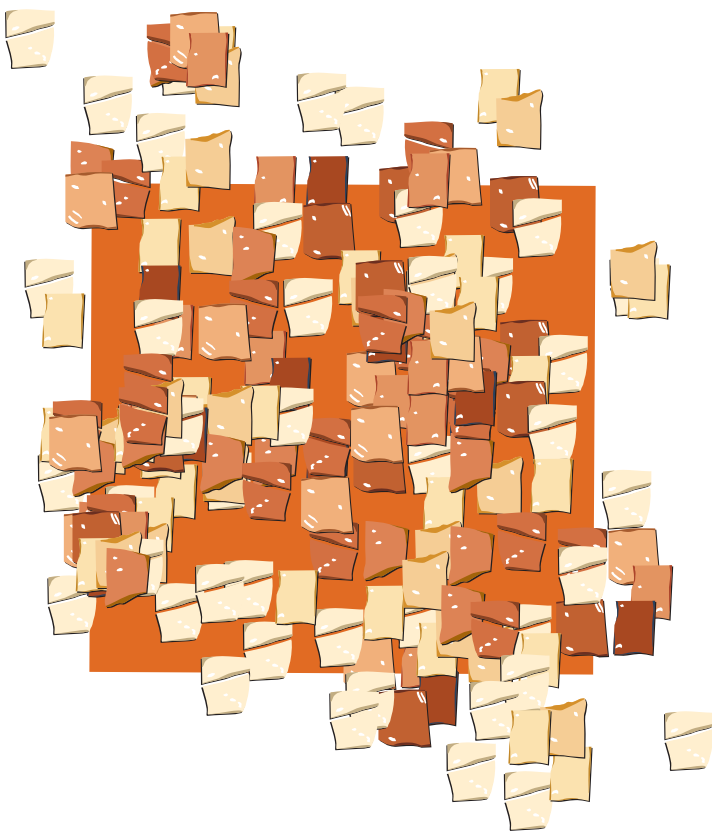


Shaping the European Higher Architectural Education Area



Editors
Constantin Spiridonidis
Maria Voyatzaki

Shaping the European Higher Architectural Education Area

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Shaping the European Higher Architectural Education Area

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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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Constantin Spiridonidis

Maria Voyatzaki

Preface

Shaping the European Higher Architectural Education Area

Constantin SPIRIDONIDIS

Thessaloniki, Greece, EAAE/ENHSA Project Coordinator

The Sixth Meeting of Heads of Schools of Architecture in Europe entitled "Shaping the European Higher Architectural Education Area" took place in Hania, Crete from 3 to 6 September 2003. With this volume, we would like to present the lectures, the dialogues, and the debates of this framework.

For the past five years EAAE organises this Meeting which gathers those responsible for the management of academic issues of schools of architecture (heads, deans, as well as program coordinators). The scope of these Meetings is to develop a positive milieu for exchange of views and positions, criticism and proposals for the support to schools of architecture to integrate in the, under construction, European Higher Architectural Education Area.

From last year the Meeting of Heads has integrated in the framework of ENHSA Thematic Network (European Network of Heads of Schools of Architecture) which is a project developed in the framework of Socrates Program after a proposal originated by EAAE. The scope of the Network is the generation of a broader milieu for the support of Schools of Architecture, which will survey the tendencies and dynamics of architectural education in Europe. Having this survey as foundation, the Thematic Network attempts to articulate the convergence but also the divergence among schools in relation to the general principles, values and priorities in the education of the architect. In parallel, the Network records the strategies adopted by schools of architecture for the organisation of their curricula with the perspective to shape the contemporary European profile of architectural education. The data collected and the conclusions drawn from this project will be passed onto all schools of Architecture as well as onto all European decision-making centres.

During the Fifth Meeting last year, the 115 participants, Heads or their representatives and curriculum coordinators agreed that the perspective of the generation of a European Higher Architectural Education Area depends, to a great extent, on the compatibility of the general principles and values with which schools encounter the four main issues: 1. The structure of school curricula in the undergraduate and post graduate level and their academic content. 2. The relationship of the curricula structure with the types of professionals as these emerge from the diplomas awarded, as well as the relationship of schools with the respective professional bodies. 3. The main principles for the assessment of school curricula both in terms of self-assessment as well as in terms of assessment by the broader academic society. 4. The form(s) of mobility of students, teaching and research staff as well as the institutional framework and more specifically, the ECTS system, for the development of this mobility.

The main idea behind the structure of the organisation of the Meeting on the basis of working groups was the following: Although during the previous meetings so far we have discussed more or less the same issues, the type of discussion revolved around personal experiences and subjective considerations, which is all of tremendous value and useful, of course. After all, each of the participants was interested in finding out what other schools do and how other institutions operate or orient themselves toward architectural education. However, what seemed to be lacking was more precise or systematic information on the structure, organization and profile of the schools of architecture that participate in this event. On the other hand, the European Association for Architectural Education, through its project of this Thematic Network has the obligation to offer and provide such data to its members in order to use it as a basis for debate and to construct proposals, ideas and views on the future of architectural education in Europe. Therefore, the idea of the group work was to provide the necessary information and knowledge on the subject.

In order to elaborate all these issues, the 2002 Meeting defined four working groups consisting of participants who volunteered to make a contribution. In these four groups, there are 36 Heads and/or their representatives as well as curriculum coordinators from 28 schools of architecture. Their preparatory meeting took place in Antwerp on 29 March 2003. The working groups, taking into account the debates from the 2002 Meeting in Hania, as these were recorded in the proceedings, and the discussions which were developed in Antwerp, defined as a first step issues which will constitute the objectives of the inquiry in all schools of architecture. The working groups prepared four extended questionnaires which were distributed to all schools of architecture members of the EAAE/ENHSA Thematic Network in order to collect the necessary data they considered useful for opening the discussion on the reforms on Architectural Education. This inquiry occurred from mid May to end of August 2003. The collection of these data is of vital importance for drawing a concise picture of the state of the art of architectural education in Europe. About 50 Schools of Architecture participated in this inquiry offering this way a big spectrum of cases with a very interesting geographical spread from almost all European Countries.

In this volume the working groups present not only data, but the atmosphere and framework of their work which provided new "departures" for the debates / discussions and workshops of this meeting and for those to follow in the future. The work of the groups structured the four respective thematic areas of the Sixth Meeting and prepared the presentation of the results which in turn formed the basis for the debates of the respective workshops. As in previous years, the Meeting was not a conference with paper presentations but primarily a milieu for exchange of views and dialogue. All the participants through their contributions during the discussions played a very important role for shaping a more representative proposal for the future of architectural education in Europe.

The volume is organised in eight parts. In the first part there is a summary and a report of what went on during the meeting. The aim of this summary and the report is to give an idea to the reader who selectively wishes to grasp the content of each session. The summary and report were undertaken by Koenraad van Cleempoel of Henry Van de Velde Institute, Antwerp, Belgium. The summary and report are followed by the welcome speeches addressed to the participants at the inauguration of the event, and Professor Habraken's keynote address.

The second part consists of a brief presentation of the first results of the inquiry which focused primarily on issues relating to curriculum and mobility. In the four sessions that follow corresponding to the issues of curriculum, relationship of education with the profession, mobility and exchange and evaluation the respective working groups present the outcome of their work and debate on issues arising from their interventions.

Finally, the volume ends with an appendix dedicated to some new documents relevant to the development of the European Common Higher Architectural Education Area.

Report on the

Sixth Meeting of Heads of School of Architecture in Europe

Koenraad VAN CLEEMPOEL
Antwerp, Belgium

Summary

The mission of this Sixth Meeting of Heads of Schools of Architecture was to continue 'Shaping the European Higher Architectural Education Area'. For the second time, the meeting was organised with the financial support of EU channeled through ENHSA ('European Network of Heads of Schools of Architecture'), which is a Thematic Network on Architectural Education, members of which are EAAE members who acted as the initiator of this idea. In 2002 ENHSA set itself as goal to create, in addition to the Hania Meeting, a website to facilitate the flow of information, the formation of thematic sub-networks and research into matters related to architectural training. This meeting focused on the last two items.

Indeed, as reported last year, working groups were composed to gather information on the subject of (1) Curricula of Architectural Education; (2) Exchange and Collaboration between Schools; (3) The relationship between Education and the Professional Context; and (4) Quality Assurance & Academic Assessment. These groups met in Antwerp in March 2003 to set out their methodology and strategies. The result was four questionnaires that were sent out shortly after the preparatory meeting. A presentation of the results and analysis of these questionnaires was at the core of this meeting.

It was made even clearer than in last year that many participants expect to receive specific information on specific issues during the Hania Meetings. The initiation of gathering systematic information via questionnaires from different schools was therefore highly appreciated.

During several meetings it was suggested that EAAE should take position in order to clarify, or centralise important information. The three most important issues are: (1) length and content of internship; (2) criteria for accreditation/validation – with special reference to design, and (3) consistency in the use of ECTS among schools of architecture.

During this meeting, the general assembly appointed the newly elected president of EAAE, James Horan. He sees the beginning of a maturity of EAAE and its Chania meetings and proposes to make the organisation more visible within EU. He will 're-affirm' in Brussels the Hania Statement 2001, and the fact that we should not dismiss the Architectural Directive. For next year's meeting, Horan suggests that the Council should try to identify one single area for 'in-depth' work.

By concluding it is necessary to mention, again, a subject that surfaced many times through the various sessions of the meeting, as well as the more informal discussions during coffee breaks and dinners: The issue of 'research' in the field of architecture, its nature and character, and related to that, problems encountered with quality assessment

by bodies who fail to recognise, and properly evaluate the core business of the architectural discipline: design.

Welcome and Opening

There are welcoming words of the following persons: Dimitris Antonakakis who breaks the good news that in 2004, Hania will have its own school of architecture as part of the Polytechnic of Crete. Conference organiser Constantin Spiridonidis welcomes the mayor and rector of the polytechnic of Hania. Spiridonidis proudly explains how the Hania meetings have matured and are now the venue to providing information and create durable networks and friendships. There are about 110 participants from some 85 different schools. This new record shows, again, that Hania plays an increasingly important role for architectural educators. Spiridonidis is pleased with the new school of architecture in this city and wishes it all possible success. He concludes by thanking the City of Hania and our host, the Center for Mediterranean Architecture, which also provides financial support. The mayor is still honored to have the Sixth Meeting of Heads in this city. He also acknowledges the support of the Center for Mediterranean Architecture in the creation of the newly founded school of architecture. The rector of the Polytechnic is also pleased to welcome us and wishes all the participants a fruitful meeting. The president of EAAE, Herman Neuckermans, nostalgically brings back to our memory the first meeting five years before and expresses his delight to see that there are already more participants than actual members of EAAE. He invites all to join membership of EAAE.

Keynote lecture by Professor John Habraken

Maria Voyatzaki introduces Emeritus Professor John Habraken, former head of the school of architecture of MIT and author of various books on the notion of urban fabrics and 'continuity' in architecture. The title of his lecture, "Questions that do not go away, some remarks on long term trends in Architecture and their impact on Architectural Education" refers to 'what makes architecture stick?'. Habraken diagnoses a certain malaise among architects, a lack of direction and unease. He believes that the reason lies in a counterproductive – because incorrect – manner that architects explain themselves to colleagues and to others.

There is a tension between our perception of cities that we all love, such as Damascus and Venice (referred to as Urban Fabrics, or environment), and the way that we consider architecture. The latter is a Renaissance model that came into being in the writings of Alberti who introduced the notion that the 'architect' becomes more important than the 'architecture', and that the 'personality' of the architect is somebody who had to focus on what was innovative. Habraken recognises Palladio as the first architect in the Albertian view. That new kind of architecture was independent from its local environment and works with a 'globalised' typology. Self expression of the architect becomes the norm. This disconnection of the environment causes the feeling of discomfort.

For the first time in human history everyday environment could no longer be taken for granted. So called specialists designed everyday environment with great devotion, like Gerrit Rietveld, Walter Gropius, Ludwig Mies van der Rohe and Tony Garnier. With the best of intentions for the lay people, and also with great ambition, a new international brotherhood came about that held its own standards of excellence independent from

any local conditions. This resulted in the famous Modernist icons and the infamous housing blocks which were done by architects who shared the belief that making good architecture as they understood it, was not in conflict with everyday environment. Habraken sees an important contradiction in the properties of everyday environment with those the architects believe in.

Habraken distinguishes three elements that constitute 'good' architecture, which he explains under these headings (1) sharing values; (2) change and permanence, and (3) distribution of design responsibility. With the first he sees as instruments of sharing: type (concepts of a whole), pattern (relational conventions) and systems (ways of working). With change and permanence he refers to the delicate balance between them as projects become increasingly larger. When designing, architects must honor what was done before us and create space for what will be done after us, in other words to design 'open architecture'. This, then results in the third notion: distribution of design responsibility between different specialisations.

Consequently, the role of the architect is more and more diluted by this demand to share values and follow rules, by the demand for adaptability and by the distribution of responsibilities. How to educate the architect for this new role? A re-examination of educational purpose is in order. One thing is certain: For this new role we need all the creativity, talent, and ability to innovate that we are so proud of.

But that is not enough: creativity alone does not make a profession. There are creative and innovative people in all professions. A profession, according to Habraken, is identified by the body of knowledge that it is in control of; the skills that allow it to use that knowledge in design; the artistry by which it applies those particular skills and knowledge.

Perhaps we have to invent new ways of teaching design. The studio format of teaching is the sacred cow of architectural education. But it stems from the time when everyday environment was not yet the architect's business and is not sufficient to teach design for everyday environment. Design studio, according to Habraken, teaches the student how to make a successful whole, consistent and rich. But it is not the place to acquire skills. As the medical doctor must know the human body, so the architect must know everyday environment. This knowledge of the everyday environment must be acquired by research and theory. Architectural research until now was always depended on external knowledge and external research agendas, such as: acoustics, building technology, use and occupation, aesthetics, management. This, however, does not touch design itself. Therefore, Habraken concludes, architecture has to find a research agenda of its own.

Introduction

Opening of the Conference

The Conference Organiser, Constantin Spiridonidis, welcomes a record number of approximately 120 participants. He explains the method of this year's meeting which is the result of the conclusion of last year where it was decided to accumulate and analyse knowledge and information. The reason for this was that we continuously referred to personal experiences, without lifting the discussions to a more universal level. Precise and systematic information was missing.

At the final meeting of Hania 2002 four working groups were composed around the same subjects that also framed that meeting:

1. A European Curriculum for Architectural Education
2. Exchange, Mobility and Collaboration between Schools in Europe
3. Relationship between Education and Profession
4. Quality Assurance and Academic Assessment

These working groups met in a preparatory meeting in Antwerp in March. A significant result of that meeting was the questionnaires that 54 schools managed to complete despite the short timing. As it is within the mission of EAAE to provide data and information about its members, the aim of this meeting is just to do that: give presentations of the results of the questionnaires in order to generate constructive discussions.

As a warmer-up, Spiridonidis shows the rich potential of the information gathered so far via graphic presentations. The subject he analysed are: ranking of schools according to student / staff ration; relation between permanent and part-time staff; types of diploma delivered by the schools, (who has already implemented Bologna?); who offers 'intermediate' awards; the years of study before access to the profession; modularisation of the programme; duration of doctoral studies; percentage of outgoing students; whether supplementary work is asked from Erasmus students; control of studies abroad.

In terms of organisation and structure of the conference, each working group introduces their subject and present, among others, the results from their questionnaire. After the presentation, smaller workshops can discuss the issues in greater detail. Each session also concluded with a plenary discussion.

Session 1

Shaping the Curricula in the European Higher Architectural Education Space

Presentation

The members of this working group are: Loughlin Kealy (Dublin, Ireland), Kees Doevendans (Eindhoven, The Netherlands), Johan Verbeecke (Brussels, Belgium), Stéphane Hanrot (Marseille, France), François Tran (Lyon, France), Roger Liberloo (Diepenbeek, Belgium) and Pierre Culand (Bordeaux, France)

Kealy reports on what happened in the Antwerp meeting and the fact that the group on doctoral research and mobility merged. The composition of the questionnaire was steered by uncertainty about curricula from one another, and how it could affect, for example, mobility. He also refers to the – rather provocative – view of Habraken that in future, the studio may not be at the center of architectural education anymore.

Kees Doevendans presents the results of the inquiry on the current situation in relation to Bologna and the knowledge-based society. 51 out 130 questionnaires were completed. The subject of ECTS was also included as it is the opinion of the working group that ECTS is also an essential means when dealing with curricula. The presentation is centered around 14 subjects: the size of the school; quality of education; duration of the study

program, final degree, intermediate degrees, admission to Architectural Higher Learning, Characterizing the Curriculum, Structure of the program, specialisation, Ph.D. and other advanced level studies, the value of research, research supervision and organisation, research issues and research perspectives.

As a conclusion, the working group observes a large variation in degrees and organisation of programs. The implementation of Bologna is an ongoing and slow process, but there is consensus on the fact that academic education in architecture will always consist of a Bachelors and a Masters cycle. The final conclusion are some recommendations on the role of EAAE/ENHSA: (1) to guarantee that professional masters in architecture have completed both the architectural Bachelors and the architectural Masters program, (2) to get architectural research on the EU agenda, (3) to draw up the quality criteria for research and scientific output in architecture, (4) to state the relationship between professional and scientific routes.

Stéphane Hanrot examines the meaning and position of doctorates in architecture by addressing and answering three questions: (1) What is the nature and legitimacy of architectural research? Epistemological progress, (2) How to do doctorates – The European networks? (3) In what context? The Sorbonne and Bologna agreements. Again, great diversity in the different 'routes' to obtain a doctorate is registered. Hanrot still believes that Bologna creates new and positive opportunities, but that common assessment methods need to be defined.

As a concrete example to facilitate international collaboration Johan Verbeeke presents the project of Meta-University, an international network of universities and design schools of architecture and urban planning. It presents design workshops and theoretical modules which are open to students, all participating schools of the network. It focuses primarily on the masters and its ambition is even to realise international 'joint Masters'.

Verbeeke also observes the difficulties and challenges in the exchange of students and study modules. An important tool to overcome many of these is ECTS: European Credit Transfer System. He therefore explains how this system works, its definitions and properties and what it could offer to higher education institutions. This subject will also be dealt with in the working group of mobility.

To conclude this session, Roger Liberloo elegantly defines the meaning of 'competence' of 'the art of appreciating what is educationally significant'. His introduction is on the frustration of hiring a fresh-out-of-the-school architect who does not seem to master the competence to remember, deduce or even undertake research to reconstruct knowledge acquired during studies. Liberloo therefore suggests defining the skills that we wish our students to display both in the Bachelors and Masters. He then defines 'competition' and the 'methods' to achieve this.

Discussion

James Horan opens the discussion by observing how many times the word 'knowledge' and 'data-base' was used. He repeats the task of EAAE to collect knowledge, store it and present analysis. He therefore hopes that more schools will complete the questionnaire.

Dimitris Kotsakis makes some corrections: there is no such thing as a Bologna 'Declaration', we should speak about Europe and not the European Union, and we are universities and not European universities.

Juhanni Katainen notes that because national legislation is gradually changing to encompass Bologna, our curricula will also have to move in that direction.

Richard Foqué and James Horan believe that, by discussing curricula, it is more important to talk about people involved than about the structures.

As a conclusion, Marvin Malecha refers to Hanrot's viewgraphs of the different routes to obtain a doctorate. He speaks from his experience in the USA where initiatives to create a unique route to obtain the one single degree of architecture failed tremendously. His advice is to keep diversity as much as possible and create networks to improve student mobility.

Session 2

Shaping the Relations between the European Higher Education Area and the Professional Bodies

Presentation

The members of this working group are: Lawrence Johnston (Belfast, UK), Denis Radford (Leicester, UK), Heiner Krumlinde (Bochum, Germany), Michèle Tilmont (Lyon, France)

Lawrence Johnston presents the results and analysis of the questionnaire on the relationship between the profession and academia. To start with the questionnaire addressed the UIA definitions on the subject, but then moved on to 'fundamental requirement', 'Codes of Ethics and Conduct', 'Registration, Licensing, Certification', 'Forms of Practice', 'Practice of Architecture', 'Scope of Practice', 'Internship' and 'Accreditation/Validation'. The nature of the questionnaire was such that one could agree or disagree with certain statements, or present comments. In general, there was overall agreement on the statements of the working group, and comments only showed the rich diversity in the different countries.

A second section covered the topic of profession, the requirements needed to pass a threshold to permit practice of architectural services and to establish what processes are undertaken by each state in terms of control, licenses and limitations. As already presented last year, the variety in the different EU member states of professional versus voluntary bodies is known, as well as the various interpretations of internship. The differences in entry examination to permit practices were also charted as well as the permission to practice.

The more sensitive issue relates to autonomy and/or the relationship between education and the professional practice. This part produced the richest variety; from close interrelationships beneficial to both parties where universities are regarded as pioneering laboratories, to no dialogue at all. The vast majority, however, said that they had – and wished to maintain – autonomy of control of the provision of architectural education.

Discussion

Internship and autonomy of curriculum

The discussion centers around the position of internship and its relationship to the

curriculum: in how far one can introduce professional practice in the curriculum. This confusion is reinforced by the ECTS guidelines of the EU itself as they recommended to include 'all' workload in the ECTS formula.

Pierre von Meiss and Leen Van Duin strongly oppose to the idea that internship should be honored with credits. They believe that EAAE should issue recommendations (like a Hania Statement 2003) in that direction.

As a reaction Aart Oxenaar from Amsterdam opposes the exclusion of internship from the curriculum as his school integrates the practice (by giving credits for practical training) with a theoretical approach.

Herman Neuckermans shares the views of the first two by stressing the autonomy of the curriculum and the fear to become too much involved with the profession too early. He believes that such a separation is necessary because academics must keep the capacity to have a vision of the future.

Denis Radford observes a trend in the UK, where Cambridge and other research institutions move away from offering 'full professional education'.

Leen Van Duin sees another problem: Bologna can become a system to minimise the cost for the government as Masters courses may not be funded anymore. In the Netherlands, for example, Masters students do already have to pay higher fees for their education.

Profile of alumnae

It is suggested several times to survey the activities of alumnae: architecture can be a 'house' with many 'rooms' and the discussion so far may be incomplete without having at least some ideas on the whereabouts of our students. The concept of 'integrated design' may become a more appropriate way to understand our educational goals.

Pierre Von Meiss believes that it is good to educate 'generalists', but one could introduce 'manors' and 'minors' in order to compensate the apparent lack of specialisations.

Juhani Katainen thinks that it would be wise to send signals from academia to the profession, as it happens often the other way around.

Concerning the importance and power of the professional bodies it is noted that we should not be blinded by their present influence as it might be weakened considerably in the future where the free market will increasingly occupy a central role.

Session 3

Shaping the Exchanges and Mobility in the European Higher Architectural Education Area

Presentation

The members of this working group are: Andrzen Baranowski (Gdansk, Poland), Koenraad Van Cleempoel, (Antwerp, Belgium), Nur Caglar (Ankara, Turkey), Guy Pilate (Brussels, Belgium), Jeanne France Ruan (Paris, France), Michèle Michel (Bordeaux, France).

Michèle Michel and Koenraad Van Cleempoel present the results of the questionnaire. Student mobility is widely accepted among the schools that responded to the questionnaire. The overall advantages are recognised as most schools provide good facilities for incoming and outgoing students. The most important conclusion, however, is the difficulty to operate a consistent ECTS system. ECTS was devised as a tool for quantitative measuring of work load in order to guarantee academic recognition of studies abroad and to improve flexibility for further studies abroad. ECTS should provide curriculum transparency and assistance in the academic recognition of courses followed by students abroad. These aims are not achieved at all.

The questionnaire clearly illustrated that very few schools actually operate a consistent ECTS as devised by the EU. Different schools operate, for example, different formulae to calculate the credits. The ECTS user's guide mentions that 'practical works' and 'seminars' ought to be included in the calculations, whereas 50% of the schools say they will not include studio work. The aimed 'readability' of curricula of other schools will not be achieved in this way.

The working group believe that EAAE could play an important role by taking a firm position and stipulate what should or should not be taken into account when calculating ECTS credits in schools of architecture. If three out of the four articles of the Hania Statement 2001 refer to ECTS, it is vital that all schools understand precisely what it meant by this, and also its implications.

On the issue of mobility and the curriculum there are two important conclusions: (1) that few schools are well informed about the educational programme and pedagogical visions of their exchange partners; (2) that a large proportion (36%) of schools demand extra work of their outgoing students on return. The latter was recognised by the working group as an unfortunate situation because it is not in line with the philosophy of Erasmus. The main reason is the lack of information (and sometimes also trust) on the programme of the guest institution. In order to improve this confidence and information over curricula of partner institutions, the working group believes that EAAE can play an important role to gather specific information and provide this on their website. In this respect it could also be recommended to make a critical comparison between the curriculum and mobility questionnaire.

The questionnaire shows that staff mobility is a problem: all schools agree that it is a good thing, but difficult to operate because of obstacles of availability (both personal and institutional). This shortcoming can perhaps be solved by sharing programs at Master level, offering integrated curricula, common diploma and shared research programmes.

The working group also speculated about 'mobility after Bologna'. The notion of 'vertical mobility' is introduced, where curricula will become the steering body of mobility. The Bologna process makes student more active in composing their curriculum (personalisation) under supervision of the institution.

Session 4

Quality Assurance and Academic Assessment of Educational Programmes in Architecture in the European Higher Education Space

Presentation

The members of this working group are: Richard Foqué (Antwerp, Belgium), Nuran Kara Pilehvarian (Istanbul, Turkey), Hansjoerg Hilti (Liechtenstein, Switzerland), Alan Bridges (Glasgow, UK), Joaquim Jose Braizinha (Lisbon, Portugal), Wim Schaefer, (Eindhoven, The Netherlands), Matteo Robiglio (Torino, Italy), Herman Neuckermans (Leuven, Belgium), Selahattin Onür, (Ankara, Turkey)

Richard Foqué and Matteo Robiglio introduce the subject by explaining the existing variations in Europe, both of the 'academic and 'professional' accreditation. As last year, Foqué strongly argues that EAAE should take position in this international debate. He therefore refers to the Hania Statement 2001 where it is said that "EAAE is willing to play a role in the development of a quality assurance and assessment system tailored to the needs of architectural education and respecting its diversity." Through the questionnaires this diversity is now becoming more visible. The specific needs of architectural education, however, are still problematic as it refers to the 'elusive' core business of architectural education: design.

Herman Neuckermans specifies the terminology and definitions. He puts emphasis on the actual aims of assessment, visitation and accreditation. Speaking from personal experience as a member of several assessment boards, he also refers to the particular nature of the architectural discipline. Examples of the assessment of staff are also discussed.

As an invited speaker to this session, Marvin Malecha (Raleigh, USA) speaks from his broad experience as a member on 27 assessment groups in the USA. His presentations show how far the USA had advanced with national accreditation and what importance it has for the schools and their reputation. Accreditation is organised by the national accreditation board. They ought to be considered as guests rather than policemen when they visit a school. They look at the outcomes and see how they can help. Accreditation started in the 1930s when there was a sudden boom of schools of architecture. 37 criteria were set out so as to impose a certain standard to schools. For each criterion there are three choices: pass, OK or fail. Assessment is something different: it is organised by the faculty as a continuous process of quality control.

