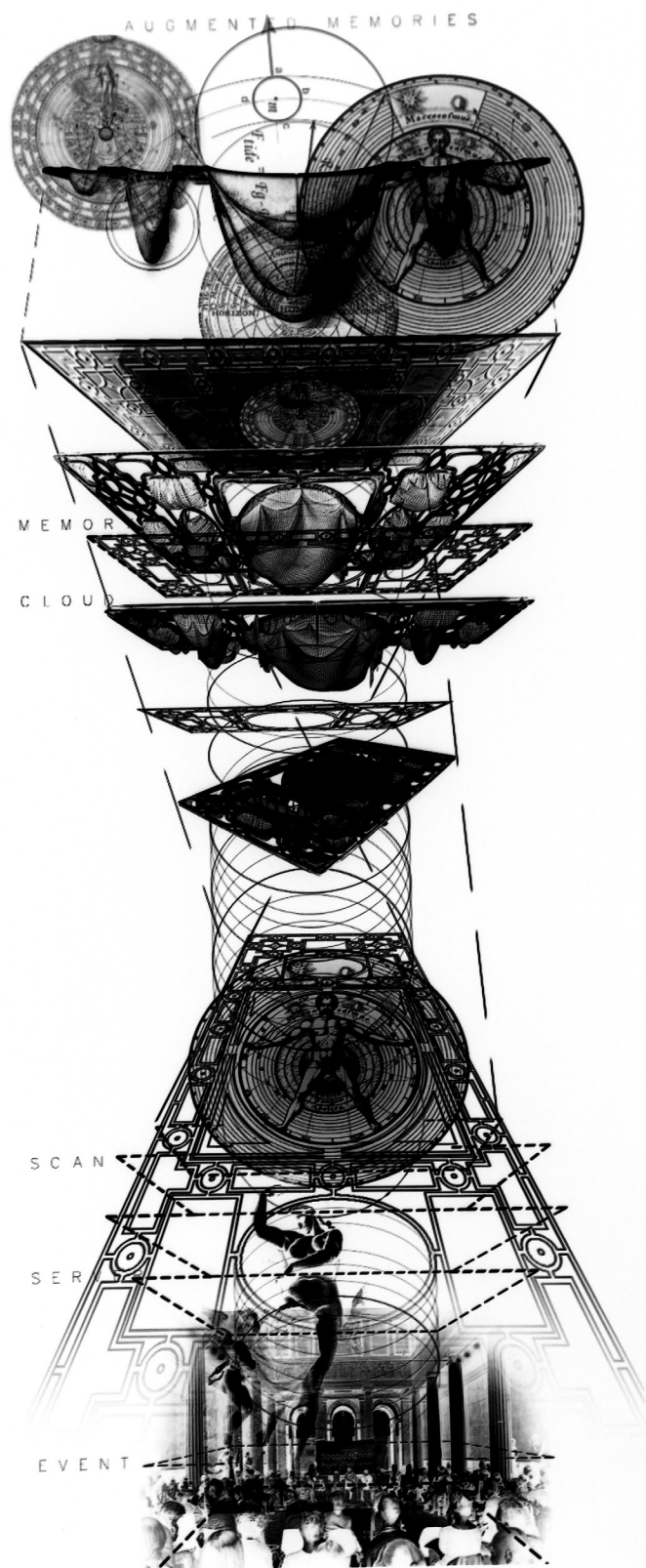
“beyond”; context—noun; from the Latin contextus:

“connection, conjunction”, correlation

an element can have two completely different sides, because form does not always follow function after all, or then again from the observation that an entire cosmos is formed between the divine narrative of a ceiling painting and political debate events in the auditorium, thus reflecting the space as an empathetic structure.⁵

Designing means taking a stand. It requires critical examination and the capacity of interpretation, and the Academy is the perfect example for practicing just that.

You work with students in their first semester. The topics you explore give a first insight into essential fields of knowledge in architecture, such as analogue and digital production, construction, material and technology, geography, landscapes and cities, history, theory, criticism, and ecology, sustainability and cultural heritage. Can you explain, as concretely as possible, how you proceed? How do you teach architecture? Where do you start with students in their first semester, and what are your methods?



