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bologna
10
years after

A Critical Mapping of the European Higher Architectural Education Area

Editors: Constantin Spiridonidis, Maria Voyatzaki and Pierre von Meiss

12th Meeting of Heads of European Schools of Architecture
Bologna 10 Years After
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Host: Center for Mediterranean Architecture

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Transactions on Architectural Education No 46

Editors

Constantin Spiridonidis

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Despite the attempt to transcribe with accuracy the debates from the workshop, the editors wish to apologise in advance for any inaccuracies of the interventions of individuals that could be attributed to the quality of recording.

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Bologna 10 Years After
A Critical Mapping of the European Higher Architectural Education Area

Constantin Spiridonidis, Maria Voyatzaki

It is already ten years after the Meeting of Heads of European Schools of Architecture in which during the closing session one of the participants, informed the audience that an accord named Bologna was signed by the Ministers of Education of all European Countries a few days earlier. The Meeting was practically unable to value the gravitas of this information and closed with no discussion or comments on this new political declaration. In the Meeting that followed, the political consequences of this accord started becoming evident and all Heads of Schools started to think about the administrative and academic consequences of this new situation and their impact on the life of their Schools. Since then, all the Meetings we have organised have been focusing on the new academic environment emerging from this new political framework and the transformation which it implied on the content and the structure of architectural education in Europe.

What have we achieved after ten years of the so-called 'Bologna Process'? This was the main question of the twelfth Meeting of Heads, organised as every year in Chania, Greece from 5 to 8 September 2009. The Meeting attempted a critical review of the ten years of the Bologna process and its impact on architectural education in Europe. What we expected of this event was to investigate the state of the art in architectural education in Europe in relation to the perspectives, the objectives and the targets set by the EU policies for the creation of the European Higher Education Area. We wanted to understand where we are, what we have gained, what we have lost, which are the new challenges and how ready we are to deal with them. We wanted to be critical and constructive, aware and creative, innovative and experimental, informed and collaborative as our valuable collaboration is our energy that enables us o (trans)form the future of architectural education in Europe.

In order to achieve this objective we organised the event in four sessions in each one of which participants were invited to answer to a number of questions related to the impact of the Bologna Process on four fundamental parameters for the organisation and the development of the academic life in their schools: Namely, the profile of the school which we are looking for, the system of studies we are

designing to implement, the contents of studies we are organising to teach and the professional competences of our graduates we expect the education we offer can fulfill. To facilitate and better organise the debate, we invited in each session a significant number of participants to formulate panels, characterised by their geographical spread and the mixture of different educational cultures someone could detect around Europe.

Each session was organised on the basis of the number of questions on which the panelists were invited to contribute to by presenting their experiences, their views and their approaches to consider problems, conflicts, dilemmas, obstacles and contradictions.

What is the impact of the Bologna process on the contemporary profile of schools of architecture in Europe? This was the central question of the first session.

The session inspected the extent to which the profiles of the schools were affected by the Bologna Process. Which were the most significant changes that happened in the last 10 years in these profiles of Schools of Architecture in Europe? Have these changes emerged exclusively from the European policies related to the creation of the European Higher Education Area or have there other parameters been involved? Which were the main characteristics of these changes? Which were the gains for the education offered to the architects and what was lost because of the implementation of the Bologna process? What have we achieved after all these years? Which were the main critical points according to the academic community in the broader geographical area of each School?

The second session examined the question: *What is the impact of the Bologna process on the various systems of studies in Europe?*

One of the main objectives of the European Higher Education Area is the harmonisation of the degrees delivered by the Institutions; that is to say the harmonisation of the systems of studies implemented by different schools of architecture in Europe. Are Schools of Architecture in Europe harmonized nowadays? Which are the steps that schools made towards this demanded or expected harmonization? Did schools become more international? Did they already adapt their educational systems to the European directions and to what extent? Has the academic community in the different European Countries accepted this harmonisation process? Which are the positive and the negative aspects of the new condition? Which was the cost and the gain to go for or abstain from the harmonisation process? Which is the strategy of the school for the future in the existing European Higher Education framework?

The third session treated the question of the contents of Studies. *What is the impact of the Bologna process on the contents of studies?*

Are our curricula more transparent than they were ten years ago? Do we really want to be transparent? Which is our strategy related to the content of studies in our institution? Are there any changes in the subject areas we are teaching, the way we are teaching and the time we spend on teaching different subject areas? Are there any new subject areas incorporated recently in our curricula? To what extend the Bologna Process affected the curricula of our schools?

The impact of the Bologna process on architectural practice was the theme of the forth session. This session was organised by the Architects Council of Europe, the body that represents the professional architects in Europe and the American Institute of Architects, the body that represents the professional architects in USA.

What we will expect from a new definition of the relationship between education and practice? What is the new concept, the objectives, the perspectives? What must be the 'new', the 'other' the 'different'? How can a 'competences-based education' become a catalyst to a new approach to this relationship? What are the common language, common frame, common terms? What can Education now expect of the Profession? What can the Profession now expect of Education? How will the new relationship respect the autonomy of the parties and the differences of the context in which each one must develop? What forms of collaboration between Education and the Profession can develop in the new European context? Proposals, state of the art , on new forms and possibilities. What have initiatives such as the joint Working Party between the ACE and the EAAE achieved? What is the impact on education of the new European Architectural Qualifications Directive? Does the Lifelong learning perspective offer a new opportunity and how? What initiatives shall we take in order to promote a more coherent continuity between Education and the Profession?

This volume presents the panel presentations and the debate followed. The aim of the editors is to offer a material for further examination, reading and consultancy. As the transcription of the oral speeches to written text is always a risky exercise especially when it is made by another person, we kindly ask for the understanding of the participants whose ideas and thoughts were unintentionally falsified by the editorial work of this volume. We really hope that this volume also reflects the constructive atmosphere, the positive spirit, the collaborative attitude and the friendly mood in which the Meeting developed, necessary elements for its sustainability and for the impact of its work to the future of architectural education.

A Brief Review of the 2009 Panel and Floor Discussions

Pierre von Meiss

Most of us have left the 2009 Chania meeting with lots of new ideas, new incentives for improvements, new questions and some answers. Not to forget the memory of a great place, a very hospitable reception, a remarkable organization, great weather conditions and most fruitful encounters. – It was a real success!

The question always remains: what do you do with all this?

During the dark winter hours I was editing, clarifying and condensing the 3-day *discussion part* of the minutes of that meeting (in "Swiss English" – I apologise). Without exaggerating, I have to admit that it proved to be some sort of a revelation. Revisiting what has been said represents an extremely accurate mirror image of the challenges for the future of architectural education and the profession.

An impressive number of crucial questions, problems, practices and suggested solutions stated were expressed. Reading these debates, you are going to discover questions and efforts to get to grips with extremely important challenges for educational policies and their relation to practice during the coming decade or more. One really hopes that this invaluable contribution is going to be elaborated further and ultimately leading to take the best possible decisions.

I have divided this critical report into three topics:

Bachelors degree, Masters degree and professional activities

School Profiles: transparency, complexity, variety, harmonisation

School & Profession

Bachelors degree, Masters degree and professional activities

Within the EAAE and ACE it is generally assumed, that to become an independent professional architect, a minimum of five years of full-time academic studies plus 1-3 years of internship are to be required. Nevertheless in some countries (i.e. Germany, Switzerland, …) there still exist a few institutions delivering such a professional degree after only 3 to 4 years plus internship.

To reduce social costs the Bologna vision was that the Bachelor degree should give access to some kind of active life, in our case within the area of building and related fields.

What should the Bachelor programs content be and how should we name the degree? How can it get recognition in society?

Professional perspective: The Bachelor's degree demands a general education which enables the student to work in an office as well as to specialize or to switch to other disciplines. In our offices we have too many frustrated and poorly paid architects with a Diploma or a Master. The ideal solution would be to have one third with a Master and two thirds with a Bachelor who specialize in certain fields like facility management, networking, lighting, construction, quantity surveying, etc. They would be paid slightly less in the beginning, but, depending on their performance, they still may end up partners of the firm.

Academic perspective: In most cases academia has not really seized the issue. It is in some sort of passive "wait and see" status, probably because this requires a political decision.

What should be the prerequisites and selection procedures for accepting Bachelor graduates to their Masters programme?

Contrary to the US, almost all European schools accept, for the time being, all their own Bachelor graduates without any further selection – a questionable practice.

Traditional perspective: We have always been educating the "elite", thus full professional architects within our 5-6 year programme (i.e. as required by law in Greece). We understand the Bologna process mainly as a way to manage student mobility.

Competitive perspective: A considerable number of our Bachelor graduates do not necessarily have the motivation or qualification to occupy key-positions. Some of them are also aware that their greatest potential does not really lie in the realm of design.

The Masters and PhD programmes are an opportunity to create competitive places of excellence, bringing together the best possible staff and selecting internationally the most promising students for the Masters they offer. We nevertheless have to learn to advertise our education abroad. In Europe only the British do this in a systematic way (mainly for tuition income purposes).

One further thing we may learn from the US is, that the admission to Masters programmes should be far more "person-oriented" (the individuals' profile), rather than based on passed credits. Furthermore European schools of architecture do not yet accept students applying to their Masters programme while coming from another discipline, a practice to be reconsidered.

One of the organizers of this conference, Constantin Spiridonidis, to say:

" ... to become more competitive with the United States and other countries such as Australia, Japan, how would we make higher education more competitive at rea-

sonable costs? In order to achieve this objective, the possibility of splitting the whole duration of studies into two parts gives the Masters programmes the possibility of being more flexible and specific, collecting the best brains in centres of excellence. This is the hidden political intention behind Bologna. If the question is whether that was achieved, I think that the answer is definitely 'no', because the mobility between the Bachelor and the Master remains practically non-existent. The question is whether the answer will be 'not yet' - or 'unfortunately not yet' or 'fortunately not yet' ".

School Profiles: transparency, complexity, variety, harmonisation

Who are you? What are the advantages of studying at your place rather than somewhere else?

So far there does not exist a reliable overall compendium of European architecture schools' profiles. In reality, none of us actually knows what is happening in the various European schools. Brussels will not address this issue. It is only trying to deliver harmonized recognition procedures to allow persons to enjoy the rights they have as citizens of Europe under the EU treaty.

The EAAE has made an attempt with its "catalogue", but each school fills in its two allotted pages as best it can (to give a good impression). It is impossible to grasp a schools philosophy, particular strengths and weaknesses. Therefore any complementary information, such as the current ENHSA inquiry, deserves attention. Several improvements for this kind of poll have been suggested.

Many questions will nevertheless remain unanswered. How to make the difference between schools with severe admissions requirements as opposed to those who have none? How to consider schools depending on financing in proportion to the number of students as opposed to those, where this plays at more a secondary role? How to compare unequal quality and contents with the same title? How severe (difficult) are its exams? What is the teacher-student ratio in design? Which is the quality of facilities and the financial support? How to compare Bachelor degrees in the form of a mini-thesis project, while for others it is enough to pass the third year? - etc.

Does the complexity and diversity of our educational systems express the richness of European architectural education or does it express the weakness of our system?

To a certain extent diversity in our educational programmes arises from the diversity of practice in the different countries. But it is also linked to some kind of « laziness » to question historical privileges of the European academia.

The comparability of what happens at the end of each cycle in education is very important. The disharmony in terms of the structure at the various schools is

indeed considerable. The only harmonisation that came across is that a significant majority of schools do the Master's course in English or in a bilingual way.

There exists a European Directive regarding the qualification and whether the study programme is recognised by the European commission to allow our graduates to work in any country of the European Union, without needing any further documents concerning their qualification. All you need is to look at the list of registered and accepted schools to see whether it states if the study programme of a certain diploma has been recognised by the European Commission. But so far rather few European schools have applied to get their programmes and degrees registered in Brussels.

In the Bologna Declaration, there is a requirement for comparability of qualifications at the end of each cycle of studies. Did the EAAE or ENHSA establish comparability of architectural education qualifications across Europe? If it has not yet been done, it is an enormous task that would be of great value.

We urgently need a comparative study of European schools of architecture, a survey of differences and similarities, possibly including some in the US, particularly with respect to values applied in design education. The consolidation of this should be supported by the European Union; it could possibly be organized by the EAAE.

School & Profession

How many architects do we need?

In Europe we have nowadays 480,000 architects and around 150,000 students in our 250 schools. In ten years we will have about 600,000 architects in Europe and perhaps 200,000 architecture students *which is a lot.* The European population is not growing that much, in contrast to other parts of the world.

ACE-review recently published the estimate for unemployment in main architectural practice, by the end of the year 2009 at around 1 out of 6 architects remaining unemployed and if the crisis continues, this ratio will become 1 out of 4. Will our schools react to the unemployment situation? Are we capable to adapt to these kinds of changes? We believe that after the crisis, things will not be the same as before. Are the schools flexible enough to absorb these changes?

As the population of architects is growing all over the world, *diversification and specialisation* in the profession is important. Specialisation does not entirely comply with the eleven points of the EU-directive and the regulations we have. We should be aware of that and perhaps change the regulations in a way that we can offer future architects as many possibilities as possible.

Where do architects work? Where do we want them to work? Where are architects needed? Where will architects work?

If we do not want to downgrade our profession as architects, what should we do to keep all these people working somehow in the field of architecture?

We have a competence which is also useful in several other professions and positions. We have to prepare students for flexibility. This means that not everything has to be taught in schools of architecture. Anything you can learn in less than four hours in an office adds nothing to what the school can give you. To go a step further, one might also say: anything you can learn in a post-graduate course, in books or on the net within one or a few months does not necessarily have to be included in the regular curriculum. But the school has to develop curiosity and the capability to understand and follow these courses when need and motivation exist.

Beyond being "a designer" there is something more in the profession: demanding to "make buildings come to life".

Which is the best place to go for studying architecture?

What is a reflective practitioner in reality > the poorly paid young graduate we employ or the architect who is competent and useful when he is forty?

To answer part of these questions, let us conclude this brief review of Floor and Panel discussions at the 2009 EAAE Heads of Schools meeting in Chania with Marvin Malecha's wonderful report on his own curriculum: looking for a job after his graduate studies at Harvard, his top university degree was of no help. He got his job, because he knew how to draw (fast), he knew about construction, etc. Only when he was applying for academic promotion his "pedigree" (Harvard) had become important.

Shouldn't our schools of architecture invest more in "personality development" than in successful ECTS points?

Bologna 10 years after: What have we achieved, what have we lost?

What is the impact of the Bologna process on the contemporary profile of schools of architecture in Europe?

Was the profile of your School affected at all by the Bologna process?

Which are the most significant changes that happened in the last 10 years in the profile of our schools?

Have these changes emerged from the European policies related to the creation of the European Higher Education Area?

Which are the main characteristics of these changes?

Which are the gains for the education offered to architects?

What have we lost by the implementation of the Bologna process?

What have we achieved?

Which are the main critical points expressed by the academic community in our broader geographical area?

Chair: **Constantin Spiridonidis,** ENHSA Coordinator, Thessaloniki, Greece

Introductory panel:

Zdenek Zavrel, Dean, Czech Technical University of Prague, Faculty of Architecture, Prague

Antti-Matti Sikala, Head, Helsinki University of Technology Department of Architecture, Helsinki

Ferenc Makovenyi, YBL MIKLOS Faculty of Architecture and Civil Engineering, Budapest

Andrzej Baranowski, Dean, Gdansk University of Technology, School of Architecture, Gdansk

Ferran Sagarra Trias, Dean, Barcelona School of Architecture, Barcelona

Mathias Essing, Professor, Beuth Hochschule fuer Technik, Berlin

Zdenek Zavrel, Prague, Czech Republic

What was the impact of the Bologna process in the Czech Republic?

You cannot talk about the last 10 years without talking about the last 20 years, because during those last 20 years, the Czech Republic underwent incredible changes of the system and in the beginning of the 90s, after the changes of 1989, there was a very inspiring period of trying, experimenting, looking for new models – a little bit chaotic, but a lot of creative chaos – and especially in the architectural schools.

There are 4 different types of architectural schools in the Czech Republic – a large Technical University in Prague, a Technical University in Brno and two more artistic schools: UMPRUM (Arts and Crafts) and the Academy of Fine Arts in Prague.

All these schools held a very open discussion about everything. New people came to the schools, new ideas developed, people were looking for a new model of organisation, new models of teaching. It was a fantastic time even though it was chaotic.

The moment the Bologna process was established, it somehow helped to get a structure into these processes. processes. The Czechs, as in many other fields, saw that during the changes the university education got quite fragmented and so they used the new European initiatives to get the structure into their own system.

Shortly after 2000, a new law on Higher Education was implemented and according to this law the principles of Bologna were fixed, so we had a good fixed starting point.

Different architectural schools reacted in their own manner. The school where I am the dean – CTU in Prague – implemented the 3 + 2 model, which was already used during the 90s, but not in a clear form.

The school in Brno – VUT – is until now 4+2 and two artistic schools in Prague have problems fitting into the system. UMPRUP chose 3+3 and the last one, the Academy of Fine Arts, a very specific school with a more than 100-year-old tradition, does not fit into the Bologna Process, but it is a very good school. So it is a kind of talented child not fitting into the family.

This is a short description of the Czech situation now.

We see Bologna as a kind of framework, which should not be a kind of bureaucratic structure, but which should help the schools to communicate, help to bring transparency to their programmes and which certainly helps the internationalization of architectural education in Europe. In the field of international exchange in particular, our school scores very highly; we are in this sense the best Faculty of CTU in Prague in exchange. We have the highest number of Erasmus students, who go for an exchange abroad and we have the highest number of foreign

students in our school. It works in a very stimulating fashion and it has brought about positive results.

But as you probably know, the Czechs are very skeptical about European bureaucracy; we are now satisfied within this model and expect results, but we will see how the model is working and what it will bring in the near future.

The new law is not that strict: the universities have the possibility of implementing their own models, but what is fixed is the difference between the Bachelor and Master study.

Further, the content and form of the study is the decision of the schools themselves. So new people came to the schools.

Antti-Matti Sikala, Helsinki, Finland

I am speaking on behalf of the Helsinki University of Technology where I come from. However, I think the situation is more or less the same in other schools in Finland. The first thing may be to describe something about the profile of our schools. We are very much teaching-oriented and our teachers are mainly practising architects just like all the professors as well. The average studying time until graduation in Finland was around ten or eleven years; this is because a lot of the students used to work while doing their studies long distance. Also, after graduation with a Master's degree, the Master's degree gives a graduate the right to work as a practising architect. There are no other licenses needed. That was our starting point before the Bologna Process in universities here before the changes in 2005.

I must say that the whole process - and I have discussed this with colleagues from other schools - has been quite easy going. It has not had any dramatic influence on the education of architects in Finland. I would like to point out some details. We didn't have this kind of "candidate" degree at all and of course now we have it. In a way this three-year plus two-year system in practice means seven years. There has been some discussion about this new "candidate" degree, saying that it isn't necessarily always a good thing. This is because now some people - and I hope not the students - feel that they are able to act as architects and definitely in our system it is not like that. That is why we don't necessarily call it "Bachelor"; we call it "candidate" degree.

On the other hand, we have more courses to choose from and these will be performed during a shorter period; that means a workload for teachers. I don't know if it is our tradition or something but we want to teach the same things as before, but in a shorter time. That means more effective teaching, more effectiveness in preparing and in working with those courses. Our teachers say that this needs

some work. It is more their problem than a problem for students. Overall, however, I would say that this whole process has gone very well; the important thing is the cooperation between Schools of Architecture and especially between students of architecture. They can meet friends and other students from other schools more easily through exchange programmes and so forth. I think that more understanding between students in Europe and more understanding between schools in Europe is very important when we meet all these new challenges, changes like climate change for example. We can also react in Europe more easily on occasions.

I feel that this Bologna process is networking at the same time. Even more important is to meet the challenges we don't yet even know because there is such rapid change in the world. It is not very easy to point out one change; there might be things we don't even recognise, things we don't recognise as new chances. That is why I think it is very important to have a united system like this European Bologna process; it is a step towards that.

Ferenc Makovenyi, Budapest, Hungary

About the Bologna Accord first we have to ask ourselves: why it was implemented, and in whose interest was the implementation.

First of all we have to declare that the BA was a political decision, where student mobility and a uniformed ECTS system creates a transparent system. The other, in our case more problematic, point was the three-cycle education, and a forced cutting of the continuous education into two- three parts.

Every change is an opportunity, so we have to ask: did we exploit the chance or not?

The problem with the BA is that its implementation coincided with growing unemployment and with the crisis of our profession. In normal conditions, the idea- after a trial period – could work. Just now, in our profession it caused more problems than advantages.

The mass education, and the profit-oriented approach turned generally honorable intentions into questionable results. We lost personal contacts with the students and the students lost the group coherence because of the free credits system. Good ideas, bad timing.

In Hungary we had a very good and accepted 5 years of continuous architectural education, which was based on the ETH Zurich balanced generalist system.

We cut this long "snake" of five years into part-snakes of a 4 Year BSc and 1.5 Year MSc and we wonder why the snake is dead? Snake parts are hardly capable of life. We created a lot of tails (BSc-s) and a lot of heads (MSc-s) in Europe and now

the students and the professors are trying to find the appropriate head to the tail. The head should take responsibility for the tail education, and the tail should prepare for every head. A difficult job.

What went wrong? Generally the idea of having a two cycle education in architecture is dangerous. If we define architects as generalists, no less than 5 years of continuous education is required. The complexity of our profession makes it impossible to shorten the time. (Not only architects suffer from this unionization, but also doctors, lawyers and artists.) On the contrary, there is a massive need to extend the education. However the required two years of professional practice after the graduation, which is a general practice in Europe, shows that the students have to get some practice before starting their professional career.

Still there is the question, if we cut the education into two parts, what could be the goal of these two cycles? The first cycle called bachelor could be something like "junior architect"?

The risk with this formula is that we give society the impression that architecture could be just "little" or "basic ". There are few countries who give a license to BSc architects, and generally they give limited accessibility to the profession.

Unfortunately, there are examples where BSc architects, when they realised they were not being accepted as architects, went to the chambers of civil engineers and with the help and lobby support of civil engineers got the planning permission. This happened in few countries, and the risk is still there that this practice could spread.

However, it is fully understandable that when somebody after three or four years of study cannot get any access to the profession, it makes them frustrated. In Hungary we give access to the profession only after 5 years of continuous education plus two years of professional practice. Still the problem is there: According to the BA: "The degree awarded after the first cycle shall also be relevant to the European labour market as an appropriate level of qualification."

Here is the root of the problem: there should be an appropriate level of qualification. Nobody means that the planning permission is the only appropriate level. There are other licenses, which could serve as an "appropriate level of qualification" like technical assistance, project manager, construction site supervisor, program advisor, municipality assistant, product developer.

If a BSc is a practice oriented, technical driven 4 years of education, with restricted design possibilities - not to work as an independent architect, but as an assistant to an architect and give them other opportunities - the problem could be solved. Just to make it clear: in some countries only a restricted percentage of BSc students can continue their education to MSc level. In Hungary we have a 30% limit, only 30% of the graduated BSc students may continue their education to MSc level.

What we have been discussing until now was only the form of education, and nobody could speak about the content, about the real difficulties. Is our education system harmonized regarding the content? Is there a consensus regarding the profession profile?

Did we cope with the problem of the downsizing of our profession?

Architectural schools are diploma factories, where the interest of the student and the management is a common one: fast diploma, no problems.

Our profession can only be practiced with dignity and responsibility. To generate these qualities in young students takes time, effort, commitment. The schools suffer from an absence of committed teachers, from qualification pressure from different authorities, from incomprehension of other faculties, from lack of financing. Even education as a profession is in crisis, and this, combined with the economic crisis of our profession, makes it hard to draw an optimistic view for the near future.

Still I believe, if we go back to the basic values, we can utilize this period. I can see signs as self-organizing student groups, creative modeling, and experiments in all stages of education, which gives me some hope to overcome the bureaucratic and fiscal administration.

Andrzej Baranowski, Gdansk, Poland

I will not repeat what my Czech colleague said about the 20 years of political transformation in his country; it was also the case in Poland.

Polish schools of architecture were traditionally assigned to the institutions of technical education – polytechnics or universities of technology. Within their uniformed, hierarchic system there was little space for autonomy taking into consideration the specificity of our discipline. At the moment of initiating the Bologna process in Poland, the Parliament amended the budget on higher education, deciding that humanities studies must be based on a 3+2 system, while the Bachelor degree in technical sciences could be granted after at least 3½ years (3½ +1½). The majority of the 9 public schools of architecture, financed by the state, have implemented the 3½ +1½ system, some others decided to choose 4+1½ or even 4+2, depending on their financial ability. In practice it may mean that the length of studies has to be extended to 6 years (including a ½ year apprenticeship).

Quite unexpectedly in the last 3-4 years we have been facing the phenomenon of the emergence of a dozen or so new private schools of architecture. It is now clear that these schools came into being mainly as a result of the Bologna two-level system of education: their founders took the opportunity created by the intro-

duction of the Bachelors degree. While public schools offering Master's degrees have to meet higher teaching staff standards required by the Ministry of Higher Education (a specified number of the full-time employed professors), it is much easier to fulfill the more lenient requirements for the Bachelor's degree.

In the beginning there was a good deal of reluctance towards the Bologna process in most of the schools of architecture in Poland. The new system has been perceived as a new set of restrictions added to the already restrictive ones rather than a chance for positive changes in education. The discussion was too much focused on logistics and practicalities of the new system, neglecting inevitable changes of the content of the curriculum reflecting the profile of a future architect. Too often the curriculum consists of dozens of separate, autonomous subjects devoid of basic coherence.

It is too early to evaluate the influence of the Bologna process and of the Qualifications Directive on fostering changes in architectural education in Poland. The most evident effect is the growing international exchange of students. The students coming back from abroad are becoming the main driving force pressing for changes. As the number of foreign students coming to Gdansk school of architecture is also growing, we intend to start courses in English in Autumn 2010.

We have lived with the Bologna system for very short time and the process of replacing the teacher-oriented system of education with the student-oriented one is still ahead of us. We also need more discussion on the content of the studies, the profile of the architect and the quality of architectural education.

All the schools of architecture in Poland, regardless of whether they are public or private, have to undergo an accreditation process carried out by the State Accreditation Board. The main problem is that private schools, penetrating the labour market in the search of qualified teaching staff, attract mainly academic teachers already employed by the public schools (wanting a second, part-time job) and retired professors. Their educational offer is therefore accidental and unstable, despite meeting formal requirements.

Ferran Sagarra Trias, Barcelona, Spain

In our case, in Spain, our story is slightly different. During the last 10 years the number of schools of architecture was transformed from seven public schools to thirty-five public and private schools in the country; a fact that is important for the context. In Spain the schools give you the permission to work; our title diploma gives you the right to build, one could say. That created a very strange situation. As for the first question, as to whether the profile of our schools were affected by the Bologna Process, I would have to say no, and that's a problem, in my opinion, because to remain stuck when all is changing, is a bit of a problem

for us. The profile will change, though, because the new rules we have were only defined three years ago by the Parliament and the Ministry. That means that we, as Universities, didn't do anything; that's the first answer.

Regarding the most significant changes in the profile, what I have to say is that right now, we are presenting our new plans. Instead of going to Bologna as a new framework for the autonomy of universities, there are things that are imposed beyond Universities. The fact is that we have brought in our new plans in Spain. But for the construction of these new plans, we have more imposed issues than ever before even under the dictatorship. But why is this the case? Because in Spain the older architects are very strong. They don't want to change anything, they are afraid of changing our relationship with geometry, with the technicians, or also with the civil engineers. They are able to convince the Ministry about their views; that means five and a half years of studies and in the same time a rather difficult relationship with Europe, and a relationship with the other professions in Spain. Thus we have a switch. If a student starts in the first year, he has to spend around seven years of his life studying architecture and then goes to the place where he will work. That is the situation in which, as you can see, I am a little bit critical. However, the most significant change in the profile of the school is the age of the teachers. Being a public school, we cannot change teachers easily. Happily, now, they are becoming old, too old, so we can retire them and start changing things.

But, I think, one of the most important events has been the Erasmus programme; Barcelona is one of the most popular places to go for Erasmus. As a result of this, we have a lot of foreigners, so we have to select them, but it is something very important for the renewal of the atmosphere of the school. That and other policies of the Spanish government encourage people to learn English. That way, the English of our students improves a lot, which is good. Another very important change over the last ten years has been that of informatics in the school. A lot of the students are working on this; we are doing reviews, digital reviews and we have more space than the physical one in which to teach. That's alongside understand the role of the models, which is important from that point of view.

The other question is that of the Master's degree, which has increased a lot. Over the last ten years we have had a lot of Master's and post- Master's students; we have more or less one third of those doing a Master's degree who are Latin Americans, one third are Spaniards, and the remaining third is from Europe and other countries. From my point of view, this is a good thing. These are, I think, the most significant changes but, as you can imagine, only two of them are connected to European policies. One is Erasmus; and the other is the Master's degree because it brings students who are interested in coming to Barcelona. It shows they are thinking of Europe as a market, which is important.

Another of the characteristics of these changes, which I think is important is the changing references in architecture, for our students at least. They are looking for references, mostly from the Internet. This means there is a break with the continuity of our architectural culture. This could be good or it could be bad. This is one of the things I think that is more important to deal with because if not, architecture becomes something banal. They know better to say, architecture is this magnificent building say in Oslo or in Abu Dabi which is more interesting than some nice buildings in, let's say, Catalonia, which are 20 km from home. That's the problem because it means that architecture is becoming something like images, not really conception. I think this is one of the important questions which as teachers we have to be aware of.

Constantin Spiridonidis, Thessaloniki, Greece

Just to clarify something, are the European students who are coming for the Master's courses students who have finished their Master's in European countries or are they Bachelor's students?

Normally, they have a Master's so the Master's we do is like a post-Master's for the Europeans, which is perhaps a peculiarity in Spain. There was a problem with mobility at the beginning. The new system which we have and is going for approval is five and a half years, 230 credits. What we want to do in Barcelona - maybe in Valencia and in Madrid, the rest of Spain is not so interested - is to offer a first part of a diploma; I'm not sure of the exact details. I hope this will be accepted by European schools. We can see at the same time that this is quite complex to organise but it is what we are trying to do now.

Mathias Essing, Berlin, Germany

In Germany we have three ways to become an architect: one way is the way of the Art Schools, of which there are very few, only in Düsseldorf, Munich, Stuttgart and Berlin; the second way is the way of the so-called "old" universities, that is, the technical universities or other universities; and the third way is the new universities of Applied Science. Our school is a University of Applied Science, Beuth Hochschule fuer Technik in Berlin. The University of Applied Science had a structure which was completely different from the so-called old universities, because the old universities came from the tradition of German universities, free education, free research, which meant that they tended to study for a long time and you could find out the way you wanted to do your studies during that time of studying for maybe six years. The Universities of Applied Science had the tradition of schools, real schools, which meant that the studies were four years for a *Diplome Engineer* (Diploma of Engineering) at the end, which was not the *Diplome Engineer* of the

old universities. That meant a change from the *Diplome* system to the Bachelor's and Master's system was for our school much easier than for all other schools or the university schools in our country. Therefore we founded a programme five years ago to change the timetable for students which we didn't know before and it worked very well, also for the students themselves who couldn't find a way to go abroad, to change universities to join international programmes because that timetable meant they had to study continuously with no time to do anything else. That means, especially for the university, the so-called old universities, a tradition was broken and there was a completely new education system for them.

We have a system of three and two, three years for the Bachelor, two years for the Master and after having had difficulties in finding students for the Master's programme, it now works very well, about seventy-eighty percent of the Bachelor's degree students join the Master's programme. What we are missing so far is that most of the Master's students are only our students and there is no exchange with other colleges in Germany or with abroad. There is a limited exchange starting now, but at first, for three years we had only our students and I don't think that this is the idea of Bologna. It will change, it will find a way and I think the problem is the profile of the school or of many German universities, in that the profile is not very well transported. We have to work on this, to learn to compete between our universities. We are not being in a competitive situation, we did our programme and it was fine, but now within the Bachelor's and Master's system in Europe, we have to be competitive with other schools and with regard to this, we are working on it.

Discussion

Julian Keppl, Bratislava, Slovakia

Andrzej Baranowski mentioned the two types of schools in Poland nowadays, public schools and private schools. In Slovakia, we have several processes of how to filter each institution in order to be entitled to offer higher education. This is a process of accreditation. It's done by an accreditation committee, which is an independent body responsible to the government. How is this handled in Poland? As I understand, the private schools need not undergo the process of accreditation as well.