The actual analysis of the questionnaire on the implementation of self-assessment procedures was executed, as last year, by Katia Baltzaki. She recalls that the working group decided during the preparatory meeting in Antwerp to include two key questions in the questionnaire: (1) what the main learning objectives of the school are, and (2) what each school believes to be best at. From the responses Baltzaki concludes that schools are still reluctant to get into deeper analysis of their own 'identity', even when it comes to recognising their own strong points. There were three parts in the questionnaire: for schools that have already implemented or that will implement self-assessment procedures; for schools negotiating with the perspective of implementing self-assessment procedures; and for schools that do not apply self assessment and have no intentions in that direction. The latter only represented 3 out of 46 schools.

In general schools recognise the potentials of self-assessment as a tool to enhance

internal quality. The most common reasons for implementation are the assessment of academic staff, recording student's opinion on courses and lectures, contributing to the strategic planning efforts of the university, quality development programs, governmental policies or external accreditation demands. Concerning the latter, in most cases self-assessment is connected to the operation of a national body and the legal regime of a country. The majority of the answers show that self-assessment results are used as feedback for the development of the educational work and as information for external peers.

Discussion

Richard Foqué opens the discussion by inviting comments on the possible role of EAAE; should it, for example, set out guidelines, criteria and standards? Or should EAAE, as Aart Oxenaar suggests, become an accreditation board in its own right? Matteo Robiglio opposes this view as EAAE is not yet ready for this. He is of the opinion that EAAE can play an important role in trying to define the criteria with which to measure schools of architecture.

Several participants stress the importance of diversity and autonomy; the suggested criteria must respect this diversity and not 'generalise' architectural education.

Herman Neuckermans senses a defensive reaction, which he believes to be wrong as we must understand the advantages of opening one's institute to a visitation board. 'Their views help you to position your school and to understand one's strength and weakness.'

Pierre von Meiss suggests bringing together the national criteria which already exist in EU (Germany and the UK). He recognises that the real difficulty is of course design. Yet he believes that it is impossible to assess this because there is ideology behind, and because there are many different interpretations in the various member states.

James Horan picks up the suggestions for EAAE to play a more constructive role. He believes that we have to be careful on how to find a way forward. It is only by taking careful steps, like challenging EAAE members to ask how they evaluate design that we come to something like guidelines.

Conclusion

This theme centers around two issues:

- the methodology on how to proceed with future meetings
- the role of EAAE within EU

On the first item there are several suggestions: The newly elected president James Horan proposes to select one single area for an 'in-depth' work. The Council can identify such a session. Another vision is that Stéphane Hanrot who recognises the nature of this meeting on presenting information. He believes that it might be appropriate for the next meeting to take unanimous positions on several issues and prepare a joint 'opinion paper'.

The conference organiser, Constantin Spiridonidis, believes that we have to improve the way in which we present our information and make it more consistent. He has the feeling that one is still discussing in the same manner as last year, despite the effort of questionnaires and different analyses. This opens the discussion on 'disclosure' of

information provided in this questionnaires, where most participants seem to agree that putting all this unfiltered information on the web is not advisable.

We must find a balance in the combination of Horan's proposal (in-depth) and the presentation of more coherent information. In order to advance the discussion Horan proposes to enlarge the working groups and come together again during a preparatory meeting where a single theme will be selected.

The president concludes the meeting by repeating his positive outlook of this conference. He is grateful to all participants for making this meeting possible and successful. He feels that EAAE matures with each Hania meeting.

The president is particularly grateful to Constantin Spiridonidis and Maria Voyatzaki for organising this conference, but equally for their key-role in the ENHSA Network that makes the Hania conference possible. These strong feeling of gratitude and appreciation for both organisers are echoed in a loud applaud of all participants.

Welcome Speeches

Dimitris Antonakakis

Architect, Greece, Art Director of the Centre for Mediterranean Architecture

Distinguished fellow citizens, dearest friends and participants,

It's been five years since your first meeting in 1998 when you honored us by trusting the Centre for Mediterranean Architecture (CMA), which was then in its infancy, to host you in Hania. On recalling the public lecture delivered then by the keynote speaker, Prof. Salvestrini, I feel deeply moved. I remember communicating with him after the lecture to further discuss some ideas that had surfaced at the meeting and asked him to deal with the dynamic relationship that a school of architecture could create with the city that hosts it. More specifically, what we were implying or expressing at the time was the hope of establishing a school of architecture here in Hania within the existing Polytechnic. Ever since and every year over the last five years, the European Association for Architectural Education (EAAE) and particularly Constatin Spiridonidis and Maria Voyatzaki, both Assistant Professors in the Architecture Department of Aristotle University of Thessaloniki, have repeatedly pointed out the logic of such a proposition during the entire course of their encounters with the mass media. It's precisely in this spirit that we continue to approach them here, through this meeting, in accordance with the Academia of the local Polytechnic, which has always supported your meetings in many different ways, relentlessly expressing the demand for a school of architecture for the city of Hania.

This time, dear friends, I'm delighted to be the messenger of an official announcement from the Ministry of Education that at last the mature or long-lived demand of the city and Polytechnic of Crete has been approved and realized. Therefore, from next year on this city will have its own school of architecture.

As you probably already know, there are five schools of architecture in Greece with more than 3,200 students. We hope that this new school will not increase the number of students to the detriment of quality, but rather will contribute to a more efficient distribution of students in the country. Moreover, it is our hope that this new school will find ways of organizing itself with flexibility and method so as to become a distinguished educational core among the other five existing schools in Greece, as well as being a resourceful reference centre, which will complete the cycle of interests in the domain of architectural studies. We also hope that this new school will reflect and incorporate the experience of the long debates that luckily emerged in your Hania meetings so as to orient itself in the right direction and in tune with contemporary trends at both the European and international level, delving in issues that will have permanent and valid influence as well as offering a fresh view to scientific questions.

Furthermore, we expect that the new school of architecture will soon become a branch dynamically embedded in the broader Polytechnic of Crete and that it will honor it by expanding or spreading its roots in the city that embraces it, while investigating questions of public space, distinguishing and designing its monuments, projecting its new architecture in collaboration with local authorities, the Council of Architects of Hania, the Technical

Chamber of Western Crete and, finally, the citizens, whose persistence and support we can attribute, to some extent, the government decision of establishing the sixth school of architecture in this city.

Evidently, at the Centre for Mediterranean Architecture we feel particularly touched by this decision, not only because the CMA has assisted from its initial phase in promoting the demand for a new school of architecture for this city, but also because we have always sought continuing and productive cooperation with the new school for the purpose of improving the quality of the environment in Crete from a sustainable ecological perspective that could permeate all aspects of technology and design. At the Centre for Mediterranean Architecture, we are as open and prepared as ever to help in the right direction as we follow the development of the new school with great interest.

It's now, dear friends, high time that the Polytechnic of Crete confronted all the essential issues naturally encountered in the course of establishing and operating a new school. It's essential that this new school acquire its dynamism by associating itself not only with other schools in Greece, but with other schools of architecture in Europe and the rest of the world. We believe that through the experience gained from your systematic debates at such meetings in Hania, the new school will define its identity, find its niche in the extended architectural family and contribute substantially to overall development. Finally, I would like to welcome you all to Hania and wish you a productive and fruitful meeting as well as a pleasant stay. Thank you very much.

Constantin Spiridonidis

Aristotle University of Thessaloniki, Greece, EAAE/ENHSA Project Coordinator

Honorable Mayor of the City of Hania, Vice-Rector of the Polytechnic of Crete,

Distinguished citizens, dear colleagues and friends,

It seems difficult to innovatively welcome you for the sixth time to this magnificent city as I stand here overwhelmed with feelings, touched by your presence and considering the tremendous effort after so many years of organizing this event. It's moving to consider all the positive contribution on your part toward the debates that we have organised and developed in this city.

Dimitris Antonakakis mentioned that this meeting has a past or history, which means that it has grown and gradually matured. In the process, we have become more effective at exchanging and communicating through our debates in the framework of such meetings. It's worth mentioning that at this event, 110 participants from all European countries will contribute their ideas, views and aspects as well as make their proposals regarding architectural education. In addition, 85 different schools of architecture are represented in this event. This is the highest number of participants and schools that we've ever had gathered here and, certainly, a sign that this collaboration is well established and that it will have a very interesting future. This event has put the City of Hania on the map as the city of architectural education; therefore, I find it extremely fitting that a new school of architecture is soon to be "born" in this city. I'm sure that all of us are expecting this new "child" of architectural institutions to be running in the very near future.

I wish to take this opportunity to welcome you again and thank the city of Hania for their generous hospitality, particularly the Centre for Mediterranean Architecture, which is our host and co-organiser, collaborating and supporting us in numerous ways, not only intellectually and emotionally, but financially as well. Of course, I would like to thank all the staff of the Centre for the untiring collaboration, support and assistance they offered throughout the organisation of this event. Finally, I wish you all a pleasant stay and a fruitful meeting.

Kyriakos Virvidakis

The Mayor of the City of Hania, Greece

Distinguished guests, Mr. Chairman, Deans of the various schools of Europe, Members of this Conference,

I welcome you all to our city and wish you a pleasant stay. I would also like to extend a special welcome to tonight's guest speaker, the distinguished Prof. John Habraken.

The purpose of this meeting, which is to coordinate architectural education in the various schools of Europe, is indeed a very important and complex matter. Therefore,

I would like to wish you the very best. Last, but not least, I know that our city council along with the CMA have been very instrumental towards the development of an architectural school in Hania. Tonight, as Mayor of this City, I would like to thank all concerned for their efforts. Moreover, I'm very pleased to announce that Hania will have a school of architecture in the fall of 2004. I hope both as Mayor and Assistant Professor of Medicine that the Polytechnic School of Hania will soon also have a school of biomedical technology. This has been requested for many years and I sincerely hope that by the time this meeting confers in two years' time, this particular request will have been granted. Nevertheless, I'm certain that we can count on your assistance to ensure that our new architectural school will become a great one.

Once again, I welcome you and may you have an interesting and productive meeting.

I regret to say that I will not be able to attend the rest of tonight's programme since there is a city council meeting now in session that I'm expected to attend. Thank you.

Prof. Joakim Grispoulakis

The Vice - Rector of the Technical University of Crete

As rector of the Technical University of Crete, I would like to welcome you to Hania. This year marks a special occasion for us since our Technical University, after almost seventeen years of continuous effort has finally acquired its own school of architecture as well as a school of fine arts. As you can appreciate, this has been a long-standing dream. In fact, I remember sharing with you over the years our dreams and aspirations at your conferences. Now, we can finally say that this dream is a reality! The main target of the

school of architecture, which will hopefully be opening its door by the fall of 2004, is the restoration of buildings. We feel that the City of Hania and the entire region are worthy of this orientation. Also, with reference to what the Mayor mentioned earlier regarding a school of biomedical technology within the Polytechnic of Hania, it is our hope that our efforts in this direction will soon be rewarded, so that within the next few years, one more dream will be actualized.

Finally, I would like to welcome you once again to our city and wish you a creative and constructive workshop.

Prof. Herman Neuckermans

Catholic University of Leuven, Belgium

President of the European Association for Architectural Education (EAAE)

Good evening! It's my pleasure to welcome you all to our meeting. I would like to extend a special welcome to the Mayor and Rector of the Technical University of Hania.

As you all probably know, this is not the first time we are gathered here. These meetings have been held for many years, originally starting as an EAAE event and for the last two years they have been sponsored by the European Union in the framework of ENHSA, a Socrates Thematic Network. I know that there are more participants here than the members we have in the EAAE, so I would like to invite and encourage those who are interested in getting to know us better, in terms of who and what we are and how we proceed, to attend our General Assembly on Friday morning to be held at 9:45, here. In brief, the EAAE is a non-profit organization founded in 1975 in Belgium and is committed to promoting quality education and research in architecture.

I would certainly like to thank all the officials who with their presence were willing to honour our meeting as well as extend a special thanks to Dimitris Antonakakis for his intellectual as well as physical help in hosting us here.

I wish you all a good stay and may you enjoy the conference!

Prof. Zoe Karamanou

Head of School of Architecture, Aristotle University of Thessaloniki, Greece

All the Meetings of Heads of European Schools of Architecture have always been held under the auspices of the School of Architecture, Aristotle University of Thessaloniki. Our School supports this organisation and regularly participates not only through its President and Vice-President, but through the distinguished members that have contributed to the foundation and continuation of this academic event. These include the Curriculum Coordinator of our School, along with the members very actively involved in the coordination of the Socrates Thematic Network on Architectural Education as well as in the administration of the European Association for Architectural Education. Furthermore, the Centre for Mediterranean Architecture, the Arts Director and Mayor of Hania have

all contributed to providing us with the venue. I think that it is indeed fortunate that this event takes place in Hania, with a great deal of interest, especially at this time with the announcement of the founding of a new school of architecture.

As President of the School of Architecture, Aristotle University of Thessaloniki, I have a vested interest in the successful outcome of this meeting and wish to assure you of our continuing support and assistance in all future endeavors. Thank you.

Keynote Speech by **John Habraken, MIT Emeritus Professor**

Presentation of the honorary guest by Maria Voyatzaki

We are delighted to host Prof. John Habraken, our keynote speaker.

John Habraken is a Dutch Architect, Emeritus Professor of the Massachusetts Institute of Technology (MIT) and, for a number of years, the Dean of his school.

He strongly believes in consistency and continuity. Moreover, he claims that behind architecture and urban design lie the fundamental values of the nature of the built environment – values that signify human behaviour and the ways in which they influence the articulation of space. The urban grain has always been for Habraken the main objective of his research, methods and teaching, orienting the development of this grain, its elaboration and logic of its continuity. The common for Habraken is the base whereby the special emerges. Furthermore, he has sustained the view that design should be seen not from the perspective of the designer, but the designed. For him, building is a social activity, a common effort that transforms the built form to an artifact.

Questions that will not Go Away: Some Remarks on Long-Term Trends in Architecture and their Impact on Architectural Education

N. John HABRAKEN

Emeritus Professor of Massachusetts Institute of Technology



Introduction

Dear Colleagues, the agenda of this conference will no doubt subject you to administrative and organizational topics. These have become only more important now that European higher education must be unified by a radical change of degree structures. I am quite prepared to share with you my experience of more than two decades with the uses of the bachelor / Masters model in the United States if that can contribute to your discussions.

But this evening, I want to raise a more philosophical question. What fundamental images and ambitions have guided us in the past and may guide us in the future? I want to particularly call attention to the way we explain ourselves to ourselves and to those we work with. This question may not seem practical but, ultimately, our self-image determines the way we design: our buildings reflect how we see ourselves. To let you know right from the beginning what I am aiming at, my talk can be summarized as follows: we come from a tradition of monument builders, but today we are almost entirely immersed in design for everyday environments. Where we come from is very different from what we do now. The way we see ourselves is a product of the past and is becoming increasingly counter productive.

The emergence of the Architect

In the past, the architect's job was about special buildings: the palace, the castle, the mansion for the rich and, above all, the place of worship: the temple, the church, and the mosque. You may add a few categories to this list, but it remains exclusive. Consequently, everyday environment was never considered architecture. For thousands of years it

came about through a process so deeply rooted in social patterns and material skills that it was taken for granted, much like we take our breathing for granted. We still make that distinction. When we travel to see architecture, we walk through the streets and squares of a foreign town towards our destination: then we stop and look.

At the same time we know everyday environments can be amazingly rich and beautiful. Think of Venice, Cairo, Damascus, Kyoto, old Beijing and Pompeii, and so many others. As long as human shelter was produced environments of high quality have come about. Master builders are known to have contributed to their beauty, but the concept of the architect we identify with is rather recent. It is the product of the Renaissance. Alberti first formulated the new professional role that emerged in those days:

Him I consider the architect, who by sure and wonderful reason and method, knows both how to devise through his own mind and energy, and to realize by construction, whatever can be most beautifully fitted out for the noble needs of man.¹

For Alberti, the subject is not architecture, but the architect. In this passage and many others, he defines a new kind of person, one who knows how to design. This new professional wanted to be free from everyday environment and its traditions, constraints, and limitations. From now on, focus was on innovations and a new way of building. The common urban or rural fabric was not what Alberti had in mind. For instance, he explicitly recommended to build outside the city in free space unencumbered by adjoining buildings. In that sense too, he preceded Modernism.

The new language of architecture resulting from that emancipation, spread across the Western hemisphere independent of whatever traditional environments were already there. The rural villages in the Russian plains, for instance, had their onion domed churches, but outside stood the Palladian villa of the land owner. In the New England villages on the American continent, that villa was transformed into a court house or a town



¹ Leon Battista Alberti, *On the Art of Building, in Ten Books*, translated by Joseph Rykwert, Neil Leach, Robert Tavernor, The MIT Press, Cambridge, MA, and London, 6th printing 1996.



hall. In those days, already, architects formed a brotherhood that transcended national boundaries, making architecture in what we now call the network mode. Architectural history is the story of what they did.

The co-existence of architecture and everyday environment has yet to be studied in detail. No doubt there was interaction, interdependency, and mutual borrowing, but for all we know it was a happy co-existence. Architecture as an international culture, found its place in the common fabric which took care of itself, had always been there, and was what those who made architecture could depend on.



Everyday environment becomes a problem

In Modern times, all this changed. Traditional ways of building became obsolete as new materials and new techniques emerged. Age old building typologies could no longer serve the needs of a rapidly changing society. New ways of transportation and communication disturbed familiar local processes. For the first time in human history, everyday environment was not to be taken for granted. It became a problem to be solved. Responding to that challenge, architects assumed invention and design would provide the answer.

The Modernist architect set out to deal with this new task with great ambition and the best of intentions. Indeed, Modernist architecture as we know it, was thoroughly occupied with the idea of a new everyday environment. Think of the many architectural Icons we still admire: Rietveld's Schröder house, the laboratory for much what still is part of our architectural sensibility, was the modest residence of an elderly lady

pursuing a Spartan lifestyle. The famous Weissenhofsiedlung in Stuttgart which brought together the most avant garde architects of the time was all about residential buildings. Ludwig Mies von der Rohe's vision of office towers with undulating glass facades was a proposal for a place of work. Duiker's pristine concrete and glass sanatorium was built for working class people and paid for by the socialist party. Walter Gropius' Bauhaus was intended to be an example of what daily working environment could be. Le Corbusier's radical plan Voisin was a proposal for a new everyday environment. His Unité d'Habitation, supposed to stand free, like a Palladian villa, on a well manicured lawn, was only a next stage in his pursuit of that elusive vision. The most elaborate vision of all was Tony Garnier's proposal for a 'Cité Industrielle', by which he set out to convince himself, his peers, and his clients, that in the machine age everyday environment could be humane and pleasant if designed properly. The architectural preoccupation with a new everyday environment was not always benign. European mass housing schemes as built before and after the Second World War were also considered experiments in a new architecture and urbanism. Still today, many millions of people live in the relentlessly uniform apartment buildings that came to cover urban fields from the Atlantic all the way into the far plains of Russia.



Contradictions

All these examples – the famous Modernist icons and the infamous housing blocks – were done by architects who shared the belief that making good architecture, as they understood it, was not in conflict with everyday environment.

But if we examine the properties peculiar to everyday environment and compare them with what architects actually did, we find important contradictions. Most obviously, there is the simple fact that one cannot claim at the same time that the entire built environment is to be architecture and that architecture is special and different. How can everything be special? This question by itself should give us pause to ask what we actually are doing. Already in the seventies of last century, Lawrence Anderson, Dean of the school of architecture at MIT, summed up the dilemma for me

when I heard him sigh: "Too bad nobody wants to do a background building".

Sharing Values

What is common cannot be special, but it can be of high quality. Famous urban environments from the past teach us it is quite possible that an entire environment is beautiful, functions well, and is well executed. That kind of quality first of all requires that those who work in the same location share values to a significant extent. Alas, such a sharing is not part of our tradition. As already pointed out, the Neo Classicists did not heed local custom. Driven by their own vision, Modernist architects as well aspired to an international style among themselves independent of local thematics. But all that is history. Post Modernism liberated us from professional conformity as well. As a result, because everybody wants to be different from everyone else, we just want no comparison at all. Nevertheless, today as in the past, sharing of qualities in a same locality, is what makes a good environment.



Change and Transformation

Another issue where our architectural instincts are at loggerheads with the common environment has to do with change over time. In our tradition, time is the enemy and must be held at bay. Good architecture, we instinctively believe, is the stone in the midst of running water. The common environment, however, is the running water and change by way of adaptation over time is essential for its continued existence.

Change goes hand in hand with permanence. Houses may come and go, for instance, but the street remains. The balance between what will change and what will remain long term is becoming increasingly important when projects become larger and larger. A housing project of several hundred uniform units cannot just stay rigid when time goes by, but must adapt to life's variety. A sky scraper in which a few thousand people work is not a building but a vertical environment the size of a classical Greek town. Nevertheless, we tend to treat it as just another big building. The large project is with us to stay, but it must become increasingly fine grained and adaptable. Practice already moves in that direction. Today's commercial office building offers

tenants empty floor space to be fitted out by specialized fit-out teams according to a design done by an architect of the tenant's choice. In the shopping mall too, retail space is left empty for the retailer to take care of. A world wide 'Open Building' network of researchers and architects promotes a similar adaptability in residential buildings. And in a few countries like Japan, Finland and the Netherlands, governments support research in flexible building. In spite of this reality, so far, architects do not see small scale adaptability as an invitation for a new kind of architecture. On the contrary, we regard such trends as encroachments on our autonomy. Here again we find a conflict between our traditional instincts and the real world we must operate in.

Distribution of Design Responsibility

The issue of change is closely related to matters of design responsibility. The old masters of Modernity, Gropius, Le Corbusier, Mies van der Rohe and Frank Lloyd Wright designed their buildings down to the furniture in it. We still feel the ideal commission is one that allows us to do the chair as well as the urban context. In practice, of course, such full vertical design is seldom possible. To be sure, there is nothing wrong with someone who can design a building as well as a chair or a neighbourhood. The issue here is not design ability, but design control. For everyday environment to be alive and healthy, such control must be dispersed, allowing different parties taking care of things on different levels in the environmental hierarchy.

Distribution of design control is not only related to change and adaptability. For today's complex projects, partial tasks must be distributed among members of design teams. This also involves many consultants on building structure, utility systems, lighting and acoustics and so on, who, of course, are heavily involved in design decisions as well. Parallel to that, architectural design has become more and more a matter of composition of hardware systems available on the market. Kitchen systems, bathroom equipment, curtain wall systems, or systems for windows or doors of different sizes and shapes, have also been designed. Industrial designers invent the kit of parts with which we play and as such have an increasing impact on environmental quality. Here too, we can speak of distribution of design control.





As we work we therefore are part of numerous and disparate networks of skills and knowledge and what is built is placed in an intricate environmental fabric as well, tied to networks of utility systems, using products and materials shared with many other projects, and adhering to values prevalent in local or extraneous cultures. The very idea of "architecture" as a self contained and single centered act does not apply to work in everyday environment. In reality, as architects, we operate in a continuum of design where we do our bit.

Reality and ideology

In the mismatch between ideology and environmental reality, the former inevitably must give way. It is often said that the architect's role is diminishing and his influence is gradually diluted. From the point of view of our outdated self image that may seem so. In reality architects have not been marginalized at all. In the new distributed way of operation, increasingly aware of local contextual issues in often rapidly changing environments, architects are fully immersed in everyday environment. They are involved in almost every aspect of environmental form. Their numbers are steadily increasing.

Architectural firms of course manage to live with the conflict between ideology and reality. They could not be in business otherwise. But while they do, they often are apologetic for compromising the ideals learned in their student days and often repeated in professional discussions and by critics of architecture. Caught in the tension between self image and reality, they lack an intellectual support system that only schools can provide.

As educators, we suffer from the same dichotomy. The role model which hampers the practitioner in the field, shapes our teaching and thereby separates us from the real world, making it less and less inspiring.

How to come to grips with the new reality? The necessary adaptation will be slow, difficult, and painful. Allow me to conclude with a few broad remarks about that uncertain task ahead of us. They are quiet personal, based on my own experience.

Creativity

First, a disclaimer. In the traditional role model it is

axiomatic that the creative impulse is suffocated by everyday environment's constraints.

But truly creative talent is stimulated by constraints. What else makes creativity important? There is no reason to assume that design for everyday environment is less demanding than what our forebears did. On the contrary, sharing values, designing for change and permanence, and coordinating distributed design responsibilities, demands not only great sophistication in designing but also promises an architecture that will be more lively and dynamic and complex than has been seen in the past. It will be an architecture in which the permanent is truly structural and meaningful and the short-lived full of energy and surprises; where form is thematic in unending variation and renewal, and where the act of designing is significant and respected on all levels of intervention. This new architecture demands both invention and talent to come into its own.

Nevertheless, creativity cannot define a profession. Creative people are found in all walks of life. They shape medicine, law, science and engineering. It is not enough to call a ourselves a creative profession and claim privilege for it. Donald Schön, in his reflections on the practitioner's role in society, has pointed out that the skilled and knowledgeable professional must possess what he calls "an artistry" to be a good practitioner. That goes not only for architects, but also for engineers, lawyers, and medical doctors. But a profession's identity is defined in terms of knowledge and skills. It will be asked: What is it your profession knows that others do not? Do you have the skills and methods to apply that knowledge successfully?

Skills and Method

The new skills we need all have to do with cooperation. Sharing environmental qualities makes us listen to others. Change must honour what was done earlier by others and permanence must offer space for who will come later. Distribution of design control calls for ways to parse design tasks so that they support one another.

The tool of cooperation is method, it comes to the fore wherever we seek to work together. Method is no more or less than a generally accepted way of working. A good method allows each of us to do our own with a minimum of fuss. But method does not dictate results. It facilitates interaction between designers, leaving judgment to the individual, allowing her to experiment and explore. Indeed, in architectural design as in music, method allows coordination, but thereby also stimulates improvisation. In music, we play together because we accept methods of scales and tonalities and harmony. Given an accepted theme, each can improvise as part of a larger whole. The skills that come from using method creatively we may call 'thematic skills'.

In architecture such skills include, for instance, making variations on an accepted typology, or using agreed upon patterns, or setting up a system of parts and relations for the creation of different forms in the same style. All this helps to share values. In terms of change too, the abilities to explore variations allows us to anticipate possible changes in programs, or in context, without abandoning form principles already set into play. In terms of distribution of design control, thematic development of possible lower level variations helps us to assess the capacity of the higher level form we are working at. Just as we assess the capacity of a room to hold different uses by imagining how it might be fitted out as a bedroom, or a study, or a play room.