Design studio EMBODIMENT OF A HYPERCONTEXT, project by Cenk Güzelis

CHRISTINA CONDAK, DANIELA HEROLD

We started with containers—glass bottles, plastic containers, cleaning agent containers, scent diffusers, watercolour paint boxes and ventilation grates. The starting point was to replicate an object in paper and then begin a journey of exploring the translations of the object into something else through its change of size and then material.⁶ As the objects become more abstract, they begin to resemble spaces, interiors or landscapes. We can imagine scale, inhabitation and the passage of a human being.

We kept things open to chance encounters. Accidental discoveries are effective lessons for design as a process. And here, without having a programme, or any particular purpose, we could free ourselves to talk about things purely in terms of composition, lines, material properties, or how carefully something was made and how that in itself can become a catalyst in design.



Casting mould and plaster model, Maximilian Pertl, design studio INTUITIVE TRAJECTORIES. Photo: Maximilian Pertl

5 EMBODIMENT OF A HYPERCONTEXT, design studio, Master's programme
Platform Geography | Landscapes | Cities
Faculty: Kathrin Aste
Students: Clemens Aniser, Alexander Egebjerg, Michael Glechner, Pia Grobner, Cenk Güzelis, Thomas Huck, Blerim Kurtishi, Linda Lackner, Samy Omar, Dominik Schwab, Rumena Trendafilova

6 INTUITIVE TRAJECTORIES, design studio, first semester, Bachelor's programme
Faculty: Christina Condak, Daniela Herold
Students: Philipp Behawy, Marcella Brunner, Marie Eham, Christina Maria Ehrmann, Anna Gleich, Felix Kofler, Nathaniel Loretz, Maria-Teodora Marta, Prima Mathawabhan, Madina Mussayeva, Nils Frederick Neuböck, Maximilian Pertl, Sophie Publig, Ruben Stadler, Inga Anna-Maria Strasser, Patricia-Andreea Tibu, Ivan Todorov, Lukas Zeilbauer



Formation of a Working Hypothesis—School of Thought

STUDIO URS EGG

STUDIO

“I’m tabula rasa. Please throw me something! Tell me something! I’ll do it.” ANDY WARHOL

Our studio is an airborne castle in a storm that sweeps away over landscapes.

The Storm has a beginning and an end—the landscape remains infinite.

In *“The Geographical History Of America”*¹ Gertrude Stein investigates the relation of human nature to the human mind. What she ascribes to human nature is identity, institutions, systems, frameworks, skills, proficiency, history, temporality, and all measurable things. The landscape however, corresponds to the human mind—it is endless, unmistakable, and present; it absorbs the effects of the storm.

WORKING METHODS AND TOOLS

“What also determines where the line breaks, is where the thought breaks.”² ALLEN GINSBERG

The initials of our creative processes presumably lie within a constructive principle.

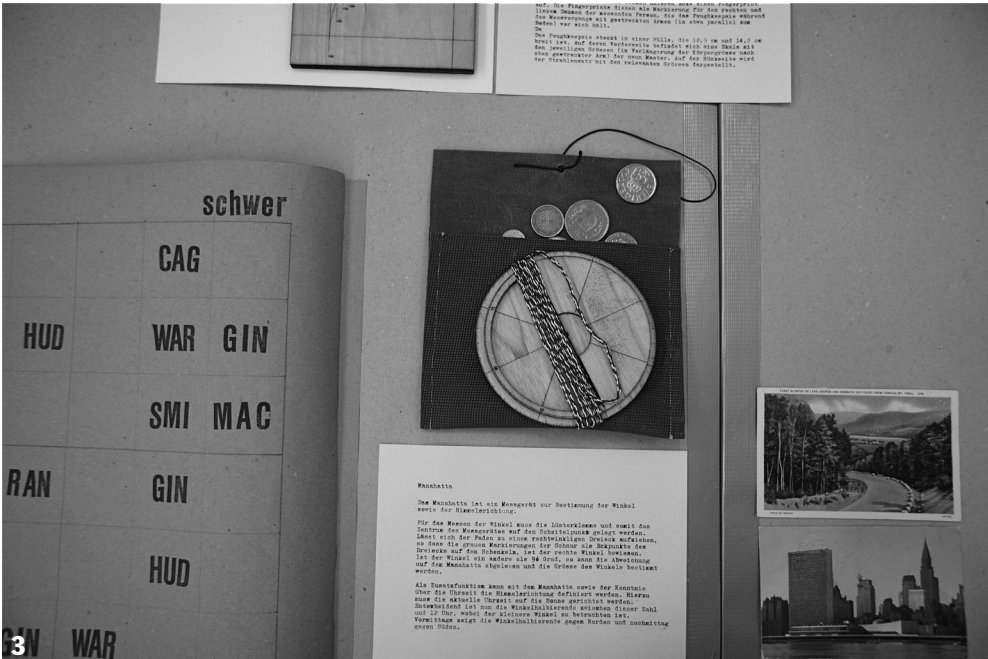
Adding fragments of knowledge to an ever growing cognitive construct is one of our means of ascertaining truth. These findings build the source of inspiration and fuel our inventive spirits to inform fresh architectural visions within spatial and formal strategies. Furthermore, we seek to acquire skills that oppose to the vanishing of the tactile original in a solely digitally generated world³. Our methods of application are processual, dialogic, and kaleidoscopic; we acknowledge magic and science, we recognize the presence of the real and surreal, we celebrate craftsmanship and the immediacy of decision making. We DO things; we are accurate in linearity and inversion, we interrogate, intervene and contradict until our project arrives there where it wants to be.