Andrzej Baranowski, Gdansk, Poland

We have a similar system. Each school, regardless of its being private or public, has to undergo an accreditation procedure. This is a central governmental task of accreditation. The problem is that it is difficult to find enough academic teachers, especially those with a higher degree, to operate with so many students in different institutions – private and public. The danger is that private schools have to penetrate the labour market to find staff who is ready to work for them. According to our legislation, the possibilities are limited. A full-time academic teacher working at one school cannot be employed full-time at another one. Or if he teaches in a Master's degree programme, then he can only work at another school within a Master's degree programme. However, the other point is that at least some of the new private schools rely on retired academic teachers, because in the public system seventy years means retirement. That doesn't apply in the private sector. Some retired professors find it worthwhile, either for financial reasons or because they feel they still have something to say go for teaching in private schools. I am not against it. It may be too early to say if this is good or bad; we have to wait a little bit. To some extent, the situation is under control, to some extent it isn't.

Spyros Raftopoulos, Athens, Greece

The three basic principles of the Bologna Declaration were the "three plus two" system, the "ECTS" and "mobility" between the universities of the European countries for both teachers and the students. I gather that even though these three basic principles were supposed to be applied, most of the countries apply different systems. We heard about a "three plus two" and a "five continuous" which is in fact the system that we apply in Greece by law. Some countries have three and a half plus one and a half. Some have ECTS, some don't have them yet. I also think the mobility has been restricted more or less to the exchange of students. In fact,

we send approximately sixty or seventy students all over Europe and we receive the equivalent number from other universities. After ten years these principles of the Bologna system are not actually applied. One question that we would like to be answered is to learn how degrees are characterised in each country. There has recently been a long discussion in Greece whether our degree should be called a Master's degree after the continuous five + years of studies. Some countries call their degrees Master's, some still call them Diplomas. After the five years of studies, whether a three plus or whatever else, I wish to know what to call the final degree or diploma officially.

Constantin Spiridonidis, Thessaloniki, Greece

The Bologna Declaration is not defining "three plus two". There is just a definition of two diplomas without definition of time; this is why the different ways to "split the snake" appeared over the years. However, European policies look towards the possibility of educating professionals admitted to practice in all other European countries. I think that the question of harmonisation regarding the duration and content of studies could be something that all of us in this room agree with - of course without losing our identities. The next question is, how this harmonisation could be achieved. In my understanding, the whole of this game is based upon the following principle: how to improve the quality of higher education in Europe in order to become more competitive with the United States and other continents and countries such as Australia, Japan, etc. How then would we make higher education more competitive at reasonable costs? In order to achieve this objective, the possibility of splitting the whole duration of studies into two parts gives the Masters programmes the possibility of being more flexible and specific, collecting the best brains in centres of excellence, which will raise the standards and which will probably influence the other schools as well. This is the hidden political aspect behind Bologna. If the question is whether that was achieved, I think that the answer is definitely "no", because the mobility between the Bachelor and the Master remains practically non-existent.

The ECTS is applied, but I do not think this is a core issue. So if someone asks me if Bologna has developed successfully in Europe, my answer is no. The question is whether the answer will be "not yet", "unfortunately not yet" or "fortunately not yet". Around this table, I felt all three of these aspects. Many comments were implying that it was something imposed from above, which is true. It was not the schools that created this - but now the question that we have to deal with is the following: Is it possible for our collective community to assure any change in this situation and together to try to navigate towards destinations and objectives which will be fruitful for our understanding as education as specialists, and more specifically, in architectural education? We have to think about what kind

of initiatives and measures we should take in order to get the best out of the Bologna principles. I think that here we have to do a lot of work and there are a lot of possibilities.

Jean-Paul Scalabre, Paris, France

In France the Bologna process was, for the schools of architecture and especially for the Ministry of Culture, an opportunity to organise a deep transformation of the curricula. Bologna was important and we changed the general framework of French architectural education quite a lot; we changed the status of the schools. So it was not bad, it had quite a positive effect. My second point is that the Bologna declaration is not a European directive; it is the result of a political statement made by the ministers of Education, which is very a different thing. Each country is free to apply it or not. It is not a content, but a framework. My question may not be an optimistic one: What implies the complexity and variety described earlier? Does it express the richness of our European architectural education, or does it express the weakness of our system? I think this is a real question, because if we are talking as Europeans, then maybe, as you say, harmonisation should be the main goal. I'm a little afraid to see so much complexity regarding our own situation. So, is it richness or weakness?

Ferran Sagarra, Barcelona, Spain

I consider the Bologna process an attempt to unify the market for professionals. The problem is that, in order to unify this market, they started with education and then all the members of the states took it upon themselves to interpret the wording. Now we have the problem where Master's or other degrees are not the same in one place as in another. What we have to do now, is to develop a standard language in order to unify the concept and then every state can decide what they will be asking for to become professionals. It seems very important to me to have a unique market, because it is bigger, better and embedded in a global system. The Americans are very aggressive praising their educational system and advertising it across the rest of the world. We should try to do something similar. This should be done in one cycle. The most important thing with regards to the Bologna process would be an accreditation system, really useful for comparison. It is also very important to change the minds of most of the teachers: it is the work of the student that is being measured and not the effort of the teacher. Another point is that the Bologna process is based on the autonomy of each university as it ought to be and for that you need some certification system. In the US, there are two or three agencies that certify American schools and we have to do that as well. If the ministries don't want to do this then I hope we can. I know it's difficult

to organise a system of certification of different offers, but we will then know who is qualified and after what kind of studies.

Mathias Essing, Berlin, Germany

It is important for the European community that the schools find more identification by themselves. The Bachelor's/ Master's system allows the schools to find their profiles. Not everything in all the schools should be considered equal. I would like to repeat that each school is an individual school and we have to find our own profile to work in accord with each other.

Ferenc Makoveniy, Budapest, Hungary

I think Jean Paul has raised a very important question about complexity: is it richness or a weakness? what is the line between chaos and complexity? Is it now chaos or complexity? The answer is that in nature there is diversity and if there is a normal diversity, this is a strength, this is a richness. However, there is one important condition to this, that it should be a self-regulating system and I think that we are not a self-regulating system: we are driven from outside. If this system were to be self-regulating, I think it would be a strength and I am for that kind of richness. If it is not regulated by ourselves but from outside, then it would be chaos.

I would like to ask you if you hire teachers from other faculties of your university. I have increasingly the impression that there are large differences between architectural schools which stand alone and use their own staff and those which are embedded in big universities, and hire staff and credits from other faculties. These teachers have rather different attitudes and the whole meaning of the school is different. We get more and more credits in technical fields. Otherwise we may reach a point where architects will drift into the dangerous position where they are just making sketches.

Gunnar Parelius, Trondheim, Norway

If we are discussing what should be emphasised then we have to provide the means to assist them. We should be particularly focused on curriculum changes. The Bachelor programme part has to be distinct from the Master's. The problem with "cutting the snake" is that each program has to stand on its own. If you leave the school with a Bachelor's, you have to leave the school with some useful knowledge. We should emphasise that you should put into the Bachelor's degree the basic understanding for which it takes five years to really know. Therefore, it

is not "half a snake" ; the analogy is more like « half-baked bread » that you then may bake further to bring the student to a Master's degree. This implies that most « ingredients » are already within a Bachelor's degree.

Constantin Spiridonidis, Thessaloniki, Greece

Let me come back to the issues that Ferran Sagarra raised and then to the interesting question Jean-Paul Scalabre raised. We have to take into account that it is not only changes in the professional practice that influence architectural education and impose changes in their curricula. There is another significant aspect behind the European policies for higher education: The production of new knowledge. New knowledge is a product with economical value. The more our economy becomes internationalized, the more the production of new knowledge, innovation and research becomes a crucial parameter of local economies enhancing the competition between all the institutions involved in this production. Universities and generally Higher Education are the institutional framework 'par excellence' for the production of new knowledge. In this competitive internationalized environment the political system demands from Universities to contribute to the local economies by producing new knowledge capable to be invested and contribute to the local development.

Every year, about 500 scientists (high quality) graduates from the European higher education go to the United States to continue with postgraduate studies. Of this amount, only 10% return. It's a very significant exportation of European brains to the other educational Institutions and Research Centers of excellence where these persons make research in favor of the hosting Institutional framework. We can see the Bologna Process as the strategic answer of the European political system to the enhancement of the production of new and competitive knowledge through the creation of research centers of excellence. By cutting the 'snake' in two pieces, as Ferenc Makovenyi said, Bologna gives the possibility to move graduates of the first cycle from all European Countries, towards some attractive (geographical in most of the cases) centers, which now have the possibility to select the best students of Europe for their Master Courses and their PhDs. The expected outcome of this process is to gather 'brains' in these centers of excellence and to have these centers as reference for all the other higher education institutions.

In the framework of this situation, the selection of the time of mobility, that is to say if a graduate will move after three or four years of studies, has significant strategic implication for the European Political project. If the mobility will happen after three years, then the graduates from Bachelor will be mainly oriented toward Europe as in USA they are not eligible as the USA schools have in most of the case four years for their first degree. On the contrary, if the mobility is after four years then a number of graduates will have the possibility to continue studies in

USA. I want to remind you that four years ago, in a pan-European inquiry we run in ENHSA, 73,5 % of the European Schools of Architecture is already in the 3+2 system. It means that programs different from this model will have significant reduced possibilities to attract Bachelor graduates from other schools of architecture and their own graduates will have significantly reduced possibilities to find a master course in another institution.

In addition to the Bologna declaration we also have the European Directive. This Directive says - hopefully, this will change, but for the time being it says - four years is the minimum education. A school may split its curriculum into four years plus something for the Master. In this case it is very likely that graduates from this school will ask for professional recognition after only four years of studies. This will open the door to the private schools, which might go for four-year studies. That means that this will create a pressure for smaller duration of studies with significant consequences in the quality of architectural education. This issue has also to be taken into account.

Regarding the question if the existing diversity of architectural education approaches is the sign of weakness or of the richness of our educational system, I think that both of aspects are valid. This is why the question of school management becomes in our days very significant. We have to navigate our schools through this situation where all of us want to remain locals and in the same time we want to be(come) Europeans. Whether we like or dislike it, whether it was our choice or whether it was imposed on us, this is a situation that exists around us: it is a reality. All these gatherings we had in Chania there are nothing more that our effort to find ways in this complex and chaotic situation to develop creative solutions and answers to this the question how we can remain locals being Europeans. I just want to remind you that in all the previous meetings, in this room, with no exception, it was absolutely clear that the diversity of European cultures has to remain alive in the educational system and more particularly, in the architectural educational system. Thus the question is, how innovation would be amalgamated with our cultural identities in the schools, already established over the years, and with which processes we can promote these aspects: innovation, tradition in a European dimension.

Ferran Sagarra, Barcelona, Spain

I would just like to add something about what was said related to the best brains going to the USA. I am not so sure that this happens in the architectural field. It may do in scientific fields, but what has happened with architects - as far as I understand - is that most of us went to the United States to teach for one or maybe two years. It's nice for us and for them, they pay well, and then we come

back. Now, instead of going to the United States, we can go to Switzerland, to an academy in Zurich, let's say. They pay very well and that's fine. Also let me say that because innovation in architecture is a concept that's quite difficult to define, I think that you cannot use the same frame for architecture as for other professions or other scientific fields.

I agree that for someone to become an architect, he needs at least five years, also as to whether he is an architect and a civil engineer, we don't need to separate it; but the problem is the rigidity of our public systems. The problem is not only three plus two or five or whatever, although this is a serious question in itself, the most important problem is for our public institutions to be allowed to offer a contract to someone to come for a year, to teach, be well-paid, and then continue. The deans and heads of the schools should have a greater possibility of being able to invite the best brains for one or two years and to pay them well. In this way we will then have some level of competition with the United States, otherwise we will have a big problem.

Chris Younes, Paris, France

This will be short. I am just wondering if with the Bologna Process we "cut the snake" into two parts or into three parts. I want to remark that we didn't discuss the PhD and the doctorate and I'm sure it's very important because it's a way to approach the complexity; it's a way to invent, to create, to be certain of the practice. So maybe this is something we have to discuss at some point in the day.

Constantin Spiridonidis, Thessaloniki, Greece

This is a very important issue and with all the discussion of the Bologna process, all the money was spent only at the level of the Master's degree and it was not about the PhD position.

Herman Neuckermans, Leuven, Belgium

Some of us are still reasoning as if the European Union did not exist, but look at the figures: 7% of the 483,000 architects in Europe practise outside their home country, that is the significant amount of around 30,000. Whether you like it or not, things are happening. The problem is that too often we limit our evaluation of the situation to impressions and opinions. We should be more factual and that is why it is very important that the audience respond to the ENHSA questionnaire.

Bologna 10 years after:
Are we really more harmonised?

*What is the impact of the Bologna process
on the various systems of studies in Europe?*

*One of the main objectives of the European Higher
Education Area is the harmonisation of the degrees
delivered by the Institutions.*

*Are Schools of Architecture in Europe
harmonized nowadays?*

*Which are the steps that your school has made
towards this harmonization?*

Did it become more international?

*Did it adapt its educational system
to the European directions?*

*How was this harmonisation process accepted
by the academic community in your Country?*

*Which are the positive and the negative aspects
of the new condition?*

*What is the cost and the gain to go for or stay away from
the harmonisation process?*

*Which is the strategy of your school for the future
in the existing European Higher Education framework?*

Chair: **James Horan**, Head of Dublin Institute of Technology,
School of Architecture, Dublin

Introductory Panel:

Julian Keppl, Vice Dean, Slovak University of Technology,
School of Architecture, Bratislava
Marianne Skjulhaug, Principal, Bergen School of Architecture, Bergen
Adalberto Del Bo, Professor, Polytechnic of Milano, Faculty of Architecture,
Milano
Luis Conceicao, Head, University of Lusofona, School of Architecture, Lisbon
Lorenzo Diez, Director, Nancy School of Architecture, Nancy
Sven Felding, Rector, Royal Academy of Fine Arts, Copenhagen
Vlatko Korobar, Dean, University Cyril and Methodius, Faculty of Architecture,
Skopje
Johan Verbeke, Vice-Dean, University College for Sciences and Arts, Brussels

James Horan, Dublin, Ireland

This afternoon session deals with the subject of harmonisation of the various programmes in architectural education across the European Union. Before inviting each of the panel members to speak on this subject, I would like to set, as I see it, the context of the European Higher Architectural Education Area.

It is my belief that architectural education is a lifelong process with a duration in the order of 50 years, in which the formal educational process in Schools of Architecture is a short but highly intensive component of this long time frame. Architectural education, in its entirety, through the life of the architect is, or should be, a seamless process. The responsibility for this process is jointly shared by the Educators and the Profession alike.

Let us consider the student who begins to study in a School of Architecture. They will begin by asking themselves the following questions. What kind of School have I joined? What will the School of Architecture do for me? What will I be able to do when I graduate? More often than not, the question of what a graduate of architecture will be able to do will the first question in the minds of the student's parents. It is, therefore, important that Schools of Architecture think significantly beyond the point of graduation and consider what that graduate will do for the remainder of their working lives. Their future role as practitioner, teacher, researcher, historian etc should be part of the consideration when Schools design their programmes.

It is now ten years since the Bologna Process was introduced. Throughout that time this process has resulted in substantial mobility within the European Union. This mobility implies a sense of harmonisation, and as a result of the Bologna Process and mobility within Europe, it is now quite common for students of architecture to commence their education in one School and finish it in another. We should ask the question 'what are the issues associated with an architectural education that is made up of more than one part, and may be delivered by more than one educational institution?'

Before the Bologna Process and the introduction of Erasmus programmes there was limited interaction between Schools of Architecture other than discussions which might have been instigated by associations such as EAAE or ENHSA, but movement for students between Architectural Schools was relatively rare. Schools were generally working alone, although their educational processes were being influenced and informed by the Architect's Directive of 1985. This directive began the process of laying a foundation for harmonisation, and to some extent it antici-pated mobility in Europe. It set down requirements for architectural education in Europe in terms of content and duration. However, in the Architects' Directive of 1985 nothing was said about how a graduate gained access to the profes-sion. It merely dealt with academic qualifications. However, the new Qualifica-

tion's Directive of 2005 goes further. It still contains the same requirements on both duration and content for architectural education but it also includes and describes what graduates need in addition to their academic education in order to be permitted to practise architecture in the Member States. Twenty-one out of the twenty-seven Member States require some additional training, experience and/or examinations after graduating from a School of Architecture before the graduate can stand alone as a architectural practitioner and in some cases call themselves an Architect.

In contrast to the Directives, the Bologna Process sets out to introduce a framework for harmonisation of third level education in general. It makes no reference to the Directives or access to Practice. The Bologna Process has not managed to grasp the subtleties of issues which are specific to areas of education such as architecture. Even though Bologna does not discuss the issue of access to Practice, this issue must be an important subject for educators and Schools of Architecture. Schools of Architecture should ask the question, 'can our graduates be employed?' To what extent are we taking this into account when we design our educational programmes? The ultimate career direction and employability of our graduates is one of the areas of responsibility for Schools of Architecture.

Bologna is now ten years old and its educational template of 3+2+3 as the Bachelor/Master/Doctor framework has in those ten years become a familiar pattern across the European Union. Recent studies carried out by ENHSA [the European Network of Heads of Schools of Architecture] have revealed that more than 75% of Schools of Architecture within the European Union have engaged with the Bologna process and have introduced, or are in the process of introducing, 3+2 or 4+1 Bachelors/Masters programmes. The traditional five years of architectural education breaks down nicely into the mathematical division of 3+2, but it should be remembered that a 3 years Bachelors programme may provide a student with a degree but it will not provide them with access to the profession of architecture as a three year programme does not meet the minimum requirement of the Directive. However, the 3+2 framework provides for the possibility of a substantial amount of movement for students between Schools of Architecture. Many students are electing to commence their Bachelors programme in one School and complete their Masters in another. Indeed, some Schools of Architecture are now in the process of introducing stand-alone masters programmes, and some of these programmes have been notified to the European Commission in Brussels in order that they may be recognised under the Qualification's Directive and listed in that Directive's Annex V. This situation has resulted in considerable discussions among those advising the Commission in Brussels. There are concerns that graduates of architecture who have completed their education in more than one Institution may have, albeit inadvertently, missed out on some part of the content of their architectural education as described in the eleven points of the

Directive. It is therefore being considered that the School or Institution awarding the final qualification must take responsibility for the entire education of that graduate and ensure that no gaps exist, and that the content as described in the eleven points of the Directive has been met in its entirety.

Harmonisation of educational processes will assist in the mobility of students across the European Union. It is important to remember that harmonisation is not just about exchanges. Schools of Architecture need to see the bigger picture and develop a sense of responsibility towards their graduates. Their architectural education should be designed in such a way as to assist them in accessing the European Market place and not just preparing them to work in their own Parish.

Julian Keppl, Bratislava, Slovakia

As an introduction I will give you some brief information on the organisation of architectural education in Slovakia. There are three schools of architecture; two schools are run within technical universities and one school is within the Academy of Fine Arts in Bratislava. The biggest and the oldest school is the Faculty of Architecture of the Slovak University of Technology in Bratislava with about 1200 students of architecture and urban design. All schools of architecture are public schools financed by the state.

In 2002, the new Act on Universities was passed which regulated university education in accordance with the Bologna Declaration, i.e. several-level study: 1st level – Bachelor study; 2nd level – Magister/Engineer (at Technical universities) study; 3rd level – Doctoral study. The structure of study disciplines has been modified according to the new Act on Universities too. These changes affected the discipline "Architecture" and the discipline "Urban Design" to a great extent, as both disciplines had been independent until 2002. On the basis of a mutual consensus between architectural schools and the Slovak Chamber of Architects (a professional association), the study discipline "Architecture and Urban Design" was defined as a result of efforts to increase the responsibility of the architect not only towards the client (investor/customer), but also towards the neighborhood and wider surroundings, towards the town, country and society and to teach the graduates to focus more precisely on mutual relations between the building/object and its wider surroundings. This study discipline was classified into technical branches and is taught at the Faculty of Architecture of the Slovak University of Technology in Bratislava and the Department of Architecture at the Technical University in Košice. After completing the Engineer's study program, the graduates who study the discipline Architecture and Urban Design obtain the title of Engineer Architect (Ing.arch.).

The study discipline Architectural Design which belongs to artistic branches is taught at the Academy of Fine Arts in Bratislava. The arts graduates who study the discipline Architectural Design after completing a Master's study programme obtain the title/degree of Magister of Art (Mgr.art.).

After 2002 all schools of architecture adjusted their curricula to the model 4 + 2, four-year Bachelor's study programme and two-year Master's study programme and they introduced the ECTS credit system in accordance with the new Act on Universities. The total length of the study - six years - became the result of the old tradition exerted in the former Czechoslovakia. To obtain the Bachelor degree in a four-year bachelor study programme, a student must acquire 240 ECTS credits. To obtain the degree Engineer Architect (Ing.arch.) or Magister of Art (Mgr.art.), a graduate must acquire 120 ECTS credits in a two-year engineer or magister/ master study programme.

The study of architecture is also offered by Faculties of Civil Engineering in Bratislava and Košice within their study programmes. At the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava, the study of the discipline of architecture is integrated into the curriculum of Building Structures and Architecture. At the Faculty of Civil Engineering of the University of Technology in Košice, the study of the discipline of architecture is a part of the curriculum of the Design of Buildings and the Environment. The graduates of these study programmes obtain the title "Engineer" (Ing.).

The above mentioned number of different degrees reflects the different approaches to architectural education at the above mentioned schools.

We can point out that "Bologna" had an impact on the structure of study; all curricula oriented towards education and training in architecture consist of a four-year Bachelor study programme (Bc.) plus a two-year Engineer/Magister/Master study programme (Ing.arch., Ing., Mgr.art.).

Harmonisation of architectural education in Slovakia and the content of study programmes at our Faculty of Architecture have been impacted significantly by the Directive 2005-36-EC on the recognition of the professional qualification, especially those eleven points summarising the content of architectural education. During the adoption of our study programmes we also took into account recommendations from the ENHSA meetings in Chania (e.g. more than 50 % of design studios).

In the year 2008, the Faculty of Architecture of the Slovak University of Technology in Bratislava applied to the European Commission – Regulated professions in Brussels for the complete notification of diplomas – for certificates of formal qualification of architects to be granted to its graduates who started their study after the academic year 2006/2007. Our application was approved by the Com-

mission for the recognition of professional qualifications in June 2009. We are currently waiting for the publication of our recognised study programme in Architecture and Urban design in the updated Annex V.7. Architect, Section 5.7.1. Certificate of formal qualification of architects recognized pursuant to Art. 46 of Directive of the European Parliament and Council 2005/36/EC. We hope this step will strengthen our strategic goal to reach a more intensive international orientation of our school.

During the process of recognition of our diplomas and certificates of formal qualification, we meet a problem of recognition of diplomas/certificates of mixed study programmes at various universities (Bachelor degree from one School of Architecture and Engineer/Master degree from another school). The commission for the recognition of professional qualifications evaluates the fulfillment of requirements according to Art. 46 Directive 2005-36-EC as one unit (Bachelor and Master study program leading to final degree/second degree architect). This approach reflects a certain restraint of the Commission to recognize e.g. just a Master's programme with very limited possibilities to fulfill the whole complex of requirements.

The other question arose comparing the Engineer's study programmes and Magister's/Master's study programmes. In official documents there is a parallel between engineer's and Magister's/Master's study programmes or degrees. The Engineer's education generally lasts 5 years (300 ECTS credits) and leads to the professional degree, e.g. authorised architect, while the nature of the Magister/Master study programmes is more scientific, theoretical or artistic (in Academies of Fine Arts) and obviously lasts two years (120 ECTS credits). The phenomenon of collecting engineer degrees occurs and not only in the field of architecture. A graduate of more or less generally oriented Engineer's Bachelor study programme (e.g. in Civil Engineering) continues his/her study in three or four semesters engineer study programmes and accumulates engineer degrees in a speculative way without any real fulfillment of qualification requirements in a certain profession. For example, graduates with a Diploma in Civil Engineering can apply for study at our Faculty of Architecture in engineer study programmes and most applicants statistically meet our requirements to pursue a study in architectural study programmes. But from our experience we can point out that most such students (Civil Engineers) have no appropriate knowledge of humanities, history of architecture and of town planning and that they lack drawing skill and artistic creativity (with some exceptions of course). From the above mentioned point, it can be concluded that there is some advantage to continuous or integrated engineers' five-year study programmes which are oriented towards acquiring a professional qualification in a certain discipline. As for architecture, it means gaining a title/degree Ing.arch. which enables access to the architectural profession. The aspira-

tion to introduce such an integrated/continuous five-year model is an issue for academic discussion only.

Marianne Skjulhaug, Bergen, Norway

To start with, a very quick look at the situation in Norway regarding titles: we used to have the title of architect, and then we had the title of civil architect, but now we have Master in Architecture in all three schools in Norway, two public schools and one private. I'm from the private one. What is maybe strange is that we are funded by government money; even if we are a private school, we get money from the state. I was thinking I could be very specific and talk about experiences in my school and how we deal with mobility.

Traditionally there has not been very much exchange with students going abroad but now, in the past two years, we have made changes. As I can see some really clear challenges as well as of course some advantages, I thought I would explain just some of them that would give a picture of the mobility problem. We have just opened for students from abroad who are going to apply for the two Master's; I don't think it can be compared with what has been described earlier. It doesn't stand on its own, it's still part of the continuous study. It's just started for applicants from abroad and we've been discussing how to face this; it's a question of how we include students from many different schools, not only European but from all over the world. It's also a question of how or maybe if we will allow them to exchange with other European schools, if, for example, you have a Chinese student, whether he can spend half a year in another European school and then come back and take the Master's. This is an ongoing discussion.

There are students who come to us on an Erasmus exchange, who, when they have been here for half a year, ask if they can continue. How do we then deal with that? Furthermore, how do we secure the foundation which is, I believe, part of the school's identity; this is another important question. We try to solve that by trying to make a special Master's course for one semester which is made up of the core values of our school. What we also experience is that students - at least Norwegian students - all enjoy traveling so all of them want to go somewhere, not only within Europe but in all different directions. So how do we approve the work when they come back? For example, we have a female student who is going to Tehran next autumn, which is quite complicated. Thus harmonisation is not stopping within European borders, our students are truly mobile.

We also experience the problem - this is something we have talked about - of how we keep the brains within Europe. We had 27 applicants for the Master's course this year; we have 150 students in all so 27 is quite a large number. We try to understand why this is happening because we didn't make any special invest-

ments. There is also of course the language question: we are only a small country that speaks Norwegian. At the moment, we are teaching all the Master's courses in English and that helps with communication. There are also the cultural barriers which can cause positive friction but which can also cause misunderstandings. These are thus just some of the problems we face.

Adalberto Del Bo, Milano, Italy

In 1992, Italy was the last European country to introduce the Directory Architecture 85/384 into its own organization by writing the principles of the European Directory into a special law regulating the curricula in architectural studies. In 2001 the Italian government became the first country in Europe to introduce the frame of the Bologna Process after the 1999 Declaration. On that occasion the Polytechnic Universities of Milano and Torino decided to introduce the new formula in advance, starting the 3+2 system during the 2000/2001 academic year. There had been a wide debate about the new program and also a certain extent of mess, due to the speed that characterized the approval at the end of the legislature of the law that instituted the new professional Bachelor's figure (in which the Engineering Schools were very interested).

Many Italian Schools of Architecture introduced the new plan and several decided to maintain the five-year program; indeed some schools decided to start the new system and also to maintain the old one at the same time.

In the Italian academic community there are different ideas about the consequences of the Bologna Process on the profile of the schools; I consider that the Bologna Process has had a significant and positive impact on the profile of the schools of architecture in Italy. In spite of the several cultural and methodological differences that exist on the issue, in my opinion, Italian schools are now much more coordinated than before and are on the road to being better harmonized, as well as by the increase in international exchanges.

The number of foreign students attending Master classes is, in fact, rising very rapidly: in my Master's course, for instance, there are students who graduated in China and others that come from South America and France.

The most significant positive aspects on the profile of schools due to the Bologna Process are, in my opinion, besides the international exchanges, the reduction of the study period for the final degree and the institution of the Doctoral Programs in which research in architecture has actually found a suitable platform well connected with the didactical organization.

The negative aspects concern:

1. The difficulties in having adequate periods of study in foreign schools with the Erasmus system, especially for the Master's degree in which the whole year studying abroad is now half of the complete period of studies;

2. The difficulties in finding a figure for the Bachelor level in Architecture in term of professional competences that can be spent in the labour market; as the 11th point of the Bologna Declaration says: Adoption of a system based on two cycles, the first, of three years at least, spendable on the European labour market and in the higher education system as an adequate level of qualification. In Chania we discussed this difficult problem, on which we need to have a clear position, several times with the Joint Working Party representatives.

Luis Conceicao, Lisbon, Portugal

First of all I must say that until the late 80s there were two schools of Architecture in Portugal: one in Porto and another in Lisbon, and they were Fine Art Schools. We have never had technical engineering teaching in Architecture but always the fine arts as our ancestral tradition.

Nowadays we have 20 schools and five or six years ago we had 24, but they have been disappearing. It has been a process I'd say, for 15 to 20 years; now it's settling down and the most structured schools are developing. We are, however, still too literally tied to the eleven points, which means that the identity of the schools is not yet clear. I believe, as Constantin put it this morning, that one of the objectives of the Bologna process is mobility and the possibility of choice. For example, in the first degree you can choose a school in your place, and then after 3 or 4 years, you could choose the school that would better fit your wishes. This is one of the main problems in Portugal, and it is related to money and to financing, so the public schools of Architecture lobbied the Government. The Government invented what is called an "Integrated Master" degree, which means a 3 plus 2 course title of Architecture, but integrated, which means that each school wants to keep all the students during the 5 years of study. So it's more of the same that we had before, formally as Bologna, but the schools keep the students for five years. Internal mobility doesn't exist. Of course international mobility exists like it existed before with Erasmus, since the 80s, and has nothing to do with Bologna. The ECTS are working for Erasmus. Most schools, all schools are in the Bologna process. In most schools, I should say 95% of the courses are based on a modularised structure and that brings some problems in the studio classes, because we all used to have a year in the studio teaching and adapting programs to the length of a semester is not easy, but it's a process, so things are changing.

Another big problem is the adaptation of the teachers (mostly the elderly ones) to the new model. In the studio classes there is no real change, because the studio

classes were always student-oriented, as you learn architecture by doing it, by designing, so Bologna didn't change it. But in the other disciplines it's been very hard for the teachers to work within the new spirit, which is student research, student work, and the competences scheme. I tend to think those are the main problems.

As for what was said here before by James, I don't mind that the Bachelor's degree has nothing to do with the profession, as it is a step to get into another step. What do you do with the Bachelors degree? You do a Master's degree, that's all. I don't see any problem with it. We used to have a 5 or 6-year program before. In my time it was 6 years plus practice. Now it is 5 years plus practice and then we have an exam to the Order. Now the 5 years have split into 3 plus 2, and you have a diploma of lower studies in Architecture, which gives you access to a higher level, which is the Master degree. I don't see any problem with that. The only problem I see is that in my country, the schools, not only in Architecture, but in the whole University, didn't want to call it a Bachelor Degree, because Bachelor is an old fashioned word, so they called it Licentiate and, in Architecture, as in Engineering or in Medicine, you don't have a license for anything in the first degree. So that's ambiguous. But the ambiguity lies only in the word, not in the degree.

Lorenzo Diez, Nancy, France

I would like to start with some specificities of the French network of Schools of Architecture where I work. In France we have 22 Schools of Architecture; 20 of them are public schools, the other two are private schools, one of which is in Paris and the other one is part of the Polytechnic in Strasbourg, so it is more of an engineering school, with a specific section for Architecture. The 22 Schools of Architecture depend on the Ministry of Culture and Communication and not on the university, so we are a kind of link with the university. In France we are trying to start the processes in our schools. In this work we are like a leader of this process, which is the acceptance for 20 directors of the schools who organise the formal acceptance and meet them every two months and are able to work with the central administration we have in France and work well on this theme. We have many working groups within each School of Architecture, a working group between the Schools of Architecture and the Ministry of Culture, and then a working group between the Ministry of Culture and the Ministry of Education. These groups worked on many very different themes, which was the Bachelor's degree, the Master's, the PhD, the ECTS system, as well as many things, and all these working groups also integrate into the structured profession. Since 2005-6, we have had what we call in France the LMD system working in every School of Architecture.