New teaching formats

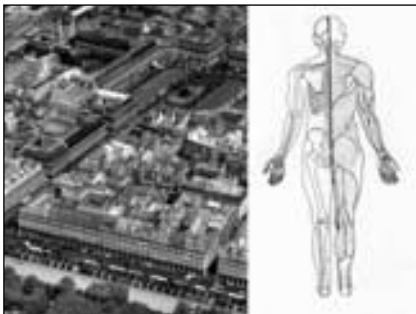
If you try to organize your design teaching that way, you will find the traditional studio format does not help. Learning a skill demands exercise, and exercise demands failure and time to try again. The jury invited to a design studio does not ask what the student learned, but only looks at what is produced at the end. The studio format is the sacred cow of architectural education. I hesitate to question it and do not argue its demise. But in studio it is impossible to exercise distribution of design responsibility, or to deal with the sharing of values and qualities among designers, or to handle issues of change. Studio can no longer be the only format for teaching design. Other ways must be invented.

Research and Knowledge

Finally, we need to teach knowledge about everyday environment. How it is structured, what we can learn from historic and contemporary evidence, how different examples compare, how it behaves over time and responds to change of inhabitation or other circumstances. Teaching architectural design without teaching how everyday environment works is like teaching medical students the art of healing without telling them how the human body functions. You would not trust a medical doctor who does not know the human body. Knowledge of everyday environment must legitimize our profession.

Recently, schools of architecture promote research, if only to establish their academic credentials. But we do not have a clear research agenda of our own. Architectural research is mostly attached to other fields, like building technology, management and economics, or the social sciences, to all of which we add a certain architectural perspective.

In contrast, the three questions about everyday environment I have mentioned earlier - how values are shared in environmental design, how change and permanence make environment live, and how the distribution of design responsibilities can make it bloom - are questions architects are best equipped to investigate because it has to do with the making of form and with the ways in which it is done. In other words, only by a return into everyday environment can our profession establish a research agenda of its own.



I already have spoken to long. Yet, my exposition remains rough and incomplete, for which I apologize. But I have spoken with a sense of urgency. We have been in a state of denial for too long as a result of which we suffer a lack of direction and confidence. To restore our self-worth we must say out loud what we have suspected for some time: that we are part of everyday environment and depend on it, and that the everyday environment shapes us before we can help shape it,.....and that we must find ways to contribute to it to the best of our abilities.

Opening of the Sixth Meeting of Heads of European Schools of Architecture

The Concept and the Objectives of the 6th Meeting of Heads of European Schools of Architecture

Constantin SPIRIDONIDIS

Aristotle University of Thessaloniki, Greece, EAAE/ENHSA Project Coordinator

First of all, I would like to welcome all new arrivals and those who were not present in our opening session to the sixth Meeting of Heads of European Schools of Architecture. I would like, at this point, to make a short, informal introduction, firstly, in order to explain to those attending our meeting for the first time the way we function and, secondly, to remind those who participated in the last meeting of the framework that we decided upon for the proceedings of this meeting.

As you probably remember or as newcomers already know, last year, we introduced a different structural framework for the programme of this meeting. To begin with, four working groups were formed in order to elaborate themes, issues, questions and generate information for the purpose of bringing this pool of knowledge to this meeting for debate. The idea behind this structure is that although during our meetings so far we have discussed more or less the same issues, the type of discussion revolved around personal experiences and subjective considerations, which is all of tremendous value and useful, of course. After all, each of us is interested in finding out what other schools do and how other institutions operate or orient themselves toward architectural education. However, what seemed to be lacking was more precise or systematic information on the structure, organization and profile of the schools of architecture that participate in this event. On the other hand, we consider that the European Association for Architectural Education, as an association, has the obligation to offer and provide such data to its members in order to use it as a basis for debate and to construct proposals, ideas and views on the future of architectural education in Europe. Therefore, the idea of the group work was to provide the necessary information and knowledge on the subject.

The four groups met in Antwerp for two days in the framework of a meeting set up specifically for the working groups. As a first step, they had a debate and discussion between the members, followed by their preparing some questionnaires which would be distributed to the schools of architecture in order to collect the necessary data they considered useful for today's discussion. During the following session, the task groups will present not only data, but the climate and framework which we expect will provide new "departures" for the debates / discussions and workshops following the introductory sessions.

I would now like to make a presentation, which is not intended to be thoroughly systematic, on some of the results from the elaboration of the data collected. First of all, I wish to thank all the schools of architecture who contributed by answering and returning the questionnaires. We had a slight problem of timing, but this was anticipated considering the nature of the task and the lack of experience in coordinating large groups from different countries and capacities. Since we initially estimated that by the end of June we would have all the questionnaires available for processing, we made contracts with the statisticians that would process the data for the period of July to mid-August. Unfortunately, however,

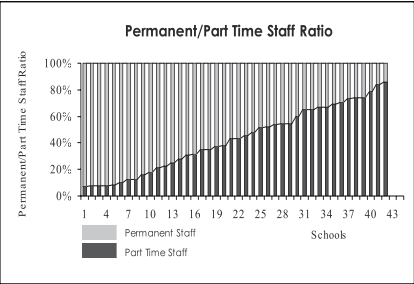


Table 3

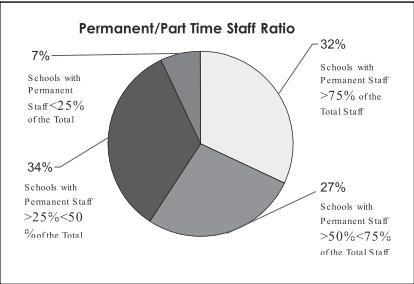


Table 4

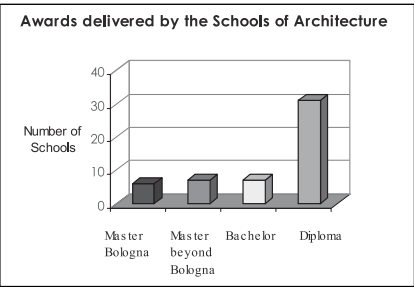


Table 5

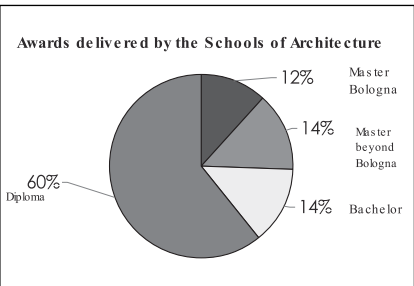


Table 6

in approximately 63% of European Schools of Architecture to fall into the class interval of 5 to 10 students per staff member. Despite the fact that the categorization is somewhat arbitrary, it is in accordance with the rules of statistical calculation in defining the groupings.

Another interesting characteristic, in terms of school population, is the relation between **permanent** and **part-time staff** in various architectural schools. In this case, we see in the tables 3 and 4 that in some schools there is a very small percentage of part-time staff in contrast to other schools that have approximately 80% permanent staff, where we would expect to see different structure, organization and educational strategy. Further analysis of this data could point to the fact that such schools are more professionally or academically oriented, perhaps, although it is impossible to draw valid conclusions at this stage without cross tabulations. Moreover, 32% of the schools reported having less than 75% permanent staff, while in 27% of the cases, their permanent staff ranged from 50% to 75%. There is no notable discrepancy in typology, which in fact is quite even. Surely the classification could have been shown differently, but this is merely to present a general idea of the distribution.

Another interesting finding concerned the type of **diplomas** and **awards** the various schools of architecture offer, represented in tables 5 and 6. From the 49 schools that sent in their responses to our inquiry in time for data collection, only the 4 (12%) had been introduced to the Bologna system. The 14% of schools reported having a Master's degree, but this award had previously existed within their institutions before the Bologna scheme. Therefore, the name is used merely to define the award. Five schools reported having a Bachelor's degree as the final award leading to professional recognition, for example, the Irish schools, whereas others offer post-graduate diplomas in engineering and architecture. Generally speaking, the results show that a large number of schools in Europe grant diplomas after five years with some offering intermediate awards. Also, about 12% of schools have adopted the Bologna award scheme while all others adhere to the previous system. Concerning the question of future intention represented in tables 7 and 8, the schools that claimed to be under the

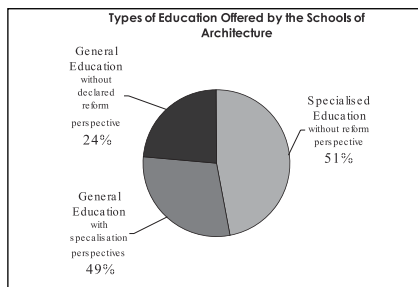


Table 12

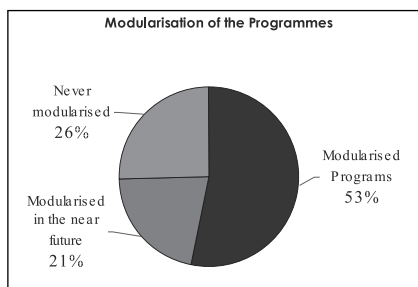


Table 13

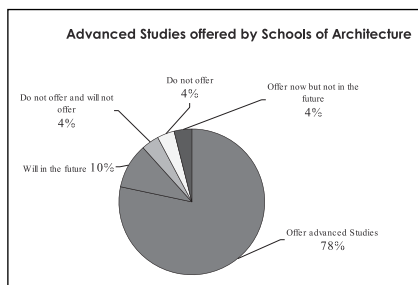


Table 14

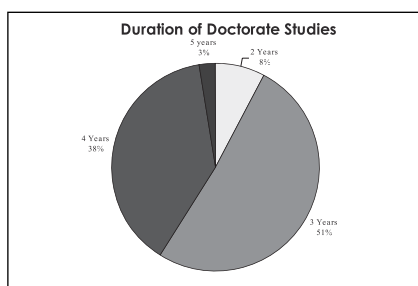


Table 15

In terms of **type of education** offered by the schools under the categories of specialisations and general diplomas, the data in table 12 shows that 51% provide specialised education of all types. Certainly, there are more categories in this section and further elaboration could provide more detailed information. However, what is worth noting is that there is a tendency, nowadays, for those schools not offering specialised education to switch to a more specialised orientation. In contrast, 24% stated that they would keep the general diploma programmes already on offer. Table 13 presents the **modularisation** in schools of architecture. As you can see, there is an extremely strong tendency for modular curriculum. In fact, 53% of the schools are already modularized, while 21% plan to do so in the near future. Finally, 26% asserted that they had no intention of switching to modular schemes.

From the tables 14 and 15 we can note that a considerable number of schools (78%) offer advanced architectural studies with the doctorate (PhD) requiring on average three to four years.

On the question of **mobility**, the data in tables 16, 17 and 18 represents the ranking of schools according to outgoing students. An interesting finding, in my opinion, is that 31% of the schools send fewer than 2% of their student populations on exchange programmes. This means that for every 100 students, fewer than 2 participate in exchange courses, which is actually a very low mobility rate. As for approximately half or 49% of the schools, the number of students involved in exchange programmes is between 2 and 5 out of every 100 students. On the whole, in 80% of the schools, less than 5% participate in exchange. Consequently, on the basis of the above figures, the mobility factor does not seem to be a high-priority issue as far as our present discussion is concerned. In comparing the histograms of incoming and outgoing students in tables 19 and 20, we can detect an obvious difference, suggesting to some extent that some schools appear to have a more appealing programme or policy, although this is open to further interpretation.

Many institutions demand supplementary work from students on returning from an exchange course as we can detect from the table 22. I wonder if there is any basis for interpreting this as an indication of lack of trust or confidence.

Introduction

Teaching Hours and Credits Distribution	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year		7th Year	
	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits
Subject Areas³														
A. Basic Background Subjects														
1. History and Theory (including art, architecture, urban and engineering history and theory)	45	4,5	105	10,5	45	4,5	90	9						
2. Supporting and Social sciences (psychology, sociology, anthropology, languages etc.)					45	4,5								
3. Basic Sciences (mathematics, geometry, physics, chemistry, computer sciences)	360	36												
B. Building Construction and Process														
4. Building Construction, Physics and Science (including materials and their qualities)	45	4,5	150	15	150	15	135	13,5	60	6				
5. Building Services (environmental design, heating, cooling, electric, acoustic)			30	3	45	4,5	45	4,5	60	6				
6. Construction Economics, Management and Law (professional practice, including ethics, costing etc.)									30	3				
C. Understanding of the surroundings														
7. Study of the urban and surrounding environment (including town and housing planning, landscape, environment and ecology)			120	12	120	12	120	12						
8. Topography, surveying and recording (skills)														
D. Project Preparation and Design														
9. Presentation techniques (drawing, modeling, Computer Aided Design)	120	12	90	9					30	3				
10. Architectural Design (studio work including urban design, planning and structure projects)	180	18	180	18	180	18	180	18	210	21				
E. Complementary Studies														
11. Conservation and historical buildings														
12. Interior Design														
13. Research and written dissertation														
14. Fine arts														
15. Optional courses (a wide range of subjects that may involve in depth study of any subject areas within the curriculum, subjects from other departments or practice experience)			75	7,5	165	16,5	180	18	360	36				
15. Research														
16. Other subject areas														
17.														
TOTAL	750	75	750	75	750	75	750	75	750	75	0	0	0	0

Total Hours	Total Credits
-------------	---------------

285	28,5
45	4,5
360	36
540	54
180	18
30	3
360	36
0	0
240	24
930	93
0	0
0	0
0	0
0	0
780	78
0	0
0	0
0	0

3750	375
-------------	------------

Table 24

Teaching Hours and Credits Distribution	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year		7th Year	
	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits	Hours	Credits
Subject Areas¹														
A. Basic Background Subjects														
1. History and Theory (including art, architecture, urban and engineering history and theory)	109	8	88	6	120	9	92	8						
2. Supporting and Social sciences (psychology, sociology, anthropology, languages etc.)	66	5	80	5	80	5								
3. Basic Sciences (mathematics, geometry, physics, chemistry, computer sciences)														
B. Building Construction and Process														
4. Building Construction, Physics and Science (including materials and their qualities)	121	9	100	8	110	10	90	9						
5. Building Services (environmental design, heating, cooling, electric, acoustic)														
6. Construction Economics, Management and Law (professional practice, including ethics, costing etc.)										70				
C. Understanding of the surroundings														
7. Study of the urban and surrounding environment (including town and housing planning, landscape, environment and ecology)			100	7	90	6	111	10						
8. Topography, surveying and recording (skills)														
D. Project Preparation and Design														
9. Presentation techniques (drawing, modeling, Computer Aided Design)	185	13	166	10	90	6								
10. Architectural Design (studio work including urban design, planning and structure projects)	200	16	200	16	240	20	240	26	250	30				
E. Complementary Studies														
11. Conservation and historical buildings														
12. Interior Design														
13. Research and written dissertation-mini thesis							70	8	250	30				
14. Fine arts	88	9	90	8	70	4								
15. Optional courses (a wide range of subjects that may involve in depth study of any subject areas within the curriculum, subjects from other departments or practice experience)							60	7						
15. Research														
16. Other subject areas											560			
17. Compulsory training....														
TOTAL	769	60	824	60	800	60	663	68	500	60	630	0	0	0

Total Hours	Total Credits
-------------	---------------

409	31
226	15
0	0
421	36
0	0
70	0
301	23
0	0
441	29
1130	108
0	0
0	0
320	38
248	21
60	7
0	0
560	0
0	0

4186	308
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Table 25

and credits given, thus showing a clear relationship between teaching hours and credits. This piece of data can be highly relevant to our discussion on credits as well as being a valuable reference when comparing and contrasting curriculum in various educational settings. In this particular school, the 1st year programme is based on Theory, Basic Sciences, Building/Construction, Design and Representation Techniques whereas totally different conditions can be seen in another school presented in the table 25. This is quite evident from the responses given in the questionnaire regarding number of teaching hours, which in this case is approximately 4,200, however, the distribution is not always the same. Also, in the school previously mentioned, we can see that the course of Basic Sciences is not included in the curriculum. Please note that a complete and detailed analysis of the survey was not possible since, according to the statisticians it would have required information from all the schools concerned in order to make cross tabulations.

Finally, I wish to refer to the distribution of **subject areas** of 6 different schools of architecture randomly selected from the 30 schools participating in the inquiry. In the case of *Architectural Design*, we can see how different the percentage is in each of them. On the other hand, *Construction* teaching seems to be more evenly distributed as opposed to *History* and *Theory*, which is not the case in some of the other schools.

In conclusion, by comparing this data in a more systematic manner we will be able to identify and classify schools of similar characteristics. Furthermore, by adding information from the remaining schools, this data bank can collectively be a valuable and reliable source of reference for our discussions and debates as well as being a guideline for the future planning of curricula for our schools. To sum up, the purpose of this presentation was simply to demonstrate the findings collected over the summer in a general and informal manner. Undoubtedly, we will have the opportunity to return to this data at various intervals during the course of our subsequent discussion.

Chapter 1

Shaping the Curriculum in the European Higher Architectural Education Area

From the 2002 Hania Meeting it became apparent that there is significant divergence as far as the priorities of school curricula, the study systems and the diplomas awarded are concerned.

It was agreed that a common basis has to be established on which the European profile of each School will be shaped. It was also suggested that the particularities and special features of every school curriculum have to be protected and preserved.

For this reason it became evident that there is a need for: generating a more systematic knowledgebase of the state of the art of architectural education, in relation to the different types of architectural undergraduate and postgraduate studies in Europe; identifying the typologies of diplomas in architecture awarded by various institutions and their characteristics; finding out the directions adopted by schools of architecture that have recently restructured their curricula, and their priorities; articulating the intentions of the schools that have not altered their curricula; examining the possibility for constructive grouping of schools on the basis of their similarities or differences.

Introduction to the Session

Panel

Kees Doevendans, Eindhoven, Netherlands

Johan Verbeke, Brussels-Ghent, Belgium

Stephane Hanrot, Marseille, France

Roger Liberloo, Diepenbeek, Belgium

Loughlin Kealy, Dublin, Ireland

Chair

James Horan, Dublin, Ireland

Discussion Group 1

Coordination by

Dimitri Kotsakis, Thessaloniki, Greece

Loughlin Kealy, Dublin, Ireland

Liviu Ianas, Bucharest, Romania

Discussion Group 2

Coordination by

Kees Doevendans, Eindhoven, Netherlands

Joan Verbeke, Brussels, Belgium

François Tran, Lyon, France

Ready to Start a 21st Century of Architectural Higher Education

Kees DOEVENDANS & Johanna E.M.H. van BRONSWIJK

Department of Architecture, Building and Planning, Technische Universiteit Eindhoven, Eindhoven, the Netherlands, August 2003

Introduction

At the Antwerp meeting of the European Network of Heads of Schools of Architecture (ENHSA, March 2003) the need was felt to get a European-wide insight in the current situation of Architectural Higher Education, especially in relation to the Bologna process and the emerging Knowledge-Based Society.

It was decided that each ENHSA Task Force would question the schools as to both the current situation and expected future trends. Each school received one package of questionnaires. In total 130 packages were sent and 52 were returned (40%). In 51 cases had the Curriculum Questionnaire be completed (39%). The returned questionnaires cover Northern, Western, Southern and Eastern Europe (Table 1). We are grateful that so many representatives of the Architectural Schools took part in this survey.

In this presentation we will summarise the results of the Curriculum Task Force. The management of the ENHSA made the subject ECTS (European Credit Transfer System) part of the inquiry of the Task Force on Mobility. However, it is the opinion of the working group on Curriculum that ECTS is also an essential means to design a curriculum, make it transparent, and make the workload of students the starting point for discussions on the content of curricula. The inquiry on the content of the curriculum that started in 2002 is not included in this presentation.

1. Size of the School

We distinguished six size categories, depending on the number of students attending the school:

- XS: less than 500 students
- S: 501 - 1000 students
- M: 1001 - 1500 students
- L: 1501 - 2000 students
- XL: 2001 - 2500 students
- XXL: more than 2500 students

The modus (most frequent class) is XS or less than 500 students in the school, and _ of the schools have less than 1,000 students, indicating the generally small size of architectural institutions for higher learning (Figure 1). One wonders if schools in the categories XS and S carry sufficient critical mass for a fruitful educational climate. Are they able to run a coherent research program? Is it possible for them to reach a multidisciplinary approach?

Table 1: The 52 schools taking part in the Curriculum Questionnaire of the European Network of Heads of School in Architecture

Country	School
Northern Europe	
Denmark (DK)	Aarhus, Copenhagen
Estonia (EE)	Tallin
Finland (FI)	Helsinki, Tampere
Lithuania (LT)	Kaunas
Norway (NO)	Oslo
Sweden (SE)	Göteborg, Trondheim
Western Europe	
Belgium (BE)	Brussels (Free University)*, Leuven, Limburg
France (FR)	Bordeaux, Clermont-Ferrand, Grenoble, Lyon, Nancy
Germany (DE)	Bochum, Karlsruhe, Regensburg
Ireland (IE)	Dublin IT, Dublin University College
Liechtenstein (LI)	Vaduz
Netherlands (NL)	Delft, Eindhoven
Switzerland (CH)	Lausanne, Zürich
United Kingdom (UK)	Belfast, Portsmouth
Southern Europe	
Greece (GR)	Athens, Thessaloniki
Italy (IT)	Genova, Torino 1, Torino 2
Portugal (PT)	Lisbon, Lusiada, Sedubal
Spain (ES)	Barcelona, Madrid, Valles
Turkey (TR)	METU Ankara, Gazi Ankara, Gazimagusa Cypres, Isparta, Istanbul Culture
Eastern Europe	
Hungary (HU)	Budapest*
Poland (PL)	Gliwice, Warsaw, Wroclaw
Romania (RO)	Bucharest
Russia (RU)	Irkutsk
Slovak Republic (SK)	Bratislava

* Empty questionnaire returned; no data in the retrieval

Figure 1: Size of Architectural Schools as measured from the number of students (n= 48)

XS = < 500 students;
 S = 501-1000 students;
 M = 1001-1500 students;
 L = 1501-2000 students;
 XL= 2001-2500 students;
 XXL= >2500 students

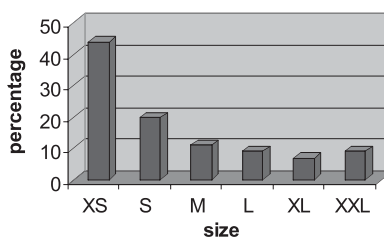


Figure 2: The Full-time / part-time staff ratio in 48 schools of architecture

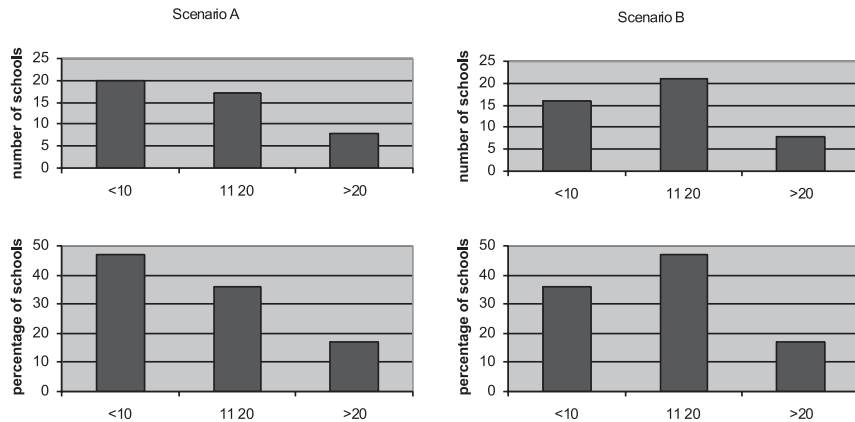
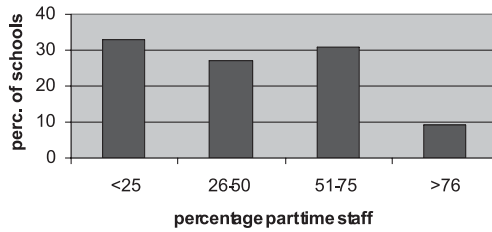


Figure 3: two different scenarios for calculating student-staff rates in 48 schools of architecture:

A: permanent staff = 1 full-time unit, part-time staff = 0.4 full-time units

B: permanent staff = 1 full-time unit, part-time staff = 0.2 full-time units

On the other hand: are schools in the categories XL and XXL able to run their education properly? Is mass education not a threat to quality in these schools?

2. Quality of Education

One of the main indicators for the quality of a school is the ratio between number of staff and number of students. From the study of Orbasli and Worthington we can learn, that 15 students per staff member is a benchmark for the 1st cycle of architectural higher education¹. If this ratio looks luxurious, we have to consider, that in Architecture commonly more staff is needed than in many other disciplines, because of studio and project work, and other intensive forms of teaching.

Unfortunately we are not well informed as to the current student-staff-ratios in the schools taking part in this survey. The questionnaires only gave information on the number of permanent (full-time) staff and part-time staff, not the size of the different positions. Four classes could be distinguished in the full-time/part-time ration: <25%, 26-50%, 51-75% and >75%. These classes show about the same frequency of distribution, with the exception of the >75% class (Figure 2). One school (Lausanne) has only part time-staff.