1 Stein, G. (1995). *The Geographical History Of America*. Baltimore, MD: Johns Hopkins University Press.

2 Ginsberg, A. (2001). *Spontaneous Mind, selected Interviews*. New York, NY: HarperCollins Publishers.

3 Beaudrillard, J. (2008) *Warum ist nicht alles schon verschwunden?*. Berlin: Matthes & Seitz.

- 1 CURRICULUM_NEEDLE (INSIDE) SCALE MODEL_OBJECT
- 2 MANIFESTO_EQUILIBRIUM SCALE MODEL_OBJECT
- 3 MANIFESTO_NEEDLE (INSIDE) MEASURING DEVICE
- 4 MANIFESTO_ZODIAC ORDERING PRINCIPLE_MAPPING



IDEAS PLANTED ON A MYTHICAL ISLAND

“The poetry of New York is old and violent as the world; it is the poetry that has always been. Its strength, like that of all other existing poetry, lies in the most gelatinous and paradoxical aspects of the delirious flesh of its own reality.”⁴ SALVADOR DALI

Our program for the voyage between the *new and the old world* leans on Rem Koolhaas’ *“Delirious New York—A Retroactive Manifesto for Manhattan”*⁵, which is an exemplary research project from 1970’s that concluded in a fictional representation by Madelon Vriesendorp and OMA. Our expedition to New York aims to reactivate this type of research and exploration on our own terms. We will access our own sources to gain understanding over interrelationships concerning this exceptional urbanity. The student group is assigned to familiarize themselves with key players—*Dramatis Personae: artists, scientists, wilderness surveyors, film makers, architects, movement leaders, composers, poets*—who in one way or the other contribute to the great New York story that manifests on the island of Manhattan, at the same time the group negotiates their own ideas and terms for the education of an architect.

“Art, be it painting, literature or architecture, is the remaining shell of thought. Actual thought is of no substance. we cannot actually see thought, we can only see its remains. Thought manifests itself by its shucking or shedding of itself; it is beyond its confinement.”⁶ JOHN HEJDUK

School of thought, the definition of a *curriculum*, and a draft of a *manifesto* are thematic anchors on our journey to New York City. The Irwin S. Chanin School of Architecture of the Cooper Union is considered a school with pioneering spirit. The history of its formation, the curriculum and ideology are of great interest to us in comparison to our own ideological approach. Founded by the philanthropist Peter Cooper in 1859, with hope and trust that the students [...] *“catch the inspiration of truth in all its native power and beauty and find in it a source of inexpressible pleasure to spread its transformed influence throughout the world”*, Cooper Union from there on stands for free education and the love and desire for artistic and scientific knowledge. In 1974 Dean John Hejduk manifests a curriculum as a visionary architectural intervention within these spirited walls and ensures the continuation of an ideal, to think of architecture in its most fundamental way.