The specificity of the transmission of our processes is the following. We have two separate diplomas: one is an academic diploma and the other is a professional diploma. This is a very new thing in France. Before, we only had an academic diploma and then experience. So we have the graduates from the academic diploma, the three-year Bachelor and two-year Master and then we create a new diploma, the professional diploma which is called in France HMONP which is something like a license to work as an architect. This license is now on the legal texts: it includes a minimum of six months of practising in an architectural agency and then professional art classes in the school. It is an alternative form of study.

The other item on the programme in France is that we are creating the PhD in architecture. We didn't have a PhD in architecture before, we had a PhD in history or a PhD in sociology and then a student could specialise in architecture. Now we have officially created a PhD in architecture. One other negative point is that we reduced the education in architecture from six years to five. We contracted the time for the finer work on the Master's: it's six months, with the last semester from the start to the end, so we contracted this time. But we also contracted the time of the research. A good point however is that we increased the global time of the application in agency so we now have a minimum of nine months: one or two months plus six months for the professional application. The goals we now have for the next years, the first of these goals would be to make the PhD become a reality. Although it has been announced, it's not yet a reality. It's difficult and we are still having a lot of discussion with the university.

The second goal is to work on this new professional diploma, to recreate strong links and reinvent the links between education for architecture and the profession. The last goal is to create a kind of final project for the Bachelor's; we're going to have a very strong specialist in the third year, the year of change between schools. We want to make a very strong point, a final project in order to say that a student has the Bachelor in Architecture. That's one of the points that have been given to us from people who came to the school to do an audit of the students. It was a good idea.

Sven Felding, Copenhagen, Denmark

First of all, I would like to say that compared to the 22 French Schools, it matches respectively to the number of inhabitants that we have here that we have two schools in Denmark. We have the school in Aarhus, which is 40 years old, and the school in Copenhagen, the Royal Academy of Fine Arts. The education in my school has been going for over 250 years. For us in Denmark, introducing the Bologna process has been rather a smooth process. The three plus two plus three circle fits rather easily into the system we had before with the five years of education. Concerning the point about the ECTS system, we were able to find a

way to test throughout the academic year. The next challenge for us was to make a qualification frame for the three levels of the studies, for the Bachelor's, for the Master's and for the PhD.

First of all, we had to distinguish between what is considered very important in order to ensure that architecture is an art. But in the last fifty years at least, research in architecture has found a very important place in the studies; this means that we have to find a balance between art in architecture, research in architecture and include the relevant points from the directive in the whole education frame for the studies. Of course it is not easy to rewrite and at the same time to change the programmes so it fits to that, but we have now finished doing the rewriting so that we have an outcome for every single part of the studies. That means either in the studios or in the lectures or in the things you write or read.

For us, we must say that the system has given so many positive possibilities in many aspects. We are able now to compare our education and studies in the two schools, each with the other, which is not the biggest problem, but also with what we find in more global aspects. All the countries are able to find out about what is going on in the schools. So the challenge has been, as I mentioned before, finding a proper base for the research in architecture, finding a place for the art in architecture, while at the same time including the demands of the professional practice so that we are able to say that the five years of education of the architects in Denmark, as in Spain, is targeted at the profession.

I would say that I think we are doing well in Denmark. The stakes have gone up, the accreditation board is meeting our two schools next year but I think we have no serious problem. We find it a new challenge to split the study into two parts and have the last part as a candidate study, a Master's programme as it is called internationally. We have decided to give the bilingual needs that we have to help each other in the English-speaking programme in some other study departments and to programmes in other departments. We then decided to offer it to students from the whole world and to our surprise, they gave us 120 applicants from 32 different countries this year. We did not take them all; we took about 20 foreign and mixed them with 20 of our own, making a programme that is both for the Danish students and for the foreign students running parallel to the study in the school.

Vlatko Korobar, Skopje, F.Y. Republic of Macedonia

If the question is if we are harmonized then there is a clear 'no' answer; if the question is if we are more harmonized than in the past then the answer is a shy 'yes' and if the question is do we have the need, the environment, or the intention to be harmonized then the answer could turn from a shy 'yes' into a decisive 'yes'.

I would like to illustrate the state of harmonization by referring to three different levels: university, national and international levels which all bear distinctive characteristics and aspects of the process of harmonization. But, before I go into some detail let me remind you that I speak from the perspective of somebody coming from a school from a candidate country and in that respect our school is in a different position compared to many of the schools represented here.

One could speak of three different aspects of harmonization: first, harmonization of degrees; second, harmonization of content of studies and third, harmonization of the professional consequences of the obtained degrees. At the internal or university level a significant change has happened as of 1st of January of this year. Before this date we were a legal entity with a considerable level of independence in our decisions. Since the beginning of January we are part of an integrated university and it is influencing us primarily in terms of the degrees we offer. Fortunately, we have managed to retain our position that we should have a continuous five-year course of studies in architecture. However, since architecture has always been treated as part of the technical/engineering campus, there are influences in terms of professional degrees that exist at other technical faculties and I expect that in the future these influences will be greater, but I hope that the fact that ours is a regulated profession will give us the possibility to harmonize with other schools of architecture in the region and farther, rather than with other technical schools within our university. This holds true for the first two cycles, but we have already experienced a different situation with the third cycle of studies where our proposals have met with less understanding and approval from the university bodies.

The second level is the national level and since several years ago we have as many as five schools of architecture, three state schools and two private ones. Ours is the oldest one, in fact it is celebrating its sixtieth anniversary this year. So, at a national level we have a situation where we have more or less the same degrees but we have considerably different content of studies within the existing schools which indeed raises the issue of the professional consequences of the obtained degrees from the different schools in a situation when a qualification framework is in the making and the state control over university education is not always exercised in the right manner.

When it comes to issues relating to the international level, or in this case the European level, there is a preconception that in 'Europe' things are well structured and we just have to look there and find the right answers to all our questions. But, once you peek through the door you see that there are open issues and that things are not always well structured there too; James touched upon one of those issues, the future of master studies this morning somebody mentioned the master after master studies, second level master studies in Italy, etc. The fact is that even the condition of harmonization of just one of the cycles, in this case

the second cycle, might be confusing for somebody who would like to get a clear picture of what one should do with it in the process of harmonization by following the examples of the member states, as the situation varies considerably among countries and schools.

To give you a broader perspective of the situation in the region, I will shortly refer to a project in which Constantin and I recently participated which brought together a number of schools from the Balkan countries or the SEE countries as they are labeled nowadays. In terms of harmonization of degrees and their content at the first two cycles, there is a fairly high level of harmonization. But when it comes to the third cycle the situation is different. We should not forget that our schools are not just about access to the profession of the architect after the second cycle, but also about the continuation towards the third cycle and doctoral studies and the harmonization process extends to this issue as well. The fairly high degree of harmonization in the first two cycles comes as a result of the fact that most of the schools in the region developed within the same or similar educational systems, but obtaining a doctoral degree, not merely through a process of tutorship, but through a full cycle of studies is a completely new endeavor and experience for all of the schools. In this respect schools have already started to differentiate despite the fact that their first two cycles bear considerable similarities.

What could make the difference in the future, or in the near future, at least in my country, is the introduction of the qualifications framework. It is in the process of making, but I do not put much hope into it as it will probably be adopted without much regard to societal needs or needs of educational environments, but rather as a bureaucratic response to the need to reach yet another benchmark in the process of approaching the accession talks. We are trying to influence this process at the university level by supplying a body of information to the ministry in order for an informed decision to be taken, although I don't know how successful we will be in the process.

However, I would like to end by stating my view that there is no need for full harmonization and for us, as schools, to end up as one solid harmonized or homogenized group. Instead, I would be happy if we reach a state in which we become an archipelago with a number of harmonized islands, as long as we can provide the transparency of each island as to the degrees offered, their content and their professional consequences.

Johan Verbeke, Brussels, Belgium

In this short contribution to the discussion of this session we will report on the recent developments in Flanders. As Wallonia and Flanders have different Min-

isters of Education, the situation in both parts of Belgium is developing in a different way. We will also argue that we should see all these developments as a stimulus for collective learning as this brings us the most inspiration and helps using international developments for the benefit of local culture and context.

Plenty of changes have been taking place in higher education in Flanders during the last 15 years. On the one hand, it seems the government was stimulating the emergence of bigger organizations (although more recently some people have started arguing that smaller organizations also have some benefits); on the other hand international developments have been prepared by the Government through a series of new laws. These act on the organizational level where academic degrees offered out of university are now in transition to become part of university structures (and requiring a higher focus on research) as well as on the educational level where the Bachelor-Master system has been introduced as well as a more flexible system for students (see below). Although formally decided by Government, some Schools used these changes to review their curriculum and improve on some weaknesses.

All curricula have been transformed from a 2+3 system into a 3+2 (Bachelor-Master) system. Some curricula (e.g.. Interior Architecture) are currently in a 3+1 situation, but there seems to be a growing consensus to transform these also into 3+2.

A law from 2003 regulates the current 3+2 structure. This same law also describes basic academic competencies, which should be realized by all academic curricula. They are generic academic competencies and complemented by so-called domain specific competencies. These are of course in line with the Dublin descriptors. In order to facilitate the overall transparency, the ECTS guidelines to describe courses have been used to formulate course contents. The formulation of courses in this format and in competencies required a huge effort from all staff. Moreover, regular updating is required. There is, in Flanders and up till now, not yet a coordination of the competences required for a master in Architecture.

Since the start of the academic year 2009-2010 most schools have left the system where a curriculum consists of a sequence of separate years, and turned into a system where students get their diploma if they pass the different individual courses. The underlying system and regulating rules are too complex to explain in the context of this short paper. It can be compared with a credit system, but also includes some aspects of a more holistic approach (ex. a student can have a small failure in a limited amount of credits).

By the same law, all higher education institutions have a procedure in place to recognize competences obtained through activities in practice. Everyone can apply to have competences recognized through a procedure, usually requiring

the submission of a portfolio. This type of procedure requires serious efforts from universities.

In line with the above and in order to stimulate transparency, but also to create a balanced workload for the students and to contribute to international exchanges, our School agreed to have for all courses 5 ECTS-credits (or a multiple of 5).

Due to the above-described evolution where all master degrees will structurally turn into university, there is a growing focus on research activities. These developments mostly follow the (older) profile of the schools and generate exploration and dynamism. New research courses are developed (e.g.. in arts, music as well as in architecture). New research channels are created in ex. FWO.

Over the years, international activities have been seriously increasing. All schools participate in ERASMUS, but plenty also in cooperation projects with Japan, South-America, USA. International workshops become part of the curriculum and available for regular students. They contribute to their experience and international design studios become the custom. In order to stimulate international collaboration further, our school has also installed an English taught master degree. Students as well as staff have increased awareness and understanding of the importance of international cooperation and activities. There is a growing number of student exchanges and also staff exchange seems to be a growing trend. There is a growing influx of students at master level, including ERASMUS students who stay after their exchange period.

Quality control is established through a collaboration agreement between Flanders and the Netherlands.

All these external triggers forced schools in Flanders to change and restructure their curriculum. While initially there was plenty of reluctance amongst staff, it soon turned out that these new structures and procedures were a good start to rebuild the curriculum. It initiated a process of yearly improvements and it forced most schools to formulate in a more explicit way their goals and competences for students to acquire during their studies. After some time, staff understood that it is still important to build on their competences and on those of the schools. In our case, it was also used to increase the interaction between theoretical courses and the design studio. Research, on the other hand, was developed building on the longstanding tradition of the school and placing designing at the center of the focus.

The author believes it is important to see these changes in a context of collective learning between all stakeholders involved. For this, international contacts, knowing what is happening in other schools and introducing this into your own discussions turns out to be very valuable. Also the learning from the discussions during the yearly meetings in Chania is very important.

When it comes to harmonization of higher education, it is important to note that this only concerns some major lines of the higher educational structure. It leaves a lot of freedom for schools to strengthen their profile (and they should use it) in line with their history, local context and culture as well as their strengths. Seeing these developments as collective learning is very useful and helps kneading positive elements into one's own benefit. It seems the higher transparency increases understanding of differences in the profile created by a local context, but does not block specific curricula. It is also useful to note that each profile needs its own appropriate humus to grow.

Discussion

Pierre von Meiss, Lausanne, Switzerland

Question to Sven Felding: At the Bologna meeting of the ministers of education, there was the underlying idea, that with the Bachelor's degree a three quarters of the university student population would go out and work and only a selected quarter would continue with a Master's programme. You said, that at your school you have a lot of students from other universities applying. Does this mean that all the students from your own university who have the Bachelor's degree automatically continue with the Master's programme at your university without further admission procedures?

Sven Felding, Copenhagen, Denmark

Our students go through a severe selection process before starting their studies. We have around 1,000-1,500 applications and we take about 300 of them. Furthermore we do not think of the Bachelor's degree as giving access to any sort of professional practice. We nevertheless point out where Bachelors may go and act as an efficient contributor in an office and come back later to finish their architectural education. So very often, our students slip away after their Bachelor's degree for three or six months and then come back.

Adrian Joyce, Brussels, Belgium

I have a couple of comments and a general question to pose in relation to this topic. Listening to the eight presentations, I don't know if I feel encouraged, because clearly the disharmony in terms of the structure at the various schools is indeed considerable. The only harmonisation that came across is that the significant majority of schools do the Master's course in English or in a bilingual way. I wonder if this is going to have an impact over time, where English will become very dominant with negative aspects of disrupting cultural acquisition, particularly because we can't speak in emotional terms in a second language. Architecture is somehow rather emotive.

In the Bologna Declaration, there is a requirement for comparability of qualifications at the end of each cycle of studies. When a student moves after the Bachelor's degree to a Master's programme, the receiving school does not know whether that Bachelor's degree is equivalent to their own. So I put the question to ENHSA or the EAAE : did you establish comparability for architectural education qualifications across Europe? If it has not been done, it's an enormous task

that would be of great value; it also raises the question whether the schools have their own internal accreditation or evaluation authority that looks at the schools from where a candidate applies to their Master's course.

The Architects' Council of Europe has warned that a two-speed profession needs to be articulated. We immediately picked up the requirement of the Bologna Declaration, that a person carrying a Bachelor's qualification should be able to find a workplace where they could use that qualification. Listening to some of the presentations, it seems that there now exists a large number of persons with a Bachelor's degree or first cycle qualification who are not finding a professional position where they can exercise their skills. At the Architects' Council of Europe we see this as a new threat to the quality of architectural services to the general public and hence in the medium term to the quality of the built environment. Our suggestion at the time was that we should describe what these persons will be capable of doing, either in a technology field or as an assistant or in another field, rather than letting them develop their own momentum as a large group of people who feel dispossessed. Such might become much more difficult to deal with, than having them welcomed to the professional path and telling them, at that stage, that they have certain capacities. We have never done this and maybe that's a mistake of the schools, but it possibly is a debate that could still be held.

I have two further points. The first is that I suppose that the diversity in the educational programmes arises from the diversity of practice in the different countries. If we're aiming for harmonisation, if we're going for the very big "if", then we need to have an accepted description of the scope of services of a professional architect. If we don't have that descriptor at the end of education and training, then how can we ever expect to move toward a closer convergence in education? I am not an apologist for Brussels and the EU although I happen to work in Brussels and with the EU institutions. There seems to be a mood to blame Brussels for a lot of the ills that we perceive in education. In reality the regulations and legislation issued in Brussels relate uniquely to the movement of persons and not to the quality of education, not to the description of what education should be and so forth. We must therefore keep in mind that Brussels is only trying to deliver harmonised recognition procedures to allow persons to enjoy the rights they have as citizens of Europe under the EU treaty; it's a very narrow focus.

James Horan, Dublin, Ireland

I would like to give a couple of responses to those comments. I apologise if I appear to be a little negative when Brussels is concerned: this is a personal position because of the quality of the European tomato. European tomatoes don't taste of anything any more because they've been regulated by shape, size and color, but taste doesn't come into the equation. I'm terrified that the same thing

might happen to architectural education. The comparability of what happens at the end of each cycle in education is very important. It has not been addressed and I think it is something that we should look at very closely, maybe through EAAE, ENHSA and various other groups.

I believe this is very important in relation to what is being discussed by the sub-group in Brussels at the moment. If you have a school that is running a Master's programme. What due diligence is being carried out to ensure that the graduate who comes from school A and a second from school B is actually complying with competence and regulations? Duration is easy, but content is not. So it could be theoretically possible for a student to do a Bachelor's in one school followed by a Master's in another school without ever designing housing for example. In some way we are being asked to make decisions about qualifications and access to the profession without really being responsible for looking at what the cumulative experience of the student amounts to. This is an extremely serious question that hasn't at all been dealt with at this stage.

George Panetsos, Patras, Greece

With regards to the issues of harmonisation, mobility and so forth, I would like to consider the percentage of students that leave or drop out after the first cycle (a useful indicator). I would therefore like to ask the members of the panel to give an estimate of the percentage of students that stop after the first qualification, after the first three or so years of study.

What is the percentage of those who continue and what is the percentage of this big pool of undergraduate students who go on to Master's programmes? At the level of Master's programmes, what is the percentage of students who come from other universities?

James Horan, Dublin, Ireland

That's quite a complex question to answer. The way I intend to deal with it is, we're going to ask each member of the panel very quickly to try and give us a percentage of students who leave after three years. The other question I think we need to investigate.

Julian Keepl, Bratislava, Slovakia

We accept around 250-280 students into the first year and for the Master's pro-gramme we accept about 120 students. It's difficult to be accurate about the drop-out rate, because a certain percentage of Bachelor students continue their studies elsewhere.

Lorenzo Diaz, Nancy, France

I would say in our case it is less than 10%; if people stop their studies, it is in the first year and not in the third. When you are in the third year, the only thing you want to do is to continue.

Adalberto del Bo, Milano, Italy

In Italy we have a control, something like a Diploma supplement. I was however listening to what was said about new universities, especially private ones, and new courses where students can do maybe one year more. We try to offer this in Italy as well. The problem is someone going out or changing university.

Luis Conceicao, Lisbon, Portugal

I don't have official numbers, but I would say for my school and other schools I know that 95% of the students don't drop out. Those who do drop out do so earlier on; here I agree with my French colleague: if you're going to leave, it will be definitely in the first year and not later on. People who finish the third year may move to other schools. We also receive people from other schools entering the fourth year.

Marianne Skjulhaug, Bergen, Norway

We have the same situation: it is mostly in the first year that students decide to leave architectural studies.

Sven Felding, Copenhagen, Denmark

I would say that around 5% drop out or go to other schools after the Bachelor's cycle.

Vlatko Korobar, Skopje, F.Y. Republic of Macedonia

I cannot give a precise answer, because we still have a system of continuous five years. After the third year they can ask to take a special exam and leave. I don't think the numbers are helpful for this question. Whoever enters the School of Architecture wants to be an architect, I suppose.

Johan Verbeke, Brussels, Belgium

In Belgium we do not have admission exams. In the first year we therefore have a drop-out rate of about 50%, which is quite a lot. Of those who pass the Bachelor's,

I think only 5% continue going to the Master's and this is usually due to private or family reasons.

James Horan, Dublin, Ireland

This can only be regarded as a straw poll. However, it gives some indication that students who complete the first three years, in most cases, want to continue in order to get to the point where they are professional architects. In some ways, this is where the profession and the education of architects are at variance with what Bologna is talking about. Bologna is about the education of all programmes, not just architecture. But you don't get a medical doctor after three years and you don't get an architect after three years.

Pierre von Meiss, Lausanne, Switzerland

We better not use the term "drop out". If, after the three years of the Bachelor cycle, you change direction, if you go either to practice as a bank clerk or to do studies in Engineering for a Master's, or whatever else, it's not dropping out.

Michael Eden, Chalmers, Sweden

This is a good point. To clarify what we mean, by "drop out", refers to those students who do not take up an activity in architecture. If there is 5% leaving in the first year, our ambition is to find them, so they come back to do the final two years. Harmonising the Bachelor's degree is a problem. We think to have solved it, but we have to check incoming candidates with a Bachelor's degree as to their compliance with the eleven points. We may have to put in extra modules or students have to take bachelor courses at our school in order to enter the programme in order to get a professional degree. The question is whether we should offer as well a Master's programme without access to the profession.

There is another point in the Bologna Declaration we have not discussed: the plus three years for a PhD at the end is a very academic system, whereby Master's students prepare more or less for research. My experience is that for architects; there have to be five years for the profession and then there should be at least four years more for the research education.

Ferran Sagarra, Barcelona, Spain

In Barcelona, we have a problem: although a very large number of students finish their studies, not all of them do the very difficult final exam. They may neverthe-

less be working in the big studios of Barcelona and become important associates of the studios, without any kind of title. So I think the Bologna system should offer these people a title, at least one of assistant.

As for losing students, every year we have approximately 260 incoming students with around 50 leaving after the first year. These positions are replaced by more or less the same number of students transferring from private schools.

We have an admissions committee for transferring candidates from abroad. There are a lot of South Americans and these days there are also a lot of Iraqis who want to come. We accept some of these students, about 30 to 40. This committee is an important instrument for a university system where we have different Master's or different Bachelor's degrees. One such condition could be that a student must do six semesters of design, for example. This is something we are able to control.

Julian Keppl, Bratislava, Slovakia

There exists a European Directive regarding the qualification and whether the study programme is recognised by the European commission to allow our graduates to work in any country of the European Union, without needing any further documents concerning their qualification. All you need is to look at the directive and whether it states if the study programme of a certain diploma has been recognised by the European Commission.

Constantin Spiridonidis, Thessaloniki, Greece

Today we examined two aspects: homogenisation and mobility. Some may have got the impression that we have not achieved the expected degree of harmonisation. On the other hand, we also examined the question of mobility and if someone compared the morning and afternoon sessions, again he could say that we have not reached a level of mobility, which we expected. There is, however, a strong relation between homogenisation and mobility. The question then is: can we not be harmonised because we don't have mobility, or don't we have mobility because we are not yet harmonised? In case the lack of mobility and harmonisation is due to the fact that harmonisation is not achieved, then the responsibility lies with the universities and the educational, political and academic system. In case harmonisation is not achieved because of lack of mobility, then the responsibility belongs to the students and social conditions. If the question is harmonisation, then it is evident that we need two factors (here I'm addressing our Spanish and UK colleagues in particular): the discussion of harmonisation can not be dealt with without student participation. If there were pressure for

mobility, the homogenisation would be much easier and if there is no interest in mobility, then harmonisation is useless.

My second remark is, that it is extremely important that we take into account the mobility from one degree to the next. Then the recognition of the final degree depends on a mechanism, which is not clear at this point. It is interesting to notice that there are schools, which do not know about the existence of this directive, mechanism and obligations. For instance, in our country there are two schools of architecture, which have not yet submitted their applications in order to be on the list of certified diplomas. There is much ignorance concerning this. Some of those institutions may not check well enough whether the applicants to their Master's programme comply with the directive. In the situation where someone would like to encourage mobility and homogenisation, then this aspect has to be very clearly stated to all schools of architecture in Europe in order to avoid problems in the future and to guarantee that the mobility will not have negative consequences when it comes to the final degree and practice.

James Horan, Dublin, Ireland

Despite the amount of communication that has taken place between schools, there is still an area of information that is missing in the minds of many schools in the European Union. The EAAE has a certain responsibility to disseminate that information.

Herman Neuckermans, Leuven, Belgium

If you read the Bologna Declaration, then one of the aims is to achieve comparability between degrees. I do not think that "comparability" means automatic transfer. Examining someone's portfolio when applying to your school is perfectly possible within the Bologna framework. We have to find out what is behind this Bachelor's degree. It's a way of describing the contents that will then leave it up to the receiving institution to judge whether or not something is missing. Therefore we don't need to put identical things in degrees.

Secondly, the Bologna Declaration does not say that you should prevent students from proceeding to further studies. I understand the schools doing the selection in the first year. Claiming that five years are necessary for educating an architect implies that students continue in one or another direction. Moreover, as I would like to repeat, specialisation is very important because I may be more interested in, for example, design, and so in that case I would have to go to another school, not my school.

Karl Otto Ellefsen, Oslo, Norway

Our discussion focuses on the question of harmonising the Bachelor's educa-tion, and of course I understand the mobility-logic of it, but there is also a local logic to it. When you look at a school James criticised at the start, because we are "stealing" Master's students from other parts of Europe, and we very much hope to continue to do so. Then there is a question of what qualities we are looking for with students we are accepting. The first thing we do is to examine where the student got his/her Bachelor's degree, whether it is a good school, whether we know the professors there. The second thing is to look at the curriculum, whether in our understanding it is a good one or not. The third and most important thing we look at is the student's portfolio. We look at the portfolios very deeply and then we select the best ones. The question is "whom do we select"? We select students who are definitely different from our own. That is the only reason we take them: we bring in new blood that we are not able to provide ourselves. That is a local logic that should be taken into consideration here. I understand the general pattern and the need for quality assurance and everything, but this is the way we work.

James Horan, Dublin, Ireland

This statement really brings us down to earth. We tend to be influenced by legis-lation, by regulation, by expectation. With regards to looking at the portfolio of a student, you can very quickly establish an overview of that student's previous education and experience. We as architects do it all the time, even if we're jury members assessing an architectural competition. In a relatively short number of minutes looking at a design presentation, we can make a type of holistic assess-ment which we may have to verify later by slightly more precise evaluations, but it is that ability to look at the completeness of the presentation on paper that gives us that instinct as to whether this is a good potential student or not. This is something that is almost unique to architecture. It is certainly unique to professions where visual arts play a major role in deciding quality. I don't think we should lose sight of that, because it's the piece you cannot quite translate in mathematical terms, although the keynote speech last night might dispute this point of view with me. I believe it's difficult to quantify the assessment of the ability of the holistic presentation of the student.

Today's discussion has been interesting: it's starting to open up some avenues of exploration. Adrian Joyce has identified some areas where further research and investigation would be valuable. In addition, we are treating this amazingly dif-ficult and thin line that has always been central to architects: the line between creativity and the scientific realm. I sometimes say to my students: do you like cats, or do you like dogs? If they all raise their hands for dogs, I get worried because these are creatures who do what you tell them, they ask permission to go for a

walk - they jump around, looking for the lead for you to take them out into the field. Cats do nothing of the sort. They think for themselves. Owners of cats have a cat flap in the door and the cat decides when it can leave the building and when it is going to return. We as architects have to have a cat flap in our mind between the scientific and the creative and we continuously move between these two positions. It is only when we can do that with comfort and confidence that we are true cats.

Having listened to the contributions from the various members of the panel, I am encouraged that there is still a great richness and diversity in the approach to architectural education in the different Member States. I am encouraged that we are not over-harmonised as this I believe would be detrimental for architectural education generally and would dilute the rich cultural diversity that currently exists in Europe.

However, there is a fine balancing act lying between the legal requirements of the Qualifications Directive and the actuality on the ground in delivering pro-grammes in Architecture. Many Schools are being extremely creative in the way the design of their programmes retains their sense of individuality while at the same time meshes with the educational aspirations and the legal requirements of the Directive.

In fact, Schools of Architecture and third level education generally, is more advanced in its thinking than the description of education outlined in the Direc-tive. Schools of Architecture have moved towards a prescribed content of material delivered over a prescribed period of time.

Bologna 10 years after:
Are we more transparent?

*What is the impact of the Bologna process
on the contents of studies?*

*Are our curricula more transparent
than they were ten years ago?*

Do we really want to be transparent?

*Which is our strategy related to the content of studies
in our institution?*

*Are there any changes in the subject areas we are teaching,
the way we are teaching, the time we spend on teaching,
different subject areas?*

*Are there any new subjects areas
incorporated recently in our curricula?*

*To what extent does the Bologna Process
affect the curricula of our schools?*

Chair: **Pierre von Meiss,** Emeritus Professor, Lausanne

Introductory panel:

Lars Henriksen, Head of Study Committee, Aarhus School of Architecture, Aarhus

Derek Fraser, Chair of Post Graduate Programmes, Edinburgh College of Art, Edinburgh

Ramon Sastre, Professor, Vallés School of Architecture, Barcelona

Urs Hirschberg, Dean, Graz University of Technology, School of Architecture, Graz

Catharina Dyrssen, Head, Chalmers University of Technology, Department of Architecture, Chalmers

Guven Arif Sargin, Head, Middle East Technical University, Department of Architecture, Ankara

Frid Bühler, Professor, Chairman of Association for the Accreditation of German Schools of Architecture, Constance

Lars Henriksen, Aarhus, Denmark

I have decided to reflect on three things: The matter of transparency. The curriculum changes as a result of the Bologna process. The benefits of the Bologna process.

But first I have to inform you that I have been Head of the Study Committee at our school and from that responsible for our curriculum for the past 10 years from the beginning of the Bologna process up to now. At that time, we were asked by the Ministry to change the educational structure from 2+3 to 3+2 almost overnight. From the beginning we were, like many others, rather critical about the changes – we were worried in particular about the quality of the master program changing from 3 to 2 years. But with what we could call a typically Danish pragmatic attitude to life, we decided not to argue against realities but concentrate on protecting and improving our educational culture at the same time that we made the necessary changes to meet the Bologna demands.

And now to my points about transparency:

When you start a process reflecting on the qualities and weaknesses of education, you start questioning and reflecting on your beliefs; as a result of these mutual reflections among teachers and students we started for the first time to be transparent with each other, and with ourselves for that matter - so my point is that we should not forget that the first and most important benefit of the demands for transparency is the internal transparency as a tool for valuable changes within the curriculum. And it is the internal transparency that makes it possible to have an important ongoing reflection on education in general and on what we have to improve to address the new demands that meet those of the architects that we educate.

If you have reached an internal transparency, it is just a matter of good communication to make it external. In our case we have reached a much more developed transparency, but we still lack a fully detailed English version of our curriculum to be externally transparent. The last step we have taken this year is defining learning outcomes according to the European Qualification Framework for Lifelong Learning.

About the curriculum chances:

The critical reflection on our curriculum at the beginning of the Bologna process led to some substantial developments of new educational elements, mainly related to the fundamental academic and methodical skills and competences.

I will mention some of them:

Writing about Architectural theory; this was something we did not have as an assessed element before. Teamwork courses.

Systematic reflection on design objectives as an integrated element in the design process, and delivered by the students as individual design briefs.

Systematic reflections on design process and results, delivered as individual design reports.

A more consistent and close integration between courses and project work.

And finally an individual educational plan for master students laid down from the beginning of the master education through a dialogue between the student and the supervisors, and defining the elements of the two-year study program, such as trainee periods, studies abroad, internal or external specialized courses. The intention of this personal plan is to give master students a better possibility of developing individual professional profiles.

Finally about the benefits of the Bologna process:

Besides the mentioned benefits from the internal transparency, it is significant that our students, as a result of the mentioned new curriculum elements, in general have become more methodically conscious and skilled over the last 10 years. And it is my impression that this consciousness has a positive impact on the creative abilities and on the quality of the design results.

Derek Fraser, Edinburgh, United Kingdom

I would like to describe the position we have in Edinburgh at present with two Schools of Architecture from two different institutions- Edinburgh College of Art and the University of Edinburgh – now combining to provide a joint programme. Both Schools are relatively small and the question had often been asked as to why there were two Schools of Architecture in a city of half a million inhabitants. In answer to this, a feasibility study concluded that it would be advantageous to combine the strengths of both institutions and create a new School – to be called the Edinburgh School of Architecture and Landscape Architecture or ESALA for short.

The process has taken about five years in the planning and will take another five years to complete the transition but has allowed us an opportunity to design new undergraduate and post-graduate programmes. It would be incorrect to say that Bologna drove this process but it was a consideration along with the many other constraints and complexities of the educational frameworks in the UK. Alignment to Bologna in England is relatively straightforward with their 3-year honors degree followed by a 2-year diploma/masters which maps directly onto the ARB Parts 1 and 2. However, the Scottish education system provides a 4-year honors degree and, at the College of Art, this was followed by a 1-year diploma and, at the University, by a 2-year Masters.

Within ESALA, we now offer two programme options or streams with a 4-year MA honours degree which includes a credited office practice experience followed by a 2-year M.Arch or a 3-year BA degree followed by the 2-year M.Arch where students can choose to take time-out after the first degree or proceed directly through the programme. I would say that our awareness of the length of study and student hardship was as much a consideration as Bologna. However, the 2-year masters will align with Bologna and enable student mobility.

 In designing the programmes, we are bound by requirements set by the ARB – Architects Registration Board – and the SCQF – Scottish Credits and Qualification Framework. The first sets competences and criteria for the profession and the later sets generic Learning Outcomes for each level of progression and minimum credits for awards. Another advantage of the joint programme is in offering students more choice of pathways and optional modules which play to the strength of each institution and cover a wide range of subject areas. Programmes in Landscape Architecture, Architectural Conservation and Urban Design are also offered.