¹ Aylin Orbasli, John Worthington, *Architecture and Town Planning Education in The Netherlands: a European Comparison*, University of York, Institute of Advanced Architectural Studies, 1995, ISBN 0 904761 48 7, pp. 77 - 79

Table 2: Length of study program and final degrees in 50 schools taking part in the Curriculum Questionnaire of the European Network of Heads of School in Architecture

Country	Duration in years		Currently	Final Degree*	
	Currently	Future		Currently	Future
Northern Europe					
DK	5		MA in Architecture / Diploma in Architecture	Diploma in Architecture / Master of Architecture	
EE	5		Master of Architecture		
FI	7-9	7	MSc in Architecture / MSc in Landscape Architecture		
LT	6	6	MA of Architecture / MA of Land Management	MA of Architecture / MA of Land Management	
NO	5.5		Sivilarkitekt / Diploma in Architecture	Master in Architecture	
SE	5	5	Diploma in Architecture	Master of Architecture	
Western Europe					
BE	5	5	Burgerlijk Ingenieur Architect / Architect / Diploma in Architecture	MSc in Engineering: Architecture / Master of Architecture / Architect	
FR	6	5-6	Diploma in Architecture DPLG	Master in Architecture / Diploma in Architecture	
DE	4-5	5	Diplomingenieur / Diploma in Architecture	Master of Architecture / Master of Engineering	
IE	5	5	Bachelor of Architecture	Master of Architecture	
LI	5		MSc in Architecture		
NL	5		MSc in Architecture, Building (and Planning)	MSc in Architecture and Building	
CH	5.5-6	6	Diplôme d'Architecte EPFL / Diploma in Architecture	MA in Architecture / Master of Architecture EPFL	
UK	5-7	5	Bachelor of Architecture / Master of Architecture / MA / MSc	Master of Architecture	
Southern Europe					
GR	5		Diploma of Architect-Engineer		
IT	5	5	Laurea Specialistica in Architettura / Laurea in Architettura	Laurea Specialistica in Architettura del Paesaggio / Laurea Specialistica in Disegno Industriale / Laurea Specialista in Architettura	
PT	5-6		Diploma in Architecture / Mgr. Ing. Arch.		
ES	5-6		Diploma in Architecture / Architect		
TR	4 - 6	5-6	MA of Architecture / MA in History of Architecture / Diploma of Architecture / MSc in Building Sciences / Bachelor of Architecture / BA / Master of Architecture	Master of Architecture	
Eastern Europe					
PL	5	5-6	MSc of Engineering in Architecture	MSc of Engineering in Architecture	
RO	6	6	Diploma in Architecture	Master in Architecture	
RU	6	6	Diploma in Architecture	MA in Architecture	
SK	6		MSc / Master of Architecture		

* MA = Master of Arts; MSc = Master of Science

Table 3: Intermediate degrees and length of study program in 50 schools taking part in the Curriculum Questionnaire of the European Network of Heads of School in Architecture

Country	Duration in years		Currently		Intermediate Degree*	
	Currently	Future	Currently	Future	Currently	Future
Northern Europe						
DK	3	3	BA		BA	
EE	-	-	None		None	
FI	-	3-4	None		Intermediate Diploma	
LT	4	4	Bachelor of Architecture		Bachelor of Architecture	
NO	-	-	None		None	
SE	-	3	None		Bachelor of Architecture	
Western Europe						
BE	2	2-4	Candidate Architect / Candidate Engineer		Candidate Architect / Candidate Engineer / Candidate in Architecture	
FR	2 + 2	3	Diplôme 1er cycle + 2me cycle des études en Architecture		Bachelor	
DE	2	3-4	Var-Diplom		Diploma / Bachelor	
IE	3	3	BSc in Architectural Science		BSc in Architectural Science	
LI	3	3	Bachelor of Architecture		Bachelor of Architecture	
NL	3	3	BSc		BSc	
CH	2 + 2	2 + 2	1er & 2me Pré-Diplôme		1er & 2me Pré-Diplôme	
UK	3	3	BSc / BA (honours)		BSc / BA (honours)	
Southern Europe						
GR	-	-	None		None	
IT	3	3	Laureat in Architettura / Architect Junior		Laureat in Architettura / Architect Junior	
PT	-	?	None		Not mentioned	
ES	-	3-4	None		Bachelor	
TR	2	2	College Diploma		College Diploma	
Eastern Europe						
PL	3.5	3.5-4	Diploma-Engineer in Architecture		Diploma-Engineer in Architecture / BSc Engineering in Architecture	
RO	-	4	None		Diploma	
RU	-	?	None		Not mentioned	
SK	4	4	Bachelor of Architecture		Bachelor of Architecture	

* BA = Bachelor of Arts; BSc = Bachelor of Science

To get an approximation, we made assumptions for 2 scenarios to calculate student-staff-ratios.

A: part time staff = 0.2 full-time unit

B: part time staff = 0.4 full-time unit

Three categories of student-staff-ratio is distinguished:

< 10 students per staff member;

11 - 20 students per staff member;

> 20 students per staff member.

Depending on the scenario chosen most schools have 11-20 students / full-time staff unit, or less than 10 (Figure 3). However, the amount of students / staff is probably lower, since not all permanent staff will have a full-time position. We may conclude that at least 18% of the schools show an unfavourable student-staff ratio.

3. Duration of the Study Programme

At this moment the main group of schools have a curriculum duration of 5 years (22 schools). Another important group (13 schools) reported a duration of 6 years, a smaller group (4 schools) confer their final degree after 4 years. In addition 3 schools have a different duration: 5.5 years, 7 years, and even 7-9 years. (Table 2).

If we look at reported future patterns, there will be no important change, 5 years of higher education seems to settle as a standard, but we still have to discuss how to calculate architectural practice as part of the educational process. In a 5-year course there is hardly room for professional practice. It is questionable if practice should be part of the curriculum at all. This subject relates to the type of course program (vocational or academic), the final degree (MA, MSc, Master of Architecture, Architectural Diploma), and the qualifications and competences related to these degrees or diplomas.

4. Final Degree

In relation to the names of the final degrees, an extensive diversity exists. In addition to the general degrees MA (Master of Arts) in the Humanities, and MSc (Master of Science) in the Sciences, a number of Diplomas and Architectural degrees are given, including Master of Architecture (Table 3). The suffix 'in Architecture' is commonly added to the MA or MSc degree, in some cases 'Engineering' is also added. But how correct is it to interpret a Master of Arts as an 'artistic' degree?

Some schools offer more than one type of degree or diploma. They apparently offer both an academic and a professional trajectory.

Although a strong trend to award a Masters degree is visible, it is also clear that the Bologna evolution takes place at a varying pace in different countries. National legislature as to degrees and professional competences may be slowing this process down.

Southern-Europe has more barriers to demolish its current degree structure than other European regions. It looks as if Italy will stick to the Laureate-award. They may also consider the Masters qualification as a professional degree after the Laureat.

In one case a doctorate degree was reported after a course programme of 4 + 2 years

duration. This could better be avoided, since it does not meet international doctorate-standards.

5. Intermediate Degrees

The Bologna Agreement calls for a divided curriculum: a 1st 3-year Bachelor-cycle, and a 2-5 years 2nd cycle. In this respect it is interesting to see that half of the schools are currently offering an intermediate degree after usually 3 years of study. Most of them will continue to do so in the future, sometimes with a name change to adhere to the Bologna structure (Table 3). The patterns shown in the questionnaires conform with the statement summarising the Chania-discussion of 2002 that the Bachelor curriculum will settle as an independent stage of architectural education. France intends to replace its system of 3 two-year-cycles.

The Bologna evolution will shape both the Bachelor and Master phase into autonomous stages of the Architectural Curriculum, with each their own specific qualifications and competences. We have to face the possibility that students with a Bachelor awarded outside the Architecture domain seek entrance to the Master of Architecture program. This is part of the Bologna-game.

Does this mean that we need a new type of qualification to register as an Architect? One could state that to register as a professional Architect, one has to earn both a Bachelor and a Master with an architectural curriculum.

6. Admission to Architectural Higher Learning

Through the Bologna Agreement entry points to higher architectural education are (at least) twofold: the 1st year (Start of the 1st Bologna Cycle), and the 4th year (Start of 2nd Bologna Cycle). In the last case one needs to have been awarded a Bachelor degree or equivalent earlier.

However, most schools still imply that students start after secondary school in the 1st year of architectural education and go through both phases as if it is one integrated and combined curriculum. It appears that the Architectural Schools in the UK are most open to entry at other moments than the 1st year of the 1st cycle. This could be expected since the Bologna System was drawn after existing Anglo-Saxon-systems. It also means that many architectural schools in other countries will have to change their curriculum to a large extent and make it more flexible.

As to entry requirements for the 1st year (Start of 1st Bologna cycle), some schools reported entrance exams, sometimes organised on national level. Entry requirements concern abilities and talents for architecture (mainly skills in hand drawing). Warsaw indicates, however, that they will skip the hand drawing requirements in the future. For a number of schools a certain level of competence in mathematics and physics is requirements, but these subjects are part of the secondary school course package. The same is true for ability to use the local national language, or any other language the courses are offered in. In Liechtenstein practical experience in architecture is necessary to enter the school.

7. Characterising the Curriculum

Schools characterise their curriculum as:

- General / academic / classical;
- Specialised / professional / vocational;
- Studio based;
- Process driven / design driven / technology driven;
- Research based / research driven;
- Pragmatic on academic foundation.

Some schools mention a characteristic of content, such as landscape or multi media. Strangely enough town planning, urbanism or urban design are hardly mentioned. Perhaps we should discuss the position of the urban disciplines in an Architectural curriculum, as well as the town planners’ profession among the architects.

The typology of schools, made by Orbasli and Worthington², and quoted in the paper on curriculum of last year³, is recognisable in the answer to the questionnaires. Orbasli and Worthington distinguished two main axes:

- Academic versus vocational;
- Artistic generalist versus technological specialist (Table 4).

Table 4: Focus Matrix of the Architectural Curriculum, after Orbasli and Worthington

	Academic Approach	Vocational Approach
Artistic generalist	Design Projects Architectural Theory	Design
Technical specialist	Design Projects Engineering	Practical understanding

Most schools combine characteristics. The current trend in the schools towards more research in the architectural curriculum (see also below) is absent in Worthington’s matrix.

How can Worthington’s typology be adapted to include characteristics such as research-driven or research-based (or, better, research-led?). Should we place schools with these characteristics in the academic categories of Worthington’s typology, and leave the others in a vocational cell?

It is a well-known fact that the artistic Architectural Schools claim a research position on the basis of artistic research or ‘research by design’. We notice the struggle of schools to cope with the different ambitions. Scientification of architectural design seems to be a widespread intention.

² Aylin Orbasli, John Worthington, Architecture and Town Planning Education in The Netherlands: a European Comparison, University of York, Institute of Advanced Architectural Studies, 1995, ISBN 0 904761 48 7, p. 50

³ K. Doevendans, J.Verbeke, J. Petric, A European Curriculum in Architecture, how to organise and manage the knowledge of a dynamic subject. In: Towards a common European Higher Educational Area, C. Spiridonidis, M. Voyatzaki, ed., Chania-Proceedings, 2002, ISBN 2-93031-090-, pp. 49-80

The philosopher Stephan Toulmin⁴ has made a distinction between a discipline (academic) and a profession (vocational). In his concept architecture is a profession on the one hand, and a discipline on the other. The interrelations between the two make up our research problem.

This makes another view on Worthington's typology possible. It could be used as a typology of course programs instead of schools as a whole. This view is based on the fact that all societies need both the artistic and the 'scientific' State-of-the-Art among their professionals. The Bologna Agreement opens up the possibility to have more than one type of Master. Architectural education should use this opportunity!

8. Structure of the Program

Most schools have a semester system, only two have trimesters (Eindhoven and Dublin IT). Some of them combine the semester-system with a year-system (examinations after one year). Modularised programs are rare. Half of the schools do not even foresee this structure for the future. It is hardly conceivable that we can implement the Bologna Agreement with its increased student mobility without a modularisation of the education programs for Bachelor and Master. There surely is still a lot of work to be done on European and national levels.

But even if we would all establish semesters, and all have a flexible, modularised program to answer increased student and teacher's mobility, another problem remains. Academic calendars start at different dates among the schools in Europe. Calendar-coordination will be necessary. We probably have to design a kind of meta-roster? For instance, a roster based on 6 periods of 6 or 7 weeks a year. Such an international meta-roster could lay the foundation for international, modularised program's in architecture, offered by networks of schools. Every school functions as a kind of 'centre of excellence' and offers specialised modules to students from other schools. In the end this could even lead to distributed educational programs and Joint Degrees, as initiated and supported by EU.⁵

9. Specialisations

A minor group of schools offer specialisation degrees, sometimes as supplementary awards (Table 5). There appears to be a strong tendency towards specialisation and obviously this will have an impact on the post-graduate stage. The once undivided curriculum will diverge in many route ways to specialisations. How will these specialisations be related to the main architectural curriculum? Are they still linked to a common kernel? Is a common kernel still possible, as suggested in the conclusions of the Chania-discussions of 2002?

10. PhD and other Advanced Level Studies

Almost all schools offer advanced level studies. Exceptions are the Fachhochschulen in Germany, the French schools, some of the Belgian and Turkish schools, and the one in

⁴ S. Toulmin, Human Understanding, Vol. 1, Oxford, 1972

⁵ See for an overview of types of Joint Degrees: Marc Lobelle, Effect on the students mobility of the Bologna Process, Cluster Newsletter 36, March 2003, pp. 4 – 11, www.cluster.org

Liechtenstein. Some of the French schools indicate that they will offer advanced level studies in the future.

Admission requirements for advanced level studies generally are a MSc degree, sometimes a professional degree in architecture. The duration of the advanced level studies in the case of PhD-studies or equivalents differs from 3 - 4 year, sometimes 5 or 6. Other schools also offer 1 of 2 years postgraduate courses, mostly professional Master-courses; sometimes courses that are part of, or are the first step in a continuing PhD-program (for instance MPhil). Note that in the Bologna Agreement the final degree of the 2nd cycle is a doctorate. The tracts for Master and Doctor together form the 2nd cycle that should be 5 years of full-time education long.

In most schools postgraduate courses lead to a PhD degree, or another Doctorate Title, such as Doctor in Architecture. Students in this stage of study are designated as PhD-students, doctorate or doctoral-students, or in general: post-graduate students. In some cases students are called research assistants, and in the case of the 1-2 year courses: master-students.

Table 5: Specialized Degree programs mentioned by the heads of school and placed in alphabetical order

Current Programs	Additional Future Programs
Architectural Culture Diploma	Architectural Renovation
Building Technology	Building Construction and Materials
Ecological Planning	Civil Engineering
IT-related design	Computer Science and Artificial Intelligence
Real Estate and Housing	Consciousness of the Ethical Foundation of Architecture
Restoration Diploma	Free hand Drawing
Urbanism	Heritage Protection
	History and Theory of Architecture
	Human settlements
	Industrial Design
	Interior Design
	Modelling and simulation of Building Spaces
	Physics of the Built Environment
	Property Management
	Rehabilitation
	Studio Teaching
	Structural Engineering
	Sustainable Design
	Urban Planning
	Wood Construction

11. The Value of Research

The subject of research in architecture has been touched already, but much more can be concluded from the survey. The tendency of schools to denote the meaning of research makes this into an important aspect of the curriculum.

Research is viewed as part of the elaboration of PhD- and doctoral educational and research programs, and also in connection to the research position in Master programmes.

69% of the schools currently offer research based programs. These schools indicated that research has a strong influence on architectural education. Schools were asked to rank the impact of research on the general educational program on a scale from 1 – 5. We asked for a ranking concerning the present situation and the expected future situation (Table 6). Currently 57% of the schools scored 3 out of 5 or higher in evaluating the role of research. For the expected future this increases to almost 90%! The trend towards more research is obvious in all European regions. Eastern-Europe appears to be most research-oriented.

Most schools share the opinion that research is important, but ideas how to link this to the Master program differ. Some schools want to keep research strictly part of PhD studies. Others see a relation with the Master-program. In one view, research should be executed by staff members only, probably supported by PhD students. Its results are introduced into the Master program through the regular lectures of these staff members. Other schools consider Masters thesis and studio work part of architectural research.

12. Research Supervision and Organisation

We also asked how supervision of research was organised in the schools. Heads of School were given the following options:

- Individual supervision
- Studio work
- Research groups
- Research programs

Most answers consisted of combined types of supervision, especially individual supervision (mentioned by 23 schools) and research groups or teams (20 schools). In 10 schools the research was organised in research programs. Only 4 schools mentioned the studio as main framework for the research, and in very few schools (3) research is only present as part of the general curriculum, lectures, workshops, etc.

13. Research Issues

A number of Research Subjects were identified by the heads of school. They are distributed over the humanities, social sciences, natural and applied sciences, indicating the multidisciplinary nature of the architectural domain (Table 7).

In Southern-Europe, and also in France, there is a strong emphasis on: Restoration, Heritage, Patrimony and Preservation, a mix of humanities, social studies and applied science. Schools in the Western-European region often mention sustainability (Social, Natural & Applied Sciences). Also research on mobility, transport seem to be important issues. In all regions of Europe History and Theory of Architecture (Humanities) is seen as an important research issue.

Table 6: Research impact on architectural education as scored by 39 schools, now and in the future; 1=lowest score; 5= highest score. Information for Finland and Hungary was not available

Country (number of schools)	Ranges of Scores given	
	Present Situation	Future Expectations
Northern Europe		
DK (2)	1,3	3,3
LT (1)	4	4
SE (2)	4, 4	4, 4
NO (1)	3	4
EE (1)	1	3
Western Europe		
CH (2)	5	5
NL (2)	4, 3	5, 4
UK (2)	3, 3	4, 3
DE (3)	1, 3	3, 4
IE (2)	2, 3	4, 4
FR (5)	1, 3, 2, 2	3, 3, 2, 3
LI (1)	1, 1	1, 3
BE (2)	1	2
Southern Europe		
TR (5)	4, 4, 4	5, 5, 4
IT (3)	3, 4	3, 4
GR (2)	2, 2	2, 4
PT (3)	1, 3, 3	1, 5, 3
ES (3)	1	3
Eastern Europe		
RU (1)	4	4-5
RO (1)	4	4
SK (1)	4	4
PL (3)	3, 4	3

Table 7: Research Subjects for the Architectural Curriculum as mentioned by the Network of Heads of Schools of Architect as distributed over the different academic disciplines

Research Subject	Academic Discipline		
	Humanities	Social Sciences	Natural and Applied Sc.
Architectural practice and Management		x	
CAAD, Architectural Databases and Design Methods		x	x
Comfort, acoustics, energy, and related subjects		x	x
Mobility, transport and infrastructure			x
Restoration, Heritage Protection, Preservation	x		x
Sustainability and ecology in architecture, urban and environmental planning			x
Technology and Building Science			x
Theory and History of Architecture	x	x	
Urban Development and Landscape		x	
Vernacular and Regular Architecture	x	x	

14. Research Perspectives

The data collected on research value and subjects in the questionnaire of the Curriculum Task Force are tentative. Since the meaning of research is generally seen as of increasing importance, the ENHSA should deepen this subject and reflect on a research strategy.

In the future research programs, internationally organised, will become more and more important. Local research teams or groups will be too small and narrow. International research programs are especially of interest for the XS and S-schools. Another advantage of joint research could be that such programs are able to get funding from the European Commission. In that case research subjects should fit into the themes identified by the EU, or, even better, that architectural issues are placed on the agenda of the EU-framework programs. EAAE and ENHSA could try to stimulate this, and make architecture part of scientific culture. In order to keep the typical architectural design culture, quality criteria for design related research and scientific output also have to be elaborated.

15. Summary

The ENHSA Task Group on Curriculum succeeded to collect data from Architectural Schools located in all European regions. The majority of schools have less than 1000 students, and about 1/3 even less than 500.

There appears to be a large variation in degrees and organisation of programs. It has been shown that the 'Bologna development' varies in speed from country to country, and sometimes even within a country.

However, consensus seems to exist that in the near future the academic education in Architecture will always consist of both a Bachelor and a Masters cycle. Since Bachelor Degrees outside the Architecture domain may also give entrance to the Master Program, a standard Master Curriculum is not possible within Europe anymore.

The Master stage of education may be viewed as a fork. The future student can choose a professional degree (e.g. Master of Architecture) or a scientific degree (e.g. Master of Science of Masters of Arts in Architecture)

Since most of the Architecture Departments in the European Institutions of Higher Learning are small, and master programs will diverge to a large extent, it is clear that a flexible, modularised program has to be distributed over a number of schools. Such a development also opens the opportunity to develop international Masters programs and joint degrees, as initiated and supported by EU. The programs can cover the range of educational profiles described in the typology of Orbasli and Worthington.

As to research practice, this will mostly be a part of the scientific master curriculum and the doctorate (PhD) curriculum. The student will do the thesis work in a community of researchers, usually not in a studio-environment, and related to international EU-relevant research programs, and obtain a PhD title after completion of the work. The usefulness of a special doctorate in architecture has to be considered, but is not self-evident if we consider the EU-research themes.

The mission of EAAE / ENHSA should be:

- i. To guarantee that professional Masters in architecture have completed both the architectural Bachelor and the architectural Masters Program;

- ii. To get architectural research on the EU-agenda;
- iii. To draw up the quality criteria for research and scientific output in architecture;
- iv. To clarify the relations and differences between professional and scientific routeways in architecture in the graduate phase of education.

Meta-University Fosters International Exchanges and Collaboration by Joint Master-Programs

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Dr. Johan VERBEKE, Brussels-Ghent, Belgium

The META-University is a way forward to facilitate international collaboration. It makes the course structures more transparent, facilitates student exchanges and develops joint modules. The pilot between TU Eindhoven, Strathclyde University and Hogeschool voor Wetenschap & Kunst, Sint-Lucas Architecture is now extending all over Europe and is even active in projects with South- and North-America.

Introduction

International activities become more and more important for universities. Kees Doevendans initiated the META-University in 2000. During the first year, the three pilot partners had a lot of discussions about the way forward. The first discussions were on structures and practical issues. After some time when more and more people got involved, the focus shifted to content and to complementary expertise and capabilities. The consortium is now extending and benefiting from the activities in several European funded projects. This contribution tries to report on the experiences and benefits of the project partners.

Due to the increased flow of students under SOCRATES, teaching and administrative staff have to help and guide outgoing and incoming students throughout the year. Information is scattered and frequently incomplete or outdated. Students come and go at different periods of the academic year. The META-University wants to facilitate the exchange of information by creating a flexible web-site: <http://www.metauniversity.tue.nl>.

The international META-university is a network of universities and design schools of Architecture and Urban Planning. The Schools agree to offer part of their existing activities in the form of international design workshops and theoretical modules open to the students in all schools of the network. This can be achieved by using a common web-site as a way to make the offer known. META-University has no commercial aims, its sole purpose is to stimulate international exchange and collaboration.

Combining the abilities of the member universities and the possibilities of their respective locations through an exchange of students and staff will be a key factor in META-University. We envisage META-University as a network of universities with activities situated in real space. This network is supported by the ever expanding possibilities of cyber space. Thus META-University will combine the best of both worlds. It is important to emphasise that META-University is not a virtual university; its activities take place in real locations.

All the workshops and courses take place in 'real space' on the locations of the members universities and under their full control. Staff and Students also meet each other in 'real space'. This concept of a META-university is founded on the conviction that, although modern communication offers invaluable new perspectives, nothing can replace real

experience and real contacts. In this concept the web-site is just a tool for communication, for assembling the different offers and for exploring areas of common concern. The aim is to make the best of both the shared interests and the individual qualities of the member schools.

Joint Masters

The META-University primarily focuses on the masters, fourth and fifth year of education. In most cases these Master years offer enough flexibility to the students to follow some well-composed modules with another university. Very soon, it became clear that there was a need for a deep and content-focussed discussion between the partners of the META-University. This led to the idea to create 'Joint Masters'. These were intended to reflect the joint competencies of the partners. These 'Joint Masters' are intended to stimulate collaboration between staff (they will be modules to contribute to the modules in which they have expertise) and help the students prepare for their diploma work. When they stay for one semester at another university and follow one of the modules and later on participate in one of the workshops organised by the consortium, they will receive (in addition to their diploma) a certificate of the META-University partnership.

These joint modules and 'joint masters' are based on four basic agreements between the partner universities: universities must respect the META roster for their calendar, courses are in English, results are transferred using the ECTS-system (see annex 1) and there is mutual recognition of student efforts. This required long preparations and extensive discussions.

As the Master programs are connected to research activities, the META-University also benefits from the activities of the USO-BUILT (User Orientation and the Built Environment) Doctorate School which was started in 2001. This PhD-network aims to develop European PhD Networks as foreseen in the Bologna-Process. See <http://www.uso.tue.nl> and Annex2.

Extension

Since the start of META-University, the partnership started to extend as many other Schools of Architecture, Urban Design or Planning saw the benefits of the system and of being part of the consortium. Applications from Göteborg, Lille, Rome, Warsaw and Weimar were approved. All these universities benefit from the high quality exchanges and collaborations. The European Union funded the development of a Joint Master of these universities on 'Planning and Design of the Post-industrial Landscape'. Modules within this Joint Master-program are:

- Explorative Architectural Design;
- Collaborative and Information Design;
- Sustainable Planning and Design;
- User-Oriented Planning and Design;
- Theory of the Post-Industrial Landscape;
- Architectural Heritage and Preservation of the Built Environment.

The modules are supported by international workshops.

EU-USA collaboration

Also from outside Europe there is increased interest in the activities and quality of the META-University. The pilot partners applied for an EU-USA project, funded by the European Commission. From the US-side the partners consist of the University of Cincinnati, North Carolina State University, and the University of Michigan. The project started on November 1, 2002 to appreciate similarities and differences in approaches and content of the curricula. Students will benefit from expertise not available at their home universities. The partners will benefit from increased interaction within the consortium and will develop ongoing faculty exchanges and research collaboration. Joint workshops will complement the implementation of the 'joint masters'.

Alfa-collaboration

The pilot partners together with the University of Seville also have a project running with universities in South-America. The Alfa-project Archinet collaborates with the Universities of Buenos Aires, Havana and Rio de Janeiro. The project aims to prepare for consortium Masters degree in Architecture. The educational systems and the access to the profession in the different participating countries are compared in order to develop a 'Joint Masters'. It will require a lot more effort in order to realise a base for mutual recognition. After this students will be exchanged and the META-University will benefit from a world-wide co-operation and exchange.

Quality control

Due to the fact that modules are realised in collaboration between different partner universities, META-University sets up automatically a system of peer review, discussion and the application of the best expertise in the relevant field. This is especially important as it is almost impossible to have the top level in each sub-field.

Conclusions

The META-University is a unique collaboration project in the field of Architecture, Urban Design and Planning. It brings together the top quality in knowledge and design in order to realise international 'joint masters'. After many years of preparation, it is expected the first of these modules will be running from 2003-2004 on. With the META-University, the partners are ready for the ERASMUS-World program of the European Commission. Preparations during many years have led to intense and productive collaboration between the partners in the consortium. This has spread to North- and South-America and is disseminating the idea of a World-Wide Educational Space.

Annex 1

Johan VERBEKE and Nele de MEYERE, Sint Lucas Architecture, Brussels-Ghent

The European Community promotes study abroad as a means of improving the quality of academic cooperation bringing benefits to students and higher education institutions.

Studying abroad can be a particularly valuable experience. It is not only the best way to learn about other countries, ideas, languages and cultures; increasingly, it is an important part of professional and academic career development.

Students envisaging a study abroad will be looking for:

- study programmes which are relevant to their final degree,
- full academic recognition which ensures that they will not lose time in completing their degree by studying abroad.

To help students make the most from their study abroad, the European Commission has developed a European Credit Transfer System (ECTS), which provides a way of:

- measuring and comparing learning achievements, and
- transferring them from one institution to another.

ECTS credits are a value allocated to course units to describe the student workload required to complete them. They reflect the quantity of work each course requires in relation to the total quantity of work required to complete a full year of academic study at the institution, that is, lectures, practical work, seminars, private work -- in the laboratory, library or at home -- and examinations or other assessment activities.

In ECTS, 60 credits represent one year of study (in terms of workload); normally 30 credits are given for six months (a semester) and 20 credits for a term (a trimester).

ECTS credits are allocated to courses and are awarded to students who successfully complete those courses by passing the examinations or other assessments.

How does ECTS work?

The main tools used to make ECTS work and facilitate academic recognition are:

- The *information package*. Institutions which want to use ECTS produce an information package, updated annually, in which they describe the courses available at the institution. It provides general information about the institution, its location, student accommodation, administrative procedures necessary to register and academic calendar.

Good course information is essential to prepare serious study abroad and descriptions covering the content, prerequisites, mode of assessment, time unit, type of course, teaching and learning methods employed and ECTS credits allocated are all included in the information package, along with a description of the department offering the course. Details of examination and assessment procedures, the institution's grading scale and the structure of the curriculum of the degree are also included. The information package is produced in both the national language and in a second

Community language. They are circulated to partner institutions for students and professors to consult and use in planning study abroad programmes.