“There is the possibility of a vision of architecture that might be interpreted as a fabrication. During its construction it disappears, it clarifies as it uncovers, it reveals as it erodes, it celebrates as it captures, it pronounces as it closes, it crosses over. The method is severe: architecture is filtered through its parallel disciplines of painting, literature, medicine. It is an elliptical method and it is incremental. In the end it is biological/androgynous, and is in search of the female. It is unrelenting.”⁷ JOHN HEJDUK

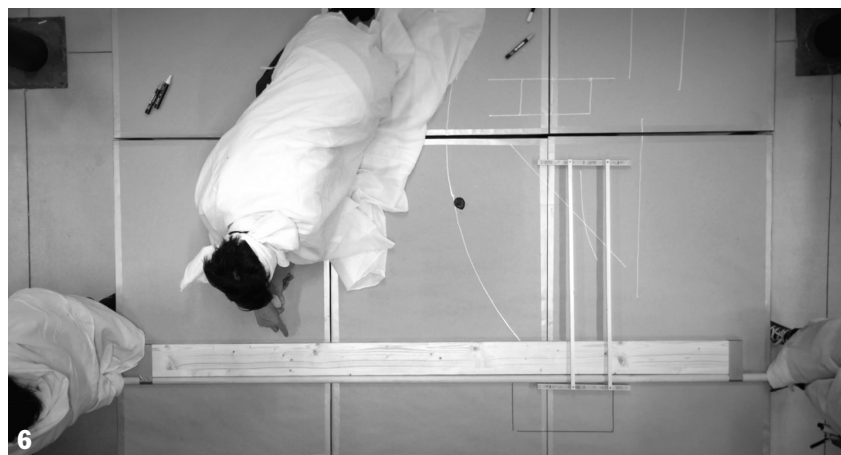
4 Dali, S. (1993). *The Secret Life of Salvador Dali*. New York, NY: Dover Publications.
 5 Koolhaas, R. (1994). *Delirious New York, A Retroactive Manifesto for Manhattan*. New York, NY: The Monacelli Press.
 6 Diller, E., Lewis, D., Shkapich, K. (1988). *Education of an Architect, The Irwin S. Chanin School of Architecture of The Cooper Union*. New York, NY: Rizzoli
 7 Ibid.



SCHOOL OF THOUGHT STATEMENTS—TRAVELOGUE

The spiral manifests itself (moving) towards the center.
 The center is the benchmark/anchor/fixed point.
 We are the Curriculum.
 What is a starting point?
 The Curriculum is a journey.
 Life is a game: we have to know how to play.
 Angles over distances.
 Each one has his/her own path.
 Neighbors are important.
 All segments of a spiral are limited by time and space.
 Paths overlap.
 Be yourself.
 Geographical position is unimportant.
 No exchange = no movement.
 The school is a ship on a voyage with a home port.
 Central point = inside/inwards + outside/extraneous.
 School is movement.
 Without confrontation no movement.
 Flow.
 The school moves towards the old and the new world.
 One has to find his/her own center.
 Bilingualism.
 School is configuration.
 School is inside and outside space.
 School is development and unfolding.
 The framework is versatile.
 The frame is the landscape.
 Being in a frame, thinking frameless.
 The frame has no limits.
 Coffee break.
 Blending and change support progress.
 You are the globe.
 First thought, best thought.
 Stay a child.
 Stay curious—keep wondering.
 Ask questions.
 It's about the crossing point.
 School is not an institution.
 Contrasts.
 Keep it simple.
 The teacher is an amateur.
 Students and faculty work together.
 Diversity brings specialisation brings manifoldness.
 Learn how to listen.
 Learn how to learn.
 Respect and tolerance.
 Question but never block out.
 Listen.
 Atmosphere.
 Fresh air.
 Be flexible and spontaneous.
 Kaleidoscope.
 Change is inevitable.

5 CURRICULUM_GLOBE (OUTSIDE) MASTERS PERFORMANCE
 6 LANDSCAPE_MASTERS MAPPING SITE



THE CENTER OF THE WORLD AND I OWN IT—WE ARE THE CURRICULUM—WE ARE THE MASTERS

Students = Masters:

Picture yourself at the starting point of an *action*; to ignite what is followed by *reactions* that will lead to an entirety and therefore to the point of origin where you stand right now. You are about to toss a coin that will mark an initiating spot. In a distance of 250 cm, you stand with your back to a wall, in front of which, in a distance of 75 cm, there is the aim for your toss: *The manifesto*, in the terms of three tables, 80 cm × 120 cm of respective size, form a rectangular of 120 cm × 240 cm. Left and right of the manifesto partitions are positioned vertically 37 cm away from the wall of 240 cm length. You stand 65 cm away from the partition wall that follows the left one. You stand diagonally so that the object you are about to toss—the 50 cent coin—only has a distance of 20 cm to the wall. Your arm is bent; the angle between your right and left arm measures approximately 120 degrees. From the floor to your resting hand we measure 110 cm and from your elbow to the coin 37 cm. You stand straight. The distance between your head and your right hand wrist is 45 cm, from the wrist to the thumb and the index finger that hold the coin it is 12 cm. As you toss, you will move your hand downwards and then subsequently accelerate in an upward movement to toss the coin over your right shoulder. Your first attempt will fail. The coin will end up on the floor, 3 cm from a radiator of 12 cm width is positioned at a distance of 140 cm to the right of the left partition at the wall behind the manifesto and is of 73 cm length. The second toss eventually succeeds; the coin lands on the manifesto and marks the starting point. The very spot is located 207 cm away from the left and 206 cm away from the right partition wall as well as 88 cm from the rear wall, ultimately on the central table of the manifesto.