One area in which we have increased transparency is in assessment. Two years ago we implemented a new assessment system in which each project hand-out has 3 learning outcomes clearly articulated as an objective. Following assessment, students receive an Assessment Feedback Form with a separate grade awarded for each of three learning outcomes with additional general comments. The intention is to allow students to focus on specific aspects of their assignment and make it absolutely clear what aspects of the project the assessment will relate to. No numbers or amalgamations are involved and at the end of each academic session, students receive a transcript showing a list of their grades set against a number of learning outcomes or competences. This list of learning outcomes and grades is more detailed and informative for students, staff and prospective employers in comparison to the previous system averaging or aggregating a series of numbers. Student feedback on the adoption of this system has been positive. They welcome the transparency and clarity in articulating precisely what they are being assessed on and highlighting their various strengths and weaknesses helps them to monitor their own progress.

Ramon Sastre, Barcelona, Spain

As Ferran Segarra said yesterday, in Spain we have not changed anything in terms of adapting architecture studies to Bologna. However, it seems something is going to happen this year. The latest news is that we are going to have a five-year curriculum, with no interruption. The discussion has been about how it will be defined: a Bachelor, a Master or neither of these names, just architectural studies. So the transparency is not very good at this moment, probably it's quite foggy but it will become clear in some "hours" (let's say months). But what is less transparent, at

least in my opinion, concerns the Master's. We've used this English word for years for postgraduate studies. There are programmes from one to three years, mostly two years, after the main studies.

We will still have these Masters. They are called real cost Masters because they are much more expensive than the regular studies. Students pay for the real cost of them. Sometimes they are professional Masters intended to create specialists. Other times they are general Masters for research, a step before the Doctorate. But now we have just created the official or "university" Masters (Bologna Masters) that take one or two years. They are much cheaper, normal price for public universities, and they are thought to comply with the Bologna framework. But in Architecture there is no implementation of this, since five years are the whole studies. In fact there is the possibility of calling these five years a Master in Architecture. So in this case we would have three different realities for the same term of Master.

With the Bachelor it is different. In Spanish we use the term Grado. These are four-year long studies in almost all subjects (not in architecture) and they are thought to give professional competences: teachers, psychologists, mathematicians, etc.

There is also another issue that makes it foggy as well. In Spain, we have what we call "technical architects". They are professionals from four-year studies, working on site. They are professionals who help constructing buildings, not designing them. Now they have changed. They have used the Bologna process to become Building Engineers. They still have four-year studies, a Bachelor's, but thinking towards a future Master's, and they have the same competences and the same functions. So, they are somehow different to what is understood as a Building Engineer in Europe, who designs part of the building. This is another point that is not transparent, and it's due again to the Bologna process.

The last thing about this lack of transparency is the fact that in Spain we have several franchisees of foreign schools: schools in Spain depending on foreign schools. They have the curriculum of the original school, the title of the original school, but within the perspective of the European Directive they are going to become architects in the original countries and also in Spain.

Then, you have another type of Master, which is the (3+2) Bachelor-Master of these schools. Of course there are only a few such schools, but we don't know if they are going to grow in number or not.

In conclusion, it is not clear at all at the moment, but I'm sure it's going to be in two or three years. I'm sure we are going to exchange students as much as we have done up to now, in spite of this lack of equivalences.

Transparency means looking through. If you don't want to look through, you don't mind if it is transparent or not. In Spain there are many people who are not concerned at all about this transparency because they are only worried about

what is happening in our country. Only when you want to look farther, to look at what it is happening in Europe, are you worried about transparency.

Urs Hirschberg, Graz, Austria

At the faculty of architecture of TU Graz we are presently completing the Bologna reforms – for us it's actually the second curriculum reform within just seven years. The new Bachelor's curriculum has been in effect since 2008 - the new Master's curriculum goes into effect in the fall of 2009. So it's really too early to say what we've been able to improve, especially in the case of the Master's curriculum.

The Austrian government has interpreted the Bologna declaration rather strictly, making it mandatory to switch to a Bachelor-/Master – program for all Austrian university courses by 2010. We ended up being the last faculty of Graz University of Technology to put these regulations into effect. That's rather unusual as we are a rather progressive faculty and like to take on change. In fact we were quite ahead of everyone else when we put our last curriculum into effect in 2002. It already incorporated all the ingredients necessary for a smooth transition into the Bologna-age: three years of basic training ("Grundstudium") and two years of advanced studies ("Hauptstudium") were set up such that they easily could have been transferred into a BA/MA structure, just by adopting a couple extra regulations. So, seven years ago our faculty was already fully prepared for the Bologna challenge and we could have made the transition easily and without hardly any administrative troubles.

But when the time came around to do so, we chose to revamp the curriculum once again. The main reason was that we wanted to take changes in the structure of the faculty into account, most notably three newly founded institutes, which were not properly represented in the old study program. The new topics we wanted to incorporate more firmly in the curriculum (for example 'building and energy' and 'landscape architecture') were also the result of a generation change in our senior faculty. Thus the Bologna process was a welcome opportunity to change the curriculum to reflect the new direction this younger faculty wants to give our school.

Other than the new topics, what were some of the guiding principles of our reform effort? One was to position our school with a generalist profile, the other was to put our focus on research.

For the generalist profile we decided against splitting up into different specialized architecture curricula: there is still only one Bachelor's and one Master's program in architecture offered at TU Graz. This stands in contrast to many other faculties of TU Graz, which decided to offer parallel programs. We wanted to stress the broad generalist nature of our architectural education. We do allow and encour-

age students to seek a certain amount of specialization in areas of their choice, but in the bachelor's program the choice is limited because we make sure that at least the foundations are laid in the entire spectrum of the architecture field. As a consequence, the Bachelor is quite a packed curriculum, intense for the students to study.

The focus on integrated architectural research is what distinguishes our Master's program. It is built around what we call Master studios. It offers more choice and more specialization by making projects that are taught by interdisciplinary teams -the main form of teaching. These projects are typically design studios with integrated disciplines, but they can also be research projects. We sought to strengthen research at the faculty and at the same time to strengthen the connection between research and teaching. The master studios were designed around this premise: to allow a deeper specialization, a more research-oriented type of teaching and at the same time one that brings the faculty together to work on the same topics across disciplines. One very effective way to do this was to clean up the timetable: certain weeks of the semester are now completely set aside for the project studio – making it much easier to organize excursions or other events or special forms of teaching.

In Austria the Bologna process has lately come under harsh attack. Student organizations blame it for pretty much everything that is going wrong at Austrian universities. Some of this criticism is understandable. Our faculty didn't really think that a degree after just three years of architectural studies was a good idea. It makes for very rigid curricula and might lead to the wide spread of an "architecture-light" education. At the same time it can be seen as a degree for the numerous dropouts we in Austria have – people who start working in offices when they are still studying and end up never reaching the Diploma. For these people it's certainly an improvement when they can say that they have completed the Bachelor's program.

But as the Bachelor-Master structure is simply a given, we didn't indulge in such discussions very much. When working on the new curricula we took a very pragmatic approach: we treated it as an opportunity not to complain, but to improve things. We feel we did our part in trying to make the system work for us as well as possible. We are quite excited about the possibilities of our new master's curriculum. If it will have the positive effects we expect from it only time will tell.

So has the Bologna process made us more transparent, as the title of this session asks? Inside our faculty it definitely triggered the fruitful discussions that led to our new curricula. To the extent that discussing teaching and research matters openly in the faculty is something that will inherently increase people's awareness of these matters it probably has also increased transparency. Hopefully this discourse will not stop now that the curricula are approved. The new curricula

prompt us to collaborate more across disciplines, which should lead people to find out more about what the others do. So we hope that this increased transparency inside the faculty of architecture of TU Graz will also be sustainable.

Whether our new curriculum is also more easily understandable for people from outside our university, or more generally speaking: whether thanks to Bologna there is now more transparency when different European schools are compared is a different question. Given the many different teaching traditions we find across Europe, chances are that despite the common Bologna nomenclature we are still comparing apples with oranges. But here, too, I'm all for a pragmatic attitude: Sometimes comparing apples and oranges can actually make sense. You just have to keep in mind that they're not the same fruit.

Catharina Dyrssen, Chalmers, Sweden

The Department of Architecture at Chalmers University of Technology in Goethenburg, Sweden, gives a 5 year education for diploma architects. We are one out of a total of four schools in Sweden authorized for this higher architectural education.

In the beginning of the 2000s we started to adjust our education to the Bologna system, formally implementing it from autumn 2007. Thus, the Bologna adjustment went quite smoothly.

In addition to the education of architects, Chalmers Architecture, as part of the university system in Sweden, has a four-year PhD education, which makes it different from the Bologna system. PhD students are considered employees (with salary, social security etc). We discuss the possibility of using the last year of master studies as part of a PhD education, and have plans for a professional post-graduate education – maybe in a Nordic collaboration – but I will leave out these issues here.

We have two Bachelor programs: Architecture and Architecture & Engineering – the last has been approved by the professional organization Swedish Architects as an architectural education, following the EAAE/AEEA directives.

At the moment we give three masters programs: 1. Architecture; 2. Architecture & Engineering; and 3. Design for Sustainable Development. In addition, we plan to start a program in Interior Architecture. To reach a diploma in Architecture at Chalmers, and become an architect, the student has to have a Bachelor degree from an authorized architectural education and fulfill one of our master programs.

The program Architecture (1) provides a choice of studios spanning from urban to building design, including e.g. future housing, health care, and leadership in design processes. Architecture & Engineering (2) has a mix of artistic and technical inputs on building design, construction, performance and interior climate. Design

for Sustainable Development (3) has a broader, more transdisciplinary approach reaching from extreme environments to urban development and building design, performance and system resilience. This program also opens for students from other educations (geography, environmental engineering, design etc), and may lead to a Masters degree but not a professional diploma in Architecture.

The Master programs are built up by studios and courses – currently too many and partly overlapping in a mode generated rather by tradition than by a thoroughly reflected structure, which leads to a lack of transparency, administrative complications and overstressed teachers. We are now trying to clarify progression lines in key subjects through the master programs, tighten the overall schedule, focus on main goals and demands, and organise our strengths and teaching resources better.

The Architectural education at Chalmers has a strong reputation of addressing sustainability, reaching back more than a generation ago, and now maturing into full integration of sustainability in architectural thinking at all levels. This is often combined with a strong engagement in social and cultural aspects of architecture, often with projects that are in close dialogue with actors involved in the development of contemporary society, but may be challenged, sometimes, for not being experimental or far-reaching enough. We also have a long history (since the 1950s) of architectural research that now needs to be integrated much more with explorative design work.

There is a good social climate of collaboration at the department and at Chalmers as a whole, and we believe this forms a platform for development of strengths and synergies. We experience advantages of being at a fairly small but internationally oriented technical university, at a time when technology infuses architecture in several new and exciting ways, and we feel that Architecture is met by respect and interest from the university leadership as a creative, innovative and environmentally oriented practice with entrepreneurial and leadership potentials. In parallel to cross-disciplinary technical contacts, we develop closer collaboration (Design Collaboration West) with the Faculty of Fine Arts at our neighbor university (University of Gothenburg), including the Design School, the School of Music and Drama, the Film School and School of Fine Arts, as well as with the regional School of Textiles. This art-based network, we believe, can be given an even more strategic emphasis in the future. Additional cross-academic contacts, such as Cultural Studies, Environmental studies, Philosophy, Geography, Medicine or Water resources may also form accents in the education.

Apart from the European community, a closer collaboration between the four Swedish – and the fifteen Nordic-Baltic – schools of architecture also, gives feedback for improvement and perspectives on the field of architecture. This discipli-

nary cooperation will probably have even stronger impact on PhD level, as the academic environments are too small to stand alone.

With a professional landscape that is becoming more diverse, there is a challenge both to open up and to focus the competences in which we educate new architects. Architectural thinking stands at the centre here, comprising spaces, artifacts, systems and processes from detail to global scale. We want to deliver scientifically and practically well-founded knowledge about sustainable development, and encourage strong engagement in important questions concerning building and society, training innovative and explorative ways of thinking with high artistic design competence, multidimensional knowledge production and abilities to solve complex problems. We want to use tools that integrate spatial-material bodily experience with advanced technology, and we wish to train highly developed leadership capacities in processes of design, building and urban development.

The competences shall be oriented towards Architectural design of spaces, interiors, buildings and urban contexts; Architecture and technology; Design, structure and performance of buildings; Urban design, planning processes and urban development; Architectural design and development of programs for specific activities such as dwelling, health care, etc; Transformation of existing buildings; Design processes and leadership.

From this overall map we now face the challenge to strengthen the different profiles of the programs, at the same time as we keep and enhance the coordination between them, and develop a common academic culture. After some years dominated by students' individual "course shopping", we need to have a stronger grip on what we wish to deliver – and why. To a large extent this is a question of how to communicate with clarity and transparency inward and outward.

We need to continuously improve our educational performance, concerning demands on the students and on our school as a whole. We know that our education is among the top 4-5 most attractive in Sweden, all categories, and that we get very good students. But we also feel that we can improve the education considerably to meet the students' capacities, both by clarifying goals and demands, by developing programs, studios and courses more updated to the challenges of today and the future, and by having better follow-ups of results.

We continuously use a web-based course- and studio evaluation system and keep an ongoing staff-student dialogue on educational improvement. Since two years back we have external evaluators examining, primarily, the overall level of diploma works at our school, including discussions with the staff and the department leadership on how to improve standards. This, we feel, help us considerably in focusing the structuring work ahead.

Guven Arif Sargin, Ankara, Turkey

Turkey sits, as we know, right on the fringe of the European Union and so our case has some discrepancies. Leaving that aside for a moment, rather than making an overall assessment on the Bologna process and its tangible effects on architectural education content-wise, my colleagues and I would like to give some specific examples we have experienced so far. However, let me first briefly explain some of the underlying issues that have been quite significant in that part of the process to clarify what we understood from the Bologna process and how we put this into operation. We believe that the Bologna process did not dictate the content in the full sense; it was a process strictly given and defined by those higher up rather for the necessity of assisting and complying with certain values, with demands and expectations with all means; technology and environmental issues were the primary motive behind it. Therefore, we at METU believe that it is more a process of self-assessment.

Assessment is, to a certain extent, defined within the genuine framework for the European Union states and yet that also gives ample room for lower-scale frameworks, which are in tune with the general framework. It is an assessment of architectural education, of realising that the morphological shift from instructor-based to student-based, or learning-based education is imperative. We have introduced a new set of inquisitive concepts, such as competitiveness that need to be scrutinised in all aspects, levels and domains of architectural education. There are two sets of competitiveness defined: general competences and specific competences, not only for the Bachelor in architectural education but also for the Master's and doctoral studies. Let me now mention some initiatives taken in the Department of Architecture of METU, in particular at the levels of Master's and doctoral programmes.

Along the lines of issues such as competitiveness and ECTS, one major project was initiated. This was a more comprehensive study that will be operationally useful not only for METU but also for other Schools of Architecture in Turkey. It was a nationwide study on the nature and the problems of learning-based competencies and in operational aspects for all three levels of architecture which has been an issue for our department for more than two years at least. Through our national survey, a major database held at METU has been compiled. Here I should name Professor Selahattin Önür the former head of the School of Architecture at METU for his efforts. Along with those of other initiatives to be brought into effect within the last three years, this ongoing comprehensive research has also been an effective tool in assessing and restructuring our Master's programmes.

The Bachelor degree in Turkey is a four-year course and with the initial two-year Master's programme at METU we offer a four plus two model. Yet the plus-two part is not compulsory in education and anyone who successfully completes his or her

architectural education gets with his diploma, a licence to practise. This is a state law and there is an ongoing debate about this issue. Three plus two is one model, which has been fully supported by METU for a long time and rejected by some of the prominent universities as well as by the state. Four-plus-one is another model that was discussed at length, but which was also rejected by the state. Four-plus-two has also been proposed by other universities. However, none has yet been approved by the state, therefore in the architectural education we are speaking of, plus two exists, but it is not compulsory education. However, we at METU still believe we should first assess and then enhance the Master's programmes for the obvious reasons. So here let me explain some of our projects, that is to say, mainly Master's programme revisions which have been exclusively prioritised and are still on the agenda for further restructuring. To give some more specific instances, let me go through each programme very quickly.

In our first programme, Architecture, Design and Theory, along with advanced architecture and design research studios, different research topics are also emphasised and new courses were introduced under such research topics such as Architecture in Society and Culture, Architectural Design Research and Research by Design, Architectural Design Strategies, Urban Architecture and Architecture and Environment.

The second Master's programme is building technologies. Creating a new research environment was the main task and an environmental simulation deck was in the making with new research topics, which were introduced into our faculty over the last five years. Such research topics are sustainability, contemporary building and construction systems and materials. Also, IT based project and construction management systems.

The third Master's programme is architectural history the aim of which is to attract more non-architecture graduates. The fourth programme is restoration of historic environments and monuments. Once exclusively open to architecture students, now it welcomes students from different disciplines leading from the belief that restoration is a trans-disciplinary practice. Architecture, City planning, Social Sciences, application of programmes and the nature of sciences. The other one is a computational design and fabrication technologies programme. This is a joint Master's programme with TU Delft, which was introduced in the academic year 2007-8. It is a two-year programme which offers one plus two plus one semester model with a dual diploma from each institution.

Diplomas are accredited by each institution and the state as part of the Tuning, a project which takes place between the two nations. The primary aim of this programme was to be more integrated into and to be in contact with the world of architecture by this special model of creation techniques towards a Master's in engineering and construction matters of which materials seem to be an element.

There is a parametric design approach, a performance-based design approach and digital manufacturing techniques. The need for infrastructure has been partially introduced, and there is more to come. For each this project meant staff mobility, student mobility and the mobility of information.

Finally, a professional Master's degree programme is also in the making and we are trying to offer a degree without a thesis. We first have five programmes with a thesis which means that by the end of the two year education a student has to come out with a piece of research which should be written in a thesis format; we feel this is a very Anglo-American, Anglo-Saxon method. Therefore, appropriation of a Master's degree programme will be without the thesis and based on advanced architecture design studios as well as the focus on professional aspects of architecture. Those are the programmes that we have been offering so far and have revised extensively in the last five or so years; the final one is a programme that we have been working on for a year or so and we will probably be offering it next year.

To finish with some additional information: how our state regulates, manages the process should also be given an aspect of transparency since this is our primary question nowadays. I wouldn't argue that the state is as successful as all that. The Higher Education Council has some authority in Turkey. The Governments has both public and private universities and yet quite recently it is becoming a more and more authoritative power in terms of Turkey's domestic transformation as well as the international pressures. As a result, a more homogenising restructuring process among the schools is on, and that makes every single academic environment as one body to rule and thus no flexibility among different schools seems to be possible in the near future. I believe it is exactly the opposite of what the Bologna process stands for and supports.

Frid Buehler, Constance, Germany

Diversity and new academic liberty for the universities as a consequence of Bologna caused a creative flux within the academia in my country. On the basis of the accreditation of 90 % of the German schools of architecture we gained some experience in our association, that I would like to share with you having the overview what happens in Germany as chairman of ASAP. Against this background I will underline the topic of this afternoon session. The dialectics, that developed in the debate yesterday "is this diversity or chaos?" can be answered in both directions. 10 years after Bologna we have to state however that besides the new quality in the field of architectural education an enormous demand of clarification and transparency became manifest in Germany.

To establish this transparency is not necessarily a matter of first concern for the schools at the present time. Besides, this causes a lack of experience also in the fact that in consequence of the study reform schools of architecture have to recruit their students on a highly competitive and shrinking market. This competition is in full swing. There is a prognosis that the number of places to study architecture in Germany will be reduced within the next 10 years by one third. Some few schools of architecture had already been closed, inter alia caused by a lack of students. We find that schools looking for students desperately are not always reliable in their advertising.

Speaking about transparency I will focus my observations on 3 different fields.

To begin with, I have to state the existence of different structures of architectural study programs in Germany. Besides 5-year fully academic programs corresponding with the UNESCO/UIA standards and 5-year programs with internship (together ca. 90 %) a minority of schools (ca. 9%) offers shortcut programs with 4 years duration and integrated practice, that end up with a bachelors degree that is prerequisite for licensing.

This causes different didactic concepts that the students have to know and that have to be considered when students are moving to another school. It is crucial to differentiate these programs because both give access to the Architects' Chambers in Germany, and are the prerequisites for licensing as architect. Students must be aware of the level of qualification that the different degrees provide in terms of international acceptance, for instance whether they conform with the more comprehensive UNESCO/UIA standards or only to the EU minimal standards. This means that a master program that follows a four-year bachelor, that is already a fully professional degree, is quite different compared with a masters program that is embedded in a five-year consecutive curriculum. The temptation for university managers is high to avoid too much transparency in this respect when advertising in the hope to win as many students as possible.

A second area in which transparency is needed is the distinction between different master programs according to their content.

Designing their master programs the universities generally follow two strategies. Most of them offer master courses that qualify, after a three-year bachelor, for the architect as generalist, as defined by the UIA. Within this master it is more or less possible to deepen in special areas, but always without leaving the core of the discipline of architecture.

On the other hand universities offer a series of specialised master programs, that moved away from the core of architecture to such an extent, that they do no longer qualify for the architect's profession. They offer a specialization beyond the edge of the profession.

I want to point out this by two examples of schools whose deans are present at the conference:

MSA - Muenster School of Architecture teaches a five-year curriculum with a three-year Bachelor and a two-year Master. Both programs focus on the core discipline of architecture and the school abstain from specialisation. It offers just one intense master course in architecture with the possibility however to choose special subjects appropriate to aptitude and predisposition of the student. With this study structure the school is at the top in ranking.

TUB - Technical University of Berlin, one of the big schools, developed the "mushroom" pattern which means a very small three-year architectural bachelor which is organized in architectural basics followed by a hut, which is spread up in a great diversity of master programs like urban design, real estate management, archaeology, and even stage design. Some of them belong to the core of architecture; others focus on new lines of work and find themselves outside the core discipline.

Generally I can discover, that within the master's programs an immense abundance has grown. More and more universities succeeded in developing their own profile and to place it on the market. In this new situation it is very important to give guidance in this complexity and to characterize the different programs. Further on the schools have to make transparent which one belongs to the core of the architect's education and is considered as prerequisite for listing at the chamber and which is beyond.

Just programs outside the core of architecture may signify the richness of European architectural education. In this context we have to state, that unlike the pre-Bologna times a lot of students are not keen of becoming a member of the chamber but work independent in new fields at the edge of the traditional profession or in affine professions.

Speaking about transparency may not omit the important aspect of the modules. Modules represent the essence of university teaching. Their transparent description is vital for the planning of a curriculum by the faculty and especially for the organization of studies by the learners. It is also an important prerequisite for a functioning mobility. In my view the transparent description of modules is essential for the development of a culture of mobility, which is not only academic tourism, but an integral component of studies.

Moreover, we observe that master students more and more do not go out for a whole semester and import the workload of the entire semester, but they study specifically single modules and earn credits only for this. This is in so far an interesting aspect as it remembers mobility patterns of the European Renaissance, when students moved to another city in order to listen to a renowned professor or to study a specific subject.

I admit that there are a series of parameters laid down by ECTS, such as conditions for admission, allocation of workload and other, but most schools had problems in this when we have been visiting them for accreditation.

In this context the Transcript of Records is an important instrument, which allows incorporating the qualifications that a student acquired abroad, into his individual academic profile. Our observations are that the formula given by ECTS cannot fully comply the desired transparency as it figures mainly bureaucratic parameters such as the allocation of Credit Points etc., facts that are important indeed but give only poor information about the content of the modules.

The same must be said about the diploma supplement, the "passport" of the student. The document that ECTS prepared is not detailed enough to give a full portrait of the student's qualifications. We recommend our schools to give more information, for example about the studios joined by the student, the name of the responsible professors and other for the content relevant facts.

Finally, I would like to remember that it is also a component of Bologna that the responsibility for the study courses is given again to the faculty members of the universities. Bureaucratic control alongside national regimentation has been replaced by the personal responsibility of the teaching staff. With this in mind, we must be careful that we do not fall behind the spirit of Bologna when looking for more transparency. We welcome the new diversity in the architectural education in Europe, but to keep this alive it is crucial to improve transparency.

Discussion

Rudolf Schaefer, Berlin, Germany

I think this experiment is not in the mainstream; we have started this mushroom concept with the Bachelor and some programmes, of which there are only four at the moment, but these four programmes are architectural programmes. There is only one Master's of Science in Architecture but with four specific profiles and beside that we have a number of academic/practical Master's, which can be filled up by students who have already specialised in architecture but which can also be joined by other professions like Town and Regional Planning or Art and others. So, for example, there's one Master's course for two years which is on Heritage and on Building Conservation. These courses are filled up with students from all these different disciplines. I think in the university field I think we have most cases, not only three-plus-two years, and we have such a profile strategy at the Master's level. However, today, as we know, some of the schools are starting with something which is not exactly vocational but ongoing studies for professionals after the Master's. In brief, in Germany, we observe not only the reduction in the number of applicants in the field of Architecture, but also the phenomenon that means that not all of the students who have graduated as Bachelors of Architecture come with the application for the Master's programme. We don't know what the development will be: whether they stay in practice - because, more and more, practice tempts these students - or whether they will come back. And then, if they do come back later - and this is something which I think is a very important aspect for the future - what will they expect from the Master's programme when they have been out for three, four or even five years? This will be a very different world for the Master's. I think we should face this, maybe not today, but in our conference.

Catharina Dyrssen, Chalmers, Sweden

I can maybe comment on the diversity of Master's programmes and their architectural competence and profile. The three programmes that we run, Architecture and Sustainability, Sustainable Development and Architecture and Technology, are run by our department. This means that students who enter from our own Bachelor's programme, for the main part, have assignments and roles to play, also in these more interdisciplinary programmes we have roles to play as architects and I think we need to strengthen that even more. In Sweden we are fortunate to have really high pressure on the architecture applications, so you could say we can get the best students in Sweden. All of the four schools in Sweden are fortunate in that way. In these architectural programmes, we can have different

studios and courses as well as in the sustainability programme. This is a training for architects to go out into urban design and planning with the sustainability practice or in collaboration with engineering to have already had at the school this professional dialogue which they will probably meet in their future professional life. Increasingly, the Architecture and Technology programme is made together with Structural Engineering but it has an architectural profile and it has been approved by the Swedish Association of Architects. So we do this: in the sustainability programme we have to assign the architectural students to take on that role; in Architecture and Technology, this means that the whole programme has an architectural profile. There are two ways of dealing with this diversity.

If students have a Bachelor's in Architecture, for the Master's they get a Master's degree as architects. But if they come from, for instance, Planning, or if they come as Engineers, they get a Master's of Science and they don't become architects.

Urs Hirschberg, Graz, Austria

That is also a question we had when restructured the curriculum: should we have specialised Master's programmes? We decided against this and then - it seems very similar to what Catherina was talking about - because in the end what students seem to like now is that they want to be able to specialise but in the end they want to have an architecture degree. But we actually think that by allowing students to define their own fields of specialisation to a certain extent, by doing studios, they can come out with their own profile which they can also present to someone. But it's still all within the architectural curriculum and it is still an architecture degree that they get.

Constantin Spiridonidis, Thessaloniki, Greece

I think that in this discussion about specialisation - because it comes up more and more often, more schools appear to have three years of basic general studies and after some specialised directions - I think that it is interesting to notice that we have to put two parameters together: the parameter of Bologna and the policy towards specialisation and the other, the parameter of the European Directive. This is because we are speaking about two years of specialised studies but practically it is not possible to have two years' specialised studies, but only one year because in the case of the programme which has three years' general studies and two years' specialised studies, this programme cannot be defined as leading to it being an architecture degree which a student will receive, because according to the European Directive, you need a minimum of four years' general studies. So if someone puts this parameter, it appears mathematically that only one year of specialisation is possible. In this case, the schools that introduce the specialised

Master's have to prove to Brussels that the study programme they are proposing complies with the Directive and that one of the two years of specialised studies is general studies. This is something that many schools do not know and afterwards, surprisingly enough, appear not to be listed in the degrees or diplomas recognised by the EU and the graduates do not have the right to work in another country. I think that this is a very important point for the schools which define their studies towards specialisation so that they are not faced with the surprise that they have organised courses which in the end will be only for the local market and will not give the graduates the possibility of working in another country. This must remain clear in order to avoid this unpleasant situation.

Derek Fraser, Edinburgh, United Kingdom

This is a very useful point. I think the way we deal with this in Edinburgh is that in the UK there are professional criteria and they put the word 'architect' in the title of the award package. There are students who come through the processes that we are operating independently at present and will combine to present the new profile. Where we have the word 'architect' in the award, they will conform to those criteria. We will however also continue to supply, due to a demand, a twelve-month course in specialist areas which are associated with architecture. They will stand alone in the architecture conservation and urban design. We are looking at a way to expand that to other areas because they can tap into that knowledge base that is already present at that institution and being delivered to the students who are going to become architects and specialists.

Herman Neuckermans, Leuven, Belgium

I would just like to make one comment. We have been hearing about changes in the Master's programmes almost all from an internal point of view, that means what we must do is continue changing. I am questioning the mobility because that is also something which has not been asked. For example, there was only one mention of a dual degree, which is one of the consequences of the programme or two-plus-three; it makes a whole difference if you moved towards three plus two because if in the two years of the Master's you go elsewhere, where in general - I have been responsible for this and they asked me to change the programme because you have to allow for the difference between schools and countries and cultures - then the final degree that you get as a Master's is a little bit broader. That is one thing. The second thing that I would like to criticise that if you go for three plus two, then in my opinion it is not sure that one of these two years, whether you go for options, has to be a generalist year. It has to have embedded in it the equivalent of one year of architecture and in making up the sum of the eleven

points at the end, it is not certain whether you have specialised or whether you have generalised. It's a big issue, because if you are planning a programme, you have to make sure the programme has enough architectural content to the fourth year to comply with the regulations but that it is not necessarily a generalist year.

Derek Fraser, Edinburgh, United Kingdom

One of the issues we touched on there of mobility was behind our thinking in Edinburgh and it led to our changing to a two-year Master's so that we could align with a more international connection. I'm happy to say this has proven to be the case of all of these new initiatives which still have to be tried and tested. However, we have had 300 applications for new students to come into our two-year Master's; that in itself creates the problem and that touches on an issue that was discussed yesterday about how you check the educational criteria of someone coming in at that level. I can tell you that it is very tedious and lengthy process scrutinising not only documents but also portfolios and that's the situation we find ourselves in.

Pierre von Meiss, Lausanne, Switzerland

I think that if we discuss the subject of mobility it will get a little bit blurred because we only have so much time. I am absolutely convinced that it's finished with these Erasmus programmes that impinge either on the three years or on the two years so the mobility has to take place between the Bachelor's and the Master's. There is no space in a two-year programme of a Master's for someone to leave for one semester: one semester is for the final work, so it's just not possible. It's the same as for mushrooms: if you want to build the stem within three years, you have to do it in your university, you cannot let students go abroad for 20-30% of the time doing some kind of academic work. What you can do, on the other hand, is probably make bilateral arrangements with another school or two other schools where you know exactly what they are doing. That's a different kind of arrangement to the open Erasmus programme. I don't want to go into this discussion right now, however, because it will get too blurred. After, we will start the debate on the subject we started.

Pieter Versteegh, Fribourg, Switzerland

Discussing Master's programmes, we asked, if we are presupposing that the content of our Bachelor programmes are satisfying, which I doubt. Some say that it would be a disaster if all our students continued onto Master's programmes, because we would have too many architects. One of the points of the Bologna

Declaration is that it is a structure that enables students to stop studying after a Bachelor's programme and enter active life, be it with some additional specific courses. In Switzerland, some of the "Fachochschuelen" still have a mission to offer a professional architect Bachelor's degree after three years only. Merely 30-40% of those Bachelor students continue in Master's programmes. The question then is "what do we call this professional, what is it exactly, and which ought to be the competences that we are supposed to give to these Bachelor's students?".

I have a number of questions for the panel.

First of all, do there exist any schools that offer to become a professional with a Bachelors' degree after three years only? If so, what should we call this profession? Because if we do not give a name and a clear status to this profession, then our students will always go on and study Master's programmes. Should we be discussing this issue with professional organisations?

Pierre von Meiss, Lausanne, Switzerland

This is an important point: what do we call the "profession" the bachelor's degree leads to?

Urs Hirschberg, Graz, Austria

In my school too, there was a discussion, saying that we shouldn't let this Bachelor's degree take over so as to produce "light" education architects. We don't want to end up with only three years of architectural education to make an architect. What in fact we observe is that also under the diploma programme, while a lot of students never finish, after three or maybe four years of studies, some left and worked in firms. One advantage of the Bachelors' programme is that now those people also have a degree. What it should be called is another question. At least they are no longer "drop-outs".