- The *student application form* is used for informing the host organisation of coming students and for confirming the sending university the student is welcome.
- The *learning agreement*, describes the program of study abroad and is drawn up by the individual student and institutions involved before the student goes abroad.
- The *transcript of records*, shows the learning achievements of the student prior to and after the period of study abroad. The transcript of records show for every course taken by the student not only the ECTS credits but also the grade awarded according to the local grading scale and the ECTS grading scale. The combination of the local grades and the ECTS credits and grades represents qualitatively and quantitatively the performance of the student on the courses at the host institution.

What is the ECTS grading scale?

Examination and assessment results are usually expressed in grades. There are many different grading systems in Europe. To help institutions translate the grades awarded by host institutions to ECTS students, the ECTS grading scale has been developed. This provides additional information on the student's performance to that provided by the institution's grade, but does not replace the local grade. Higher education institutions make their own decisions on how to apply the ECTS grading scale to their own system.

What does ECTS offer to higher education institutions?

ECTS creates curriculum transparency by providing detailed information on the curricula and their relevance towards a degree. ECTS helps academics to make academic recognition decisions thanks to prior agreement on the content of study programmes abroad between students and their home and host institutions. The use of ECTS can also be a catalyst for reflection on course curriculum structures, student workload and learning outcomes. With ECTS, higher education institutions preserve their autonomy and responsibility for all decisions concerning students' achievements, without amending existing course structures and assessment methods: all courses and assessments are those which are normally taken by regular students at the host institution.

Annex 2

Kees DOEVEDANS, Eindhoven

Johan VERBEKE, Brussels-Ghent

USO-Built is a distributed Graduate School under the CLUSTER (www.cluster.org) umbrella with its own aim, high-quality research and educational programs. It focuses on PhD and MPhil-level programs, concerns the technological domains of science aiming at implicit sustainability (= sustainability perceived as a normal quality of design) for the Built Environment in its fullest sense, indoor and outdoor, and is directly User-Oriented. The environment is viewed as a technological and designed environment with major influence on quality of life. From the design point of view the space of everyday, the environment of most people's lives, is the focus of USO-Built.

The participants of the network:

- Agree on transfer and expertise;
- Pool excellence of participating universities;
- Share specific competences and knowledge;
- Create transparency; Elaborate quality procedures and execute peer reviewing;

The school is a distributed organisation, held together by:

- A high-quality, focused research and design program meant to educate young, creative, and internationally oriented researchers, architectural or urban planners and designers;
- A virtual communication centre within the facilities of the meta-university;
- Self-organising international research and design units, each with at least one moderated e-mail discussion list;
- Twice yearly PhD-conferences and regularly recurring workshops that rotate among the partner universities;
- International juries for the assessment of research plans, design plans, and theses completed for the MPhil or PhD degree;
- Specialised courses given by unique centres of excellence among the partner universities.

More than 21 universities participate at this moment. The school is coordinated by TU Eindhoven.

Mission of the school is cooperation of European researchers and educators active in each of three research dimensions and in a limited number of user-oriented competence areas pertaining to the built environment, to reach implicit sustainability of society. Promoting the domains of excellence of each partner-university is an additional aim.

Research dimensions

The three dimensions are:

The Functional dimension.

This dimension concerns mechanisms and focuses on functions and adequate use of the built environment in human terms such as good health, comfort, well-being, safety, and sustainability.

The Structural dimension:

This dimension concerns context exercised on a macro-level to explain phenomena in the light of technological innovations, (shifting) policies or market forces, in short the socio-economic level.

The Intentional dimension:

This dimension concerns motives and explains phenomena in a chronological-biographical sense as a result of experienced needs, carried motives, expressed preferences, decisions taken and completed actions of individual persons in time.

Research

The main activity of students, post-doctorate and research fellows is research of the Built Environment or Architectural Design. This is essentially an individual activity, but with a strong teamwork dimension. Students should earn at least 75% of minimum number of prescribed ECTS units through these activities. A Task Force has answered the questions concerning academic quality of output of an Architectural Design work. (See www.uso.tue.nl/archives)

Research programming has started with the collection of MPhil, PhD and post doctorate /research fellow projects as were offered by the universities taking partnership in USO-BUILT. International Research Units (IRU's) have been formed, and projects were classified in these IRU's, after a thorough check for user-orientation and built-environments relevance. Point of departure for IRU formation were the research dimensions(see above).

International Research Units

The following International Research Units are part of USO-Built:

1. Post-industrial Landscapes
2. Users, Managers and Producers
3. Built-in Quality of Life
4. Information Design.

Overview about European Doctorates in Architecture

Stéphane HANROT, of the EAML, Marseille, Chargé de mission EAEE

This paper tries to have an overview about European doctorates, in a situation that moves fast, that is neither stable nor homogeneous.

The existence of doctorates in architecture is not shared equally throughout the different European countries. The proceedings of the Delft conference (1996) entitled "doctorates in architecture" show that a country like Italy has doctorates in architecture for a long time (even when "research doctorates" were rather new) while France had no doctorates, even though an architectural research existed since a long time, as long as in Italy [Doctorats, 1996].

The 1996 conference emphasised that the question of doctorate is dependent on the question on the nature and specificity of architectural research. Many papers were focused on ontological and epistemological points of view. Since this conference, other discussions came up: how to make European doctorates? In what context will such doctorates be possible?

By saying that all these questions are answered, optimistically speaking, but things have moved. This presentation will try to explain how.

What is the nature and the legitimacy of architectural research? An epistemological progress

How to make architectural research not dependent on a "host discipline" as history, philosophy, and technical science? Is design a possible heuristic for research?

Epistemological debates have arisen about architectural discipline and research. It appears that a distinction has to be made between specific research that refers to an object of study and to methods that belong to the architectural discipline, and, on the other hand, crossed architectural research that links architecture to other disciplines [Hanrot, 2000].

The conference "Research by Design" in 2000 in Delft has been a step in the definition of the specificity of architectural research. Nevertheless, the role of design within architectural research is not yet clear. The work developed by Halina Dunin-Woyseth is really innovative as it proposes an epistemological specificity within "profession of the making" as medicine. Architectural research having, at this point, to invent its own domains and resources of research, not only in convenience with the reference of natural sciences or human sciences [Dunin, 2001].

These ideas show the new questions that have been emphasised by the ARCC/EAEE conferences in Paris (2000) and Montreal (2002). What are the scientific exigencies of architectural research? What about relationships between research and practice? It seems that if there is not a general clarification, the space of research opened and proposed these last years allows architectural discipline to be more self confident in the academic context.

How to do Doctorates? European Doctorate networks

A big change happened when European doctorate networks were implemented some two or three years ago. The "Millennium Project" gathering the Nordic countries, USO-Built driven by Eindhoven University, and Architectonics by Barcelona, are networks that are based on European partnerships and are involved in research and doctorates. This approach gathers highly competent professors and creates a real dynamic interaction between students. In some networks workshops are hosted by different universities every two months. Seen from the outside, this network organisation is very attractive and helpful to reinforce a fragile discipline.

As the cost of this kind of network is high, how will these networks persist when European funding stops? What is the benefit for research and pedagogy in comparison to the heavy administrative work that this European funding implies?

What context for doctorates? Sorbonne and Bologna's declarations.

A major factor for change is the implementation of the new European space for Higher education. Debates have started about Bachelor and Masters cycles and many schools have modified their own organisation to fit in the European frame. Others are entering the process with resistance as in Greece by refusing the bachelor level, or with inertia, as in France, because of a previous pedagogical reform, in 1998, that is not compatible with the Sorbonne Declaration. The doctorates cycle is not implemented with a strong will, as we have seen at the Chania Meeting of Heads of Schools [Chania,2002].

If we come back to the declarations, it appears that the Sorbonne declaration is clearer than Bologna's one. La Sorbonne's declaration says: "In the graduate cycle, there would be a choice between a shorter Masters degree and a longer Doctorate degree, with possibilities to transfer from one to the other. In both graduate degrees, appropriate emphasis would be placed on research and autonomous work."

The Bologna Declaration states: "Adoption of a system is essentially based on two main cycles, undergraduate and graduate. Access to the second cycle shall require successful completion of the first cycle studies, lasting a minimum of three years. The degree awarded after the first cycle shall also be relevant to the European labour market as an appropriate level of qualification. The second cycle should lead to the Master AND/OR doctorate degree as in many European countries."

Depending on how one considers 'and/or', the study organisation differs. The "and" suggests that a student awarded a Bachelor can first enter a short cycle Master (+2) and, after that, a doctorate long cycle (+3). That is the Anglo-American system. If you consider the "or", the student must choose after the baccalaureate between a short-cycle Master or a long-cycle Doctorate, (the scheme shows the two different interpretations).

In the end the question is: what is the common way to enter a Doctorate in architecture:

- a. by having a Bachelor in architecture? Or
- b. by having a Master in architecture?

Starting from that point, different questions arise:

- Will the title of "architect" be obtained by a doctorate or only by a Master (solution A)

- What about interdisciplinary and the ability to enter a Doctorate in architecture coming from a bachelor from one an other discipline than architecture, when the student does not want the architect title but only that of researcher in architecture (Solution A and B)?

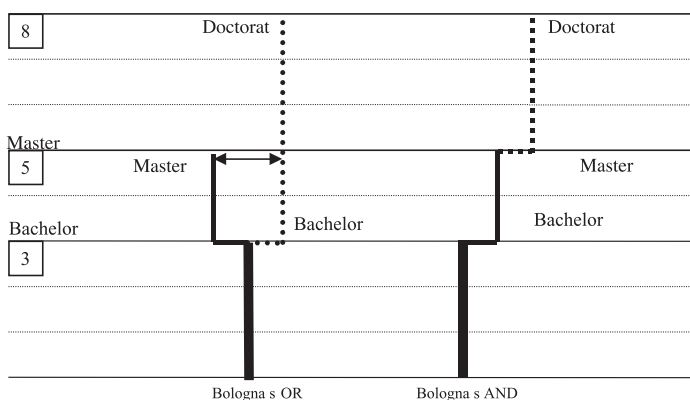
Other questions related to the content of studies follow these structural questions:

- on what basis a Bachelor student will be able to choose between a long cycle Doctorate and a short cycle Master if he/she had no experience in research previously (Solution A)?
- Is a specific course necessary to inform the student on what research is, to help him in his choice: a Bachelor cycle (Solution A)? or a Master cycle (solution B)

In the end, the question is also to define the relationships in between doctorates and professional activities:

- Will the doctorate be a key condition to enter architectural education? What about the place of practitioners within the schools of architecture?
- Will professional specialities emerge that could introduce research skills in architectural offices?

It would be vain to try to answer these questions up to now. Work has to be done. It will be done on of the creation of links between schools of architecture. The doctorate networks seem very efficient to try and to experiment with different systems. It could be argued that the epistemological debates that these networks bring out about the nature of architectural research, and the position of design in such a research, will become references for the community. Consequences are that schools, which are not implied yet in these networks will follow the others and will have to accept their proposals. On the contrary, Italian schools that have performed their doctorates and participate in these networks will be a reference to the others.



Scheme about the Sorbonne and Bologna declarations, and variations on 3_5_8

Bibliography

- [Dunin, 2001] "Towards a Disciplinary Identity of the Making professions." The Oslo millenium reader n°4 H. Dunin-Woyseth and J. Michl ed. Oslo School of Architecture Postboks 6768, St Olavs Plass, N-0130 Oslo, Norway, ISBN 82-547-0119-9
- [Doctorats, 1996]. "Les doctorats en architecture" Vol 1, 2 et 3 , Actes de la conférence du 8-10 février 1996. TU Delft editeur, Isbn : 90-5269-202-5, 90-5269-201-7 et 90-5269-199-1
- [Design,2000] "Research by Design" Conference proceedings 1- 3, November 2000, TU Delft editeur, ISBN : 90-407-2119-X, 90-407-2213-7 et 90-407-2114-5
- [Chania, 2002] "Towards a Common European Higher Architectural Education Area", Actes Chania, C. Spiridonidis and M. Voyatzaki ed. 2002, ISBN : 2-93031-09-0,.
- [Hanrot, 2002] « A la recherche de l'architecture ; épistémologie de la discipline et de la recherche architecturale », Stéphane Hanrot, l'Harmattan Paris ed. 2002., ISBN : 2-7475-2837-5

Websites

- USO Built : <http://www.uso.tue.nl>

Competence on the Art of Appreciating what is Educationally Significant

Roger LIBERLOO, Provinciale Hogeschool Limburg, Diepenbeek, Belgium

The little story I use as an introduction is not meant to mock the academic and theoretical discussion on the sense or nonsense of competence, that is going on in the Lowlands down by the North Sea. Nevertheless, my story clarifies something.

"Last year I hired a young architect for my small architectural firm - 24 years old, fresh from school. We accepted the rather modest assignment of renovating the attic of my doctor's house. The pitched roof of this house dating from the fifties harboured some interesting and adventurous space. Measuring this space was one thing, but redrawing it was the ultimate challenge to my trainee, since in the course of his architectural training, he had chosen to follow a path on which he would mainly be confronted with the architecture of the purest minimalist boxes. Now, when the time had come to do some calculations, he scratched his head and asked me how to calculate the surface of one of the trapeziums. Yet, his first year's curriculum included mathematics, so what do I conclude from this? If he did not remember the formula, he could have deduced it anew! Or he could have looked in the formula-pocketbook. But he did not: he just asked what he wanted to know!"

So what does this story teach me about curricula and competence? Although the curriculum contained mathematics, it did not guarantee that my trainee was a sharp and quick calculator.

He did not show the competence to remember mathematical knowledge, he neither showed the competence to deduce mathematical formulas nor the competence to undertake some simple research. What he did show was his competence to communicate. To solve a mathematical problem he used a competence that he did not - I presume - acquire in his mathematics'course, and most probably neither in his school of architecture.

My conclusion is that, when thinking about architectural education and bachelors and masters, we should start with the skills we wish our students to display. From these skills we can then conclude which learning paths we would like to be developed. When reflecting on education, I do not think that "curriculum" is still the most important factor. All the more since when working throughout Europe as an architect, your client does not ask you which curriculum you worked through, he wants to know what your skills are, which services you or your firm can offer him. You could reply that the architect's main competence should consist of - or should I say, enjoy - the ability of making a good design and producing quality architecture. Okay, but this is too general a competence to be operational in architectural education. We will have to dig deeper.

As architects, we have mostly been active in architectural education in our own firm: learning by doing, offering the students a good brief in a challenging spacial, social, cultural and economic context. Thinking of an educational approach in design was not our strongest "competence". The studio's of many of my colleagues today are very similar

to the ones I attended in the sixties! As Aldo Van Eyck mentioned during his RIBA-conference in London in 1981, I would like to repeat in the architectural education context: "Open that window there, and let some fresh air in ". It is my personal belief that we can learn a lot from education theoreticians, and of other disciplines. As Bernard Tschumi and Jean Nouvel plead for in architecture, let us stop circling in the centre of architectural education as we have always known it and start looking for inspiration around the edges.

Dig deeper! How to dig deeper?

We should agree on the notion of competence itself.

We shall have to define what general professional skills a bachelor and master in architecture should possess, elaborate a method to think them out and write up more specific skills, we shall have to create educational paths to develop these skills and finally we should decide on how skills will be assessed.

I will not and cannot offer you the bible in these matters, just some modest ideas.

Competence

Definition:

Competence is a compilation of skills, attitudes and underlying cognitive elements, offering one the opportunity of performing tasks that are substantial to a function or a role.

Method:

Step 1: Gather information about the work situation.

- Define the professional areas and contexts in which to formulate the skills
- What is specific to the work situation of a beginning practitioner?

Step 2: Work one of these work situations out.

- Which process is the beginning practitioner going through and which activities are taking place?
- Define the different phases or activities

Step 3: Components in the formulation of competence

- Context
- result / products
- processes, activities
- resources
- parties involved
- problems
- attitude
- level of independence

Step 4: The competence is formulated

Example

The competence of drawing up a brief for a building

Context: an assignment to build a ...
(Professional domain: architecture)

Product: a list with functional parts and how they are related to one another, with an addition of information concerning all kinds of parameters (physical, psychological, socio-cultural and economical parameters) / a diagram visualising the parts and their relations

Processes:

Gathering and processing the information
Confronting the information with the client's vision
Mapping the criteria to define the parameters
Establishing the parameters
Drawing up the list and the diagram.

Resources:

The statement of the client's mission
Literature and similar projects, legislation

Parties involved:

Clients, users

Problems:

The client's lack of vision
Lack of unambiguous information
Disagreement between parties

Attitude:

Research-mindedness
Using professional knowledge as far as parameters are concerned
Communication skills / ability to empathize
Negotiation skills.

Level of independence

Complex cases: teamwork

Step 4: The competence is formulated

A beginning practitioner is able to establish a brief for a building, based on the communication with the client and the users, taking into account several research-based parameters. He/she possesses the skills to negotiate and present the ideas, defined in the brief, through language and image.

The example shows that writing up a competence shows us the complex areas of knowledge, attitudes and skills the practitioner is supposed to be able to move in.

Thinking in terms of the practitioner's competence forces us to cross the traditional barriers between the different parts of a curriculum. If we want to develop these skills, we will have to confront the challenge of designing educational paths, that guarantee that our goals will be reached. Deciding on, choosing of, appreciating what is educationally significant may partly be based on scientific knowledge. The complexity and the richness of meaning, the different layers a competence may contain, make reflecting on and defining of competence a demanding activity, requiring the artistry Prof. Habraken spoke about yesterday. It is a challenge to our educational connoisseurship.

Appendix: General skills for bachelors and masters in architecture.
First sketch.

BACHELOR	MASTER
Act in a conscious and critical way towards images on the level of the building and its direct environment	Act in a conscious and critical way towards images
Draw up briefs of buildings of average complexity	Draw up briefs with social relevance
Develop strong concepts, capable to artistically integrate briefs with average complexity	Develop strong concepts, capable to artistically integrate complex briefs with social relevance
Transform these strong concepts into a meaningful architectonic design, at the same time developing a cultural surplus value	Transform these strong concepts into a meaningful architectonic design, at the same time developing a cultural surplus value
Develop some aspects of the liveability of space and put them into shape	Develop the liveability of space in all its aspects and put it into shape
Define a limited number of components of a meaningful architectural design in architectural and constructional detail	Define a meaningful architectural design in architectural and constructional detail on the level of a starting practitioner
Present architectural designs of moderate complexity to and negotiate with professionals as well as with laymen.	Present complex architectural designs to and negotiate with professionals as well as with laymen.
	Act ethically with reference to the urban context, the historical background, the socio-economic strength, the users, the sustainability of the building projects and their environments
	Plan the building of a project as a member of a team by means of governing processes and budgets on the level of a starting practitioner
Notion of and insight in the scientific and disciplinary fundamental knowledge proper to the domain of architecture	Carry out scientific research independently on the level of a starting researcher or employ scientific or artistic knowledge, attitudes and skills on the level of a starting practitioner in the domain of architecture
Develop an inquiring attitude, knowledge of research methods and techniques, skills, to initiate a problem-based inquiry	Develop on an advanced level an enquiring attitude, knowledge of research methods and techniques, skills, to initiate a problem-based enquiry and to cooperate in a multidisciplinary environment
	Strong notion of scientific disciplinary knowledge linked to a certain domain of architecture
General skills, such as thinking and reasoning skills, acquiring and processing information, critical reflection, creativity and an attitude to lifelong learning	General skills, such as thinking and reasoning skills, acquiring and processing information, critical reflection, creativity and an attitude to lifelong learning

Appendix: General competences for bachelors and masters in architecture.
First sketch.

BACHELOR	MASTER
Act conscious en critical towards images on the level of the building and its direct environment	act conscious en critical towards images
draw up briefs of buildings with average complexity	draw up briefs with social relevancy
develop strong concepts capable to artistically integrate briefs with average complexity	develop strong concepts capable to artistically integrate complex briefs which are socially relevant
turn these strong concepts into a meaningful architectonic design that develops cultural surplus value	turn these strong concepts into a meaningful architectonic design that develops cultural surplus value
develop and shaping some aspects of the liveability of space	develop and shaping the liveability of space in all its aspects
define a limited number of components of a meaningful architectural design up to the architectural and constructional detail	define a meaningful architectural design up to the architectural and constructional detail at the level of a starting practitioner
Present architectural designs of moderate complexity to, and negotiate with professionals as well as a laymen.	Present complex architectural designs to, and negotiate with professionals as well as a laymen.
	Handle ethically with reference to the urban context, the historical back-ground, the socio-economic strength, users, the sustainability of building projects and their environments
	Planning the building of a project as a member of a team, by means of governing processes and budgets at the level of a starting practitioner
notion of and insight in the scientific and disciplinary fundamental knowledge proper to the domain of architecture	carry out independently scientific research on the level of a starting researcher or employ scientific or artistic knowledge, attitudes and skills on the level of a starting practitioner in the domain of architecture
develop an inquiring attitude, knowledge of research methods and techniques, skills to initiate a problem based inquiry	develop up to an advanced level: an inquiring attitude, knowledge of research methods and techniques, skills to initiate a problem based inquiry and to cooperate in a multidisciplinary environment
	strong notion of the scientific disciplinary knowledge linked to a certain domain of architecture
General competences as thinking and reasoning skills, acquiring and processing information, critical reflection, creativity and an attitude to life long learning	General competences as thinking and reasoning skills, acquiring and processing information, critical reflection, creativity and an attitude to life long learning

Report of the Curriculum Group

Report to the Plenary session at the Meeting of Heads of European Schools of Architecture at Chania, September 2003

Loughlin KEALY, University College Dublin, Secretary working group on Curriculum

Introduction

For our report to the plenary session we present a perspective on the work of the Meeting, that has its origins in the Chania Meeting of 2002, and which has developed in three phases since then, with the support of the ENHSA network. These phases were:

1. The agenda phase, in which the tasks to be carried out were identified in Antwerp in March 2003;
2. The investigative phase, conducted through the questionnaires distributed through the ENHSA network;
3. The discussion phase, which has taken place during Chania 2003.

This report presents an outline of the discussion phase and some conclusions that the group have arrived at on the basis of the workshops. The Group also felt that certain conclusions should be drawn from the experience acquired to date, bearing in mind that the purpose of the Meeting and the discussion groups was to develop knowledge of a complex and rich tapestry of educational experience, in such a way that participants could be supported in shaping the direction of their Schools and in finding others who would support them also. The purpose of the work was to clarify rather than to simplify. Of these conclusions, the central one is that we have unfinished business that requires a further phase if much of the value of the work done so far is not to be lost.

Observations on the Meeting

The contributions of participants in the workshops were a mixture of reflections on the information generated by the questionnaires, discussions on the points raised, accounts of related experiences and observations on the relationship between the issues affecting curricula to political and market pressures. The Curriculum Group decided against reporting the specific points made in the workshops back to the meeting as a whole. Participants are aware that the sessions were recorded, so it will be possible to reconstruct the detail of the various contributions. The principal themes that emerged were:

1. The question the Bachelor level, what it meant in terms of required knowledge and skills. The potential roles of graduates at this level.
2. The over-riding need to describe curricula in terms of competences, the knowledge and skill acquired at each stage.
3. The impact of the market on the approaches and priorities in education and training.

4. The question as to whether there were commonalities of knowledge and experience that had to be maintained and protected in the "common educational space".
5. The question of the role of practising architects in Schools, and the relationship between practitioners and academics.
6. The impact of research-driven agendas at Masters level, and the need to research the "culture of building".
7. The need to monitor developments in the Bachelors/Masters relationship as experience accumulated. It was felt that some way should be found to report developments to the Meeting of Heads at Chania 2004.
8. The relationship between the generalised architectural education and specific related domains, such as urban design and landscape design, should be investigated.

There are two principal conclusions. Based on these conclusions the Group puts forward to the Meeting, a number of actions. These actions are put forward in order to bring what has been done so far to a point where it can help in the understanding of a complex reality, and lead to productive action on the part of Schools.

Conclusions

1. Further analysis of the information generated by the questionnaires is required. In particular it is necessary to cross-relate certain key categories of information so that broad patterns can be identified and examined.
2. The Meeting of Heads of Schools is not yet in a position to engage in fruitful discussion about the place of research in the architectural curriculum. At present we are simply aware of the variety of situations regarding research, and the fact that varying research paradigms are being utilised.

Addressing the second conclusion will be helped by work that addressed the first.

Propositions

Accordingly we wish to state a position regarding the work of the Curriculum Group, and we look for the support of the Meeting in this regard. The position is that the work should continue and should address two actions and report on them to this Meeting in 2004.

1. The group should examine the questionnaire data to generate a series of matrices. These will relate various factors identified, size of school, staff structure, programme structure, specialisations offered, to name just a few. Presenting these relationships would help generate deeper discussion, based on common ground.
2. It is necessary to clarify ideas on research in architecture Schools. This we hope to achieve by initiating dialogue between existing networks of Schools that have research collaboration as a key objective. At present we have four examples of such networks, the Nordic Academy, USO-Build, ARCHITECTONICS (Spain) and the French grouping. There may be others. We propose that, as a result of dialogue, there will be a presentation at Chania 2004, and that the Meeting at Chania 2004 will provide an opportunity to document what is being done at this time, and to advance understanding through workshop discussion also.

And finally, the Group believes that if our common purpose in meeting here is to advance our understanding, and to help us to shape education to support architecture in a changing world, we must continue to build on work already done.

Discussion

Coordination by

James Horan, Dublin, Ireland

James Horan, Dublin, Ireland

I think we should spend some time on comments or questions on this morning's presentations. Perhaps while you're considering that, there is a point I would like to make, in general terms, stemming from the discussions we had yesterday and from Professor Habraken's speech. It's rather interesting that in the context of those discussions the words "knowledge", "information" and "database" cropped up frequently. Actually, an organisation such as the EAAE derives an enormous amount of its *raison d'être* and strength from the knowledge it possesses, which can be shared and distributed among its members. This morning we've been shown an example of how that knowledge can be collected and stored and I would urge those of you from schools that may not have completed the questionnaire to still do so as the information is still valid. Obviously, one has to update this from time to time, but it would still be very important and helpful if those of you who haven't filled out the questionnaire would actually do so and send it in so that it can be coordinated into the information already held.

Pierre von Meiss, Lausanne, Switzerland

We should be careful not to send a new questionnaire to the schools every six months as this can be a nuisance. We were upset to receive this questionnaire which was very similar to the one we had received from the UIA only six months earlier. You can appreciate that it's time consuming and frustrating to have to sit down and repeat almost the same information again. Also, since I actually helped the person involved answer the questions, I noticed that the responses to the same questions were not consistent. The only way to ensure a valid answer is to get some funds from somewhere, for example 500,000 euros from Brussels and send one person to each of the 57 schools to fill in the questionnaire together with the respective deans, teachers and administrators. This will reduce discrepancy and ambiguity in responses. For example it's very difficult to give exact answers to questions regarding number of part-time or full-time personnel. Therefore, I think that collecting this information is important, but we should get a research grant to do this more systematically.