STUDENTS
 BABARA SCHNEIDER
 AKA HENRY HUDSON
 AURELIO TODISCO
 AKA VERPLANCK
 COLVIN
 DAVID JUAN
 AKA ROBERT
 SMITHSON
 ALEXANDRA HUBER
 AKA ANDY WARHOL
 DIOGO DA SILVA ELIAS
 AKA JOHN RANDEL
 JUNIOR
 FRANZISKA MÖHRLE
 AKA ALAN GINSBERG
 CARINA PETER
 AKA GEORGE
 MACIUNAS

POEM
 FRANZISKA MÖHRLE
 PICTURE YOUR-
 SELF AT THE
 STARTING POINT
 OF AN ACTION
 FRANZISKA MÖHRLE,
 TRANSL. ANNE
 KOSKILUOMA
 STATEMENTS FÜR
 EINE DENK-
 SCHULE—
 VOYAGE_E:
 STUDIO EGG,
 TRANSL. URS EGG

IMAGE COURTESY
 STUDIO EGG

DISCONTINUED
 (LINDA KARGRUBER
 AKA JOHN CAGE)
 (DESIREE KOBALD
 AKA JOHN HEJDUK)

The University of Liechtenstein and Salon Suisse invite you to “New Schools of Thought”, an intensive, informal event where the frontiers of architectural education are being debated with invited guests.

Saturday
28 May 2016
13:00–15:00 pm

Palazzo Trevisan
degli Ulivi, Venice

www.uni.li/biennale



la Biennale di Venezia

15. Mostra
Internazionale
di Architettura
Eventi Collaterali

NEW SCHOOLS OF THOUGHT

CHALLENGING THE FRONTIERS OF
ARCHITECTURAL EDUCATION

**Contemporary Contexts
of New Schools of
Thought**

**Tendencies and
Reactions in Architectural
Education**

Spaces of Learning

**Architectural Mediation
Beyond the School**

With:

Odile Decq
Hugo Dworzak
Urs Egg
Lukas Feireiss
Harriet Harriss
Jørg Himmelreich
Vera Kaps
Georgia Papathanasiou
Christopher Pierce
Vicky Richardson
Angelika Schnell
Peter Staub
Martino Stierli
Wolfgang Tschapeller
Johan De Walsche
Andrea Wiegelmann

**Conversations and
Interviews on New
Schools of Thought**

**The Expanding Field of
Architectural Education**

**Launch of archithese
2 | 2016 on the Future
of Architectural
Education**

A project by



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LIECHTENSTEIN

Good Prospects

The University of Liechtenstein has developed rapidly in recent years. Its small size and the associated focus on core subjects, along with its will to change are two important traits in this respect. It requires courage to think differently and to blaze new trails. That, too, is what makes a school of thought. Liechtenstein attaches great value to Baukultur and the discourse within this field. That is why the Faculty of Architecture is an essential part of the University of Liechtenstein. The Institute of Architecture and Planning is known far beyond the country's borders for its work and may well be seen as a "school of thought" in the heart of Europe. The Institute not only provides excellent architectural training, but is also a key contributor to the future spatial development of the Alpine Rhine Valley. Projects from the areas of teaching and research stimulate public discourse, increase awareness, and ultimately also contribute to a high-quality built environment. Therefore it is not surprising that students from more than 30 countries come to Liechtenstein to study architecture here.