Ramon Sastre, Barcelona, Spain

I also wanted to raise two points regarding Master's degrees. One point is that, in some schools where more than one Master's programme are offered, students can select or even can follow more than one Master's. It this case the programmes, the curricula will not be the same. Or they can be partially the same, but as they are subject-oriented they are structured as whole Master's courses. The second point is that some of their students are architects working in very diverse positions, in local administration, or in other offices, teaching maybe, and while they are working, they want to know more, they want to study something about what

they are doing, and they go for these specialised Master's. Their age is not the typical age of students, so you may have in the same place students who are doing their Master's straight after having done their Bachelor's, who are around 20 years old, and then students who have been working for ten or fifteen years. This is the problem with the Master's that is supposed to be the same but for two different kinds of people. Here are Master's degrees for different people, some of which are not part of the continuous five years' study.

Frid Buehler, Constance, Germany

The Bologna Declaration gives a good answer when it comes to employability in the field of building. It demands a student to have a general education, which enables him to go to offices as well as to switch to other disciplines.

Adrian Joyce, Brussels, Belgium

On the other hand the European Architects' Directive talks about persons who carry out functions normally carried out under the title of "architect", whereas the Bologna Declaration refers to employment possibilities after the Bachelor. It is quite a delicate issue to answer the question about the function and title a Bachelor's graduate should have. In some countries such as the UK or Ireland, that person has been called in the past an architectural assistant or an architectural technician. He/she has been able to play a considerable role in an architect's offices. In some cases, they remain in that position their entire professional life and can even move up into partnership or directorship of these offices. It is something to be looked at by professional organisations, because it is after all an issue of the market of architecture rather than of educational policies.

Ferran Sagarra, Barcelona, Spain

In Spain, we are a very special case, because of our system. In fact, it is not just the Spanish system that causes some confusion. Regarding specialisation, before we have to have an architect, for which we need at least four or five years. I think that specialisation has to come afterwards. I say this because our experience is when designing a building, for instance, we cannot work with a specialist in statics. It must be with an architect or an engineer. If he is an architect, then it means that he has five years and then specialisation. You can discuss with him the statics in a very tectonic way structure. If you discuss this with a specialist, the only thing he usually knows is calculations. It is much better to discuss the building with someone who understands architecture. The same goes for the writing or other

aspects. In our case, of course, we have architects and engineers who are also specialists.

From my point of view, architecture is quite complex, so you need some time to understand it. That means that in four or five year (we're not talking about Bachelor's degree here - after 240 ECTS or 300 CTS or 180 or 240), one must intensify the education. This is another matter. To intensify is not the same as to specialise. To have the time to arrive at thinking like an architect, but to apply this way of thinking to urbanism, to structures, to statics. My experience is that four plus one plus two, that's a specialization.

Pierre von Meiss, Lausanne, Switzerland

Do you really think that to be a specialist in lighting, you have to go through all the five years of architectural studies before going into that field? The social cost would be enormous - five years of studies to be allowed to start to study lighting. I think we simply cannot afford that.

Ferran Sagarra, Barcelona, Spain

I think if you are going to be a lighting technician, you only need one or two years of study, but if you are going to be an architect specialised in lighting spaces, then you need to have become an architect first.

Herbert Buehler, Muenster, Germany

Let me return to the discussion on the question of students' consultancy. We have a high velocity of systems these two days and this is possibly a consequence of Bologna. I wonder if we are all very self-satisfied. If a student looks for information, he will find a lot of pictures and various bits of information, but it is not possible to find any complete goals of current curricula and I think we should deal with this problem in the EAAE. He may look on the Internet or through other pieces of information, but a student cannot find the ideas that we have been discussing.

Hilde Heynen, Leuven, Belgium

A new version of the EAAE schools' catalogue is coming out in two months. It is also available on our website. This is a subject which comes up in the Council very often and there is a continuous renewal of the guide which covers what the member schools have on offer for their Bachelors and their Masters programs.

Jos Leyssens, Brussels, Belgium

In Europe we have today about 480,000 practising architects, 350 schools of Architecture with approximately 150,000 students in architecture. This means about 30,000 architects a year produced by your institutes. If we consider the career of an architect being of about 25 years - which is short because most architects work into their seventies. The 25-year turnover implies that within one year we lose about 4% of these 480,000 architects, which means 20,000. That's an overproduction of 10,000 architects a year. There is no work for these architects, unless they diversify and specialise. So I would like to plead for specialisation and for diversification and also for schools, which show students other possibilities apart from the profession of architect as such.

Johan De Walsche, Antwerp, Belgium

In that we're thinking about building curricula and speaking about going into the profession after the Bachelor's degree or not, I think in professional terms, it's not just a question of finishing after the Bachelor's degree but at looking at what our needs are. This is not only a question of content I think but also a question of growth, development and possibility for work after graduation. Continuing what was said in the speech about content, I think after graduating, students go into the profession, but we don't say what they do there. When we talk to students, we don't say: "maybe you want to do this kind of job or this" - all we see are pictures of projects. This is crucial in the way we link the profession with education.

Catharina Dyrssen, Chalmers, Sweden

It is very important not to mix up general architectural education (Bachelor's degree) with an academic qualification implying access to the profession of architect.

Julia Bolles-Wilson, Muenster, Germany

I would like to say a word as an employer. As I said yesterday, 100% of the people in our office are architects; they have a Master's degree and they work as project leaders, project assistants, they do models, visualisations, everything. All of them work for a comparatively low salary, because the market produces - or has produced - too many architects with the qualification of a Master's degree. What would be an ideal solution is to have a third of people with Master's degrees and two thirds with a Bachelor's degree in the office. They would be doing all sorts of things, specialising in - as I said yesterday - facility management, looking after

the network and so forth, but we have to be quite clear about it. When we talk about pay, we talk about expectations of young architects. In this way we would produce a two-class system, whereas now we have a one-class system with too many architects. Today we can employ an architect with a degree for any work. The consequence is permanent frustration.

If we had the two classes, the Masters, would act as project leaders and we can pay them a little more, which is good, and we pay the Bachelors slightly less, but with their specialisation they have the chance to obtain quite important positions, because i.e. the networker is very important. If the whole network and documentation in the office does not work, then it is a disaster.

I think we have to be quite clear about what we teach and also what students' chances are in terms of pay and career. Personally, I see a big chance in diversification, a chance much better than there is now, because now we produce too many architects of the same kind. In the future, I hope, with the Bologna system, we will be producing diversified architects, specialising in different areas. In Munster we try to educate professional architects to become project leaders. Our Bachelors program should be more open to specialise, to go into all these other jobs that we have in offices. These students then have the possibility of doing something that matches their talents and their dreams.

Pierre von Meiss, Lausanne, Switzerland

Thank you for that very interesting point. It is in fact connected to the question asked: "why don't we call this Bachelor's degree something, so it also has recognition in society rather than just being seen as something intermediate before a further diploma?".

Aart Oxenaar, Amsterdam, Netherlands

In Holland, the situation used to be quite clear-cut in this respect: there was the Diploma, which was a four year education comparable to the Bachelor's which had a quite clear-cut distinction in that it gave to a graduate the title of Engineer, shortened to ING to make the difference with the university engineer which was IR. Four-year graduates could start at the level of draughtsman or technical draughtsman in an office and still become project leaders. Some of them then continued to do a Masters degree and become an architect. So there was quite a clear-cut distinction between a Bachelor - which was a bit more than a Bachelor is now - and a Masters.

My broader point would be that although there has been an attempt to try to steer us away from discussing the Bachelor here today, I do feel it's quite an impor-

tant issue: we seem to be unable to get round it, especially when we discussed harmonisation and transparency. However, another major aspect of Bologna is mobility. The moment we start discussing mobility on a massive scale, it is imperative that we learn from each other what the Bachelors degree means. I see it at my school: we get more and more students from all over Europe that come not just as university students for a first degree, but who have come to do a Master's in our school. It is very important to know what their Bachelor implies and where I can then put the student in my school. How am I able to examine them? We do have this institution in Holland. Students send them their papers and they say this is a Bachelor and it should be enough to serve as a basis for a Masters in Architecture. However, I don't quite know how they define that, because there are no formal lists, there is no framework with which you can define the level of a Bachelors' graduate in order for you to accept him and make him into an architect.

The story becomes wider when we look not only at architecture but also at urbanism and landscape architecture. There we see that there is a broader background of different Bachelor's degrees that move towards design. To give one example: there was an American student coming in who had a Bachelors degree in Dance and she wanted to become a landscape architect. For us it was impossible, although in the US it is quite normal to do such a thing. To take a different example, suppose somebody comes in who has studied Biology with specialisation in ecology. He knows a great deal about processes happening in landscape, and is developing an interest in how to redesign that landscape. The same thing could happen with somebody who has a very technical background in sustainability and engineering and who states his interest in designing those buildings. Where is the point at which we say that such students with these sorts of Bachelor's degrees should be acceptable candidates to a Master's in Architecture? This is a difficult question that needs answering. Do we continue to think in a vertical way of education? In Europe we still tend to think in terms of somebody opting at the end of High School for a professional career, moving vertically through institutions, whereas in the US, it's more horizontal. A student first makes a choice for the Bachelor's degree, after the Bachelor's, he may reconsider what the next step will be: to go for a professional activity, to go for a professional Masters, or to be more academic and continue with an academic Masters. In American schools, a student can have a Masters of Arts in Architecture or a Masters of Science in Architecture. Inevitably, over the years - it may take another ten or twenty years - this will also happen in Europe. How are we going to deal with all this?

Murray Fraser, London, United Kingdom

It would be useful for people introducing the three plus two system to look at the British schools which runs a version of this for thirty or forty years. What we

found is that there were a number of different variations, but from my experience teaching at Westminster, UCL and Oxford Brookes, the way that the three plus two system works, is that there is a mandatory one-year practice between the two courses. I would like to stress this; I would say that there has to be a three-plus-one-plus-two-plus-one system. This has two very important benefits: one, this is how we end up putting people into offices and giving them the opportunity to see what roles they want to take on within architecture or if they want to go into another field. This gives them the chance to decide whether they want to go back to studying for another two years. Secondly, it gives offices more involvement in education; there is more transparency. Architectural offices have a responsibility to train and educate.

Pierre von Meiss, Lausanne, Switzerland

It is clear that if a student continues immediately from the Bachelor's to the Master's degree, this is completely different from a student who spent a year in practice. It involves a feedback from offices to the school. Practice would approve this kind of structuring of a student's path. It helps some of the students who are doing the year out, to decide what they are interested in, for example, computer work. We need those people in our offices as well. Perhaps such a student will not go into doing an architectural Masters, but he might study for a year or so, following a course, which helps him to be more specialised in the field in which he is truly interested. The question then becomes one of whether he is going to be paid much less than those graduates that have the Master.

Francisco Javier Quintana De Una, Segovia, Spain

This is an answer to the point made by the speaker from the University of Westminster. In our school, admittedly it is a small school, but we find internships for all the students and so at the end of the three years, they all have one year's experience. This might be a way to solve the problem.

Pierre von Meiss, Lausanne, Switzerland

The EAAE catalogue with the two pages about each school does not reflect the reality of the offer. It is not transparent. Every school writes whatever it wants, there is no imposed canvas, nor any serious evaluation of the conformity of what is being said. It results in a good, or not so good vague profile written down on two pages. Consequently, you have to just try and test it; you give it to students who have finished the Bachelors degree, and ask them which programme they would choose there. Their criteria are often based on whether they have heard of

a school or not. But if you look at the Masters programme, certainly in Europe, all you can do is to try it out. The EAAE should seriously reconsider the present form of its catalogue. This involves a serious project, investments in time and money. None of our researchers could get away with such an approximate publication.

Urs Hirschberg, Graz, Austria

One thing that you can learn from the United States is, that the acceptance of candidates from other disciplines is much more person-oriented: they look at the individual profiles of the candidates rather than asking for passed credits. They take the liberty of accepting that person if he/she is unique and looks interesting enough and has enough motivation for architecture. We should move away from our obsession with structures and allow this sort of flexible thinking. In Austria, people are truly in love with titles. Even now that we are switching to the Bachelor-Master system, we still call the people "Diplom Ingenieur", because that becomes part of your name, you never lose: it's a very powerful thing to have.

However, we now have the case of civil engineers (which may not yet affect the Architecture School) who have a Masters programme for civil engineering economics. There may be a student without any technical background whatsoever trying to take that programme. He has studied accounting and thinks he could probably pass those classes and obtain the degree of "Diplom-Ingenieur", which would look very impressive in his CV. So, this is something that we have to examine, because that's a way to sneak in and get your "Diplom-Ingenieur"" qualification with practically no technical expertise. What this example shows is how wrong it is to beat the system in that way; it would be much better if we looked at the profile of each individual student.

Bologna 10 years after: (Re)defining a Culture of the Profession

What is the impact of the Bologna process on architectural practice?

What will we expect from a new definition of the relationship between education and practice?

What is the new concept, the objectives, the perspectives?

What must be the 'new', the 'other' the 'different'?

How can a 'competence-based education' become a catalyst to a new approach to this relationship?

Common language, common frame, common terms?

What can Education now expect from the Profession?

What can the Profession now expect from Education?

How will the new relationship respect the autonomy of the parties and the differences of the context in which each one must be developed?

What forms of collaboration between Education and the Profession can develop in the new European context?

Proposals, state of the art (Joint Working Party between the ACE and the EAAE, the new directive Qualifications Directive)?

Brainstorming on new forms and possibilities.

Does the Lifelong learning perspective offer a new opportunity and how (ex. results of the enquiry to professionals on competences of graduates)?

What initiatives shall we take in order to promote a more coherent continuity between Education and Profession?

Chair: **Francis Nordemann**, EAAE President, Paris, France

Introductory panel:

Juhani Katainen, President, Architects' Council of Europe (ACE)

Adrian Joyce, Chief Advisor, Architects' Council of Europe (ACE)

Marvin Malecha, President of the American Institute of Architects (AIA)

James Horan, Head, Dublin Institute of Technology, School of Architecture, Dublin

Francis Nordemann, Paris, France

The absurd paradox is well known: for an architect to be awarded his first commission, he must have designed a building already: he must have a first commission before his first commission...

Let us examine current practice and consider the paradox in the long term: experience is built from a variety of experience. It is an ongoing process where new knowledge is built on experience accumulated and assimilated previously. The expression 'lifelong learning' illustrates this perfectly. It considers initial teaching as a foundation for an entire life of professional experience and renders the quantification of a minimum duration of professional training nonsensical.

Reality is not static either. Educational establishments are often criticised for being ignorant of the realities of the profession; it is true that describing reality from the sideline is challenging. It is, however, possible for schools to simulate this reality, to keep abreast of the market, to recreate key players' roles, to come as close as possible to production conditions; this is an effective academic setup, an artefact, a simulation that makes it possible to highlight and illustrate the principles. It is fundamentally important to adopt a general approach while maintaining a distance to every situation; to raise questions in order to better understand and adapt to any new circumstances that we know will never come back. Let us accept the confrontation with reality as a fact: it challenges the principles and strengthens them.

Furthermore, architectural offices are often criticised for adhering too closely to commission requirements and for being overly keen to give in to the ups and downs in the economic environment, everyday life and average production. We cannot organise every company and architectural office into a mini-professional school. Professional work placements, in-depth studies under academic or university supervision for a limited period of time, have proved a successful practice. It is without doubt the most effective device for mutual enrichment between education and the professions: between model and reality.

Adrian Joyce, Architects' Council of Europe

This short presentation will give an overview of the history of the collaboration between the ACE and the American Institute of Architects (AIA). The ACE is the European Representative Organisation of the Profession with Member Organisations drawn from 33 countries. These Members are themselves nationally representative Organisations and this is one crucial difference between the ACE and the AIA.

The AIA is the representative Organisation of the profession across all States of the United States of America but its Members are individuals and they currently number about 86,000 organised in around 300 Chapters, one of which is a Chapter in Europe with over 250 members from 28 countries. Both Organisations work for the interest of the profession but as noted above the crucial difference is that the ACE has Organisations as members whereas the AIA has individuals as members.

The collaboration between the ACE and the AIA goes back many years and is based on a signed Accord on Professionalism in Architecture that was first drawn up in 2000 with a five-year life. It was re-signed in 2005 and a new negotiation to re-sign in 2010 has already commenced. The main objective of the Accord between the ACE and the AIA is to engender close collaboration on education and training. However, as the EU and the USA are major trade in partners a significant aspect of the Accord has been the negotiation of a Mutual Recognition Agreement (MRA) on education and training to ease the mobility of architects between the two jurisdictions. It is worth noting that this presentation is the first public manifestation of the Accord in that this is the first joint presentation made by the ACE and the AIA to a public audience.

Turning to the Mutual Recognition Agreement (MRA) that was signed in 2005, it is noteworthy that the National Council of Architects' Registration Boards (NCARB) of the United States of America was also a signatory. This MRA has no legal force at the present time as it has only been negotiated at profession-to-profession level. Work is ongoing to overcome the difficulties preventing it becoming legally binding, but there is no resolution in sight at the present time. It is important to note that the objective of the MRA is not to further help the privileged large practices who already operate freely across borders but to look to the future and provide conditions whereby young architects, the students of today, can easily work in a globalised world where the designer wishes to work anywhere, anytime. I am happy to further discuss the details of the MRA with any interested parties, but suffice it to say that it covers education, training and actual experience of practising architecture totalling 14 years from entry to recognised schools of architecture of which 7 years is currently the requirement for responsible practice of the profession. The ACE believes this 7-year requirement is too long and it hopes to review this with its USA partners with an objective of reducing it to 5-years.

Turning to the interface between education and practice, which is an issue of mutual concern to the ACE, the AIA and the EAAE, it is safe to say that the pace of change in the practice of architecture has been greater the last 5 years than it was in the previous 25 years. The aspects that lead me to say this are the increased use of information and communication technology, the use of building information modelling, the partnership approach to the design of buildings (for example

Project Team Partnering) and the greater reliance on inter-disciplinary working. These changes are really having a profound influence on the practice of architecture and it is necessary that schools respond.

In addition to the items mentioned above architects in practice are facing high levels of expectation from their clients, who seek greater value for money and high levels of comfort in their buildings. This is also affected, in a fundamental way, by all of the well-known impacts of climate change and a need to adopt sustainability approaches to our work whereby buildings will be very low energy and highly resource efficient.

As if all the matters listed above were not enough, the profession is also coping with the current global financial crisis that is really having a significant impact on the profession. This crisis is the first truly global crisis that has struck in my lifetime as in previous crises it was always possible to consider migrating to another region of the world to find work. The ACE currently carries out a quarterly survey of the impact of this crisis on the profession and it is telling us that it is significant indeed. In fact since September 2008 one in four architects who had work are now out of work and in some countries workload has fallen by up to 60%. This fact has led to a concern in the profession that we may be about to lose a generation of architects. What I mean by this is that there is a great danger that the global financial crisis will turn students off from the idea of pursuing any of the disciplines related to construction. It would be very useful to have information from the schools as to whether or not there is a tail off in applications for architecture in the coming academic years.

I would like to recall the message that Jim Horan delivered when he was President of the EAAE stating that education and training is a fifty-year process and that the responsibility for its delivery is shared between the schools and the profession. As you know this is a matter that the ACE fully agrees with. It is also noteworthy that Marvin Malecha has, prior to taking up his role as President of the AIA, considered the interface between schools and the profession very seriously and one publication he has written on the subject is entitled The Teaching Office in which he demonstrates that new approaches to the way in which graduate architects can gain valuable professional experience also contribute to the creativity and work of an architectural office. In addition the AIA has just published a White Paper entitled The Culture of the Practice, which looks at how and why greater collaboration between the profession and the schools is necessary.

The ACE has not yet had time to fully examine the AIA White Paper but it is intended to submit it to its Work Group on Education and to its Work Group on Professional Experience in order to build an ACE view around the conclusions of that paper.

One area that the ACE believes is very important in this debate is the whole area of Continuing Professional Development (CPD). The ACE has heard of an interesting emerging example, which delivers a win-win situation for the profession and the schools whereby in the normal course of lectures already prepared by a school of architecture key lectures are identified which form the subject of a CPD course and professionals in local practices sign up to attend the lectures alongside students during the normal series of lectures and thereby gain new knowledge. This approach means that no new course has to be devised and the professionals get the training they need by attending the school that wins through a fee charged to allow professional to attend that course.

Before handing over to Marvin Malecha, I would like to recall the good work of the Joint Working Party, which is now approaching its 14th meeting and it is in the process of preparing a Workshop for a wider audience to be held in Paris at the end of January 2010. The ACE has also contributed now for four consecutive years to the proceedings here in Chania and the Joint Working Party nominated me to present a paper on its behalf at the Oxford Conference held in Oxford in July 2008. That Conference featured very vigorous and lively debates at which many new ideas and collaborations came to the surface.

Marvin Malecha, American Institute of Architects

Thank you for the invitation to join the Architects' Council of Europe in this session to represent the American Institute of Architects. It is a pleasure for me to be with you again, although in the past I was here representing the College of Design at North Carolina State University as an educator and as a Dean. Sometimes the line between practice and education blurs for me and these days I do not know which side of the line I'm on. Perhaps, I have finally achieved the place I have always aspired to spend my professional life, exactly between education and practice.

The American Institute of Architects is a complex organization of approximately 85,000 members representative of the diverse culture of the United States. The AIA is an essential member of an interrelated professional culture within the U.S. that includes; the National Council of Architecture Registration Boards (the licensing board), the National Architecture Accrediting Board (which accredits professional programs), the Association of Collegiate Schools of Architecture (representing schools in the U.S. and Canada), and the American Institute of Architecture Students (representing the students). These five organizations interact on a regular basis on a variety of issues confronting our profession today.

As a fundamental first principle, the AIA is committed to raising the standards of practice and of education throughout the world. Wherever American architects join their colleagues we are determined to advocate for the mobility of practice

both into and outside of the United States. Even in these most difficult times the desire to join architects around the world practicing across borders is a critical aspect of the vitality of our profession. We share the opinion of the Architects' Council of Europe that we as design professionals must engage our national regulatory bodies to recognize each other's licensing practices while remaining committed to the highest professional standards. Frankly, it is important that we recognize leadership in our profession no matter where it may be found. American architects have much to gain from emulating architects from other nations who lead the world in the development of sustainable and healthy building practices. If the premise of licensing is the protection of the public then issues such as sustainability and healthy building must guide our willingness to recognize professional credentials across national boundaries. Neither arrogance nor the protection of trade rights can enter into our discussion when the health, safety and welfare of people are at stake.

One aspect of the American professional culture that is most difficult for others to understand is that the United States does not have a national license. Architects are licensed in 54 jurisdictions, of which 50 are states. Each of these jurisdictions then regulates their standards of practice and their interpretation of the requirements to satisfy internship requirements and qualification for the professional examination. These jurisdictions have accepted the National Council of Architecture Registration Board's test and adopted with modifications dependent on the preferences of the jurisdictions the Internship Development Program requirements as part of the process. However, each jurisdiction reserves the right to license within their borders.

For example, I hold licenses in California and North Carolina and can refer to myself as an architect in those jurisdictions. However, by the laws of the various jurisdictions I cannot technically call myself an architect in jurisdictions where I do not hold a license. It is accepted that I can refer to myself as an architect in a social context but if I am in any situation that could be discerned as a professional context such as in the interview process for a commission, I have to contact the licensing board in that state and file intent to practice and initiate the licensing process. I am also required to make my situation clear to a potential client. This context for practice is important to understand. It is this process that restricts mobility within the U.S. and between the U.S. and other countries. Some in the U.S. have begun to advocate for a national license. I believe there is considerable support for such a move but it will have to be done politically. I have been told that there are advocates for such a move in only about 35 states. The journey toward its realization will be long and filled with trial.

Speaking of a time of trial, presently the greatest challenge before the future of the profession is the dire prospect of economic recession. To reflect that the

economic climate is demanding a great deal of attention on the part of the AIA is an understatement. Not only are we concerned about the welfare of architects across our membership, but the fiscal health of the Institute itself demands of us considerable attention. We have had to undertake the effort to rethink our operations, institute a virtual meeting strategy, reduce staff, reconfigure our aspirations to renovate and build green our headquarters building and establish assistance programs for members facing the economic challenge. We have a best guess estimate that about 25% of the architects in the United States are out of work, in some regions more, and that another 25% are underemployed, meaning that they are getting 80% of their salary working full time or simply working 80% of the time. We are facing difficult moments, an experience I know we share with the Architects Council of Europe.

Beyond the economic crisis, the AIA is also giving attention to three major areas of interest. First, the profession must tend to its diversity. We as design professionals cannot expect to be relevant to the needs of society unless society is well represented among our ranks. Second, critically important to the future of the profession is integrated project delivery processes stimulated by new technologies and a new approach to practice. And third is the entire area of human health and environmental well-being. Specifically, the AIA has embarked on what is called "The 2030 Initiative" to achieve carbon neutrality in building by the year 2030. Our efforts on this front are significant. We have been active in many areas, from testifying in congress to change national law, to advocating for increased research and application in our member offices, to urging the American schools of architecture to embrace teaching sustainable design practices. Another program aimed at architectural firms, "The 2030 Challenge", promotes the development of sustainable practice, encourages the sharing of outcomes in building performance, and meeting continuing education expectations. We have also challenged the schools in the United States to conduct research in the area of carbon neutrality in building practices that would be available to all practitioners in non-proprietary ways.

Contract documents are another major responsibility of the AIA. The AIA documents are the industry standard in the United States. I have come to realize that these documents are utilized in modified ways throughout the world. Similarly our requirements for continuing education are an industry standard and they have had a resulting impact on the regard for architects in a rapidly transforming world. Our commitment to the development of knowledge to enrich the continuing education experience has resulted in the formation of more than twenty knowledge communities. These groups address diverse subjects from justice, health and educational facilities to the community and the environment, all focused on building performance and practice models. At a recent meeting of our knowledge communities it was determined that the greatest challenge for the American Institute of Architects is to promote research and the development of

new knowledge across the profession. In fact, several of the knowledge communities are having discussions to instigate the development of Ph.D. programs in the United States, and in particular about how research from those programs can be shared with the profession. And we are hearing that large offices are developing their own research capabilities. Offices are increasingly heading off into research directions to take the lead in developing building types and in the application of new materials. It is not unusual, for example, for an office that has its focus on medical work to develop research in the area of medical developments. New surgical units, innovative care units and the relationship between healing and physical environments have all been given increasing attention by this trend. The architect in this scenario evolves from service provider to knowledge resource, a much more valued position.

It is interesting to observe that one of the byproducts of these difficult recessionary times is the development of new practice models sustaining new edges of practice. We are seeing far more activity in the definition and redefinition of the profession of these large offices than we are in the schools. Offices are moving in new directions so quickly that it is difficult to characterize the transformation. I am not just observing new ways of practice or innovative collaborations forming offices; but I am talking about new knowledge. Hypothesis based research is happening in offices. This is a challenge for all of us in education. Not only is it the reformation of the profession, it is the formation of a new culture of practice. If we in education do not embed ourselves in this process we will become little more than an interesting branch within the study of the humanities, rather than professional school faculty.

The American Institute of Architects also maintains the American Building Index. We have agreed to share our information and methodology with ACE, UIA and RIBA. The American Building Index is a way of monitoring the profession. It keeps track of inquiries and work coming into the offices. It is apparent just how difficult it is for the profession right now because the ABI has been hovering at about 38%. Only 38% of the firms in the United States have reported new project activity in the past month. To secure a healthy profession this index should be well over 50% on a regular basis. And in fact just as little as two years ago we were at 58-60%. The ABI is considered a definitive indicator and is reported in the Wall Street Journal. The ABI is reported monthly.

On the other hand, architecture school enrollments in the United States remain strong. There are approximately 36,000 students in school. It is important to mention that graduate program enrollments are growing. In the United States when the economy is weak student enrollment grows, this may be a phenomenon shared here in Europe. However enrollments have never been stronger so it leads me to the conclusion that it is more than the economy that is bringing students

to our door. I believe that there is a growing interest in all of the design disciplines. It is our way of seeing and thinking that is attracting students. At the AIA we are concerned about the loss of the next generation of architects due to the erosion of positions within the offices. We have had extensive discussions with the National Council of Architecture Registration Boards national leadership about the testing and interim development process.

The American Institute of Architects also maintains a continuing education program and requires continuing education for continuing membership. A member must maintain a minimum of 12 continuing education units a year, to maintain membership. 4 units have to be in the area of sustainability, another 4 have to be in the area of health safety welfare, and four are at the member's discretion. Continuing education is also required to maintain a license to practice in the majority of the NCARB jurisdictions of the U.S. Typically jurisdictions require between 18 and 24 CEU's. Continuing education is a part of professional life in the United States. The AIA is also participating in the CPD process with the UIA. We at the AIA see continuing education as a necessary aspect of the profession.

This year, in my role as AIA President, I convened an Education Committee to bring together all of the education related initiatives within the organization and to undertake a culture of practice in architectural education study. I did this because we have seen the profession rapidly evolving toward new means and ways of working. I see that schools are doing a better and better job of teaching but because of the rapid transformation in practice the distance between education and practice is growing. A discussion about student centered learning expectation taking precedent must include teaching students to be agile artists in their learning skills. Students each with their own laptop computers are changing the way we must think about the education experience. How individuals learn, what they learn, and in what time frame, challenges fixed notions of curriculum and even traditional notions regarding facilities and curriculum course scheduling. A recent study conducted in an engineering college found that when they started offering distance education courses over 60% of the enrolled individuals were actually students sitting in the dormitories on campus. They were taking that structures test or that chemical engineering course at 2 o'clock in the morning as opposed to the normal 10:00AM scheduled time in a traditional classroom setting. Those individuals had the ability to review the same course over and over again. Further, the engineering college found that student performance was going up in the class and the grades were better. Students were not motivated to sit physically in the room but they were showing up online to take the course. This last year at the annual AIA Convention in San Francisco some 22,000 people were physically in attendance. Because of the economic downturn and a desire to reach a broader spectrum of our members we began offering live web interface with several plenary sessions and a select group of continuing education

programs. Over 12,000 people participated in our annual convention on-line either for sessions or to visit the virtual product show. One session is particularly noteworthy. With only 14 people physically present in the seminar, it was judged as an unfortunate enrollment for an exceptional seminar. Later it was determined that over 1800 people attended the seminar on-line. Recently I have visited our chapters in Hong Kong, Taipei, Paris and London. In each case, it was made clear to me that we had significant participation from across the world. The profession is changing dramatically. As educators we must change with it.

But some things are also staying the same. A friend who authored a book on the ethics of architecture wrote that what constitutes the definition of a profession is really very simple. Five markers: advanced educational experiences, a substantial apprenticeship, a rigorous test for licensure, an affiliation with a professional society and a voluntary embrace of an enforceable code of ethics; these together constitute professional behavior. These five markers are a challenge to architectural education. In the midst of this economic crisis a new phenomenon is being revealed that marks the dependence of an office on a new generation of team member, the mid-career layoff. Such a strategy would have been a path of last resort in another time because of the loss of expertise it represents. However, a world of rapidly evolving technology demands thinkers native to software and hardware operations. The young have become indispensable. This is not because the young people can work more hours for less money, which would have been the case in my generation, but when the young people are gone, the office cannot deliver essential services. It is the young people who are running the BIM and Revit software. It's the young people who know how to use online social networks to best advantage and to manipulate the new capabilities that are being used today to deliver projects. There is a new distribution of responsibilities in professional design offices. It is a dramatic change. Young people are vital to the success of an office.

The history of the relationship between the AIA and Association of Collegiate Schools of Architecture comprises a rich tradition. However, if you look closely at the interaction between practitioners and educators on what students should know when they graduate from schools there is much to be addressed. It is a relationship that has been characterized as a "you should do this and you should do that" relationship. Such a relationship is unacceptable and it is better characterized as flawed. It is a situation that needed to be given guidance. The Intern Development Program, managed by NCARB was established to guide graduates into the practice and facilitate the responsibility of the professional office and mentor who oversaw their work. Individuals work over an approximately three-year period of time to complete required elements in order to qualify for the examination. For this to be a successful experience somebody has to be teaching and taking care of our young people throughout the IDP process. If they are

ignored in the offices a substantial portion of their preparation to practice is being ignored. It is the intention of the Culture of Practice Study that I have already mentioned to provide guidance to both the profession and to the schools about how to proceed with due diligence to assure the success of this important transition time. Simply stated the fundamental principle of this study is to reform the conversation from "you should" to "we should" because we have a responsibility as practitioners to the intern development program.