Spyros Raftopoulos, Athens, Greece

I would like to add to Pierre Von Meiss' comment and point out that, in actual fact, there is a certain commonality in some of the figures presented for some of the reasons mentioned by Von Meiss. So, because I was the one who took on the responsibility of filling in the form, I had many questions that I think we will have the opportunity to clarify during this session. Perhaps we can combine some of the figures in order for us to get a better picture of what's happening in the various schools of architecture all over Europe.

The other thing I'm worried about is once the Bologna Agreement has been applied in certain countries and universities, since some schools have and others not, what are the results or first reactions? How do people, countries and the profession itself accept this problem? We heard earlier that the Greeks are resisting it, but I think that this is a rather strong term because we don't actually object to the organisation of the two cycles in the school curriculum. However, what we object to is the professional qualifications after the three years. Perhaps there are other schools in Greece that may want to express their attitudes or opinions regarding the matter. I also think it would help everyone to hear some feedback or results from those who have already implemented the Bologna scheme.

James Horan, Dublin, Ireland

I think that the question raised is an interesting one, particularly in the context of schools that are already operating within the Bologna recommendations. Is there anyone from such a school who would like to reply to that question?

Hansjoerg Hilti, Vaduz, Liechtenstein

It seems to me that we discussed this 2 years ago. We all agreed then that with a Bachelor's degree alone, one can't be an architect. We implemented this degree only last year, so we don't have much experience, but the idea is that after three years young architectural students can have a degree which allows them to get a job if they can't or aren't prepared at that point to complete the full cycle of architectural studies, which includes the Masters. Some students might even decide to change orientation, but, at least, if they have followed and have met the requirements for the full three years' coursework, they should certainly be compensated for their efforts.

James Horan, Dublin, Ireland

It's interesting to remember that at the Hania conference two years ago, it was agreed by this group that there was no obligation to absolutely conform to what was laid out by Bologna and, certainly, there is no doubt in my mind that the idea of a professional qualification is quite different from a degree after 3 years of study. The two are not equivalent at all. Consequently, the question asked by my colleague from Athens about what the professionals think is important. It's, in fact, a question I intend to talk about a little more tomorrow.

Dimitri Kotsakis, Thessaloniki, Greece

Yes, we have agreed on that point, but I would like to correct what I think is a mistake that has been made. There is no such thing as a Bologna agreement. It does not exist. There are many issues involved, one of which concerns what is going on with the Ministers of Education of the European Union. However, what we have here is not a European Union meeting! Last year, we had the opportunity of stressing that this is a meeting of Europeans, but not a European Union meeting. If we slip into thinking otherwise, it will no longer be considered a mistake, but something far more serious. Secondly, as we are not ministers nor their representatives, but members of universities, we are bound by the following agreement that was made in a Bologna meeting held, not in 1999, but in 1988 called the Magna Carta Universitatum, which dealt with the freedom and autonomy of universities,

as well as the unity of education and research in universities. Therefore, if we have an agreement here, it's the Magna Carta Universitatum accepted by all of us and not the EU Ministers' agreement in Bologna.

Dimitri Kotsakis, Thessaloniki, Greece

Yes, it was the Ministers and the spirit was the European Union, but it's important to differentiate that from the Magna Carta which was for European Universities. It's one thing for Ministers to convene and make decisions—that's their prerogative! Although we should assume responsibility for what we say about such decisions both to ourselves and our people. However, it's quite a different matter when it comes to a meeting of universities! Let's distinguish between the two and keep each in its own place.

Juhani Katainen, Tampere, Finland

Thank you for the explanation. This was very important. However, we should remind ourselves of what has happened since the meeting. The fact is, in many countries legislation has been passed. For example, in my own country, by the year 2005 we will have to start with this new system. I haven't yet seen the exact wording, but they are in the process of drawing up the statement. The point is that whatever meeting they have had so far and continue to have (the last were in Prague, and, just a few days ago, in Berlin), these have an effect on our world and it's good to have a comprehensive picture of the way things are. However, it's important for us to convene here in Hania, in an effort to find our way of proceeding properly in the future.

Kees Doevendans, Endhoven, the Netherlands

I have a copy of the Bologna declaration, which says that it was prepared by a conference of the Confederation of EU Rectors and Association of European Universities. So, it stems from the university itself.

Herman Neuckermans, Leuven, Belgium

I think the meeting can go back to the fundamental discussion we had last year or the one before that. Personally, I'm not interested. I would just like to answer your question and suggest that it's simply too early to know or talk about our experiences with the new system. We have heard opinions from those who recently started with it and those who haven't yet jumped on the bandwagon. But, we don't really have long-term experience as such, unless it exists, but hasn't been mentioned yet.

Constantin Spiridonidis, Thessaloniki, Greece

I would like to make a remark on principle. We must protect ourselves by maintaining a uniform approach, view and consideration of the actual conditions of reforms in Europe. We must safeguard our objectivity in evaluating the advantages and disadvantages of one accreditation scheme over another based on our positive and negative experiences, which should all be open to discussion. As an association, we must beware that our views represent ourselves and that we are not here to promote or support any particular scheme whether it's the Bologna one or any other for that matter. Also, I would like to give some

information that arrived today to remind us that nothing can be seen just from one point of view. The Union of Architects of Greece met a few days ago with their Spanish and Italian counterparts to try and exchange opinions on the critical subject of reforms and comment on the quality of diplomas derived from such reforms. In addition, there are other voices among us that, I think, we are obliged to hear in order for us to clarify our views and take a valid stand grounded in experience and knowledge. We need knowledge from various directions for our debates to bear fruit and we must remain open to all views, comments and criticisms regarding new policies.

Richard Foqué, Antwerp, Belgium

Herman mentioned earlier that we had this discussion two years ago, yet every year since then it's come up again. Personally, I'm fully aware of the dangers of particular political structures, but I'd like to warn that, whatever system you have, the system itself is useless, unless it's filled with human resources and concepts. I would prefer if during this meeting we discussed elements of quality and content rather than going back to structure because, ultimately, it's these factors that will determine the type of faculty you have, irrespective of structure. A mediocre faculty is bound to produce mediocre education. I propose that we go a step further and discuss the themes we defined for this meeting, including elements of content and quality, etc.

James Horan, Dublin, Ireland

There is no doubt that in this room we have people who are being affected in very different ways by the decisions taken by their ministers in their individual countries. In some cases, the decisions have been made and the structure of their architectural education program has been decided upon. In other cases, this matter is under discussion and no conclusions have been reached. Then there are, in this room, those who are not in any way influenced by this because they come from outside the EU. One thing we have in common, though, is that we're all involved in architectural education. I think Richard Foqué's comment was probably the most valid. The quality of architectural education that, we, as educational providers ultimately deliver doesn't have to be affected hugely by the presence or absence of some ministerial structure. It's a much deeper issue and one that we still maintain control of, irrespective of which location we find ourselves in. I'd like to reiterate Richard's point that this is really an opportunity here to look at what we're doing as educators and what our role will continue to be in the future.

Per Olav Fjeld, Oslo, Norway

I must say that I enjoyed this morning because it provided us with information that I don't think any of us really knew in the context that we've been talking about. So, although I don't always appreciate this type of information, this time I really did. Also, I don't see how or why this information should be attacked in any way and, for it to be raised as a political issue, is wrong. I don't find it has any basis for further discussion.

James Horan, Dublin, Ireland

Maybe, on that note, we should break for lunch, but before we do that there is a voice from the USA, Malecha Marvin, who wants to say something.

Marvin Malecha, North Carolina, USA

I'm an outside observer, but would like to share a perspective with you. In 1991, the Association of Collegiate Schools of Architecture, the American Schools of Architecture, the American Institute of Architecture Students, The National Architectural Accrediting Board and the National Council of Architectural Administration Boards all met in Paris. At that meeting, they decided that there should be a single architectural degree in the US, called the Master of Architecture. Within days, that agreement began to break down and we have spent twelve years arguing about it. The net result of that is there are, now, more degrees than there were before; there are more qualified paths leading to licensing and there is yet another degree emerging which is a whole new variation, challenging the entire system again. So, when I saw the various options being put on the board, I thought to myself that I should send you the twelve years' worth of arguments because of those of us who thought that there must have been something really intriguing going on in Paris for the Americans to have voted for such a scheme to begin with. It is finally being defeated after 12 years. So, the ACSA, along with the American School of Architects, reaffirmed the importance of the diversity of degrees in the country. So, I thought you should have those twelve years in perspective. Also, I'd like to mention that the second thing we do have in the US, permitting a great deal of activity to happen, is the ability to move across state boundaries with great ease because of the common-union count system, which has helped us with student mobility. In the United States, when it comes to education, we don't have a federal system, but operate as fifty separate countries, with each state controlling its own licensing, accreditation of its own degrees and funding of its own programs. Another thing that is common tradition in the US that I can see happening here if there is a common commitment can be seen through the following example. A week ago, a student was in my office saying he was interested in studying about sustainable communities for the Master's program and was asking about where he could go. This is a very good student who has been in our school for four years. We started talking about the Universities of Michigan, Washington and the tradition of work at M.I.T. concerning developing nations. In other words, we take it upon ourselves to encourage students to move on into the network of schools. So, if there is anything I heard this morning that I thought was incredibly valuable was to understand the network of skills and abilities you have among yourselves and not to only think about this unit or credit counts as "islands" on to yourselves, simply because your students will begin to move, regardless of how you feel. In my school, 18% of the students at the undergraduate level come from some other state. That means that they make the personal choice to pay \$15,000 yearly tuition to come to our school when they could stay home and study almost free. At the graduate level, 75% of the students are non-resident (out of state), choosing us because of the specialty of the Faculty in terms of what / where we publish, how we build and are recognised. So, we are perceived as an element of the network in the same way that we perceive others within the network. I would, therefore, urge you to get on with that part of the discussion to talk about how you can move on amongst yourselves with great freedom and not worry so much about what the degree is called.

James Horan, Dublin, Ireland

Thank you, Marvin. With that we'll close this morning's session.

Shaping the Curriculum in the European Higher Architectural Education Area

Discussion Group 1

Coordination by

Dimitri Kotsakis, Thessaloniki, Greece

Loughlin Kealy, Dublin, Ireland

Liviu Ianasi, Bucharest, Romania

Liviu Ianasi, Bucharest, Romania

I would like to introduce the members of the panel: Dimitris Kotsakis from Thessaloniki, Greece, Loughlin Kealy from Dublin, Ireland and I'm Liviu Ianasi from Bucharest, Rumania. What we intend to do is to provide some introductory remarks delivered by Loughlin Kealy and then have your interventions on some of the questions or key dilemmas presented. Since the participants in Group 2 are also debating, simultaneously, on similar issues, we will have the opportunity later on to listen to the input of their discussion. We would be grateful if you tried to limit your intervention to a reasonable amount of time and, for purposes of clarity, it would be helpful if you referred to the specific question you wish to address, seek clarification for or comment on. If there are no questions at this point, I will ask Loughlin Kealy to introduce the issues to be debated.

Loughlin Kealy, Dublin, Ireland

Good afternoon. I should explain what my role is going to be. I've agreed to take responsibility for taking notes of the main points emerging from this debate. This morning, we were presented with a number of starting points, the first being the findings from the questionnaire circulated to schools during the summer. There might be issues covered in the presentation that you may want to respond to at the initial phase of this session. Besides this, there are a couple of other points for potential discussion that have surfaced and, of course, there might be others that we haven't thought of and that you may think appropriate to mention. However, generally speaking, there seemed to be an issue emerging from the material presented by Kees this morning. Also, perhaps, making a connection with the keynote address last night, I suppose what it really boils down to is the fact that there has been a traditional paradigm of architectural education, which by and large has been studio based and that has evolved over centuries or certainly since the 19th century. It's been overtaken now and the questionnaires have shown that

most of the schools surveyed feel that the whole question of research in architecture has penetrated this more traditional model, with all the discomforts that kind of penetration has brought with it. I think that Habraken pointed out or, perhaps, made the provocative remark that the studio as the center for architectural education needs to be challenged. I think we have fruitful grounds here for hearing what people have to say about how they see this shift in paradigm. This is also connected to another presentation, this morning, on the subject of the competencies that we expect our students to acquire. The question of whether we're talking about a largely unitary body of knowledge accompanied by clearly definable skills or if, on the other hand, we're actually looking to a system that can accommodate diversity. Those are the range of factors that we need to face in addressing the question of the architectural curriculum in Europe. Most of this session is devoted to you, your opinions and observations. We reserve the right to express our own views from time to time, but, essentially, my job is to note what you will say.

Liviu Ianasî, Bucharest, Romania

Thank you, Loughlin. Do you have any reactions to the introductory remarks? Perhaps, some of you may want to state your schools' positions, contexts or processes in relation to these issues. Well, it seems that you will need more provocation to initiate this discussion, so Dimitris will provide that.

Dimitri Kotsakis, Thessaloniki, Greece

All these years, we've been discussing such issues, so there is no point in starting from the beginning. Although, this time, we can react to what we think the reality presented is and what we can do about it. However, I want to structure this discussion in the framework of 4 questions: First, the strategy of studies involving not just specializations and generalizations, but throughout the years we've been discussing a third possibility – integration with integral studies being neither general nor specialized, but a means of merging studies into a unified system, which provides an answer to the second type of strategy, academic curriculum versus professional competence. Integrated studies do not make the distinction between research and practice, but reconcile or provide an answer to this question.

Actually, these 2 basic questions of strategy: (1) specialisation versus generalisation, (2) academic versus professional are given in Europe three answers: (1) specialization in one of the 8 or 10 professional qualifications; (2) general studies (academic), which by definition cannot be professional; (3) integrated studies: a new response to a new situation, which we have no experience of and for which we would like your opinions on. The question to ponder is what do we mean by integrated studies? What is the present meaning of studies that are both professional and academic, which integrate specializations and answer the question of generalisation?

The second group of issues is questions on the system of studies related to strategy. That is, studio versus research within the university. The third group is related to school structure that, in turn, answer the question of strategy. For example, size of school and its relation to diversity within the school, market and society at large; staff pattern: permanent versus what? and networks, which is a very important aspect nowadays. All of the above-mentioned are questions of structure, but they cannot be answered unless they are

related to strategy (e.g. networks, on what basis?: an academic, professional or integrated one?)

The fourth group of questions, which are very important relate to self-understanding of schools with 2 sub-questions or parameters: (1) the mission statement of the school. In a diversified, pluralistic and rapidly-changing world, this statement of a school's mission is very important; (2) self-assessment of the school. All schools will be assessed by professional bodies, governments and by the market itself. What is the role of self-assessment in this scheme? This fourth group is also connected to the issue of strategy.

Spyros Raftopoulos, Athens, Greece

I think that the way Prof. Kotsakis has put the questions cannot be answered directly, especially if we know that the professional requirements in each country are completely different. In that sense, I think that before we express our aspirations or what we hope to achieve with our students, we need to consider market requirement, which is where the answer lies. Although this may be bluntly stated or sound cut and dried, we must take it into consideration because this may provide answers to some of these questions. For example, the professional requirements for architects in Greece, at least until now, do not demand specialization. This is a small market whose practice so far has called for our architects to hold the general, professional qualification of Architectural Engineering. Therefore, a school may not agree or have different aims, nevertheless, it needs to examine and adapt to the conditions required by the country the students will work or practice in. Consequently, one would have to examine the issue of requirements before answering the questions raised previously. Actually, we may have to go a step further to the possibility of qualifying architects after the 3-year or 5-year period, whether their curriculum would be modularized and related to the European schools, etc.

Liviu Ianas, Bucharest, Romania

This is not a reaction to what you said, but a clarification. As you know, there are separate sessions devoted to the relation between schools and accreditation boards, to staff / student mobility and to self-assessment and quality indicators. What we will gladly focus our discussion on, as you, yourselves, have specified relates to knowledge, the educational process and curriculum. My second point is that we are not looking for a model, but an understanding of the broader, more diverse curricular approaches and models being currently practiced in your schools. Moreover, what we're expecting to discover is, if under the present changes at different levels, there are changes in the way your schools conceive and structure the educational process. This intervention was meant to steer the discussion and suggest that the questions raised should be discussed.

Theano Fotiou, Athens, Greece

I just want to ask you what is meant, then, by the statement "...it was agreed that a common basis has to be established on which the European profile of each school will be shaped?" If what you have just proposed is the aim of our discussion today, then how are we to search for the characteristic of a common basis? Is this on the three main axes that Dimitris talked about? We know that we are in a Europe that is radically changing, but

we have knowledge and a tradition that cannot be relinquished or discarded. In fact, this knowledge forms the tradition and practice of every school. What do we retain and what novelty do we take on board? What are we to add to this experience and why? After all, we do not operate in a vacuum or empty space in need of reinventing or starting from scratch. We all have experience based on some 20 or 30 years of teaching architecture, which is a valuable resource. If there is anything we should be searching for it's the "common basis" as suggested in the sentence I've just quoted from the text introducing this workshop. Actually, what we should be investigating is how we can formulate this common basis. How can we collectively protect our schools from the negative consequences or influences that a common market can potentially cause, such as produce diplomas that can in the long term become obsolete or graduate titles or projects that are not up to standard or less substantial than those at the undergraduate level?

Loughlin Kealy, Dublin, Ireland

I have no answer to that question directly and, assuming that you are addressing the question to this panel, I'm afraid we don't have any answers.

Theano Fotiou, Athens, Greece

No, I wasn't addressing you, directly.

Loughlin Kealy, Dublin, Ireland

Well, I'm quite happy that you have clarified that. The second thing I'd like to express is my understanding of what it is we're trying to do here, which is firstly to find a way of communicating very clearly. What we have found in the past is that what is perfectly clear to one person or school is completely obscure to another. We don't speak the same language, but have in common architectural education. So much we can understand, but when it comes down to further degree of elaboration there are large areas that we don't understand what we are saying. Part of the process of asking people to contribute, explain and express what they think is important and, what needs to continue or may change, which is essential, is that we can each develop our own understanding. That's what, I think, we are all about and here for. Of course, others may have different ideas, so the floor is yours.

Liviu Ianasi, Bucharest, Romania

What we're interested in is how you achieve or manage to make students do projects and share the practices of each school. The idea is neither to find one specific, valid model nor to discard any, but to enrich and build on someone else's knowledge as either individuals or institutions.

Patrick Labarque, Gent, Belgium

As far as achievement is concerned, we have examples of it right here and, there are many other schools with similar results.

One of the things I miss in our discussions, here, is the presence of the architect with a representative practice. In most schools there are good practicing architects who teach without holding a Ph.D. or similar academic qualifications. With reference to John Habraken's lecture, he began with the environment and then went on to discuss architecture and architects. Now, we're discussing Ph.D. architects, forgetting the fundamental factors that contribute to good education! Surely, on looking at the evolution of the world around us, we would all agree that a Ph.D. architect in the school is an asset, providing diversity, but I think that we should also protect the kind of diversity that a fine practice, an efficient office that creates good architecture can offer. It appears that this may be fading out and that we may eventually see "academic architecture" setting in for the future.

Liviu Ianasî, Bucharest, Romania

I don't think that it's a matter of choosing one over the other, but, certainly, we can address the question of how to maintain good practitioners in our schools, irrespective of their academic standing while simultaneously consider how we can also benefit from higher academic qualifications such as the Ph.D. so that they are not mere titles, but useful and instrumental. It is particularly essential for a profession such as architecture to be keen on practice and what the practitioner does, in the same way as it is in the medical profession, etc.

Kestutis Zaleckis, Kaunas, Lithuanian Republic

I want to respond to our colleague's point concerning the relation between the practitioner and scientific matters and the importance that our school attaches to this, which could be beneficial to others. I don't know what the situation is in other countries, but in Lithuania, we have had a free market and have been independent for only 10 years after a central state / market. The general attitude is that architects involved in research are in opposition with the practitioners. However, this stance is not a negative one, in fact, we consider it "healthy" or positive opposition, of the type that contributes to dialogue and constructive debate, where one accuses the other of being either too idealistic or pragmatic. However, in preparing students, this mixture is very useful. We have both a 4-year bachelor's and 2-year master's degree programmes. Perhaps, at the bachelor's level, it can be somewhat chaotic to have both practitioners and researchers because it would complicate the decision-making process. However, for the master's, this blend can be very beneficial. This can, potentially, be related to another question about new forms besides the studio at the master's level since it's basically research oriented, in which studio and research work could be alternatively implemented. Therefore, I consider it very important to have contact with practitioners simply because with researchers alone, the results will not be compatible to the reality outside. We need the symbiosis.

Liviu Ianasî, Bucharest, Romania

So, you're suggesting that it's not only effective to have both practitioners and researchers, but that the tension that exists between them is beneficial as well.

Dimitri Kotsakis, Thessaloniki, Greece

We are confusing two issues here. The legal or institutional issuing of the Ph.D. in relation to university teaching and other matters, and the other is the essential issue of the relation between design and theory. We tend to confuse the two. I'll give you an historical example. In 1922, we had a new law requiring the Ph.D. for university professors. I was a member of the committee that negotiated and finally introduced this new law for architectural and art schools, which stated that in these schools one must have the equivalent of the Ph.D. degree, but not necessarily the Ph.D. We considered this to be a legal and institutional question, which in turn was resolved accordingly through legal means. However, what remained open was the essential question: what kind of theory do designers use? But this is not an institutional question anymore. Therefore, when we talk about research, PhDs and design, are we talking about these essential matters or are we mixing them up with institutional, legal and funding-related issues? .

Liviu Ianasî, Bucharest, Romania

I don't think we intended to be so ambitious as to try to clarify the status of architects and architectural education, but more to focus on curricula and how methods or educational tools are used.

Heiner Krumlinde, Bochum, Germany

I wish to say that there is a new development in Germany and, not just in our country, that the building market is on the decrease. Some action has been taken by the Ministers of Finance, Development and Culture as well as from the central government in Berlin to reinstate what is called the "Culture of Building", which although seemingly new, is a concept that has always existed. The task of the schools of architecture in Europe is to develop the culture of architecture in every country, investigating such matters as: what is architecture in the computer age of self-sufficiency where there is no need for architects? So, this conference has the important task of keeping us and schools alive. We have the knowledge, the history, structure and social conditions that enable us to build architecture for people and, sometimes, animals, of course.

Personally speaking, I have many years of experience, yet it feels good to be here in the presence of other colleagues from different countries and with different "patterns" of architectural education. I would like the Finance Ministers of Europe to share in such communication as well and for them to have more vision for the future, since there have always been occasions when people have expressed dissatisfaction with the buildings they get. This should be food for thought. Finally, as a reminder to all of us that we should always keep ourselves alive!

Liviu Ianasî, Bucharest, Romania

Thank you very much. I might add that the idea of the "environment" as used in the broader sense in the lecture, yesterday, suggests that with environmental changes, schools should aim not only at surviving, but making the necessary internal changes in order to adapt and perform better in new environments, which is highly relevant to our theme of curricula and education.

Guido Onorato Morbelli, Torino, Italy

Indeed, "keeping ourselves alive," as our colleague suggested is a vital message. Due to time restrictions, it's very difficult to express all our ideas or respond to the complex issues presented in your key questions, so I will try to circumscribe or confine myself to specific points. For your information, in Torino, we've been pioneers in practicing the 3 plus 2 award scheme in the whole of the Polytechnic School of Engineering. After experiencing the 3rd year of the first degree, we can say that we've survived it. In fact, it's been less difficult and better than expected, but I cannot make more concrete judgments since it's much too early.

As requirements, we normally ask for a thesis and practical training, and then students can go on to do their 2-year specialization (Laura Specializzata), leading up to the 5th-year diploma. Until now, graduates after the 3rd year are entitled to enter the Order of Architects (Ordine di Architetti), but the government has not yet specified what it is that these people are allowed to do. Consequently, we have some students that come to us not knowing whether to proceed or interrupt their studies, but they cannot be advised so appropriately simply because such matters have not been precisely stated. Definitions such as "modest work of a professional" are far too vague. It seems to me that if experience is required, then there should be a professional body outlining a clear set of recommendations or specifications about what one is allowed to do.

Last year, I mentioned something that I'd like to repeat for the sake of those who were not present. We have the drama of the figure called "Geometro," a person who once started off by measuring fields, but gradually degenerated into designing small buildings. Such figures are the lords of small provinces and countryside where the figure of the architect is unknown and who fill the once unknown and beautiful landscapes with terrible construction, completely spoiling the environment. The problem is that they are numerous and can lobby and make laws in our Parliament.

The point is that we should grant diplomas that allow graduates to do far more than the "Geometro" qualification that can be obtained at the age of 19. However, when our bachelor degree is obtained at the age of 22, many students wonder if there is any point in pursuing the 3 extra years of schooling beyond the menial qualification above-mentioned.

Regarding the issue discussed this morning on the European Union, there is the Shanghai Treaty. On principle, the question of the mobility of intellectuals and professionals within the EU should be dealt with in order for us to find a way of somehow unifying the figure of the architect, because although architects come from different parts of Europe, they actually share a common grain and image. Therefore, there should be a unified body consulting governments into creating a common curriculum. In Italy, the government has provided a framework for the curriculum with a system of 180 or 120 more credits and we have to choose the subjects within the theory and practice framework. Of course, I'm not implying that this model be copied, but at least we should aim at a unified common core in such factors as degree-course duration (5 years), a certain amount of structural teaching, etc. So, this is the point we should focus on since I think it's a good and purposeful goal.

Liviu Ianas, Bucharest, Romania

On the subject of accreditation, there will be a session starting this afternoon, so, you will

have the opportunity to return to this interesting issue. Another point for discussion is to consider the changes you had to make in your curriculum when you switched to the 3 plus 2 and, how you managed to implement it in your institution. The reasons for this is that regarding the graduates of the 3-year programme, sooner or later the accreditation board and government will have to make the necessary provisions in order for them to find positions in the labour market. However, given the present regulations, their status is not so well protected.

Guido Onorato Morbelli, Torino, Italy

It was no easy task, but we have successfully achieved it. Some subjects were not eliminated, but were given a marvelous emphasis. In the end, we compromised simply because we had no other choice since our objective was to make our courses and diplomas valid and recognized by the state. Of course, some sacrifices were required and there were difficulties. Nevertheless, in comparison to our system before, there isn't much of a difference. The government schemes tried to satisfy everyone concerned.

For the purpose of unification, it would be very useful for this particular body of peers to control the standards for all schools in order to minimize differences along the line of standards of quantity (teaching hours) and standard of quality, which is difficult to perceive, though this can be assessed through the final product – the thesis, etc. However, we have a long road ahead and we must choose the mainstream. I believe that our association can help in this direction.

Liviu Ianasi, Bucharest, Romania

Thank you. I think that this type of peer control can be a challenging subject for architectural schools.