After 2014, 2016 marks the second time that Liechtenstein is present at the Architecture Biennale in Venice. This year's Director of the Biennale, Alejandro Aravena,

has titled it "Reporting from the front". Students of architecture are the designers of our future and architectural education is probably the first important point of contact with architecture for young people. What knowledge is imparted to them here, and how it is done, has a great impact on what values they later represent and what responsibilities they assume for society. This publication, *New Schools of Thought—Challenging the frontiers of architectural education*, is a critical contribution to the debate on the future of architectural education. It is part of an international research project by the University of Liechtenstein. I am convinced that this publication and the related discussions will have a far-reaching impact, inspire people, and stimulate new questions. Because one thing is clear: This publication is not enough. On the contrary: *New Schools of Thought* is meant to inspire and promote discussions concerning today's important issues in architecture and to relay these to a wide audience. Only in this way do new perspectives and ways of thinking come about. And new ways of thinking, or even new, bold schools of thought, are more in demand than ever before. I wish you much "food for thought" with *New Schools of Thought*.

AURELIA FRICK

Minister of Foreign Affairs, Education and Culture,
Principality of Liechtenstein

Defining "School of Thought"—A Review

The founding of the Institute of Architecture and Planning dates back to an initiative of local trade associations more than 50 years ago.

The need in the economy for well-trained ranks of mid-level staff grew and the *Abendtechnikum Vaduz*—as the university was originally called, clearly identifying it as an evening technical school—was able to meet this need.

Until 1987, the training offered in the fields of mechanical engineering, building construction (architecture) and civil engineering has been strictly extra-occupational.

Starting in 1987, the very technical education in architecture was gradually modified to focus more on design and to involve more daytime instruction. This decision was based on an analysis which pointed out that a large share of the graduates were not engaged as mid-level employees, but were instead successfully working in the market as self-employed architects.

Until 1995, most of the students had generally completed an apprenticeship in a building trade, usually as a draughtsman.

With the school's recognition as a *Fachhochschule* (university of applied sciences) in 1995, the admission requirements also changed.

The curriculum was altered to conform to European standards of university education in architecture.

With the European-wide recognition of diplomas in 2001, the extra-occupational offerings were discontinued.

The further evolution from a *Fachhochschule* to a *Hochschule* in 2005 and then to a *Universität* (university) in 2011 transformed the institution commensurate with the status.

The content of the once purely architectural education was expanded to include spatial planning.

Research and the right to award doctoral degrees permitted more intensive studies and the staff changed accordingly.

The University of Liechtenstein implemented the Bologna Agreement at a very early point in time. The internationalisation, sustainable construction in the Alpine region, and a strong practical orientation became its educational hallmarks. The master's programme is conducted in English with students from around 30 countries. Erasmus exchange is mandatory.

In support of the curriculum, the Institute successfully cultivated local ties with many (usually commissioned) projects for municipalities and business.

For the development of this "school of thought", the Bologna Process was elemental and very beneficial. The Institute of Architecture and Planning at the University of Liechtenstein has "arrived on the European map!" (J. Horan EAAE 2003).

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"School of Thought"—The Future of the Institute of Architecture and Planning

Thinking about the future is to formulate wishes. Either wishes pertaining to what has already begun or those pertaining to a change in the direction taken. The former flirt with continuity, continuation, and consolidation, whereas the latter—considerably more radical—propagate a new beginning. Essential conditions for their implementation are the character and musculature

of the proponents and the special characteristics of time and place. Thinking about the future is primarily an individual matter, but its implementation is bound to the consensus of many. Permit me divide my wishes for the future of the Institute of Architecture and Planning into two groups: on one hand the future of architecture, and on the other, that of our Institute or another school of architecture. Because the two views are diametrically opposed. The architectural profession requires the individual while architecture entails the willingness for participation in the big picture.

The architecture of the future will make its contribution to the environment and society less in terms of design and more in terms of thinking along with others. We are urgently called upon to take up the current issues, marked by increasing and dramatic changes to their programme. The result will be a new architecture, also and above all in its formal vocabulary. A view towards the future is necessary in order to at least be up to date.

An architecture school must fulfil responsibilities in three directions: towards the department and the faculty, towards the students, and towards society. And it is always also obliged to its surroundings. Besides all the responsibility for the past, prompt reactions are needed and, along with global thinking, also a deep understanding of the surrounding region. Rather than making educational institutions of architecture—and not only these—more comparable internationally, there must be a demand for individuality. Then the discussion among schools would yield a global understanding. Wearing a uniform forces one to act in lockstep, supplanting independent thought. One would think that a small school in a small country—like ours—has the best conditions to not to be like the others.

As stated at the outset: the conditions for changes are the character and musculature of the proponents and the special characteristics of time and place.

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