I must admit to you that I have serious concerns about the Intern Development Program that has evolved in the United States. There is an old expression from the American South, "The main thing is to keep the main thing the main thing." I believe that the IDP process in the U.S. has evolved toward practice regulation and away from professional mentoring, teaching and guidance. The "main thing" here is the guidance of our young to assure the future vitality of the profession. Certainly, health safety and welfare issues must be understood and addressed as we credential individuals to assume the role of an architect, but the intern experience is about a life in design and not about the preparation for an examination.

Given this understanding, there are several challenges between educators and practitioners concerning the professional preparation of the next generation. If the design office is to be a successful and a vitally valued member of society, it must evolve toward becoming a learning organization where each of its members is on a learning curve. In this context the IDP experience has a chance to survive. The challenge to the schools is that we have to find a way, if we purport to be professional schools, to prepare people for a professional career. We have to accept the responsibility to treat the conduct of the profession on the same level and with the same intensity that we treat history and theory. Let me say that again, we have to treat the conduct of the profession with the same seriousness as we treat history and theory. I know that this position upsets many of my faculty colleagues. But the point is if you look at the practice of Frank Gehry for example, out of his office has come BIM, the translation of aerospace software into a building software program that is now transforming how we do business. You can look at Frank Gehry's work and study it in the Guggenheim Museum placing it into a theoretical and historic context. But why would we ignore the conduct of this practice? Why would we not talk about the fact that he has one of the best architectural practices in the United States? Why would we not talk about the fact that one of his partners is in fact not an architect but essentially an information scientist? Why should we tell students that it is just about boxes wrapped with toilet paper engendering an entire theoretical notion of a spontaneous form? Why shouldn't we talk about the fact that he tried to outsource the building skin to manufacturers and realized that he had to take back that responsibility into his office to control fabrication? That is the basic premise that underlies the culture of practice exploration. The second part of this study is that the profession has

the responsibility to provide continuing education to faculty. In the United States the only people not required to take continued education in the profession are professors who teach studio, who are not members of the AIA and who do not maintain permanent licensure in a U.S. jurisdiction. Yet these are the people who are involved in the most vital moment in the development of the young person's mind. That's silly. We should recognize that we shouldn't have people in studio who are not prepared. We shouldn't have people in studio who do not have the ability to inspire in the students the willingness to address the exigencies of practice. I have never found an intellectually bright individual who suffers from a little more information. If they do suffer from having a little more information maybe they shouldn't be teaching.

I do realize that that is a highly personal and distinctly opinionated statement, but it is deeply felt. The profession cannot point in all other directions about the preparation of our young. The profession must take responsibility. It is the intention of the culture of practice study to outline an elaborate set of recommendations.

I know that you cannot teach construction administration effectively abstractly in the schools, you have to be on a construction site. I know that professional contracts can be studied abstractly in schools, but are only best studied in the context of a project that has an effect on the cash flow and on how services are delivered. I remember Richard Meir once telling me that the real reason why he needs to sign the best contract he can sign isn't just to enrich him but it ensures that he can keep the best people in his office. A great contract assures that he can pay well, and have good health benefits for his employees. So we need to bring that to the students.

Once an individual is licensed and is a member of the American Institute of Architects, there are expectations for keeping abreast of developments in sustainability, design, professional ethics, and Universal Design accessibility. These principles constitute the foundation of professionalism in the position of the Institute. The American Institute of Architects is necessarily the only group with the ability to deliver such materials. However, it is the responsibility of the AIA to foster the development and dissemination of the best information and providers of assistance possible. The culture of practice study encourages a variety of on-line and in-person strategies including looking to the universities as providers.

Finally, if we as a profession want teachers to introduce professional materials into the class room, then as a professional community we need to make it our responsibility to have an information source that teachers can access. And so the AIA website should have a place for educators, anybody in the world as an educator teaching architecture, to find information and case studies that you can take directly into the class room. The AIA has a responsibility, if we are to say that we

are the voice and the source in the United States for the architecture profession, to become a valued source for architecture education. I believe the mission outlined in the culture of practice study is to help people integrate practice methodologies into the design studio, and to instill professionalism as a value associated with architecture. We wish to work with our members to assist students and to engage students in professional practice at the earliest possible moment. The culture of practice proposal advocates for education instead of condemning it. After all, it is important to recognize that the educational community is one of the partners along the shared journey of the development of our discipline, and the professional society has the responsibility to promote and support education. But it also makes the point to educators that you cannot take the position that professionalism is something that is taught later. Professionalism has to be taught from the first day that the students come into school. If you purport to study architecture as a profession you have a responsibility to teach professionalism and the implications of professionalism. It is the bridge between the profession and education that we must tend to with great care; maybe that is why people trusted me to be the President of the American Institute of Architects.

Adrian Joyce, Architects' Council of Europe

Before making the proposals of the ACE to you I want to present Jean-Paul Scala-bre to you. He is present in the room and he is Coordinator of the Thematic Area Access to the Profession in the ACE and I also present to you Jos Leyssens who is Vice-Coordinator of the same Thematic Area. I trust that both will make valuable contributions to the debate we will have after the presentation.

The proposals that the ACE wishes to put to the floor for consideration are:

1. The ACE believes strongly in strengthening the collaboration between the ACE and the EAAE. This is for several of the reasons set out by Marvin Malecha of the AIA in his presentation but also because of the particular legal framework in the European Union which enjoys a truly Mutual Recognition Agreement on Education and Training between our 27 States.

2. The Charter on CPD that the ACE Member Organisations adopted in 2001 calls on all Member Organisations to provide systems that allow for their members to be up to date on a yearly basis with all developments. I suggest that this is one area for increased and strengthened collaboration between the ACE and the EAAE as set out in my presentation.

3. The ACE is now a full Institutional Partner of the ENHSA Project in which it will concentrate on the competences acquired by graduates and their relevance to the practice of architecture. The input of the ACE in this work will roll out over the coming years.

4. The ACE and the EAAE have launched a campaign in the context of the EU legislation on the Recognition of Professional Qualifications to reflect current practices whereby the vast majority of all courses leading to architectural qualifications are of a 5-year duration. The objective of this campaign is to change the legal text so that the duration of the studies increases from 4 to 5 years. There is much political sensitivity associated with this campaign and also several technical delicacies that need to be addressed.

5. We should seek common ground under the concept of the discipline of architecture as the discipline of architecture covers all stages from the earlier days in schools and universities through the final days in practice.

In closing I would like to say that the ACE seeks to ensure that there is a high level of quality in education and training because it firmly believes that this leads to a high quality in the built environment. It is logical that a clear dialogue between the profession and the schools can only increase the chances of having such a high level of quality.

As I said in my earlier presentation, the ACE will now examine in detail the contents of the paper prepared by the AIA and respond to it in an appropriate manner in due course.

James Horan, Dublin, Ireland

The establishment of the Joint Working Party between the EAAE (European Association for Architectural Education) and the ACE (the Architects' Council of Europe) has in my opinion been one of the important decisions taken and initiatives embarked upon in recent years. Since its foundation, the Joint Working Party has met on 14 occasions; it is currently co-chaired by myself and Dalibor Borak from the Czech Republic. While I have always held the philosophical position of the importance of the connection between educators and the profession in architecture, the Joint Working Party is not just a realisation of that philosophical position but it grew out of a real need resulting from a change in legislation in Brussels.

Briefly, the background is as follows. The Architects' Directive, which was introduced in 1985, set down two principal tenets for architectural education. The first of these was a duration of fulltime education or a minimum period of four years and the second was the content of the educational programme as described in the eleven points of the Directive. While there is some debate about the relevance of this type of framework today, particularly in the context of the academic world having moved beyond this point of thinking towards competences and learning outcomes, the fact that a Directive exists means that there is a legal framework within which architectural education must be considered and developed.

The Architects' Directive (85/384/EEC), which ceased to exist in October 2007, was replaced by this new Qualifications' Directive 2005/36/EC and this means that architecture is now contained within a Directive which covers a vast range of Professions. However, the new Qualifications' Directive still retains the eleven points of content and the four years minimum duration as described in the original Architects' Directive.

During the time that the Architects' Directive was in force, the listing of recognised qualifications was informed by opinions from an Advisory Committee, consisting of professionals, educators and representatives of competitive authorities of each Member State who were in position to analyse, discuss and offer opinions on programmes for architectural education, and to advise on whether or not they were in compliance both in their duration and in their content. The Advisory Committee was abolished when the Architects' Directive ceased. The Joint Working Party of the EAAE and the ACE realised the importance of providing advice to the Commission on the listing of qualifications in architecture. Considerable work was done with the Commission in Brussels to persuade them of this need and the situation has now developed where the Commission has put in place a sub-group consisting of a single representative from each of the Member States to examine proposals for architectural education programmes and offer opinions and advice to the Commission. Many of the National Advisors appointed by individual Member States have served or continue to serve as members of the Joint Working Party.

Following on from this work, the Joint Working Party is now beginning to explore other areas of mutual interest between the Educators and the Profession of architecture. These include architectural research through Practice, the relationship between Education and Practice, the responsibility of the Educators and the Professionals, to name but a few. The presence of delegates and representatives from the Architects' Council of Europe at this meeting, and the contribution that those representatives have made at this and other meetings, is a clear indication of the exceptional working relationship that exists between the two groups and is exemplified in the work being carried out by the Joint Working Party.

Discussion

Michael Eden, Chalmers, Sweden

This discussion raises the question of what a professional education is. Schools should be aware of where architects work. It roughly separates into 60% in consultants' offices, 30% as urban planners employed by their municipalities and 10% elsewhere. Our question is: "where do we want architects to work? Where are architects needed?". There are very few architects going to the client's side or the management side on the building site. I think we have a competence that is useful in many more professions and positions than we realize, so this is a strategic question, which the profession and the schools should deal with. On the other hand, we want to prepare them for flexibility. Does this mean that everything should be taught in schools of architecture? My answer is no; everything you can learn in less than four hours in an office adds nothing to what the school can give you. However, the main question now is, should we educate architects that can be employed, or should we educate architects that can create new jobs in new positions we cannot foresee? This leads to my final question: what is a reflective practitioner in reality? The architect who is competent to be useful when he is forty in an office.

Colin Pugh, Manchester, United Kingdom

I would just like to extend that last point: increasingly many schools tend to practise research-led teaching. The point was made that practices are very interested in that kind of research, yet trying to preempt the value of those activities is problematic. We sometimes perceive that the profession likes to judge the usefulness of knowledge that we are exploring. The issue is emphasis and recognition. Many teachers in schools of architecture like myself no longer practice, because frankly we are too busy. This does not mean that we do not engage in CPD. We engage in other kinds, which may have to do with human resources and management, areas which are very relevant to contexts of architectural practice. The vast majority of staff in departments of architecture nevertheless engages in professional CPD, because they are still practising. Thus we should fight the assumption that schools of architecture are somehow filled with people who are remote from the realities of architectural practice. That does not mean that we have to copy architectural practice in schools of architecture. In fact, it is increasingly the case as shown by the surveys done by the EAAE that what the practices valued were classic academic capabilities, the abilities for research by design, the ability to think "beyond the box", to explore unexpected possibilities. The interesting thing about practice is that gives access to clients and those kinds of debates, which I

think add an abstract level which is very interesting from an academic perspective, the idea of professional development, of theoretical construction professions. Maybe this is what we should teach students of architecture, rather than how professions operate in detail, because they need a frame for their commitment.

Marvin Malecha, Washington, USA

Certainly, research is an area where you may not see the connection to practice for years. There are 350 schools of architecture in Europe, there are 125 in the United States, then there is Asia and Japan, the profession has not been flooded with new knowledge from the schools, and I think if it had been, then I would have said that we have an issue. We also know what is happening in the United States with the scholarship-based requirements for promotion, which is also rather deeply inward-reflective. How many more books do we need on Le Corbusier's urban design for Paris for example? I would venture a conservative guess that there are at least a dozen of those books on the way. At the same time, how many real books are there about the suburban expansion of cities relative to the use of sustainability and the role of architects in this? I would say there are very few. We have to invest the energy into research, which has a fair relationship to the needs of the profession. We are too often disconnected in a sense, because curiosity-based research pushes us way out there, on the edge. It may take ten years for the developments to be seen in the profession. At the same time there has to be something that is more directly applicable, something that has the same value and merit. That is what I am suggesting.

I would also like to tie this in with something else. Should we be educating architects to be employed or to define the next profession? Yesterday I was listening to a discussion about the integrity of an academic programme. Whether it is a five-plus-two, a three-plus-two, or whatever, it is the same discussion we have been having in the United States: should it be a Master's in Architecture? Should the Master's be a post-professional degree? Should it only be a Master's in Architecture? What I am interested in is the integrity of the educational experience. The first education for that person has to come from a place that prepares the overall academic experience. After that, it can be anything. When I graduated from the university of Minnesota with my undergraduate degree, I had spent two years as a Physics major and then discovered architecture, then I went to a graduate programme in architecture, where I was told that the first two years were very helpful, but that I still needed another five years and then I went to Harvard. What I heard at Harvard had nothing to do with getting a job. My first job was because of what I had done at Minnesota: I could draw faster, I knew how to use materials and had an understanding of them and so forth. I was hired because of my Minnesota degree. But then, fifteen years later, when I was getting

my first promotion at the Academy, I probably got promoted because I had the pedigree. Everything works together. However, I do think that if we say we are in a professional programme, we have the responsibility for what that means. I am all for curiosity-based research, but I would like this flow of research to have some applicability on a more regular basis for the needs of the profession. We have to find a way to encourage and reward faculties for doing that; at the American Schools of Architecture we have these small research grant programmes, we are starting to implement programmes for faculties. In the College of Fellows of the American Schools of Architects, every year there is a $100,000 prize for research, which is to be dedicated to the interests of the profession. Again, I am in the position of challenging the educators and challenging the profession. If we want this in the profession, we should find ways to help fund it.

Adrian Joyce, Brussels, Belgium

I would like to answer the first question as to where architects work. The Architects' Council of Europe guide carried out a sector study in 2008 - which is available on our home page on our website - and in that you have the answer to that question, at least at a European level. The answer we got was very surprising because we asked practising architects to estimate the percentage of their workload for different types of buildings. The number one type of building is private housing (47%) and for those who have a big public housing sector in their country, the average across Europe for public housing is 4%. These are surprising results in themselves.

There is finer detail about tertiary buildings, sports building and so forth in that report. I am pleased to announce that the ACE intends, if we can secure the funding, to run the same study in spring of 2010, and in that way become the source of the profession in Europe in the way that the AIA is the source in the United States. By having this knowledge that exists at that moment in time - and if we could repeat this study every two years - we can develop a trend about how the profession and the practice of architecture is evolving at European level. It is our objective to have that observatory of the profession. In that context, this time around, we would be very interested to have figures on the number of graduates coming into the profession on a yearly basis. This is one gap in our research at the moment that we intend to add in 2010. I was also very attracted by the question about what a reflective practitioner is.

That in itself raises the point that we cannot practise architecture purely as a business, for then you are not going to be a good architect: you must be constantly inquiring about your own work and that around you with genuine, open curiosity about what the best materials are, what the new approaches are, whether

the work of new architects is just stylistic, or whether there is substance in what they are doing with their work. If you are not reflective, if you are not constantly questioning, then, for me, you are not practising architecture. I was interested in what was said - and thinking of my own education - that schools teach theory of practice and what we are hearing from the AIA is the value of cultural practice, which is quite a different concept. In valuing the cultural practice with its methodologies and organisational skills, we can enrich the quality of the built environment because the quality of the service that will be provided by graduates educated in cultural practices will be significantly higher, significantly earlier in their career. Maybe that is the "Holy Grail" that we are searching for as a way to deliver a higher level of quality in the practice of architecture, because the culture of our practice is valued from the very beginnings of education.

Herman Neuckermans, Leuven, Belgium

The question asked was: "where do architects work?". I think the question should be: "where will architects work?". There the intellectual creative abilities that we develop in education are very important, but at the same time I would like to add to what was said about professionalism. It is not just being prepared to do the precise jobs in the profession, but an attitude towards the tasks that you perform. I know that in many schools, sticking to the time, sticking to the budget is not something that has been taught and it has nothing to do with the type of buildings that you are designing. It is embedded in most of the systems where you give assignments to students, you don't care whether they have to work day and night, weekends, but if the result is fine, you are very happy. Underlying this there is a mentality, which may be needed for some form of creativity - I am not against this, but in practice I see a lot of jobs go to people who can guarantee the time and the budget. This is a fact.

Ferran Sagarra, Barcelona, Spain

I think it would be interesting to discuss some differences between geographical regions of Europe, because I have the impression that this discussion is very useful for those from northern Europe, but not so much for us. I am from Barcelona and we, as well as the Italians, produce a very large amount of architects every year. Being latecomers to modernity, we have another relationship with the profession. This enormous gap between academia and the profession is not so clear in our case. Most of our professors are practitioners and most of our students are working in offices. In this situation we do not examine where the architect will work, but where they do work. In order not to create too much frustration for the students, I try to make them understand that they are educated in our schools to

be employees; an employee being someone useful to the industry of building and to managing the shaping of cities and landscapes and occasionally in other sectors, someone dealing with complex problems. This is the key word: complexity. In this context it is important to define our profile in comparison with other professions. What we are teaching our students is to play different roles and to play with design as one out of many different variables to create something new. This principle may be applied to a great number of other sectors, where architects are frequently found as employees in rather different industries.

Steven Maeder, Zurich, Switzerland

Different countries have different attitudes regarding the link between education and profession. Some are tighter some are no longer so tight. My question to the panel is, how do we explain this situation and especially in the United States, how can we explain how this link has broken?

Jean-Paul Scalabre, Paris, France

In France the situation has evolved quite deeply and we are careful to include some kind of relation between the profession and the school. Having the opportunity to talk to a member of ACE, I would like to ask a question. As far as I understand, we have an agreement between the academic sector (the schools) and the profession about some simple, but important questions regarding qualifications for typical architects. These agreements are quite simple: a minimum of five years education, two years of proficient practice experience, and some required criteria written into the qualification directive, which eventually have to be updated. My question is: how do we pass the message effectively to the politicians in Brussels and to our own governments concerning this average standard? In Europe, it is very difficult to change a directive. It took many years, for example, to change the fact that we had a minimum standard of four years when we were asking for five. It would be a great achievement if we could reach that goal. How could we, schools and the profession, possibly introducing new ideas, be more effective in order to get to that transformation? It is a difficult question; it is a political question, but even if we are devoted to sending messages to the politicians, it may take thirty years to change a directive.

Juhani Katainen, Brussels, Belgium

This is a question we have been working on and will be working on and I think it is good to emphasise that we are in a hurry to do something about it. I think these things are for the moment growing because of the changes in Brussels. We

have meetings and exchanges preparing the coordinators' meeting. I hope that these matters will be put forward and this may help it to go forward, because we are well-prepared and we know what we ask for. I would like to refer to Adrian for some further information, but it is a matter we are working on and coordinating.

Adrian Joyce, Brussels, Belgium

In 2012 there is going to be an assessment of the impact of the Directive; there is no intention on the part of the commission to review or revise any of the text, but the opportunity is there for schools and the profession to develop a road map or a campaign that is structured to reach a crescendo, say at the end of 2011, so that when the assessment takes place we can, at the same time, demand this revision. If this is to be successful, we must operate, not at Brussels level, but at national level. It would be important that the member states be convinced of the need first. Then, if the member states ask the commission, we have a much higher chance of getting things passed. In our experience, it is almost certain that if schools and professions ask, it would not occur, because there exists a legislation about movement of persons. Therefore it would be much better for a member state to push that issue forward. We are reflecting on this these times.

One of the themes of our workshop at the end of January will be to discuss this road map, which is in its infancy so that we can work together across those two communities to achieve this joint objective. In reply to the question from Barcelona: you have put your finger on one of the principal difficulties that ACE faces in highlighting what is called the north-south split. I can however tell you that the same split exists between east and west, between north-east and south-west and so forth and ACE struggles to bridge the differences that exist across Europe. What we are striving for is to achieve a detailed and accurate knowledge of the different practices within our different countries. The work is now underway - although only very recently. To examine what it means to truly be an architect at a European level is a very delicate issue. In other words, to define an architect with the right skills, qualifications and profile able to work in any country, without question or concern on behalf of the authorities of that country. That profile is probably not exactly the same as the specific profile of any one country, no matter whether or not there are many countries who think that their profile is the profile. We are trying to bridge this very broad spread of knowledge.

Again, on our website - which is quite a valuable resource - there is a report from one workgroup on professional experience that has compiled the state of the art in becoming an architect, and on what the tasks and responsibilities of the architect are in various countries. Progress is slow, but the study is meticulous. You then discover that there is a legal set of regulations that underpin these profiles. They need to be understood as well. In your case, in Spain, the legal description

pins down what the architect can do, what the engineer can do and so on. This is unique to your country, no other country has that law, so you have a unique situation in your education and a unique situation in the profession. It is hard to bridge these diversities. We work at it constantly, maybe not rapidly enough, but we are trying to change mindsets as we go along.

James Horan, Dublin, Ireland

I would like to refer to the question raised by Ferran Sagarra from Barcelona about the difference that occurs between various European countries. Countries where schools of architecture are accredited by the professional body very often tend to have a tighter type of relationship with the profession. The subject of accreditation is a very controversial and delicate one, particularly in member states who do not have it at all. The difference is most apparent in schools, which operate without a formal connection to the professional bodies that ultimately will be populated by these schools' graduates. If that connection does not exist, then there is something missing in the steps that an individual will go through from starting to study architecture to becoming an architect.

The second part to that question has partially gotten an answer in the new qualifications directive from Brussels. The substantial difference in the new directive is, that the notification that Brussels is seeking is no longer just the academic qualification; it concerns what someone has to do in order to be able to practise independently as an architect. This is different for every one of the member states. In 21 of the 27 there exists a prerequisite of some further activity, experience, exam or some other requirement over and above the diploma or the certificate a student gets when he or she leaves school. The regulations under the new qualifications-directive are going to be instrumental in changing the thought patterns along these lines.

Marvin Malecha, Washington, USA

I would not refer to what is going on in architectural education in the United States as "broken". There is great diversity among the schools in the United States, public and private. We are constantly measured in ways that I am sure, some of you would find unacceptable. The accreditation process is only one of those. After a two-year effort, we just finished the accreditation procedures and student performance criteria for the United States. One example: the licensing board in North Carolina provides me with a report of how my graduates have done taking the Licensing Test, even though they have to do three years of internship following graduation from my school. I still can tell you the percentage of them who passed the nine components of the professional examination the first time

and the second time and the third time. That is public information. They send that information to the Chancellor of my university, so I have to be accountable for that in, sometimes, uncomfortable ways. This is the story in the United States. Each university has to take a position of what its role is in professional education. My earlier point was that if you say you are a school preparing people for the profession, then you have an obligation to know what is going on in the profession and to present that case to the students, so that they understand what their roles could possibly be.

There is something in the profession besides being a designer. In the office where my daughter works, in Chicago, out of the 350 architects in the office, there are probably two people who are actually allowed to call themselves a designer. One of them is Ralph Johnson, on whose teams my daughter works, and who probably has his ten or fifteen buildings where he is the designer. Everybody else is there to make the buildings come to life. We do not present that story very well in schools; in terms of alternatives roles in the profession, we need to do that. I would argue that if you look at the political influence of architects, i.e. the number of architects in the Congress, it appears that we have only one architect in the United States Congress right now. We are not having people coming to elected positions; to get Congress to suggest to the President of the United States that the architect in the Capitol be an actual architect took an effort of more than two years by the American Schools of Architecture. We devoted over a quarter of a million dollars of lobbying effort to achieve this. The first short list was only for engineers. We won after two years. It is one of our accomplishments in the last couple of months that the architect in the United States Capitol is an architect. This should tell us something about where we are in preparing people to enter into society generally and what we are doing to these young people. This is just a piece of what we need to be thinking about when we educate people.

I teach a course in design thinking, because I think the true power in what we are doing is to teach people to think differently; I am passionate about that and it is proving to be true. You cannot pick up a business magazine today in the United States without understanding that it is design that is important, that the creative processes is what separates one project from another. The Harvard Business School is writing more about the creative design process now than any other educator in the United States. A book came out called Serious Play: this is the design studio method. How many university presidents do we have educated as architects? How many chancellors or provosts? That should tell us something about how architecture is regarded generally in society. This should be part of our mission. I would much rather work for a chancellor or provost that was an architect. Part of what I am trying to do is to get educators out of our shell, to broaden ourselves and become more responsive to the needs of society. The

architects who are surviving are those who are pushing beyond the traditional definitions of architecture. For me, this is why this gap is growing.

Another question I ask students: is there a reason why you have to be poor to be an architect? Just because I love architecture does not mean that I should be poor. I think we should be teaching students how to make a profit. My successor at AIA says that he has a target of a 25% profit on every job they do. It is the first time I have heard anyone state it so flatly. How much have we said this to our students? If you do this in your schools, you are the exception.

Adrian Joyce, Brussels, Belgium

As we are in Europe and questions have been raised about politicians and architects, I am happy to report that the situation is not so bleak in this part of the world. In the most recently elected European Parliament, four architects have been elected as members of the European Parliament. In the last government in Malta, three of the ministers were architects; in Ireland there are two architects in the upper levels and who have served as ministers. This pattern is repeated across many of our countries. The Architects' Council of Europe gathers this knowledge and we try to work to keep it like this because they understand what we are trying to achieve, they understand our language, and we do gain ground. We have succeeded at European level in having two fairly important documents adopted by the member states on the contribution of architecture to sustainable development.

The first case has been one on the quality of the built environment. These are real steps forward outside the field but without architects graduating from schools to believe and know that they can work in consultancy positions, in political positions, in local government, in secondary schools, we cannot make these advances. We have been putting out the message since 2000 that the Architects' Council of Europe encourages more graduates to enter non-architectural fields because of the special skills they have learned about creative thinking, holistic problem solving and so forth.

My final point on the work of Europe: the European Union has recently completed a very large study of what I call the creative industries. There is now a significant emphasis being placed on creative industries, of which architecture is counted as one in this context. A great deal of political policy work in the commission is focused on innovation and sustainability. For innovation creative thinking is crucial. There is a very wide range of disciplines in which architecture graduates can gainfully work and there should be no fear of them going into those non-architectural fields.

Regarding the profit element, our sector study looks at the average earnings of architects across Europe. Statistics are given for Europe as a whole, for the seventeen countries that participated in the study. It makes very frightening reading: we are a very poor profession economically. I would urge you to look at the study because a number of organisations have used those figures in serious negotiations with governments because the perception of our profession by the general public is that we are privileged, elitist, rich, well-established and so on, but the reality is far from that. As an independent study carried out by the Architects' Council of Europe, it has been given to ministers; it dispels this image of our profession and is used to do something about the poor conditions that architects work under.

Jos Leyssens, Brussels, Belgium

I would like to come back on a point from yesterday. Since we have in Europe nowadays 480,000 architects, and we have around 150,000 students in our 250 schools, I calculate that in ten years we will have about 600,000 architects in Europe and perhaps 200,000 architecture students all over Europe: that is a lot. The European population is not growing that much, in contrast to other parts of the world. If we do not want to downgrade our profession as architects, what should we do to keep all these people working somehow in the field of architecture?

Constantin Spiridonidis, Thessaloniki, Greece

The ACE review recently published that the estimate for unemployment in main architectural practice is that, by the end of the year, around 1 in 6 architects will remain unemployed and if the crisis continues this ratio will become 1 in 4. We are discussing the relationship between education and profession for the fourth year at these meetings. It was unanimously agreed by everyone, that this relationship is very important, that we have to redefine it and we have to find continuity in the collaboration between academia and the professional bodies. We never managed to arrive at very precise proposals about actions, initiatives and practices. The term "culture" appears for the first time in this discussion. Will our schools react to the unemployment situation that has come with the economic crisis? Are we capable to adapt to these kinds of changes? We believe that after the crisis, things will not be the same as before. Are the schools flexible enough to absorb these changes? It seems that our discussions are about the state of education, which is more or less stable: reputations, principles, rules and so forth. Striving for the opportunity to build a new relationship with the profession, I think we will have to rethink the flexibility of our curriculum. We have to organise our education for easy adaption. The logic behind it is that we need to be more parametric, to

adapt and feed our curricula with the dynamic of forces around us. I do not have any clear proposals. A discussion about these issues has already begun. If we can have your input about new ways, this would be useful in order to continue to work in this direction.

Hansjoerg Hilti, Vaduz, Liechtenstein

If the future means that one in four architects will be unemployed, then I would say that our discussions over the last few years about students and about the Bologna agreement was a waste of time. We have to recognize today's innovations. Many schools of architecture are referring to past values. We are not questioning enough what is going on. If young people have a Bachelor's or a Master's, they will hardly be interested in what we are discussing. They are performing in a new market, and I think we are far behind them. We should open our minds and our eyes; we should not be talking about our European Directive, which is twenty-five years old. We may use Bologna for support, but if one in four graduates are unemployed, we should throw rules of recognition and regimentation over board.

Hernan Marchant, Raleigh, USA

We had to send someone to explain to the university what the difference is between a studio and a lab. We probably would not have to explain the difference between a studio and a lab if we had labs in which we experimented with architecture. Not labs where we only teach methods, or ways of doing architecture, but where we do what some practitioners are doing, which is having labs for doing real experiments in architecture. They may be parametric or not, the problem is that we are not making the link, because we are talking about two different things and we need to have a third one, which is experimentation.

Marvin Malecha, Washington, USA

In this context the question of funding is critical. At my university of 33,000 students around 77% of the faculty have funded research. The college of design is not 77% funded. When the university looks at us and asks us to define what a lab is and what a studio is, it is because they see laboratory work and they see funding, they see true exploration going on and they wonder if that exploratory culture is alive in our discipline. We need to show how other people value us. We need to understand the fact that funded grants that come into universities are seen as a "vote of confidence". It is not yet like this in Europe, although I have a feeling that we are headed for the same direction, because the European model is getting more and more similar to the American. Being able to generate public

or industry money gives the impression that you are doing this exploratory work. So the question of what a studio is and what a lab is, is not so innocent: it is one that you have to defend. One way is to teach students how to conduct research.

There is funding for research and innovation and there is a funding for teaching. We have to take a position inside the university concerning funding.

For the profession, we should be anticipating what new careers might appear. We should not only be looking at the eleven points, or at a certain number of criteria; those are mere base lines. Our job is to be as exploratory and as clever in preparing the future of the profession, as a professional must be. We are reinventing the profession on a daily basis. The dilemma inside academia is, that we have millennia of history to work with as well as the responsibility for adapting teaching and research to new contexts.

We should never fear what that new thing is; we may disagree with it, we may discuss it. I am not a fan of parametrics, for example, but it is right that we have a debate; it is an issue to explore. We see that the profession is doing that right now: it is reinventing itself to survive and we need to be involved.

Adrian Joyce, Brussels, Belgium

This point also underpins the work that ACE is doing with its new recognition agreements, which are more future-oriented than present-day oriented. It is a statistical fact that in Europe we have 70% of the world's architects and in Europe there exists only 30% of the global demand for architects' services. In the rest of the world, you have 20% of the world's population of architects, with 70% of the work. This evidently implies that mobility is part of the future of the profession, not just within European boundaries, but around the globe. With the compression of distance and time through information technology, we have already observed that students no longer think necessarily within geographical boundaries: when asked where they want to work, frequently the answer will be, everywhere.

We, as educators or professionals, are now faced with that reality. But how do you square the circle of mobility from our part of the world to other parts of the globe with the diminishing level of natural energy resources available to us? The answer is greater innovation, greater creativity, and higher levels of knowledge that are shared and not kept to us but used across the globe. These are huge challenges, not just for educators and practitioners, but also for society as a whole. I have the impression that the world is challenged: if we do not move forward intelligently through this phase, including very important negotiations such as the Copenhagen meeting in December 2009, we are putting our own existence on the planet at risk. May be it is not a problem of overproducing too many architects. Architects may be very willing to travel to the four corners of the world to work and practise.

It is time to develop concrete and clear proposals. When we first came into these debates with the schools, we were taking quite a diplomatic, delicate approach because in many of our countries in Europe the tension between the schools and the profession was quite uncomfortable. Yet in a world where multi-disciplinarity in projects is the norm, it makes no sense that educators and practitioners would not be talking very openly about the discipline of architecture. With ACE you have a willing partner to work on its proposals.