Hans Lindgren, Göteborg, Sweden

We've had a lot of tricky questions from the beginning that I've been trying to answer. The issues revolve around professional versus academic studies and what integral studies mean as opposed to research. We made some changes in our curriculum, starting in the mid '90s, with a new programme for the first 3 years. What we're doing now is based on grounding on the basics of architecture. To these rudimentary skills, we have added the ability to work with texts that we consider to be increasingly important since it's not sufficient to deal only with ideas in image or picture form. When students enter the 4th year, they deal with far more complex problems. What we try to do is set up a new kind of studio, more like a workshop with a mixture of research and practice. The teachers recruited with research experience hold PhDs. and have long-term commitment to the school. In addition, there are teachers recruited for their artistic skills with a 6-year commitment to the school. Therefore, all this personnel, along with our Ph.D. students form an environment for our 4th-year students. This environment is introduced at the start of the graduate studies so as to allow students to participate in the courses. This means that we have to change the way we do research in architecture. It's no longer adequate to merely look inside oneself and one's interests, but also to be able to design research. It is the philosophy of the studio or workshop environment to attract people

coming from practice. Many people today ask for possibilities to return to university for a course that they wish to train in. We hope to be able to establish a model where we can successfully integrate both research and practice and merge these two attitudes with our knowledge.

Loughlin Kealy, Dublin, Ireland

I wish to clarify something that you've just mentioned. When you referred to the workshop with research students and research staff participating, does this all happen within the compass of the 5-year programme or is this an extended programme? Also, how does this relate to the more traditional end of the module / model?

Hans Lindgren, Göteborg, Sweden

It's part of the 4 ½ year programme. For example, this spring we worked on the refurbishment of the harbor of our city. We engaged some Ph.D. students and some external teachers who were involved in this research project as well as some 20 students from our school. We also worked with the development company in the area.

Liviu Ianasî, Bucharest, Romania

So, you're basically emphasizing on research in a real-life context.

Hans Lindgren, Göteborg, Sweden

Yes, that's right.

Per Olaf Fjeld, Oslo, Norway

If we accept change and, if we think that architecture is part of change, then we will have to consider that in the complexity of architecture there is really no direct way of doing the "right" things. Perhaps, the "right" things no longer exist. It's all related to our education and architecture itself. Therefore, the fourth point raised regarding self-understanding (i.e. the ability of each school to understand itself better than it does within the realm of architecture) or the mission statement of schools is the greatest challenge that lies ahead of us. In this process, there are no rules, but a question of strength. Every school has the intellectual and creative capacity to put forth what one perceives architecture to be and there should be no leeway. It's important to remember the complexity of architecture as well as the complexity in that question and not to generalize it. Since we live in a complex and competitive world where architecture can no longer provide a direct answer, the self-awareness of each school is important.

Liviu Ianasî, Bucharest, Romania

Thank you for your comments. However, I'd like to add that we should also be prepared to learn from other schools as well.

Per Olaf Fjeld, Oslo, Norway

It certainly does not undermine the importance of learning from other schools or from such discussions. Nevertheless, what each school must do for itself is develop its own capacity to take direction and there is strength in doing that, which this board has to be aware of.

Liviu Ianasi, Bucharest, Romania

Yes, definitely; implementing a proper mission statement involves a mixture of various factors.

Jan Westra, Eindhoven, the Netherlands

I'm Dean of Eindhoven University. In fact, John Habraken was the first Dean of the University. While listening, I've been wondering about our field. We have 8 disciplines in our school, ranging from Real Estate to Construction Engineering with Architecture as part of that. My plea is to make architecture part of every discipline. Metaphorically speaking, it should be the "dew or moisture" that sits on every discipline in order to make integral design more interesting or refreshing than the way we talk about it. We've made a new programme, including a bachelor's since the year 2000, which means that in 2004, the first master's students will enroll. We're a relatively new faculty and before 2000, students had to choose in the 2nd year to be either a construction engineer, architect or urban engineer. Now, we don't have this policy anymore, thus opening the door to many other disciplines. As a result, in the 1st year, which is compulsory, we "display a window" just like in shops and ask teachers to make this "window" as attractive as possible. So, we don't start with the problems of building, as is normally done in a Building Physics' course, but we try to impress on the students how beautiful a building can be, irrespective of its size, if it's designed with the cooperation of architects and with certain aspects of building physics. Ultimately, this has proven that by the 2nd year a student chooses a profile – a "signature". This means that if he / she potentially sits in the middle of a square with each of the 4 corners representing: architecture, technology, management and urbanism, he / she can slide between those corners more or less to architecture or technology. By the end of the 3rd year, however, the student might differ in his / her "package" by almost 40% from another because there is a great deal of flexibility in choosing the subjects and doing the design studios. Therefore, on entering the master's, which is somewhat of a struggle now because all these disciplines want to become what are referred to as "tracks" or "routes," I think it's our task, as a school, to keep up with the signature profiles. At the master's level students should be able to also study "a la carte" i.e. the possibility of choosing "ingredients" beforehand. That's why we work with the portfolio. We have a tutor at the initial phase of the master's who starts programming the student through the course and negotiates with the relevant parties to determine whether the study will ultimately have high enough value. Therefore, unlike the past, there is no architect coming out of this process who is not professionally or academically very well educated in a specific area. For example, it might be someone who is very well trained in building and water systems or underground structures, etc., depending on the student's choice or, most importantly, on the subject matter of interest to the research "shop" of the faculty.

The reason for the importance of the latter is that if a student chooses a "track" or "route"

whose "shop" is not in demand, then the student will stand a minimal chance of working or carrying out the research and, perhaps, even be advised to transfer to a different school.

Generally speaking, we wish to discard the old notion of the word architecture. In Dutch, architecture is a very difficult term that does not mean what it says and does not say what it means. To us, the notion is mystical. In our school, we feel that we actually raise "building engineers" and that architecture is the "topping" almost like a cherry on a pudding; however, it's the pudding we're dealing with.

A last remark, which I would like the opinions of other schools on, is that in Holland the schools are made by the architects themselves. When Habraken sat as Dean, he put forth his theory of the permanent and non-permanent elements – the support and envelope theory. All the students at the time had to study that theory. Although the theory is gone, the intrinsic value has remained. What we see happening in Holland is that famous architects are not teaching in our schools, but come in as lecturers. The ones that teach are practically "married" to the school – they hardly build huge buildings or become famous. The students, in the meantime look at all those well-known architects that make those unusual buildings who tell them that students needn't worry so much about what they learn at school because if they actually know what they want, they will be able to achieve it during the course of their career. So, this creates a frustrating situation for both parties where students are put in a bind or experience a chasm between the school experience and the feedback obtained from professionals in the outside world who place greater emphasis on creativity, personal skills and other parameters of the work environment over the role of academic training as vehicle to success.

Liviu Ianasi, Bucharest, Romania

So, it's not so much learning, but being prepared for the reality outside. Leaving aside the delight of the mystical, as was suggested by the term, architecture,

I have 3 questions for you. First, is what you have just described a tutoring system used after the 1st year? How do the students choose their route or "track"? You said that they have a compulsory first year, which is common.

Jan Westra, Eindhoven, the Netherlands

Yes, in answer to the first question. In the 1st year, for 2 days, the students attend what you could call a design studio where a group of 15 students along with their tutor go through the entire year together, discussing the various possibilities of studies open to them in the 2nd year. Also, students in the 2nd year and other people concerned participate in that studio in order to explain and inform new students. Moreover, we ask professionals from the 8 disciplines to visit during their lunch breaks in order to give short presentations about their respective professions.

Liviu Ianasi, Bucharest, Romania

My second question is related to teaching staff. How or what changes were you required to make in order for your particular teaching staff to adjust to the new programme? In what way was it easier or more difficult in your university due to school size?

Jan Westra, Eindhoven, the Netherlands

We have 2,000 students each year and receive 400 new students. The new bachelor and master's programmes have created problems; however, the bachelor's programme has actually been revolutionary. This morning we discussed the Bologna Proceedings, but my opinion is that one of the best things that can happen to a school that's been in existence for about 30 years (not a long period of time) and in a state of hibernation is a decision of this nature that demands everyone "to be on their toes" in order to meet the new challenge. Now that the new programme is running, it's an even greater challenge to maintain the spirit of novelty alive before it perishes again. I don't know what it's like in other schools, but I know a lot of people who have their truth underneath their arms and they keep bringing this into their lectures where each year the truth is the same. However, if we look out of the window, that's not true, because the truth is forever changing.

Liviu Ianasî, Bucharest, Romania

Was it a school management decision to implement the changes or did they come from outside?

Jan Westra, Eindhoven, the Netherlands

No, it was the Dean's.

Heiner Krumlinde, Bochum, Germany

I'd just like to give some information on the conditions of our school, which I omitted earlier. We have just started a bachelor and master's programme with 4 years for the bachelor's. In Germany, you can be an architect and member of the Chamber of Architects with the 4-year qualification and 2 years of practice. We are the only University in Germany that implements this policy and are anxiously expecting the Accreditation Board, which is due to visit our school at the end of September, to give us their approval. Otherwise, we will have to switch to the 3 plus 2 from the present 4 plus 1 with a little extra time for the thesis. Last year, we also started a course called "Architectural Media Management."

Liviu Ianasî, Bucharest, Romania

Is that at the undergraduate or graduate level?

Heiner Krumlinde, Bochum, Germany

That comes after the 4th year degree or any other equivalent diploma from any country. More than ½ of the 20 students who enrolled in the 1st year of the Master's in Media Management are working students in practical training. They study on Friday and Saturday all day and, there are many lecturers on staff who are practitioners not holding official university titles who receive a week of education 2 or 3 times per semester. So it's also possible for professionals to take this master's course. Until now, it has been without fees, but there is a new law in Germany which makes it mandatory for students to pay

educational fees throughout the country. At the moment everything is new, so, we're testing things out and, since they were our ideas, we must show tolerance and restraint. My question is whether a 4 plus 1 model would create a problem in the European context.

Liviu Ianasî, Bucharest, Romania

Perhaps Loughlin will have an answer for that. In Rumania we've tried to discuss the 4 plus 2 model. As far as I know, the pass requirement for the master's is a minimum of 3 semesters.

Loughlin Kealy, Dublin, Ireland

I don't know if that would be a problem. The system in Scotland has a 5-year total period for architectural education, leading to the professional degree, but it is divided into a 4 plus 1; however, the 4-year alone would not be recognized as professional qualification in their case. In the United Kingdom, the system is generally that there is a period of practical experience taken within the educational course and then there is a year taken afterwards, adding up to a total of 7 years.

I meant to ask you, what size is your school?

Heiner Krumlinde, Bochum, Germany

We are one of the small schools: 600 students and we accept between 70 and 80 new students per year, plus 20 in the Master's in Media Management course. In the future and starting this year we plan to take 60 students for the 1st year, 20 for the master's 1 and 20 for the master's 2. However, we have only two new professors half-time and about 10 lecturers from the practice, like designers, journalists, etc.

Liviu Ianasî, Bucharest, Romania

Are there any other comments? Steve, did you want to say anything about Scotland?

Steven Spier, Glasgow, United Kingdom

Scotland does have a 4-year degree which it intends to keep. It can do that because the first part of the professional accreditation is after 3 years. So, the professional accreditation is staged and out of step with the academic qualification. This is very awkward, but it was imposed upon us by the English and that's the way it's going to be. However, I wanted to refer to Eindhoven because in Strathclyde, Glasgow, the master's degrees are separate courses. While they all lead to professional qualification, after the bachelor's, the students have to make a choice as to whether they want to study Urban Design, Architectural Design or Computerized Building System. So there is an increasing specialization at the master's level. As far as I'm concerned, this is the direction it will have to take because the 1st degree will have to become more general education while the 2nd degree will become more specialized. I don't know quite what Eindhoven is going to do, but it seems that they must be taking a great deal out of the architectural curriculum, so they must be producing a different kind of professional who, by definition, would have to know less about architecture, but far more about other things.

Liviu Ianasî, Bucharest, Romania

Unfortunately, our colleagues from Eindhoven have just left, so we'll have to get their reply on this later.

Kestutis Zaleckis, Kaunas, Lithuanian Republic

A few short remarks. In Lithuania, we also have a 4 plus 2, i.e., 4 years for the bachelor's and, the main requirement for the bachelor's is that the student should be able to design. For example, in the case of an urban designer, the student should be able to design a small district. In terms of the master's, the student is expected to know how to use science in order to support his / her design decisions. For this reason, the bachelor is simply a B.Arch. (Bachelor of Architecture), but the master's degree involves 2 main specializations: architecture and land management or urban planning and environmental design, which could be named differently.

Interdisciplinary studies are included at the master's level. Also, as we think about the relation between general vs. specialization, academic vs. professional, I think the same agreement could be obtained on the basis of new teaching paradigms. Now, in a rapidly-changing world, where nothing is constant or stable, we should use the paradigm of "fawning"?? as all people should learn about life and, in this case, we can give as starting points narrow specializations since professional orientation is implausible. My last point refers to the idea of keeping ourselves alive. Only 10 – 15% of students who finish their studies, work in the field of architecture and these figures have not changed from the time of the study until now. There is a considerable amount of competition in the field of architecture with 9 people for every place, so, education can provide a solution by investigating attitudes in the environment. Even if in the future architects may not be in such demand.

Loughlin Kealy, Dublin, Ireland

I would like to ask the people here a question that has actually to do with size of school in order to help me understand what I'm listening to. This morning we were presented with some statistics from approximately 55 schools that responded to the questionnaire. The results were quite startling in that most schools were rated as extra small (less than 500 students, etc). Therefore, I would like, if you agree, for you to raise your hand so that I can see in terms of the audience here what size schools of architecture you come from. I'm curious because I'm conscious of just listening to Eindhoven and Bochum and knowing about Strathclyde that it would be an interesting fix for the audience just to hear the contexts we come from.

How many schools here have less than 500 students? That's 14.

between	500 & 1,000?	8
	1,000 & 1,500?	2
	1,500 & 2,000?	2
	2,000 & 2,500?	2

Spyros Raftopoulos, Athens, Greece

I think we should go back to the curriculum as much as possible. Now that we have identified the size of schools, things can be understood more clearly in relation to the sort of systems we apply. In our school, we've got 1,650 active students. The registered students are about 2,000, but let's not count the registered ones for the sake of this discussion. So, with reference to the 1,650, we have some semesters (as we are structured in terms of semesters) with more than 350 students in one class. Concerning our curriculum, about 5 years ago we applied a new one, which has in fact completed its 5-year course cycle just last year. Originally, it was a system structured in a very strict manner, where each different subject was isolated from the other subjects and most of our subjects were compulsory with very few electives. Now, with the new curriculum, we have many compulsory subjects in the 1st 2 semesters until the 5th and then they are gradually reduced as the electives are increased.

The kind of problems we had revolved around breaking down the different subjects and in the area of staff relations, more specifically, getting the academic personnel to cooperate with each other.

The essence is that from the 5th semester, we apply a system of integrating subjects, so "Structure and Design" are one integrated group of academic tutors that operate together in groups as in a studio system. Because we have many students, we may have 3 staff members, all architects, but from different disciplines or specializations that have the responsibility of tutoring approximately 30 – 40 students.

Although our system does not include specialization, we do incorporate into the programme, apart from the pure architectural subjects, some specialized ones such as restoration. We have Structural Engineering in the 1st semester, Planning, even Regional Planning in the last semester, which is a sort of general education. We have a lot of Theory and History; History of Art and History of Architecture up until the 6th or 7th semester, if I remember correctly. In the beginning, we give a lot of general education subjects since we feel that the architect has to have a holistic approach as a professional and not a specialized one. Of course, we claim this to be part of the school's philosophy, believing that they should not just be specialized purely as engineers, architects, etc. In the final 2 semesters, we have, first of all, a written dissertation, which needs to be presented in the amphitheatre as an oral presentation. In addition, there is the final design project, which is very important. If we were to compare it in terms of credits, we would consider it to be equivalent to 40 or 45 credits just for the design thesis, which takes a minimum of 9 months up to possibly a year to be completed. These projects are expected to reach a level of professional presentations and that's why they absorb a lot of time and, students are tutored by groups or individuals from the staff.

Also, briefly, without going into details, there are questions that arise when systems are being applied for architects that are expected to be professionals, to prepare for qualifications and to produce architecture after a short period of education. For the purpose of stimulating this discussion, I would like to raise the question with our Torino colleagues as to whether they are satisfied with the level of education of people that complete the 3-year course and whether they feel such a qualification alone can produce qualitative architecture at any scale. Our feeling is that they are not ready to produce work of such standard and question the academicians' decisions to grant such qualification to students after the 3-year course, knowing that they will have to go out and produce architecture.

Theano Fotiou, Athens, Greece

I'd like to add that because of the changes we made 5 years ago, the curriculum has become so heavy that none of the students have been able to complete their studies before 6 1/2 years. Then we have the master's degree studies with specializations in 3 different routes, which we haven't mentioned, let alone the research, etc. Since, as you already know, we are a big school, 1,600 students with 105 permanent staff, including professors, lecturers and full professors (permanent staff), we find it very difficult to educate our students at a desired, high level. Therefore, considering all this, can we talk about free programs? We have large student groups to 20 or 30 professors – can we talk about "a la carte" curriculums? I know I'm raising more questions, but I participated in a meeting held in Athens just yesterday with a professional board of architects from Rome (1, 500 architects) who ardently criticized this system of the 3 plus 2. Not all schools in Italy follow this system. In fact, 20% admitted that there is a big problem with the system of new "junior," regional architects as they are called there.

Loughlin Kealy, Dublin, Ireland

Can I make a suggestion? You see, you belong to a group of schools that are very large. We have now identified 2 other schools that have a large number of students. I suggest that you discuss your concerns with them separately because the issues you raised cannot be resolved here.

Dimitri Kotsakis, Thessaloniki, Greece

I'm afraid that what I'm about to say will confound the discussion even more. In 1980, the Council of Europe established, strictly speaking, four professions: the Architect, the Town Planner, the Conservationist and the Landscape Designer. Now, if the architect was broken down into Interior Designer, Building Designer and Urban Designer, you would have an additional 3, adding up to 7 professions and, if you added a final one, the Constructor, then in 1980, you had 8 professions. But now, they are roughly 16 and rapidly changing with the pace of software programs. Therefore, every 5 or 6 years you will have to change your professional profile. When we talk about curriculum here and the strategy implied in appropriating it, some people will say, let's follow the market or the ministers. I say to that, well, here is the ministerial decision with 8 professions and, on the other hand, there is the market with 86 professions! What kind of strategy or curriculum can we develop under the circumstances? So, if we don't turn around and say that we are universities and that we are free and that we have students that are being educated to become not only architects, but responsible citizens and human beings, what choices do we have? Our responsibility at the university is to ask the fundamental question, what kind of architects do we want to produce? Also, we should consider that we are not creating a fraction of the person, but the whole being. The question and process is difficult and this is why we need the support of a network and these meetings. The scope is not for us to define the best strategy nor to define the curriculum that fits the best strategy, which is devastating.

We are here to create knowledge on the basis of diversity and on the basis of integration. However, in order for us to create this knowledge, we must learn to refuse certain things. We cannot accept the compulsive divisions and, I don't mean compulsory, since once

internalized, they become compulsive, like the bachelor – master; the architect – planner; the professional – academic. We must learn to rise above these!

Loughlin Kealy, Dublin, Ireland

I'm just wondering, because sessions such as these can become frustrating, where one gets to a certain point and then can't get beyond that, I wonder if people would be interested, as I suggested before, for the larger schools to get together in order to talk about curriculum innovations etc.. It might also be interesting for other grouping of schools that are, perhaps, comparable in size and structure to converse among themselves. Does anyone have any ideas of how we can do that? It seems to me that very often, at sessions like this, we find ourselves having such divergence of scale, staff structure, etc. that it becomes very difficult to produce a set of coherent conclusions for investigation. Just glancing at my notes, what I'm finding is that there is a "galaxy" of observations made and, it will take all my ingenuity to try and find the same degree of coherence running through them.

I wonder if there is a way that the Network could be encouraged to create some kind of dialogue between schools of various scales? Would this be a step forward or backward?

Theano Fotiou, Athens, Greece

That's a problem and I wish to explain that the nature of the problem is the student – teacher ratio. As I said earlier, we are a big school with about 1,500 students and 100 staff members. So, the ratio is 1: 15. But if you have 2,000 students per 20 or 30 professors or if you have a school of 600 students per 10 to 15 professors, then you can't discuss the same problems. The question of a big school is far more complicated than numbers!

Dimitri Kotsakis, Thessaloniki, Greece

That's not the only problem. There is another complication because in my school there is 1,000 students to 100 teachers. We have a principle in the school that when we have a compulsory course, we assign many teachers so that students can choose their teachers – it's part of our philosophy. The result of this is that some teachers will have 150 students while others 5. Nevertheless, we adhere to this principle in order to ensure freedom of choice and, ideally, we should have even more teachers so as to ensure that this right to freedom of education is maintained.

Therefore, the complication lies not just in ratios, but safeguarding a philosophy inherent in a certain principle.

Liviu Ianas, Bucharest, Romania

To recap, the intention of this workshop was to select some issues to be discussed and seek clarification for in the framework of four questions and what has emerged from it is a series of more questions with no conclusions.

Shaping the Curriculum in the European Higher Architectural Education Area

Discussion Group 2

Coordination by

Kees Doevendans, Eindhoven, the Netherlands

Johan Verbeke, Brussels, Belgium

François Tran, Lyon, France

Kees Doevendans, Eindhoven, the Netherlands

It seems that Francois has some questions for Johan and me, so these can be the starting points of our discussion; however, before doing so, I wish to inform you that we had a luncheon meeting with the coordinators of the other groups and, it was felt that it's not very useful to refer back to all the bureaucracy and formalities of the Bologna Proceedings. I believe that Marvin Malecha's message was a very wise one. Indeed, students want to move on and we, as faculty members, are interested in doing research; consequently, the mobility factor is part of our reality and not who signed the Bologna Declaration and so forth. We have agreed that diversity should be at the root of our discussion. An interesting finding from the results of the schools' survey was the large number of small-sized schools, which we found quite astonishing. Johan provided some examples of networks and a question that came up during our meeting was how networking can be seen as an added value for small schools. How can schools profit from such communication? What is the potential of networks in enhancing diversity? What can schools offer to a network? What can the diversity of the schools contribute to a network? Basically, it boils down to the question of self-assessment and reflection.

Another outcome was that we had polarity on the traditional model vs. the new, research-oriented one, otherwise defined as curriculum vs. competencies. Also, what is the place and meaning of the studio in this new "wave"?

Another interesting thing that you may wish to question or comment on is that staff patterns were represented with a great deal of variance. Perhaps, you may have some opinions or experiences with such staff patterns. What is the effect of a local part-time staff member in terms of the skills / competencies one can bring to the school?

Moreover, if there are any other specific items that you feel are important, perhaps you can add to what has been already mentioned. So, Francois will now raise some questions in order to initiate our discussion.

François Tran, Lyon, France

I'd like to start the discussion with some questions for Kees and Johan. If we read the statement introducing this workshop, it states that "...a common basis has to be established on which the European profile of each school will be shaped." The results of our survey show a typology of curricula, more or less academic and vocational with or without research. Do you think that this type represents the right concept to define a common curriculum for a group or network of similar schools and, in this case, what kind of similarity is necessary? You also say that a standard master's degree is not possible, but do you, Kees and Johan, have a response for the concept of a meta-university? It seems possible at the postgraduate level, but what about integral or direct studies? What seems to me to be an important question is, what kind of architects do we educate, today? This issue is very much related to Habraken's lecture yesterday. What is the fundamental basis of their education?

Roger Liberloo asked the question on competencies and this seems to be the best way to start, i.e. by defining the professional.

Kees Doevendans, Eindhoven, the Netherlands

Although I'm not responsible for the content of the sentence you've just read, I would say that if there is a common basis, it will be a concept of differences, which is the point we tried to stress this morning. We have always thought that it's the quality of schools that is the message implied by the words. The idea is that we see so many movements within schools that they want to offer different trajectories, so perhaps, you can use such a matrix to designate or make a classification of such trajectories. The question raised was if we can define a common basis for content of curriculum. Roger came up with the idea that it's better to define a common basis in terms of competence, which automatically leads to research, design and other related issues. Moreover, there was the question of graduate studies.

Johan Verbeke, Brussels, Belgium

What, I think, I learned from your question is that we make a distinction between the bachelor's and what comes after it. At the moment, as demonstrated by the inquiry, there seems to be more focus on research and, therefore, on the master's degree, where there is more variety and where one needs a degree of competence in order to organize it appropriately as well as support it. Therefore, one of the many reasons we started developing networks was to bring competencies together in order to support the master's degree programme more effectively. Equally, however, the question has to be also asked regarding the bachelor's. There is clearly some variety, then, but the focus is closer to bachelor than the master's, although the bachelor's is preparation for the master's so there is a definite link. So, it seems that Roger Liberloo's question of competencies should be the focus point for the future. What competencies do we want after the first 3 years of studies in order to facilitate cooperation and exchange at the 4th and 5th year level? This may not have answered your question, but it did contextualize it.

Kees Doevendans, Eindhoven, the Netherlands

Regarding the issue of different professional domains, including Landscape, Urban

Planning, Architecture and Interior Design, the question is, when should the specialized training begin? Should this type of education start at the bachelor's or undergraduate level? Should a common basis for such professional domain be the BA (Arch)?

Johan Verbeke, Brussels, Belgium

Regarding the quote you've just read, indeed, on the one hand, we ought to establish some kind of common basis, but on the other hand, at the meeting 2 years ago we did make the statement of maintaining and even nurturing the variety that exists among the different schools. This is a type of tension that we must be aware of and deal with by encouraging compatibility between the 2 rather than polarization, which would have destructive effects.

Kees Doevendans, Eindhoven, the Netherlands

Do we have any percentages of very small schools represented here? Are you the only one? Do you think it's a problem or advantage?

Christian Huetz, Regensburg, Germany

First of all, I think that the problem we're referring to is that of a common curriculum and, if we have a statement from Dino tomorrow, I don't see how we will manage to accomplish that because only 5% of schools are on their way to the Bologna system, 12% just have master's studies and 30% have expressed no intention of switching to the above-mentioned system. As a small school, we're wondering about what course of action to take. I don't think that it's possible with the number of staff we have, which is some temporary and 14 permanent professors to 300 students. The only solution I can suggest is for us to have a network, as was pointed out last year and change nothing because if we want a real master's course after the bachelor's, irrespective of the manner in which the bachelor's studies finish, we will need an input of things that we can't offer, so the only recourse is the network.

Enrico Sassi, Medrisio, Switzerland

I come from l'Accademia di Architettura di Medrisio (Architectural Academy of Medrisio, Switzerland), which is a new school with 500 students. We are now in the 6th year or the 1st year of the Diploma. I'd like to refer to your question on the "critical mass", which is not actually a problem of student numbers, but rather a problem of "critical mass" vs. quality teaching. It's evident to us now that if we had more students, we would be obliged to change our system of teaching. With our present population, we can manage an atelier of 20 – 25 students and an architect working with them. However, I think that the problem of quality is a question of structure and staff. If we don't have many students, but have good teachers, one can ensure quality teaching to students. These issues of school size and quality teaching are directly related to the existing infrastructure, i.e., if a school can offer an atelier of high quality, with many good professors and appropriate facilities, e.g. being able to provide physical space and time for the students in the atelier is extremely important. So, for us it's a question of logistics and level of staff.