Jos Leyssens, Brussels, Belgium

I am not entirely satisfied with what has been said, because the population of architects is also growing in other parts of the world, in the United States, in the East, in Asia, where China in particular is producing a lot of architects. As the population of architects is growing all over the world, diversification and specialisation in the profession is important. Specialisation does not entirely comply with the eleven points and the regulation we have. We should be aware of that and perhaps change the regulations in a way that we can offer future architects as many possibilities as we can.

Herman Neuckermans, Leuven, Belgium

Here we are talking about figures and business. We should not complain about the richness of having so many highly culturally educated people in Europe. Of course we are happy if they earn their living.

The ACE survey does not include a picture of those that are no longer in the field of architecture. In order to judge the figures that state that 1 in 4 architects will be unemployed, given the economic crisis, I would like to see similar figures from the car industry, the banking industry and so on, then I can start to judge where we are and if we are in a worse position.

James Horan, Dublin, Ireland

I would like to make a positive and a negative statement regarding the subject we have been discussing. The question was raised: do people understand the difference between a laboratory and a studio? The answer unfortunately is that they don't, because we don't tell them. We are very poor in communicating to the world at large, even in our own schools and in our own institutions, communicating what architecture is about and what architects do. We tend to be a community that talks to itself quite a lot and that is a weakness. However, on the positive side, if 1 in 4 architects will end up unemployed in the traditional sense of

architectural practice, the thinking skills that are part of architectural education, will be disseminated into other areas of activity. I was recently approached by a member of another university who has nothing to do with architecture. He told me: we have just discovered this wonderful thing called problem-based learning and we are starting to apply it with our students. I thought to myself that this is what the studio is about. We have been doing this forever, but we haven't told anyone.

Francis Nordemann, Paris, France

It is good to know that a design-based culture is shared by a larger and larger number of people across the world. It is a comfort for us to have people we work with who are architects; it is also a comfort for the profession to have lob- byists in the American Congress or in Brussels who are architects and transmit that special culture, be they practitioners or teachers and others who have that design-based culture. It is also a guarantee for a better quality of construction to have programme specification designers who are architects, planners, politicians, bankers, who understand the contribution of our profession.

Conclusions
and Future Perspectives

Chair: **Per Olaf Fjeld**, Oslo, Norway

Introductory panel:

James Horan, Head of Dublin Institute of Technology, School of Architecture, Dublin

Pierre von Meiss, Ecole Polytechnique Federal de Lausanne, Faculté d' Environnement Naturel, Architectural et Construit, Laussane

Francis Nordemann, President of EAAE, École d'Architecture de Paris-Belleville, Paris

Constantin Spiridonidis, ENHSA Coordinator, Aristotle University of Thessaloniki, School of Architecture, Thessaloniki

Per Olaf Fjeld, Oslo, Norway

Three basic issues we've been working on within the last years: we navigate from the profile of the school, the structure of education as such, and the content, or the competence of the studies. I think those three points are still vital to our discussion: the profile, the structure and the competence. In short, then, we have used the Bologna Declaration as a framework for our discussions within the last ten years and it has been a very good framework for the discussions that we have started to pursue. More than anything else, it has been useful organisation-wise and it was also meant to be that; in other words, no content was written into that declaration. I would also say that the common grounds are also very simple and I think that within that there is simplicity in it. It has salient points and we can continue to discuss them; at the same time there is a hope that I think the discussion need not be necessarily so loud. We also have a basic education of four years. That is actually the essence of the basic ground on which we navigate. Most of us say that the regular programme is five years. Then it came up again, this idea of three plus two, four plus two, and so on, with many different variations, and then the research programme for three years on top of that. In some way, I think we are ahead of that discussion and I think we should be ahead of that discussion.

The relationship between what we now call "competencies" relating to content and what type of competencies within the discussion that we had this morning that we are striving for seems to be an essential question that has to be attacked and challenged in a much more complex way than we have done before. It is very clear in relation to these three days of discussions - although some have been a little back and forth - that I strongly believe that it has worked on mobility, it has strengths in mobility in many different ways, it is an open discussion relating to students and within the institutions and their teachers within that. It's more than ever before an open discussion.

Our courses have worked within a large time of transparency; I'm reading out the sentence that was said by one of you, I think it was yesterday, the term "ongoing reflection" related to transparency means that it's a discussion that goes on within each school. Of course, Bologna launched more of a competition within us than ever before; I think we have to realise that and that is also part of the way we have to discuss it. But there is for that reason also even more communication between us, between the schools in general. In that sense, since we have driven the content ourselves, I think that the Bologna Declaration has been a success because it has forced discussions on many different levels and we cannot not excuse anybody for whatever content we have written into it.

Listening to the themes that have been part of the panels and the floor these last days, the following comes strongly to mind, not that you have to agree with this, but to my mind comes very strongly the idea that it is time to strengthen the

belief in the capacity of each individual institution. For me, that becomes more and more essential, that we have the capacity to strengthen the individual institution which we are part of. In other words, the diversity that we may not have lost can be even stronger. I haven't heard the word "local" mentioned at anytime within these three days, and since architecture has also been for a long time embedded in the local and the relationship between local and nature/national it is essential, I think that diversity in the European communication is established or can be stronger. Therefore, I urge everyone to go home and maintain the belief in what you are part of. It seems essential then that collaboration at all levels is more important than ever. Maybe that is the most essential tool that we have today: an open collaboration on all levels. That means not only within the School of Architecture, but at all levels.

I come to two points, both of which I think we have to challenge in much stronger ways. Firstly, that the profile or the agenda is understood, challenged and provoked by the capacity to take on change. I have spoken about this many times before but it has to be understood and challenged and even provoked by the capacity to take on change. We also need the creative capacity to read the changes that are ahead of us, in other words, those that are not necessarily what were behind us; we must have the creative capacity to meet the changes that are also ahead. In some way, we are basically all old-fashioned. All architectural schools are in some way like this, for good and for bad. But in that "for good or for bad", we often talk with two tongues. I think it is essential to ask if we really do talk in two tongues and in what type of tongue. The way that we talk about the changes has somehow to be attacked creatively. This is my major point.

We talked about experiments this morning. There are in fact very few architectural schools that actually allow experiments to occur. This is because they believe that it is secondary knowledge or secondary information that has to come out in the end. I believe that creativity in general has to be challenged much more in all schools. Security does not exist any longer as we all know and certainly protectionism is not a positive thing. I also think the school has to define its role in architecture and the role in architecture that each individual School of Architecture defines is not necessarily the same. Yet it is the responsibility of the school to define its own role. In that way, it's also the role of the individual school itself.

We have more general things that we can work on together. One thing that came up in particular was the confusion within what we call Master's. I think something has to be done there. We have talked about this in so many different ways and it seems very difficult to navigate within the precision of that work today. That part seems quite confusing. We talked yesterday about the policy documents related to research. I think this has great potential to go further, but then also keeping in mind their research with architectural potential or architectural capacity and

then we have many different ways to define that. It is interesting when a project like that comes up. It is something of which we were not aware before but at the same time we understand the strength of it. Immediately it takes on a creative capacity; it triggers this capacity and if we have the possibility to do that also in the future I think this is good.

The relationship between the school and the profession is of course essential. At the same time, it is a very complex matter. It takes on so many different things that can be discussed on so many different levels: the role of the architect, the global architect, the mobile architect, the role of the profession, and then this very strong statement, the culture of the practice. If there is a culture of the practice, or if there is to be a stronger culture of the practice, the relationship - or let me call it the communication - between the schools and the profession is not only necessary but I think it's vital in that sense. This relationship between the schools and the profession is not a love relationship, but we as educators really have to offer more to the profession per se, particularly in relation to the research. We have the capacity; with the material that we have and produce this in a much stronger way. We have never had, at least not for many years, the challenge to build up new material within the conditions that we are allowed to have now. For me, there is also a very strong urge with what I have heard and it goes back to the schools also: this is architecture's capacity to focus on humanity and the architect's capacity to focus on humanity.

Pierre von Meiss, Laussane, Switzerland

In the third session we were supposed to answer the question: Are we more transparent? We decided to change the title and put the first question that was just posed and decided to put that as the main issue, namely: What is the impact of the Bologna process on the content of our studies? We observe that most schools seem to have tightened their three or four-year Bachelor curriculum in the sense of providing a solid general basis in architecture and providing an ethical and scientific as well as basic design foundation. We have, as we also heard from the audience, a very, very large number of architecture graduates throughout Europe with at the same time a production or output of new upcoming architects every year, about twice as many architects than needed. We really have to take this Bachelor's degree as something serious, which may lead to either reorientation or to specific tasks within offices, so I don't think that we can just say that anybody who has a Bachelor's should go and take the Master's degree.

As it stands, the Bologna process appears to have had a more important impact maybe in the first three or four years: things have been tightened, there appears to have been a change in things like, for example, in the Master's curriculum. The relative autonomy of the three plus two, of the two years that work with autonomy

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allowed space for structuring increasingly specific in-depth studies, while in a few places the Master's studies remained nothing else than an administrative detachment of the course in the fourth or fifth year. In most schools now, they offer a variety of coherent curriculum packages with centers of gravity such as architectural theory, or history, or conservation, or architectural technology, or management, urban design, sustainability and so forth. Thus to some extent, one seems to be moving away from the student choice of collectives towards the end of the curriculum and going more towards a structured competence set around these things I mentioned. What is common to both the Bachelor and the Master level is that a number of less visible changes are occurring in the field of pedagogy. Although they are not linked necessarily to the Bologna process, it is worth referring to the current increase with the establishment of design briefs as well as design reports and design criticism, state of the art studies so as to be able to start research with a more process-conscious design approach and so forth. So we also observe these, although they are not directly related to the Bologna process.

The further question is to examine whether the different programmes have become more transparent. It hasn't been said this way; I'll try and give an answer: no, they haven't. Most schools set out representation, publicity, communication and so forth on websites and brochures but centered on the relatively idealised way which makes the comparison of quality almost impossible. So, for the students at least wish to know where to go and study one's Master's or just where to go for a year or for a semester. This is the way it works.

We also notice that the structuring of three or four-plus-two has an apparently peripheral influence on aspects like working place and practical experience; how are we going to introduce mobility in terms of academic mobility, and students going to study for a time somewhere else? So it becomes more and more difficult - unless a school has a precise agreement with another school - to say a student can just leave for one of these three years, or for one semester of these eight semesters; it becomes a little trickier. It is also like this for the two-year Master's. The student is away for four semesters of which one is a thesis semester anyway, so that makes three semesters and out of the three semesters he's away for one semester in another environment and it becomes very difficult to manage the coherence of this. Probably if there is space for mobility, it is that a student moves from one place where he does his Bachelor's and then to do a Master's in another place but that may be, in the long run, the way for a student to establish himself, although today it's not yet like that.

As for the practical experience, we know from the British experience, although not only from this, that it is a very good space between the Bachelor's and the Master's studies for two reasons. One is the reason that, as has been said, many of those who have the Bachelor's could become working people in offices; we don't need an office with thirty people with a Master's in architecture, maybe only

a third with two thirds having a Bachelor's. Of those with the Bachelor's, there may be some which have a specific education which they can then provide in a specific field where they are better than any one of those who have a Master's. We said that students could have this practical experience before they continue; instead of us making them go straight from the first year to the fifth year in one movement, we can make these two stages.

James Horan, Dublin, Ireland

The session I chaired was to do with harmonics and having listened to issues being discussed in other sessions, it became increasingly apparent to me that it is really very difficult to try and section out one single issue like, are we harmonised or not? My sense of harmonisation brings to my mind how an orchestra works and how music behaves and how the different instruments actually combine to produce something that is greater than the entirety: the whole is greater than the sum of its parts. To some extent, I think that architectural education and indeed professional architecture - because I've reached a point in my thinking where I can't separate them any more - but architecture in general, be it the educational architects or the professional architecture, is very much like a huge orchestral piece. At the moment, however, I'm not sure that we're all looking at exactly the same score. We try to play together as an orchestra might, but increasingly the subtleties of difference begin to surface, to the extent that we realise that, despite ten years of Bologna, despite ten years of discussion, despite the fact that we meet here every year - and this is the twelfth time we've done so - we still arrive with a different sheet of music in our briefcases.

 I was a little disappointed perhaps having reached this position, but having reflected on it a little bit more, maybe this isn't such a bad thing after all. There is not, and there should not be, an ambition to harmonise Europe to the point where we're all playing the same thing, or as we say, singing from the same hymn sheet. If that happens, architecture, both in educational terms and in practice terms, will be the loser: we will lose the richness of our difference. To some extent, I believe that architecture and this meeting and indeed even the European Union with its regulations have been the beneficiary of what has occurred by new member states joining the European Union. They prevent us from falling into the trap of homogenisation. Consequently, we have a very, very difficult task.

Harmonisation should only be a means, it shouldn't be a goal. We need to be able to talk to each other but the only way that architecture, or architectural education, or indeed the practice of architecture can develop is out of its difference. The more it becomes the same, the less development is possible. Interestingly enough, this year is the 250th anniversary of the birth of Darwin and when the

economic crisis struck hard in the spring of this year, it was around that time that television channels were full of programmes about Darwin and his theories, his life, and the development and evolution of species. One point struck me very clearly about what Darwin said - and I now translate it into more modern terms: "it is not the cleverest person who will survive, it is not the strongest person who will survive, it is the person who can adapt best". Today, this morning's discussion I felt really started to begin to inch into that particular area. That is what I believe we should really be; how do we adapt?

The economic circumstances, the regulation circumstances, the educational circumstances are all changing; they are not necessarily changing in the same direction or at the same speed, so we are in a flux environment. To survive, adaptation is the only possibility. However, there is a slight sting in the tail of this particular preacher: if we decide to try and develop discussions which are around the subject of adaptation, the real difficulty is that we take from each other the natural selection advantage. There is almost a case that if you have a good idea, you keep it to yourself because that's what is going to allow you to survive when all is lost. But to conclude my position, I would say that the best possibility to adapt is to share the idea because what the other person says to you about the idea may be the very idea you were looking for in the first place. Therefore, these events are critical: we must continue to meet and discuss at the level we're talking about, we mustn't see edges or territories be given ends, we mustn't see where education stops and practice begins, we have to see the harmonics. And if we see the harmonics, we might even get in tune.

Francis Nordemann, Paris, France

We've had a very interesting session this morning on the relationship between the profession and education; I think it's an interesting theme to be dealt with because it has a long history and a great future. The Bologna Declaration is actually tending to harmonise professions as well as education. The richness of education stands on the common base that unites us but is also what divides us and what identifies us with many different characteristics and very different figures. For a short time, it is not a given, it is experimental, it is transparent and seemingly refreshed, an experience built with students, staff and faculty members at a certain time for a certain context and certain place and under specific conditions, institutions that are moving.

Education of course is fed by the real world, it is fed by the environment and by the real world of the profession. It is also fed mainly by research and innovation. The contents of education are not defined in Brussels, nor elsewhere; they are defined in our schools, and it is our responsibility as heads to build them and to keep them alive. They are a continuing and an ongoing experience that

we are developing on a day-to-day basis. The broad nature of the debates of meetings of heads illustrates the long history and the perspectives of education. As the president of EAAE I personally regret that most of the debates were concerned with the Bachelor's and Master's degree communication when PhDs and research are the fuel and the energy of progress in education as well as in practice.

When I say education and practice, I am not trying to oppose education and practice, I mean two things, which are not to be opposed: they necessarily work together as well as theory and practice work together, abstract and concrete matters work together; there is no gap, there is a continuity between those terms, between the two realities we are covering where flexibility, criticality feed progress in theoretical matters as well as in practical matters. To accept teachers and practitioners don't do the same thing because they are not in the same position in the field of the real and in the active world there is a responsibility for the kinds of schools to set the pace for that re-flexibility, for that criticality back and forth between the abstract and the concrete topics. They have to measure and be critical of their ability to deny the reality of practice; it is a necessity for schools to keep a distance from the reality but this distance has to be clarified. Research questions and the architectural curriculum concerns the production of knowledge. These issues are so crucial that they belong to the core of EAAE. This is the responsibility of education in a changing world.

EAAE is working on that and I repeat today what was said yesterday. The role of ambassadors is crucial to the dissemination of information in our institutions. It would be a real asset to the dissemination of the newssheet and the newsletter thanks to Anne Elisabeth Toft and to Ramon Sastre. EAAE writings on architectural education is a key initiative to encourage research and young teachers. The workshop on theory, the research charter, the writing of publications, thanks to all the people involved is a great and necessary piece for as educators as well as practitioners. There are workshops - there is one next week in Ireland on conservation, and one next month on theory in Friburg in Switzerland - so thanks for the workshop in Dublin, Ireland, Laughlin Kealy and Stefano Musso, the friends of education and of the educators which is a key issue. I also insist on mentioning the other design workshops last year and also two initiatives, thanks to David Porter, the Aart Oxenar, the policies of ACE for setting the pace in schools and cities. To James Horan, thanks to ACE, is a promise of continuity in education and the profession. Other activities will be initiated and developed by the new council. This is the twelfth year of the Meeting of Heads, thanks to Maria and Constantin; it is a brilliant way to cultivate our responsibilities as heads of schools. EAAE is proud to propose ENHSA; thanks to ENHSA for this glorious meeting. Thank you.

Constantin Spiridonidis, Thessaloniki, Greece

This is a question that we always have: shall we meet at one more meeting? Of course, if someone tried to answer this question immediately, the answer would probably be, no. But something happens afterwards, I don't know what it is, some kind of magic energy comes, and we consider it a pity not to give another opportunity for discussion, debate, gathering, exchange and fruitful conversation. So I think it's not the right moment to ask the question of whether a thirteenth meeting is needed. But since we crossed the different sessions, I would like retrospectively to be a little bit critical of the way that we structured the first session.

It was not possible to think of this mistake at that time, but in the title of the session, which was "What we have achieved and what we have lost" and in the first question, "Are there any changes in the profile of our schools?", the second question was "What are the most significant changes to have happened within the last ten years?" . That moved the discussion of the first session to the issues which were more or less issues for the second and the third. You probably remember very well that the discussion in the first session was again oriented mainly towards the question of the logistics - three plus two, four plus two and so on - and the other on whether we are more transparent and how we become more transparent. So we really lost the opportunity to think about and to discuss the question of identity which appears to be one of the most significant issues that we had to deal with in this room.

I strongly believe that there is unanimous position and a feeling that we have to protect our identities as Schools of Architecture in different regions and as different cultures of Europe. This has already been referred to several times previously by colleagues. What could be the identity of a School in the contemporary competitive environment? I would like to tell you a story on this. A Bulgarian traveler in a small tavern in Istanbul recognize a well-known music playing there. She remembers this music from her childhood and she asks descritively her Turkish friends: "Is that a Turkish song?" He replies, "Of course it is a Turkish song! The composer of this song is Mr. X who comes from the region of Z and for many years it has been one of the most popular songs of this area." After, the traveller goes to Greece and she is at a Greek summer festival in a region of Greece and she hears the same tune but with different lyrics and a different rhythm and of course different instruments. She asks someone, "Is that a Greek song?" He replies, "Of course it is a Greek song! The composer is Mr. X who comes from area Z" and so on. And then she goes on to Albania, to the Tirana Conservatory in the centre and in the piano lessons of the traveller's cousin she hears that the students are learning to play on the piano this same song, again with different lyrics and a different rhythm and of course different instruments, but the song is the same. She asks, "Is that an Albanian song?". The reply comes, "Of course it is an Albanian song! The

composer is Mr. X who comes from such-and-such an area of the country..." and so on. To cut the story short, the same thing happened in Skopje, in Sarajevo, in Belgrade. So, it was the same thing, but taught in completely different ways.

In this song, someone heard something which was in common which defined an area but each time this common thing appeared to have something completely different which gave the particular identity of that song to the degree that someone would believe absolutely that it belonged to the local culture. This gives us an idea about the expected profile of our schools. We are puzzled in a condition, which sometimes becomes contradictory: to become European and at the same time to remain local. In order to define this condition nowadays, this very specific condition, we need a strategy absolutely. I think that the conclusion that I could draw from the discussions that we had both in the very first sessions and then in the other sessions as well, is that, today, more than in all the previous years, we need a strategy in our schools. This is because in the past, to administrate the school appeared to be - here I am exaggerating to be a little provocative - it was like a process of autopilot. Someone had to tune some buttons, broadly accepted, to define some principles, broadly accepted, and after, the plane goes. The only thing that someone has to deal with is to equip the personnel in order to respect the values and the principles broadly accepted, and the school developed like that.

Nowadays, we have something completely new in our experience which is change. I remember that when we had the previous meeting, and I'm sure that the other participants remember, there wasn't any discussion about a crisis; there was no discussion about one to six architects being without work. There was no discussion about consequences of the distribution of finances and so forth. The changes that are happening are extremely fast. So the autopilot process is no longer a process which is valid for the administration of the school. On the contrary, as it appears from all the previous positions, what we need is to be adaptable. What we also need is to have the capacity to adapt ourselves very fast to the changes because if it takes a long time to adapt, then the adapting will have nothing to do with the new reality that we have. Thus the question that we have to deal with is, what will the strategy for change be and what will the strategy of change be in relation to the strategy of identity? I think that this is something that we again have to rethink.

I completely agree with Per Olaf - who put it very provocatively - that we are rather old-fashioned. I strongly agree that we are already old-fashioned, not because of anything else, but because the changes are very fast. What it means that we are old-fashioned, at least in my understanding, is that we conceive architectural education in a way that is no longer up-to-date with the contemporary ways that we are thinking about and doing architecture. If someone would like to circum-

scribe towards which direction this way of thinking is going, then there are two models. The one is the dynamic model, that someone perceives the space as a field of dynamic forces that affect the different things that are happening. It is a model to place the decision-making into the different influences that exist around. The other is the biological model, which is thinking about the DNA logic; someone has to organise the project and so the curriculum in a way that someone has to define the DNA and on the basis of that something will be created. So if we look at these two models, we will see that it's really nothing like the previous one, the model this time. We consider that what we have to define in the curriculum is to define the part we have to teach to our students.

What appears now as the more contemporary aspect of educational sciences and of the tendencies that some can see in the different debates and conceptions about architecture the main point is not that what we have to teach to our students but on the contrary, what our students will be able to do when we teach what we teach them. This transformation which was broadly discussed in this room appears to go in hand with a concept of organisational freedom where the additional oppositions can no longer exist in a way that they existed previously. What are these oppositions? General education versus specialisation; Francis already mentioned some of these oppositions, saying that it's a continuity, it's not one or the other, they are part of a continuity. I think that a school has to move between those, and not necessarily to be stable on this. This could give the possibility of being more easily adaptable. All the other things, the general education, the specialisation, vocational versus academic, artistic versus scientific, all these dichotomies which were a part of our way of understanding ten years ago or even less, I think nowadays appear to be something which must appear together in a school and the school can move accordingly, depending upon the different conditions. This is why I think that we have to start following the suggestions of James about adaptability, to rethink the way that we understand our education and to be a little bit more open to different external and internal parameters. This is why I say that we have to think a little more parametrically, that is, in a more flexible way about different conditions that could happen in the society, the local issues, the internal problems that a school has. This possibly presupposes completely different ways of structuring the curriculum and of teaching architecture; to remind ourselves of the intervention of a someone who said that it's not only the system, it's also the education as such which has to be reviewed under these conditions.

As with every year, this year ends up with no conclusions. It ends rather with feelings and the feeling I have at least and that I hope you share with me is that it was a very good opportunity to discuss and to exchange ideas, to see each other, and to rethink some issues together. I think that the ideas that circulated around this room will mature very soon and progressively will become facts. At

the moment they are just ideas and just thoughts. And for this significant offer that you give to all of us, we would like - and I am sure that Maria shares my initiative - to express our sincere thanks because you give to all of us the opportunity to speak, to think, to rethink and to reformulate our ideas about our profession and architectural education. Thank you very much again for your presence, your support, your help on this level.

Discussion

Gunnar Parelius, Trondheim, Norway

Regarding the curriculum, there are other forces changing architecture, not just the regulations. There has to be change in schools, not just of single teachers here and there, but of whole schools. There are three forces that are very important in changing the architecture that has to be taught in schools. First, there is the practice. It is very interesting to see the mapping of forces moving architects somewhere else. We cannot do what we traditionally did before, we have to do something new all the time. Second, there is science, including humanities and philosophy. This is changing architecture, since we can now do many more things than we could before. We have to change architecture and yet we cannot throw tradition away. The third force concerns the artistic, the creative, experimental aspect. Art is changing architecture, it changes our thinking. It would be very interesting to discuss these forces within the schools; it is also a theme to include in one of our future meetings.

Art Oxenaar, Amsterdam, Netherlands

I agree that it is important that we do not just look at ourselves. Even if there may be some differences and some problems to be solved, there is a lot gained by Bologna. It frees us from having to discuss structure all the time because we are moving towards a structure that is harmonised enough for us to be able to cooperate with each other and have an open exchange and mobility. We are thus free to focus on these other forces, to which I would like to add another very important one: the student.

We should not forget that students are changing: the way they come to a school, the way they envision a career, the way they want to learn or not learn, the way they are mobile and so forth. We can think a lot about vertical columns of education and about the way we train the student, but the student is choosing more and more his own way - especially students of High School age - and we have to learn which way students are doing this. They go to the Internet, they check rankings and if in two or three years they do not like where they are, they move somewhere else. The way students think about their career is also different. We may think that at the age of eighteen they know they want to be an architect, but it may be that they come to that realisation in steps; even Marvin Malecha said his career was never in a straight line. It has been important that we discuss structure and it is important that thanks to Bologna - for once Europe did something well! - we are moving towards each other, making mobility easier, but now it is important to look around us.

One side concerns the students, the people coming in, and the other side is working towards a true reciprocity. In the middle of this, signs of art are important. I would like to thank everyone; these meetings have been very important in helping us move towards an open area of education in Europe and an open discussion on how to protect and renew our education here in Europe.

Bertrand Lemoine, Paris, France

I would like to make some suggestions. The first is the need to consolidate views and exchange information in a structured way, for example a comparative study between schools in different European countries, a survey of differences and similarities between schools possibly including some in the US. In many discussions we spend a lot of time exchanging information about the current situation, the status of the professors, the organisation of studies and so forth. The consolidation of this could be supported by the European Union; it could possibly be organized by the EAAE. It could produce facts and figures as a basis for discussion. We could see whether there is a specific approach to architecture or to architectural education in Europe. It is not just a matter of sending out a questionnaire; it is a difficult job, but I think it would help us to progress in the future.

A second suggestion would be to change the format of these meetings slightly, perhaps including some smaller workshops focused on precise items, on technical issues which people could discuss and then report on in front of the general assembly. Such items could perhaps be explored in greater detail, combining general meetings on the more usual prearranged themes with more specific working groups. These could be built up and could provoke deeper reflection, a closer focus on certain things. There are naturally subjects that we come back to year after year, but we can also say that there are sometimes prevalent items, which could be addressed in a more precise way to make these meetings even more fruitful. Thank you again for these very enjoyable meetings where we can take advantage of being able to share information and reflections with others.

Constantin Spiridonidis, Thessaloniki, Greece

It is very useful to consolidate knowledge and to be able to obtain data on the different schools profiles. Such information is demanded, you therefore have to accept spending a few hours answering the questionnaire.

Concerning the second proposal of having smaller groups, some of you may remember that in the other building before we moved into this newer one, we were able to organise three parallel sessions. Each was of about twenty people and the debate developed in these small groups, because at that time the

number of participants was much smaller. If we want groups of about 20 or 30 with 130 participants, we would need a large number of parallel group discussions. Unfortunately in this building three such spaces are not available for these groups. We tried several times to do it using two groups, one group being up here and the other in the room downstairs which is an exhibition hall, but these places are provided by the local authorities and they are not always available. The other problem with this division was that because this was the main room, most people remained in this room and did not go into the other, further room, so the system did not work very well and so we stopped it. It is however something that we could think about for the future and try again.

Maria Voyatzaki, Thessaloniki. Greece

I agree that there are flaws in the format. I am glad to focus on the choice of keynote speakers. It is an issue that is discussed but without really getting feedback from you. I would like to link the justification of these choices to the points made earlier. It is in fact the students that are the focal point of our choices; even though it sounds far-fetched, our intention is always to get people from the two ends of the spectrum of what could be called the avant-garde versus training architects to work in practices. It is nothing to do with our personal preferences in architecture. What is important is to give you a spectrum of approaches to realise what our students look at.

It is debatable and it is easy to be dismissive of arguments made because speakers base them on their own premises and their own beliefs, so I think it is important each time to see the value systems on which they base their designs, and their viewpoint on architecture application. From that point of view, so far we have managed to get these people and it is definitely not a choice based on any "star system" or on any personal preference of the way they deal with architecture in practising their careers.

We would also appreciate your sympathy when we make mistakes: we are not conference organisers, but are trying to build up experience as we go along and to develop something very tentatively. We would greatly appreciate your feedback and your filling in the questionnaires; it would help us to improve.

Richard Foqué, Antwerp, Belgium

I have been attending these meetings for twelve years in a row and this meeting, in particular, was very interesting. Listening to the conclusions, we reached a kind of culmination point. The question of change came up: James Horan made an analogy with a symphony and harmony. It reminds me of a sentence in Under-

standing Media by McLuhan where says, "It's very unclear who discovered water, but it was definitely not a fish!" That makes me think that perhaps at the next meeting, we should invite people outside our own discipline, to see how they look at us, what they expect of architecture and then go into debate with them. We have said several times that we should explain what architecture is all about, that our rector or chancellor does not know and does not understand what is going on. Inviting such people may help us to look outside the box and to look at change and look at our own discipline in a new way.

Participants

ALIAJ Besnik Dean
Polis University, International School of Architecture and Urban Development
Policies, Str. Vaso Pasha, No.20, P.C. KP 2995, Tirana, ALBANIA
Tel: 00 355 (0)42223922/2237236, Fax: 00 355(0)42220517
e-mail: besnik_aliaj@universitetipolis.edu.al

ALTES Alberto
ETS Arquitectura del Vallés, UPC, C/PERE SERRA 1-15, P.C. 08173,
Sant Cugat del Vallés, Barcelona, SPAIN
Tel: 0034652455457, e-mail: alberto.altes@upc.edu

BACHMANN Balint Dean
University of Pecs, Pollack Mihaly Faculty of Engineering, Boszorkany u.2,
P.C. H-7624, Pecs, HUNGARY
Tel: 003672211968, Fax: 003672-214682, e-mail: bachmann@pmmk.pte.hu

BALOGH Balazs Head of the Dep. Of Design, Vice Dean
Budapest University of Technology and Economics, Faculty of Architecture,
H-1111 Budapest, Megyetem rkp.3. K.epulet III. 1, Budapest, HUNGARY
Tel: 00361463-1321, Fax: 003614633171, e-mail: bbalogh@goliat.eik.bme.hu

BARANOWSKI Andrzej Dean of School
Gdansk University of Technology, Faculty of Architecture, ul. Narutowicza
11/12, P.C. 80-952, Gdansk, POLAND
e-mail: abaraster@gmail.com

BASSET Luisa Architect Subdirectora Escuela Arquitectura
Escuela Tecnica Superior de Arquitectura - Universidad Politecnica Valencia,
Camino de Vera S/N P.C. 46022, Valencia, SPAIN
Tel: 0034606100693, Fax: 0034963879293, e-mail: lbasset@mes.upv.es

BEESON Simon Course Leader
Arts University College Bournemouth, Wallisdown, P.C. BH12 5HH UK,
Poole, UNITED KINGDOM
Tel: 01202363130/01590681043, Fax: 00441202537729,
e-mail: sbeeson@aib.ac.uk

BELIMPASAKIS Konstantinos Head of division of Architectural projects
Municipality of Thessaloniki, Aggelaki 13 Str., P.C. 54621, Thessaloniki, GREECE
Tel: 2310 296 894, Fax: 2310 232 471, e-mail: k.belimpasakis@thessaloniki.gr

BGASHEV Valeriy Vice-Rector
Moscow Institute of Architecture, Rozhdestvenka st.11, P.C. 107031,
Moscow, RUSSIA
Tel: 0079104900415, Fax: 0074956211240,
e-mail: valery_bgashev@hotmail.com

BOGDANESCU Zeno Dean, Faculty of Architecture
"Ion Mincu" University of Architecture and Urbanism, Academiei Street 18-20,
Sector 1, Bucharest, ROMANIA
Tel: 0040741207988, Fax: 0040213123954, e-mail: zenobogdan@yahoo.com

BOLLES-WILSON Julia Dean of School
Münster School of Architecture, Leonardo Campus, P.C. 48169,
Münster, GERMANY
Tel: 004925148272-0, Fax: 004925148272-24, e-mail: info@bolles-willson.com

BOUTSEN Dag Head of Department
Hogeschool voor Wetenschap & Kunst, Paleizenstraat 65, P.C. 1030,
Brussels, BELGIUM
Tel: 003222420000, Fax: 003222451404,
e-mail: dag.boutsen@architectuur.sintlucas.wenk.be

BRAIZINHA Joaquim Director of Architecture Faculty
Universidade Lusiada, Rue de Junqeira 194, P.C. 1749, Lisbon, PORTUGAL
Tel: 00 351 96 801 3795, Fax: 00 351 21 36 47 920, e-mail: jotabe@lis.ulusiada.pt

BUCHOLZ Merritt Head of School of Architecture
University of Limerick, Liimerick, IRELAND
Tel: 0035361213438, Fax: 0035361213169, e-mail: merritt.bucholz@ul.ie

BÜHLER Herbert Former Dean
Münster School of Architecture, Leonardo Campus, P.C. 48169,
Munster, GERMANY
Tel: 00 49 251 836 5001, Fax: 00 49 251 836 5002,
e-mail: herbert@buehler-buehler.de

BÜHLER Frid Chairman A.S.A.P
Association for the Accreditation of Schools of Architecture,
Constance, GERMANY
e-mail: frid@buehler-buehler.de

BURETTE Nathalie Secretaire Generale
Ecole Nationale Superieure d' Architecture de Marseille, 184 Avenue de Luminy case 924, P.C. 13288, Marseille cedex 9, FRANCE
Tel: (33) 0491827110, Fax: (33)0491827180, e-mail: burette@marseille.archi.fr

CAGDAS Gulen Prof. Dr.
Istanbul Technical University, Faculty of Architecture, Taskisla Taksim, Istanbul, TURKEY
Tel: 0090 532 443 25 75, Fax: 0090 212 251 48 95, e-mail: glcagdas@gmail.com

CHENOT Martin
Ecole Nationale Superieure d'Architecture de Saint Etienne,
1 RUE BUSSON BP 94, P.C. 42003, Saint Etienne Codex 1, FRANCE
e-mail: martin.chenot@st-etienne.archi.fr

CIOTOIU Iuliana Chancellor
Spiru Haret University, Faculty of Architecture, Str. Ion Ghica nr. 13, sector 3, P.C. 030045, Bucharest, ROMANIA
Tel: 0040724997889, Fax: 0040213149525,
e-mail: usharh_ciotoiu.iuliana@spiruharet.ro

CONCEIÇÃO Luis Head of Architecture, Urban Planning,
                    Geography, and Plastic arts
Universidade Lusófona de Humanidades e Tecnologias,
Avenida do Campo Grande Nº 376, P.C. 1749-024, Lisbon, PORTUGAL
Tel: 00 351 21 751 5565, Fax: 00 351 21 751 5574,
e-mail: luis.conceicao@ulusofona.pt

COOPER Frederick Dean
Pontificia Universidad Catolica del Peru, Av. Universitaria 1801 San Miguel, Lima, PERU
Tel: 511-626 2400/511 99654 2996, Fax: 511-626 2824,
e-mail: fcooper@pucp.edu.pe

CULAND Pierre Directeur
ENSAP Bordeaux, Domaine de Raba, P.C. 33305, Talence, FRANCE
Tel: 0620712397, Fax: 0556807484, e-mail: pierre.culand@bordeaux.archi.fr

CURUNI Spiridione-Alessandro
Facolta Arquitettura "VAUE GIULIA" - Sapienza (Un. Roma), VIA GRAMSCI 53,
P.C. 00197, Rome, ITALY
e-mail: spiridione.curuni@uniroma1.it

CUYVERS Rob Head
Department of Architecture, University College PHL - Campus Diepenbeek,
Agoralaan, Building E, P.C. 3590, Diepenbeek, BELGIUM
Tel: 0032495513241, Fax: 003211249201, e-mail: rob.cuyvers@phl.be

DE WALSCHE Johan, Chair Education Committee Education Programme
Artesis University College of Antwerp, Mutsaardstraat 31, P.C. B - 2001,
Antwerp, BELGIUM
Tel: 003232056170, Fax: 003232260411, e-mail: johan.dewalsche@artesis.be

DEL BO Adalberto
Facolta di Architettura Civile - Politecnico di Milano, Via Durando 10, P.C. 20158,
Milano, ITALY
Tel: 0039 026555971, e-mail: studiodelbo@fastwebnet.it

DHAMO Sotir Deputy Dean
Polis University, International School of Architecture and Urban Development
Policies, Str. Vaso Pasha, No.20, P.C. KP 2995, Tirana, ALBANIA
Tel: 00355042223922/2237236, Fax: 00355042220517,
e-mail: sotir_dhamo@universitetipolis.edu.al

DIEZ Lorenzo Directeur
Ecole Nationale Superieure d'Architecture de Nancy, 2 rue Bastien Lepage -
BP40435, P.C. 54000, Villers les Nancy, FRANCE
Tel: 0383308125, Fax: 0383308130, e-mail: lorenzo.diez@nancy.archi.fr

DORATLI Naciye, Vice-Dean
Eastern Mediterranean University, Faculty of Architecture, Ismet Inonu Avenue,
P.C. Mersin 10 Turkey, Famagusta, Northern Cyprus,
Tel: 00903926302252/1346, Fax: 00903926302365,
e-mail: naciye.doratli@emu.edu.tr

DORE SCALABRE Claire
Architects Council of Europe, CAE, 29 rue Emile Janson, P.C. 1050,
Brussels, BELGIUM
e-mail: claire.dore@dore-scalabre.com

DYRSSEN Catharina Head of Department
Chalmers University of Technology, Department of Architecture, P.C. SE-412 96,
Goteborg, SWEDEN
Tel: 0046317722334, Fax: 0046317722489, e-mail: dyrssen@chalmers.se

EDEN Michael Head of programme
Chalmers University of Technology, Department of Architecture, P.C. SE-412 96,
Goteborg, SWEDEN
Tel: 0046317722335, Fax: 0046317722485, e-mail: eden@chalmers.se

ELLEFSEN Karl Otto Rector
Oslo School of Architecture and Design, Postbox 6768, St. Olavs plass, P.C. 0130,
Oslo, NORWAY
Tel: 004722997001, Fax: 0047 22997190, e-mail: karl.o.ellefsen@aho.no

ESSIG Mathias
Beuth Hochschule fur Technik, FB IV Architektur Luxemburger Str. 9, P.C. 13353,
Berlin, GERMANY
Tel: 0049308816759, Fax: 0049308824569, e-mail: essig@beuth-hochschule.de

EYCKERMAN Tijl Chair Architecture Programme
Artesis University College of Antwerp, Mutsaardstraat 31, P.C. B - 2000,
Antwerp, BELGIUM
Tel: 003232056170, Fax: 003232260411, e-mail: tilbert.eyckerman@artesis.be

FALK Elsbeth Study Advisor
Amsterdam Academy of Architecture, Waterlooplain 211, 1011 PG,
Amsterdam, THE NETHERLANDS
Tel: 0031205318218, Fax: 0031205318240, e-mail: e.falk@ahk.nl

FELDING Sven Rector
Royal Danish Academy of Fine Arts, School of Architecture, Philip de Langes
Alle 10, P.C. 1435, Copenhagen K, DENMARK
Tel: 004532686001, e-mail: sven.felding@karch.dk

FJELD Per Olaf
Oslo School of Architecture and Design, P.O BOX 6768, St Olavs pl. P.C. 0130,
Oslo, NORWAY
Tel: 004722997000, Fax: 004722997190, e-mail: PerOlaf.Fjeld@aho.no

FOQUE Richard Professor and Dean Emeritus
Artesis University College of Antwerp, Mutsaardstraat 31, P.C. B - 2001,
Antwerp, BELGIUM
Tel: 0032475429503, e-mail: r.foque@telenet.be

FRASER Derek Chair of Post-Graduate Programmes
Edinburgh College of Art, 74 Lauriston Place, P.C. EH3 9DF,
Edinburgh, UNITED KINGDOM
Tel: 0044 131 221 6072, Fax: 0044 131 221 6006, e-mail: d.fraser@eca.ac.uk

FRASER Murray Coordinator for Postgraduate Studies and Research
                    in Architecture
University of Westminster, 35 Marylebone Road, P.C. NW1 5LS,
London, UNITED KINGDOM
Tel: 0044 0988914802, Fax: 004402079115171,
e-mail: m.fraser@westminster.ac.uk

GRASSI Marco Architect, Assistant Coordinator of International Relations
Politecnico di Milano - Facolta di Architettura Civile, Via Durando 10, P.C. 20158,
Milan, ITALY
Tel: 0390223997140, e-mail: arcmibov@polimi.it

HARDER Ebbe Head of International Relations, Publishing and Exhibitions
Royal Danish Academy of Fine Arts, School of Architecture, Philip de Langes
Alle 10, P.C. 1435, Copenhagen K, DENMARK
Tel: 004532686013, Fax: 004532686076, e-mail: ebbe.harder@karch.dk

HAUBERG Jorgen Vice Rector
Royal Danish Academy of Fine Arts-School of Architecture, Philip de Langes
Alle 10, P.C. 1435, Copenhagen K, DENMARK
Tel: 004532686335, e-mail: jorgen.hauberg@karch.dk

HAUGEN Tore Brandstveit Dean
Faculty of Architecture and Fine Art, NTNU - Norwegain University of Science and Technology, Alfred Getz vei 3, P.C. 7491, Trondheim, NORWAY
Tel: 004790576660, Fax: 0047595359, e-mail: tore.haugen@ntnu.no

HEDMAN Markku
Tampere University of Technology, School of Architecture, Korkeakoulunkatu 10, FI-33720 Tampere, FINLAND
Tel: 0407024884, e-mail: markku.hedman@tut.fi

HENRIKSEN Lars Head of Study Committee
Aarhus School of Architecture, Noerreport 20, P.C. 8000, Aarhus C, DENMARK
Tel: 004589360000, e-mail: lars.henriksen@aarch.dk

HENRIKSSON Staffan
Aarhus School of Architecture, Noerreport 20, P.C. 8000, Aarhus, DENMARK
Tel: 004589360000, e-mail: staffan.henriksson@aarch.dk

HENRY Maire Head of Department of Architecture
Waterford Institute of Technology, Cork Road Waterford, IRELAND
Tel: 00353872725805, e-mail: MHENRY@WIT.IE

HERNEOJA Aulikki
University of Oulu, Department of Architecture, P.O Box 4100, P.C. 90014, Oulu, FINLAND
Tel: 00358405787018, Fax: 0035883118911, e-mail: aulikki.herneoja@oulu.fi

HEYNEN Hilde
K.U. Leuven, Kasteelpark Arenberg 1, P.C. 3001, Heverlee, BELGIUM
Tel: 003216321361, Fax: 003216321984,
e-mail: hilde.heynen@asro.kuleuven.be

HILTI Hansjorg Dean
Hochschule Liechtenstein, Furst-Franz-Josef-Strasse, P.C. LI 9490, Vaduz, LIECHTENSTEIN
Tel: 004232651122, Fax: 004232651122, e-mail: hansjoerg.hilti@hochschule.li

HIRSCHBERG Urs Leonhard Dean
Faculty of Architecture, Graz University of Technology, Rechbauerstr. 12,
P.C. A-8010, Graz, AUSTRIA
Tel: 004303168734728, Fax: 004303168734723, e-mail: hirschberg@tugraz.at

HORAN James Head of School
Dublin Institute of Technology, Bolton Street, Dublin 1, IRELAND
Tel: 00353872557765, Fax: 0035318023909, e-mail: james.horan@dit.ie

JOYCE Adrian Senior Adviser
Architects' Council of Europe (ACE), Rue P.E Janson 29, P.C. BE-1050,
Brussels, BELGIUM
Tel: 0032473670248, e-mail: adrian.joyce@ace-cae.eu

KAEFERSTEIN Johannes Head of Architecture Department
Hochschule Luzern - Technik & Architektur, Technikumstrasse 21,
6048 Horw, SWITZERLAND
Tel: 0041442734432, Fax: 0041442734477,
e-mail: johannes.Kaeferstein@hslu.ch

KAGIOGLOU Mike Head of the School of the Built Environment
University of Salford, 4th Floor Maxwell Building, P.C. M5 4WT,
Salford, UNITED KINGDOM
Tel: 004401612953178, Fax: 004401612954587,
e-mail: m.kagioglou@salford.ac.uk

KALOGIROU Nikolaos Head of Department of Architecture
Aristotle University of Thessaloniki, School of Architecture, University Campus,
P.C. 54124, Thessaloniki, GREECE
Tel: 00 30 2310 99 54 93, Fax: 00 30 2310 99 55 75, e-mail: salamura@otenet.gr

KARAMANU-RODOLAKI Zoi Professor, Head of the Department
of Architecture
Technical University of Crete, El. Venizelou 129, P.C. 73100, Chania, GREECE
Tel: 28210-37121,37102, Fax: 28210-37183, e-mail: karamanu@arch.auth.gr

KATAINEN Juhani President of the Architects' Council of Europe
Architects' Council of Europe (ACE), Rue Paul Emile Janson 29, P.C. BE-1050,
Brussels, BELGIUM
Tel: 003589440231, Fax: 003589496539, e-mail: juhani.katainen@kolumbus.fi

KEALY Loughlin
School of Architecture, Landscape & Civil Engineering University College
Dublin, Richview, Belfield, Dublin 4, Dublin, IRELAND
Tel: 0035317162757, e-mail: loughlin.kealy@ucd.ie

KEPPL Julian Vice Dean, Professor of Architecture
Slovak University of Technology, Faculty of Architecture, Namestie slobody 19,
P.C. 81245, Bratislava, SLOVAKIA
Tel: 00421905215944, Fax: 00421252921533, e-mail: Keppl@fa.stuba.sk

KJAER Peter Rector
Umea School of Architecture, UMEA UNIVERSITY, P.C. 90187, Umea, SWEDEN
Tel: 0046 90 786 6596, e-mail: peter.kjaer@arch.umu.se

KNOP Jean-Michel Directeur
Ecole Nationale Superieure d'Architecture de la Ville et des Territoires a Marne
la Vallee, 10/12 av. Blaise Pascal Champs sur Mame, Marne la Vallee cedex 2,
FRANCE
Tel: 00330160958461, Fax: 0033160958447, e-mail: jean-michel.knop@
mamelavallee.archi.fr

KOROBAR Vlatko Head of School
Cyril & Methodius University, School of Architecture, blvd. Partizanski odredi 24,
P.C. 1000 Skopje, F.Y. REPUBLIC OF MACEDONIA.
e-mail: vvpk@ukim.edu.mk

KUORELAHTI Leena Academic Coordinator
Department of Architecture, University of Oulu, P.O Box 4100, P.C. FI 90014,
Oulu, FINLAND
Tel: 0035885534985, Fax: 0035885534996, e-mail: leena.kuorelahti@oulu.fi

LABUS Ladislav Professor
Czech Technical University, Faculty of Architecture, Thakurova Street 7,
P.C. 16634, Prague, CZECH REPUBLIC
Tel: 00420777862451, Fax: 00420224310573, e-mail: labusovi@volny.cz

LANDEAU Christian Directeur
Ecole Nationale Superieure d' Architecture of Bretagne, 44 BD de Che24,
P.C. 35064, Rennes codex, FRANCE
Tel: 0299296812, Fax: 0299304249, e-mail: christian.landeau@rennes.archi.fr

LARGREN Kirsten Director of studies
Aarhus School of Architecture, Noerreport 20, P.C. 8000, Aarhus, DENMARK
Tel: 004589360000, e-mail: kirsten.largren@aarch.dk

LEMOINE Bertrand Director
Ecole Nationale Superieure d'Architecture de Paris la Villette, 144 av. De Flandu,
P.C. 75019, Paris, FRANCE
Tel: 0033144652300, Fax: 0033144652301,
e-mail: bertrand.lemoine@paris-lavillette.archi.fr

LEYSSENS Jos Member of the Executive Board
The Architects' Council of Europe (ACE), Rue Paul Emile Janson 29, P.C. B-1050,
Bassilly, BELGIUM
Tel: 003225210417, Fax: 003225216261,
e-mail: Herlinde.Leyssens@licencetobuild.be

LIEUTAUD Martine Assistant Director
Ecole Nationale Superieure d'Architecture de Montpellier, 179 rue de l'esperou,
P.C. 34093 cedex 05, Montpellier, FRANCE
Tel: 0033467918963/0033681820783, Fax: 0033467918979,
e-mail: martine.lieutaud@montpellier.archi.fr

MAEDER Stephan Director
Zurich University of applied sciences-School of Architecture,
Technikumstrasse 9, P.C. CH 8401, Winterthur, SWITZERLAND
Tel: 0041522677601, Fax: 0041522677620, e-mail: mdrs@zhaw.ch

MAKOVENYI Ferenc Dean of Faculty
YBL MIKLOS Faculty of Architecture and Civil Engineering, Thokoly ut 74,
P.C. H-1146, Budapest, HUNGARY
Tel: 0036203890920, Fax: 003612521278, e-mail: makovenyi.ferenc@ybl.szie.hu

MALECHA Marvin President A.I.A.
American Institute of Architects, 1735 New York Avenue NW, P.C. 20006,
Washington, D.C, USA
Tel: 919-515-8302, Fax: 919-515-9780, e-mail: marvin_malecha@ncsu.edu

MARCHANT Hernan Associate Dean for Undergraduate Studies and Academic
Support
College of Design - North Carolina State University, 50 Pullen Rd / 200 Brooks
Hall, P.C. 27695, Raleigh/NC, USA
Tel: (1)919 515 8316, Fax: (1)919 515 9780, e-mail: hernan_marchant@ncsu.edu

MEERES Sophia Mission DAPA
DAPA-MINISTERE de la Culture (FRANCE) - ENSPA Marne la Vallee,
182, rue Saint-Honoré, P.C. 75001, Paris, FRANCE
Tel: 0033613427321, e-mail: sophia.meeres@ucd.ie

MICHEL Michele Head of International Office
Ecole Nationale Superieure d'Architecture et de Paysage de Bordeaux,
Domaine de Raba, P.C. 33405, Talence, FRANCE
Tel: 0033557351107, Fax: 0033557351146,
e-mail: michele.michel@bordeaux.archi.fr

MICHEL Vincent Directeur
 Ecole Nationale Superieure Architecture Grenoble, 60 Avenue de Constantine
BP 2636, P.C. 38100, Grenoble, FRANCE
Tel: 0684705293, Fax: 047669834033(0),
e-mail: vincent.michel@grenoble.archi.fr

MONTI Michael Executive Director A.C.S.A.
Association of Collegiate Schools of Architecture, 1735 New York Avenue NW,
P.C. 20006, Washington, D.C, USA
e-mail: mmonti@acsa-arch.org

MUSSO Stefano Francesco Vice Dean
University of Genoa, Faculty of Architecture, Stradone di S.Agostino, 37,
P.C. 16123, Genoa, ITALY
Tel: 0039 010 2095754, e-mail: etienne@arch.unige.it

NEUCKERMANS Herman
K.U. Leuven, Kasteelpark Arenberg, 1, P.C. 3001, Leuven, BELGIUM
Tel: 003216321361, Fax: 003216321984,
e-mail: herman.neuckermans@asro.kuleuven.be

NORDEMANN Francis President of EAAE
École d'Architecture de Paris-Belleville, 78/80 rue Rebeval 75019 Paris, FRANCE
Tel +33 0153385077 or +33 0153385000, Fax +33 0150385001
e-mail: francis@francisnordemann.fr

OLOFSSON Thomas Head of Department
Umea University, School of Architecture, P.C. 90187, Umea, SWEDEN
Tel: 0046 90 786 6710, e-mail: thomas.olofsson@arch.umu.se

ONRAET Stefaan Adjunct-Head of Department
Hogeschool voor Wetenschap & Kunst, Paleizenstraat 65, P.C. 1030,
Ellezelles, BELGIUM
Tel: 003222420000, Fax: 003222451404
e-mail: stefaan.onraet@architectuur.sintlucas.wenk.be

OXENAAR Aart Director
Amsterdam Academy of Architecture, Waterlooplain 211, 1011 PG,
Amsterdam, THE NETHERLANDS
Tel: 0031205318218, Fax: 0031205318240, e-mail: a.oxenaar@ahk.nl

PANETSOS Georgios Chairman
University of Patras, Department of Architecture, P.C. 26500, Patra, GREECE
Tel: 00302108131756, e-mail: gparch@hotmail.com

PAPAKOSTAS Georgios Head of Department of Architecture
Aristotle University of Thessaloniki, School of Architecture, University Campus,
P.C. 54124, Thessaloniki, GREECE
e-mail: gpapako@arch.auth.gr

PARELIUS Gunnar Faculty Director
Norwegian University of Science and Technology, Faculty of Architecture and
Fine Art, Alfred Getz vei 3, P.C. N 7491, Trondheim, NORWAY
Tel: 004773595096, Fax: 004773595094, e-mail: gunnar.parelius@ntnu.no

PEREZ-GARCIA Agustin Vice-Director & Academic Advisor
ETS Arquitectura. Universidad Politecnica de Valencia, Camino de Vera S/N
P.C. 46022, Valencia, SPAIN
Tel: 0034666327217, Fax: 0034963877993, e-mail: aperezg@mes.upv.es

PHAM Nicolas
HEPIA, Western Switzerland University of Applied Sciences, 4, Rue de la Prairie, Geneva, SWITZERLAND
Tel: 0041 793035728, e-mail: Nicolas.pham@hesge.ch

PILATE Guy
ISACF-La Cambre, Place Flagey 19, P.C. 1050, Bruxelles, BELGIQUE
Tel: 003226436665, e-mail: guy.pilate@lacambre-archi.be

PINJING Lu Dean and Professor, School of Architecture, CAFA
China Central Academy of Fine Arts, No. 8 Hua Jia Di Nan Jie, Chao Yang District, Beijing, CHINA
Tel: 0086-10-64776052, Fax: 0086-10-64771094, e-mail: lvpinjing@cafa.edu.cn

POPESCU Emil Barbu President
"Ion Mincu" University of Architecture and Urbanism, Academiei Street 18-20, Sector 1, Bucharest, ROMANIA
Tel: 0040744528953, Fax: 0040213123954, e-mail: mac@iaim.ro

PORTER David
Glasgow School of Art / Mackintosh School of Architecture, 167 Fenfrew Street, P.C. G3 6RQ, Glasgow, UNITED KINGDOM
Tel: 00447740469991, e-mail: d.porter@gsa.ac.uk

PUGH Colin Head of Architecture (Acting)
Manchester School of Architecture, Chatham Building Cavendish Street,
P.C. MI56BR,
Manchester, UNITED KINGDOM
Tel: 0161 247 6958, Fax: 0161 247 6810, e-mail: c.pugh@mmu.ac.uk

QUINTANA DE UNA Francisco Javier Dean
IE School of Architecture, IE Universidad, Cardenal Zuniga, 12. 403, Segovia, P.C. 40003, Segovia, SPAIN
Tel: 0034915689768, Fax: 0034914113816, e-mail: javier.quintana@ie.edu

RAFTOPOULOS Spyridon-Sotirios Head of School of Architecture
National Technical University of Athens, 42 Patission Str. P.C. 10682, Athens, GREECE
Tel: 2107723871, Fax: 2107723873, e-mail: raft@central.ntua.gr

RAHIM Ali

Pennsylvania State University, School of Architecture, Pennsylvania, USA
e-mail: ali.rahim@c-a-p.net

RUISCH Patricia Programme Co-ordinator

Amsterdam Academy of Architecture, Waterlooplain 211, 1011 PG,
Amsterdam, THE NETHERLANDS
Tel: 0031205318218, Fax: 0031205318240, e-mail: p.ruisch@ahk.nl

SAGARRA TRIAS Ferran Dean

Architecture School of Barcelona, Avinguda Diagonal, 649, P.C. 08028,
Barcelona, SPAIN
e-mail: director.etsab@upc.edu

SARGIN Guven Arif Head of the Department of Architecture, METU

METU, Department of Architecture, P.C. 06531, Ankara, TURKEY
Tel: 00903122102203, Fax: 00903122107966, e-mail: sargin@metu.edu.tr

SASTRE Ramon

ETS Arquitectura del Vallés, UPC, Pere Serra, 1-15, P.C. 08173, St Cugat del
Vallés, SPAIN
Tel: 0034 934017880, Fax: 0034934017881, e-mail: ramon.sastre@upc.edu

SCALABRE Jean Paul Member of ACE Executive Board

Architects Council of Europe, CAE 29 rue Emile Janson, P.C. 1050,
Brussels, BELGIUM
e-mail: jean-paul.scalabre@dore-scalabre.com

SCHAEFER Rudolf

Technische Universitat Berlin, Str. D. 17. Juni 152, P.C. 10623,
Berlin, GERMANY
e-mail: rudolf.schaefer@tu-berlin.de

SCHMITZ Peter Dean

Hochschule Bochum, Lennershofstrasse 140, P.C. 44801,
Bochum, DEUTSCHLAND
Tel: 00 49 234 321 0100, e-mail: peter.schmitz@hs-bochum.de

SHUBENKOV Mikhail Vice-Rector
Moscow Institute of Architecture, Rozhdestvenka st.11, P.C. 107031,
Moscow, RUSSIA,
Tel: 0079854104013, Fax: 0074956211240, e-mail: shubenkov@gmail.com

SIKALA Antti-Matti Head of Department
Helsinki University of Technology Department of Architecture, PO Box 1300
02015 TKK Finland, Helsinki, FINLAND
Tel: 00358405805650, e-mail: antti-matti.siikala@tkk.fi

SIMEONI Elisa European Affairs Executive
Architects Registration Board, 8 Weymouth Street, P.C. W1W 5BU,
London, UNITED KINGDOM
Tel: 00 44 0207 580 5861, Fax: 0044 020 7436 5269, e-mail: ElisaS@arb.org.uk

SKJULHAUG Marianne Principal
Bergen School of Architecture, P.O. Box 39, P.C. 5841, Bergen, NORWAY
Tel: 004745404537, Fax: 004755363881, e-mail: msk@bergenarkitektskole.no

SLAPETA Vladimir
Faculty of Architecture, University of Technology, BRNO, Porici 5, P.C. 63900,
Brno, CZECH REPUBLIC
e-mail: slapeta@fa.vutbr.cz

SPIRIDONIDIS Constantin ENHSA Coordinatior
Aristotle University of Thessaloniki, School of Architecture, University Campus,
P.C. 54124, Thessaloniki, GREECE
Tel: 0030 2310 995589, Fax: 0030 2310 994241, e-mail: spirido@arch.auth.gr

STEFANIDOU Anna Director of Global Education
Boston Architectural College, 320 Newbury St., P.C. MA 02115, Boston, USA
Tel: 06944108659, Fax: 016175320989, e-mail: anna.stefanidou@the-bac.edu

TER HAAR Gert Head of School
Groningen Academy of Architecture, Zuiderkuipen 19, P.C. 9711 HR,
Groningen, NETHERLANDS
Tel: 0031505955405, Fax: 0031503130106, e-mail: g.a.ter.haar@pl.hanze.nl

TOFT Anne Elisabeth EAAE News Sheet editor
Aarhus School of Architecture, Noerreport 20, P.C. 8000, Aarhus C, DENMARK
Tel: 004520683847, e-mail: anne.elisabeth.toft@aarch.dk

VAN CLEEMPOEL Koenraad
University College PHL, University Campus, Building E, P.C. B-3590,
Hasselt, BELGIUM
Tel: 0032498126529, e-mail: koenraad.vancleempoel@uhasselt.be

VAN DE VREKEN Koen   Dean
Artesis University College of Antwerp, Mutsaardstraat 31, P.C. B - 2001,
Antwerp, BELGIUM
Tel: 003232056170, Fax: 003232260411,
e-mail: koenraad.vandevreken@artesis.be

VAN DUIN Leendert
Delft University of Technology, P.O Box 5043, P.C. 2600 GA,
Delft, THE NETHERLANDS
Tel: 0031 639250942, e-mail: l.vanduin@tudelft.nl

VERBEKE Johan Vice - dean
Hogeschool voor Wetenschap & Kunst, Paleizenstraat 65, P.C. 1030,
Brussels, BELGIUM
Tel: 003222420000, Fax: 003222451404,
e-mail: johan.verbeke@architectuur.sintlucas.wenk.be

VERPLANCKE Hans
K.U. Leuven, Oude Markt 13, P.C. 3001, Heverlee, BELGIUM
Fax: 003216321984, e-mail: hans.verplancke@asro.kuleuven.be

VERSTEEGH Pieter Head of the Architecture Programme
University of Applied Sciences Western Switzerland, Fribourg College of
Engineering and Architecture, 80 Boulevard de Perolles, P.C. 1701,
Fribourg, SWITZERLAND
Tel: 0041796887360, e-mail: pieter.versteegh@hefr.ch

VON MEISS Pierre Professor emerit. EPFL,Architect FAS/SIA
31, av. de l'Elysée, CH-1006 Lausanne, SWITZERLAND
Tel. & Fax: 0041 - (0)21 616 35 29, e-mail: peter.vonmeiss@epfl.ch

VOYATZAKI Maria ENHSA Coordinator

Aristotle University of Thessaloniki, School of Architecture, University Campus, P.C. 54124, Thessaloniki, GREECE

Tel: 0030 2310 995544, Fax: 0030 2310 994241, e-mail: mvoyat@arch.auth.gr

VURAL Sadiye Mujdem Vice Head of Department of Architecture

Yildiz Technical University, Department of Architecture, Main Campus, Besiktas, Istanbul, TURKEY

Tel: 00902123832597, Fax: 00902122618929,

e-mail: smujdem@superonline.com

WERNER Witold

Faculty of Architecture, Higher School of Ecology and Management, Ul. Wawelska 14, P.C. 02061, Warsaw, POLAND

Tel: 0048601355592, Fax: 0048226355592, e-mail: witold.werner@wp.pl

WRONA Stefan Dean

Faculty of Architecture, Warsaw University of Technology, Koszykowa 55, P.C. 00659, Warsaw, POLAND

Tel: 0048601272746, e-mail: wrona@arch.pw.edu.pl

YOUNES Chris

Ecole Nationale Superieure d'Architecture de Paris la Villette, 144 Avenue de Flandre, P.C. 75019, Paris, FRANCE

Tel: 33144652300, Fax: 33144652395, e-mail: cyounes@clermont-fd.archi.fr

ZAVREL Zdenek Dean

Czech Technical University, Faculty of Architecture, Thakurova Street 7, Prague, CZECH REPUBLIC

Tel: 00420224354834, Fax: 00420224310573, e-mail: zzavrel@fa.cvut.cz

ZMUDZINSKA-NOWAK Magdalena Vice Dean for Organisation, Faculty
of Architecture

Silesian University of Technology, ul. Akademicka 2A, P.C 33-100, Gliwice, POLAND

Tel: 0048322371210, e-mail: magdalena.zmudzinska@polsl.pl

bologna
10
years after

12th Meeting of Heads of European Schools of Architecture

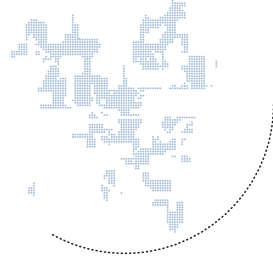2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009

What have we achieved, what have we lost (Discussion on the impact of the Bologna process on the contemporary profile of schools of architecture).

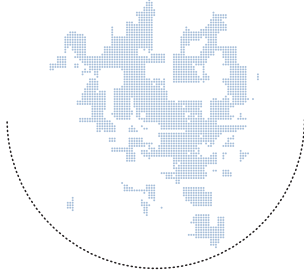**Are we really more harmo-nized?** (Discussion on the impact of the Bologna process on the various system of studies in Europe).

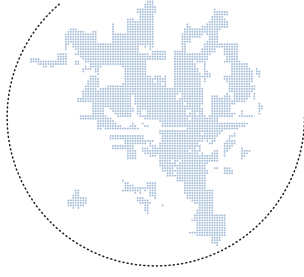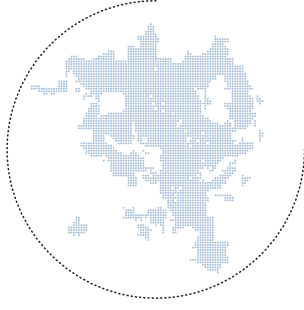**Are we more transparent?** (Discussion on the impact of the Bologna process on the contents of studies)

Have we assured more competent architects? (Discussion on the impact of the Bologna process on the quality of education).

Which are our future expectations? Which are our expectations for the future.

2000   2001   2002   2003   2004   2005   2006   2007   2008   2009