Luis Conceicao, Setubal, Portugal

I didn't follow the beginning of the workshop, but I come from a region in southern Portugal and our school is extra-small with 200 students and 26 teaching staff, which started 7 years ago (as in the case with the aforementioned school in Switzerland). There are advantages and disadvantages to having a small school. The positive angle is that there is tutorial teaching in studio classes and the opportunity of interacting with different classes and levels.

As for the "mass critic" we invite, on a monthly basis, people from outside school to come in, either in the framework of a general conference for all students from the 1st to the 6th year or in the studio sessions. This policy of inviting external people is a means for us to integrate outside opinions with our internal ones. I think it's beneficial to be a small school: we all know one another and all students by their names from the 1st year right up to the last year. I can appreciate the difference because I worked for 22 years in the Faculty of Architecture in a large school in Lisbon with a student population of 1,700. The experience was totally different for the students because they lacked the opportunity of changing teacher. I suppose we can't have everything!

Kees Doevendans, Eindhoven, the Netherlands

Good things come in small packages! I have a question, what do you mean by outside the school?

Luis Conceicao, Setubal, Portugal

From the profession or other schools or areas.

Gunnar Parelus, Trondheim, Norway

As I understand it, this is a question on small schools and "critical mass" for research.

Kees Doevendans, Eindhoven, the Netherlands

As well as the advantages of small schools.

Gunnar Parelus, Trondheim, Norway

My school has 350 – 400 students of architecture. But, first of all, I would like to mention that since we use language in different ways, here, or with a different focus, I wish to clarify a few terms in an effort to answer the question efficiently. By the term "research driven" (research oriented), as I understand the jargon, we don't mean that we teach the subject we do research in, but within the university milieu or context, "research driven" means that we channel education along the research line of thinking, always challenging traditional theory or what is commonly known and learning from this perspective. The university level is one in which people do not agree on one given truth and it is precisely this struggle or search for truth that drives learning. Therefore, at such a level, we are not normally requested to teach the subject we conduct research in as we can teach many others as well under the label of research-driven education. In this mode of thinking,

our concept and attitude toward knowledge change. The question that follows is, what do we mean by research-driven education? At our university, we think in terms of artistic work (architecturally creative work) as being at the same level, unequivocally, to research. So, research-driven means that architects who have their own practices are on the same level and perspective, fighting for truth while challenging old concepts. Therefore, we need people with fresh experience that are research driven. In Norway, that's what we mean by the term. As a result, we don't say "Art and Research Orientation" or "Architecture and Research Orientation" since the term is an acronym for our concept of knowledge and how to teach. The next question is, how do you manage, then, to have research-driven education in a small school? Well, you focus your research on some subjects and get the best teachers to do that so that these excellent researchers, architects and artists disseminate knowledge throughout the whole school. The size of the school does not really matter because if one is an excellent artist or researcher one doesn't just create a milieu at one's own school, but within the university at large and internationally through networks. Small schools can have an excellent concept of research-driven education and research as well.

Kees Doevendans, Eindhoven, the Netherlands

It's true that we needed a definition of the term "research driven". We have heard a number of terms: research based, research led, etc., but I think that research-driven is the strongest of all. As I perceive it, at the master's level, the student work involves producing scientific output, which is part of that definition. The aim in question, then, is not just to educate good architects, but to produce scientific output perhaps for the purpose of contributing to a body of knowledge. That's my idea of research-driven education. In the Netherlands, this is very important because if we don't produce research or scientific output, the master courses will no longer exist.

Gunnar Parelus, Trondheim, Norway

I didn't really catch the question, but what you were saying about students doing research in various ways and that through this original work they aim at challenging old concepts and contributing to the development of knowledge at the university, certainly this can happen in a small school as well.

Christos Hadjichristos, Nicosia, Cyprus

I think we need to make a distinction between 2 kinds of research. You can certainly conduct a piece of research as a student and express your personal view or perception of the outcome or learning derived from it. However, this acquired knowledge does not mean that it's true and, if it can't be shared, tested and examined by other groups of colleagues, then it can't be called scientific in the strict sense of the word. Many schools that refer to research attach a loose meaning to the word, a kind of "go out, observe, report conclusions and come up with a design" type approach, which could definitely be called research, but not of a scientific nature, since even if not necessarily true, it would have to undergo testing and the results of which would have to be reproduced by other professionals. Therefore, the point is that in order for us to communicate clearly, we should be more specific about the language and terms used since we tend to refer

very loosely to such things as science, art, etc.

The second point is that throughout the talks I've heard here and this is the first time I've attended this type of conference, we have very cleverly avoided talking about what architecture is, probably because we wouldn't be able to manage to do so at a conference. Nevertheless, what we should think about is, can we really consider the pedagogical structure of our universities without talking about the content and what it carries? It's like designing a structure without knowing its load. Can we really talk, in general terms, about the structure of our educational system without defining the characteristics of the load? This makes a difference in determining what we want to produce or allow the structure to carry.

Pierre von Meiss, Lausanne, Switzerland

I come from a school whose history I know since I've been there from the start. Over the years, our student population has vacillated between 220 to 250 and has steadily risen to the present figure of 700, so we have now reached the "critical" size. I must say that during this period, I've made the following observation, which is that when it was at 250, it was perfect for the studio, but very poor in other aspects, mainly because the engineering part had to be taught by 2 engineers hired from the Department of Engineering. However, when the student number reached 600, we had our own civil engineer chosen by architects to teach architects. That makes quite a difference! Suddenly we also had the opportunity of hiring our own sociologist whereas before we had to go through the University and have our students attend courses not geared to architects. As a result, with the Sociologist we hired, Michel Bason, we developed a whole center with 20 researchers around him. In fact when it comes to research, it's such people at the edge or fringe, but within the Department of Architecture that are doing most of the research, as is the case with the Physicist Scarpezzini who has done a great deal of research in the practical rather than epistemological domain simply because that's where research grants can be obtained. For example, it's easier to receive funds in order to investigate energy problems rather than an architectural discovery for epistemological purposes. Therefore, the crux of the matter is that a small school can be just as or, perhaps even more productive in terms of studio, but for the rest it's advantageous to be part of a larger or medium-sized school.

Kees Doevendans, Eindhoven, the Netherlands

So there are thresholds. I'd also like to add that you have a wonderful laboratory for wood construction, I think.

Christian Huetz, Regensburg, Germany

I'd like to refer to the issue of research and the two meanings previously mentioned. I also believe that school size is irrelevant to research in architecture, but what is important is stimulating student curiosity since it's the necessary quality and means through which students understand what's happening in spite of their numbers. In contrast, quality teaching depends on the number of students you have. You can be a very good teacher, but if you have 40 students, you won't be very successful in doing your job. As for number of students per teacher, I think that a group of 15 students is a very good number in a

studio that includes seminars and a project. Once again, however, I believe that getting students to think and arousing their curiosity in what's behind the programme is what's extremely essential to architectural research.

Kees Doevendans, Eindhoven, the Netherlands

Yes, that's one of the competencies.

Gunnar Parelus, Trondheim, Norway

On the issue of thresholds, when the student population reached 250 students in our school, we decided to hire just architects and they could be specialists in other fields although we required them to be generalists because we needed them to act as "charlatans" in other kinds of fields. However, when the number of students increased to 350 – 400 then it was possible to have cross-disciplinary staff. We have 50% architects and the remaining 50% in other professions in our school. This is important because even though it might not in itself guarantee effective results, it is, nevertheless, beneficial to have people from other disciplines within the school.

On the question of Art, Science (depending on what we call science) and the Humanities, all of these should form the basis of establishing a good school at the university level. Also, our thinking should not be muddled when attempting to distinguish these subjects so that we don't call art or creative work scientific research because the criterion is being able to paraphrase (explain), in research, whereas art can't be explained. For example, in the case of art, one cannot ask, "What did you mean by that?" because the sheer explanation or different expression changes the art form. Nevertheless, top-quality people are required in order to do this kind of work and have a reputable school. So other criteria are needed and to model it after other kinds of academic activity is to cut down expectations of how it could be good. You can do anything and get away with it because you don't have the right criteria to differentiate.

There is also the question of distinguishing between the Humanities and Natural Sciences, etc. You shouldn't be intimidated by not adopting the Natural Sciences, but rather allow oneself the choice of channeling into more academic routes. Science could be dangerous in the wrong hands so, we should beware of people who talk about science in wrong ways.

There is one final point concerning the bachelor's and master's degrees and how to differentiate between a Master of Science or Arts and a Master of Architecture. This is very closely connected to all these previous questions. I think we need to have some kind of academic theory on a scientific level in Architecture. It's a kind of science in its infancy which has to grow out of the practice of architects. If we make a distinction between architects who are professionals and those that take a scientific orientation, we obtain a cross fertilization between profession and the new kind of science in its infancy stage. So, if the scientific ones get sidetracked, they acquire the scientific criteria from other disciplines that enables them to look at architecture just as professionals, thus missing out on the unique opportunity of letting science grow out of (bloom from) the practice of architects.

Kees Doevendans, Eindhoven, the Netherlands

All these notions about small being advantageous are fine up to a point, but it could also be a myth for architecture. Is there anyone in this room who could make a case for a large school with a research program and, what would this mean for the field of architecture?

Smaranda-Maria Bica, Timisoara, Romania

We have statistics of schools that belong to that organization as well as the big universities with architecture that have roughly 5,000 students, which means that they are equivalent to 10 small ones. We don't know the percentage in Europe of the big or small universities, but if we combine several of the smaller ones, they will be comparable to a large one. I know that M.E.T.U. is large and so is Nuremberg.

Christian Huetz, Regensburg, Germany

The colleague's question was in relation to quality rather than dimension. The quality of a school is found in the relation between professors and students. If tutorial teaching is necessary and one does only lectures, then students will not be properly directed towards meeting their goals. Therefore, it isn't so much size that determines a good from a bad school, but the extent that we can reach out to our students.

Kees Doevendans, Eindhoven, the Netherlands

Yes, but we also made the point about determining research as a competency of students, i.e. research as product or output, contributing to a body of knowledge and the related issues of motivating this input from students and obtaining research funds as educational problems.

Pierre von Meiss, Lausanne, Switzerland

What I'd like to do is steer the discussion in the direction that interests me and that, I think, students are generally interested in as well, which is obtaining the profiles of different schools. For example, what's the profile of the school in Munich? Or, how does the profile of Zurich differ from another? I'm not asking for information based on value judgments (how good or bad a school is), which is another matter and decision for our consideration. However, what we could investigate is, what they are and how they think, what they're strong in or where they think their strength lies, etc. I think that this together with an inquiry of the type conducted in the case of the ½ million one, mentioned this morning, where the person who travels from school to school in charge of collecting data would have to formulate a profile for each school would give us some indication. Of course, we have to take into consideration that profiles can change rapidly, especially in the USA, where change can be seen from one year to the next, whereas in Europe it's somewhat slower. One reason for this rate of change is that when a good professor leaves, he takes with him the rest of the good staff to the new university. The system is more flexible in the USA. I remember in the '60s or '70s in Austin, Texas where everyone suddenly left for Cornell University. So, profiles require updating from time to time, but they are, nevertheless, necessary since we need more precise information than what is normally provided in

the EAAE guide. A format that could be used would be a question / answer style.

Kees Doevendans, Eindhoven, the Netherlands

That's a very good suggestion, which is related to what was mentioned earlier about exploring what schools can offer. Knowing the areas a school excels in is an essential piece of information, which might be easier for schools to share than having to answer a tedious list of tricky and redundant questions as usually presented in questionnaire forms.

Constantin Spiridonidis, Thessaloniki, Greece

This question of profile is not just operational, but theoretical as well. The issue raised by Pierre as far as obtaining information on quality based on subject areas was actually attempted through our assessment questionnaire with the three questions at the beginning, where participants were asked to define specific or general aspects about their schools in relation to their strengths. However, through such generalizations we could not achieve a coherent answer on the basis of which the profile of schools could be structured. Indeed, this is our question and, probably, through this exchange it will be possible to identify those characteristics on which we could build our profiles. This morning, I tried to single out some parameters that could be perceived as reference points, but I'm sure there is insufficient information that needs to be supplemented. Therefore, I would appreciate some ideas that could help us continue along the path of creating such a profile resource in the future. Probably, the Worthington Research is one moving in that direction, although there might be others that I'm not aware of. This is an open question and your feedback could be incorporated in a future inquiry.

Kees Doevendans, Eindhoven, the Netherlands

It might be late for that since we also have the question about professional domains to deal with. We talk about Architecture, but there is also Urban Design, Landscape, etc. Are there any schools here that teach Town Planning / Urban Design or Landscape? It seems to me that the education on urbanism is very unclear in Europe.

Gunnar Pærelus, Trondheim, Norway

I feel I'm in a situation like the "troll" character in Norwegian fairy tales who comes home and suspicious of the fact that some promiscuous sinner is hiding in his household proclaims, "I smell the blood of Christians." So, this is a situation that resembles what happened in Norway when the Art schools, which were academies, tried to be recognized at the university level. They were told that they needed something like research to get to that level, probably, in order for them to obtain funds, without ever considering the needs of Art, the needs of society and those of students. They merely demanded that schools be upgraded in order to obtain funding. Consequently, schools were precipitated or threatened into a situation where they tried to have some research in order to meet the "scientific label". As a result, the kind of research they eventually got involved in was how to frame a piece of canvas, finding solutions for glue etc. rather than researching their proper field for the sake of expanding their knowledge and understanding. Similarly,

here, we're not asking ourselves the relevant questions such as, why do we need this research? What are the needs of architecture? What are the needs of our students? What does society need from us? We find ourselves thinking in terms of research-driven education not for what it should be, but for the wrong reasons, which is often for the purpose of obtaining funds or for the sake of improving the institution's profile, but they're the wrong starting points!

Christos Hadjichristos, Nicosia, Cyprus

I think that you're right. Maybe, the word "scientific" associated with the term "research" carries the notion of prestige, acknowledgement or that we needn't be a "creative" faculty. Nevertheless, don't you think that our knowledge could be pooled or accumulated? That we could share this knowledge regardless of its nature, whether it relates to plastic or glue or whether it's about the act of designing itself? Now, that can be a legitimate architectural research!

In other words, instead of talking about the specific item under investigation, the act of research, itself, could be examined and whether this could allow us to share that information.

Michèle Michel, Bordeaux, France

I would like to express the student's point of view since we're constantly talking about the institution, size, etc. If I were a student, free to move around Europe, I would be interested in such factors as the country itself, language(s), hear say about staff / student relations of the university, different kinds of specialized modules and a diversity of other factors that are not part of our discussion. We tend to talk about ourselves, but if we tried to put ourselves in our students' shoes, I think that the picture would be different. Perhaps, if we try to imagine the position of students, we will be able to get down to the basic questions of student / teacher rapport and content. In the final analysis, it's really not size or types that will make a difference! It's the students we need to discuss, who are often forgotten.

Enrico Sassi, Medrisio, Switzerland

Basically, we need to consider that we are here to talk about quality, which is related to another question already raised. There might be a problem with the generic answers received from schools; however, every school tries to produce good architects, which is actually our duty and desire. The way we choose to do that determines the difference between each school. Our purpose, quoting from a phrase I have in front of me is "...to produce knowledge and not just excellent architects". The problem arises when you try to measure this knowledge. Research measures the quantity of knowledge, but when it comes to assessing quality or performance of fledgling young architects, then, it's a very difficult task we're faced with. Therefore, if one of our aims here is to investigate how schools differ, a distinction should be made between the quantitative and qualitative features. For example, on the subject of diversity, this morning, we were presented with some data on hours of various teaching activities that should, in fact, be classified as a quantitative difference since we have no means of evaluating the qualitative aspect of the teaching process involved. One can assume that successful teaching produces a

good architect, but what exactly is a "good" architect?

Kees Doevendans, Eindhoven, the Netherlands

It's widely understood. Doesn't your school have a definition or a list of competencies?

Enrico Sassi, Medrisio, Switzerland

Yes, of course. My point is that the definition can be our guideline, here.

Christian Huetz, Regensburg, Germany

First of all, I'd like to say that I come from Regensburg and, as I'm often asked, it's in the southern part of Germany. I'd like to return to the subject of knowledge since we seem to frequently refer to knowledge and research. In the field of architecture, knowledge serves to meet the goal of the student or architect. If someone leaves school having learned much, we can say that they have a lot of knowledge, but this doesn't mean that they can be architects. What, then, should we say about knowledge? Perhaps, knowledge is simply the foundation for someone to start and complete a project. Knowledge in itself does not say anything much. So, to go back to the notion of the "good" and "bad" school, teaching a great deal of knowledge when students don't grasp the essence of that knowledge, without showing an indication (outcome or product) of what they know, will not produce good students. There was a very good question that cropped up earlier asking, what does the student think? Also, why does she choose a particular school? Why does she change school? The outcome involves how well-trained a student is to fulfill the profession of an architect. The more skills one has, which means know-how that is knowledge, but not necessarily of a scientific nature, the more one will be able to carry out the requirements of the profession.

Kees Doevendans, Eindhoven, the Netherlands

I'm somewhat amazed, you've mentioned the importance of students, however, if you were to make a list of priorities, would the student be first on the list or 4th or 5th? If you follow a stake holder's approach, I don't think that the student would be 1st on your list, let's not fool ourselves!

Tony Rees, Leeds, United Kingdom

I'm Head of Leeds Metropolitan University and also here as a representative of architectural schools in the UK. I'm not sure if this contributes to the debate at all, but in the UK we have what's called the "research assessment exercise" that covers various subjects and disciplines including architecture. Universities make submissions under these headings to a research panel that evaluates the quality of the research being submitted. The work submitted is then graded according to the research criteria they use. The score obtained determines what your next award will be under the heading of research. So, in that sense they are stake holders because the funding can release people from teaching in order to do more research, in which case you can buy part-time hours to cover things.

One of the interesting things that has happened recently is that Cambridge University has decided to withdraw their diploma course because they perceive a conflict between that and research. Therefore, in Cambridge, they will have an undergraduate course, but not the diploma course. However, they'll probably get a five-star research rating, which will guarantee substantial research funding in the future. Therefore you might think that this is a crazy world, but not as crazy as it is in the UK currently! So, I think one has to be very careful about what we are attempting to do because all sorts of things do distort what we might perceive as a sensible way to proceed.

Personally, in my institution, I took the decision not to submit under architecture. We submitted under a number of other headings and obtained 3 scores because much of our research was done jointly with other departments.

I think that part of our discussion should be about where the individual architectural schools reside, what sort of institutions they are and what vicinages there are between the architectural department and the other departments within the institution.

Where I am, we're an Architectural Department within the School of Art and Architectural Design, so, we have Fine Art, Film and Television Production, Design Architecture, Landscape Architecture and Urban Design, Interior Design, etc. However, many of our areas of research are complementary, so, we choose the best heading to submit them under in the research assessment exercise.

I'm not promoting the system; I just feel that it's actually distorting life!

Gunnar Parelus, Trondheim, Norway

I'm not quite certain what you mean by "stake holders" although someone mentioned customers. However, we are universities and a university is like a church and this stance is often symbolised by the deans wearing their official attire. A university is a church devoted to knowledge and free thought – that's our first "customer" with the earth, society, the architect and students all being our subsequent "customers", but not necessarily in that order, perhaps the earth should be placed on top. Nevertheless, those who should not be our customers are the politicians and Department of Education since their role is one of financier that assumingly see the importance of having institutions of knowledge and freedom of thought.

Kees Doevedans, Eindhoven, the Netherlands

Yes, but your financier is your first takeover!

Stéphane Hanrot, Marseille, France

I'll sidetrack. I would like to speak more precisely in terms of developments in the bachelor's course as this seems to be the starting point of the educational cycle with research following it at the master's level. So, I will steer the discussion away from research so as to tackle the question of competencies and tell you about an experience we had in Marseille. We consider that one of the skills of an architect is to be able, in the design process, to manipulate different sources of information, use various tools, understand the knowledge that different people can bring to the process and play with or juggle these

elements using the tools of architects. On the one hand, they should be able to analyze things in order to understand while on the other hand, they should know about composition, synthesis and the hierarchy of elements. On reflecting on this process, at our school, we came to the realization that the organization of studies were so fragmented in different fields (builders had their own courses and exercises, sociologists as well, etc.) that we tried to connect the different sources of information in the studio (the place of design) by inviting the other teachers, as well as the computer scientists teaching the tools, to participate in some very specific exercises in order to make students interact with the kind of specialized knowledge they brought into the exercise. So, if we start with this particular competency of expecting the architect to play this game, then we need to create the appropriate conditions in the school right from the start, at the bachelor's level..

Kees Doevendans, Eindhoven, the Netherlands

Yes, the skill of combining and manipulating information from various sources is, generally, one of the key skills at the bachelor's level.

Christos Hadjichristos, Nicosia, Cyprus

To build on that, I'd like to say that in the debate about what science can produce and how that can be used, one enters the realm of the function of knowledge and expertise, which take us back to Aristotle's finite causes from which science "divorced" or divested itself from worrying about the outcome of knowledge, to developing a preoccupation with knowledge itself. I think we can't talk about competence in architecture unless we see it as not only discovering truths or knowledge, but also manipulating the givens to create something new. So, my question is, can we talk about competence in manipulating the architectural givens without really linking it to eventual effect or outcome?

Stéphane Hanrot, Marseille, France

Another thought regarding the skills or competencies is that an architect should be able to weave information from different sources in the design process, describe the contextual conditions of the site, try to establish a link between the traditional analysis (urban, geographic, etc.) and make such analysis efficient for the design project as not something that comes before, but articulated in the actual design process. Therefore, these skills should be used for the perspective of the design and not for the perspective of describing and creating knowledge on various things.

Kees Doevendans, Eindhoven, the Netherlands

Since we don't know whether this task group on curriculum will be active next year, perhaps we can end this session by providing some suggestions concerning what important issues it can deal with in the event that it will run. What would you like to know? What are your concerns in this area? What could we work on?

Christos Hadjichristos, Nicosia, Cyprus

In an effort for us to be clearer on some of the terms we use and share in our communication, I would suggest we compile a kind of glossary of our professional jargon. This would facilitate our discussions and avoid our going around in circles whenever we want to try and explain terminology.

Kees Doevendans, Eindhoven, the Netherlands

Do people agree on this?

Christos Hadjichristos, Nicosia, Cyprus

Yes, but it can be complex. But if you define an item (e.g. chair) then everybody will know what you mean.

Kees Doevendans, Eindhoven, the Netherlands

Well, that's one suggestion. It would also be important to discuss the core competencies of the bachelor's course, which has been on our agenda since last year.

Roger Liberloo, Diepenbeek, Belgium

I gave a text to Constantin Spiridonidis this morning with a list of suggestions on the general competencies related to the Bachelor's and Master's. It would be interesting to discuss these, even if they're just in the form of a first draft, but which, I think, could contribute much to the debate.

Michèle Michel, Bordeaux, France

I would like to have more information on what the task group thought about the questionnaire that Constantin Spiridonidis reported on, this morning, concerning the distribution of teaching hours and credits in the curriculum in architecture. Constantin Spiridonidis gave us some information which I thought was very interesting, but we did not pursue the discussion.

Kees Doevendans, Eindhoven, the Netherlands

As our group did not have the pertinent information, we could not work on that.

Constantin Spiridonidis, Thessaloniki, Greece

As I've already explained, it was not possible due to time restraints to process the questionnaires extensively, according to the statisticians that had originally started working on them. However, the purpose was to investigate the way the different subject areas are diffused in the different curricula of the schools. For example, History and Theory appear at the beginning of studies in some schools and afterwards they are eliminated while in other schools, the same subject areas appear in the 2nd or 3rd year

and tend to become more and more intense later. There are also other schools where the same subject areas are equally distributed. So, when to introduce a particular subject seems to be a question of strategy. This is one axis of the data processing that we would like to develop and investigate. The other, which is more evident, is that there are certain subject areas that are completely absent or non-existent in some schools. For example, Social Sciences seem to have phased out from one period of time to another. We can now find schools of architecture that don't teach either the Social or Natural Sciences. Even if these subjects are marginal in the time distribution, they do give indices of the profile of the school that Peter tried to explain.

The ultimate purpose of this research inquiry was mainly academic, i.e. to try and find a way of circumscribing an academic profile. I fully understand the comment that Enrico made, specifying that this is a quantitative rather than qualitative assessment because we have no indication of what happens in the classroom. However, even if at the quantitative level, this is a sign, which could provide us with an opportunity to structure a first approach to developing a school profile. Unfortunately, we received the bulk of the questionnaires at the end of July so, the summer holidays delayed the statisticians in processing the data, thus not allowing adequate time for more systematic analysis. Michèle, I do hope I've answered your question.

Kees Doevendans, Eindhoven, the Netherlands

Will we have access to the information? How?

Constantin Spiridonidis, Thessaloniki, Greece

Yes, but I don't know at the moment how this information will be made available to you. I would like to answer your previous question about keeping the task groups alive. Fortunately for us the Erasmus / Socrates Programme decided to continue this project for the 3rd year, however, this announcement arrived without any reference to budget. In this case, the task groups will continue on further elaboration, but what I think needs to be done is to invite other participants who wish to collaborate with the groups to join and think about structuring a schedule for next year in order to proceed with more specialised work in these four different subject areas.

Kees Doevendans, Eindhoven, the Netherlands

Stefan, do you have a question?

Stéphane Hanrot, Marseille, France

Yes, it's about the doctorate and how to prepare students for such a programme. The questions I asked this morning were: Is there room at the master's level to introduce this step? What kind of skills are required for both researcher and architect?

Kees Doevendans, Eindhoven, the Netherlands

So, what's happening at the Master's level?

Gunnar Parelus, Trondheim, Norway

I wish to comment on the question of curriculum. One might ask, why deal with it? It must be for us to get to know each other. We know that the core curriculum will be different for each school or group of schools, so the purpose of the questionnaires is for us to become acquainted because unless we know each other, we won't really learn from each other. If we are in a situation where we're really able to learn from one another, convergence will appear in some places and others not. I've seen this process in other countries where we got to know each other and have a convergence of styles of education from very different types of schools. The reason for this is that we pick things up and learn from other schools and, as a result, there is development. If we were to define beforehand what to agree on, we would defeat the purpose. Therefore, the essence is that we have to know one another and learn about different core curriculum.

Kees Doevendans, Eindhoven, the Netherlands

What we've done is arranged to meet with the other coordinators to discuss all the items that have come up and to plan an agenda for next year's curriculum task group based on the outcome of this year's discussions. Thank you very much for all of your contributions.

Chapter 2

Shaping the Relations between the European Higher Architectural Education Area and the Professional Bodies

In the 2002 Hania debate, it became clear that the funds for education are progressively cut, a phenomenon that pushes schools to seek funding from, and therefore become dependent on, external bodies which may threaten their academic freedom. Moreover, the relationship of schools with professional bodies degenerates to a relationship of control and interference of the profession in school curricula, which may threaten their academic liberty.

It was agreed that schools have to preserve their close links with the professional bodies in order to follow the tendencies of the profession, while however protecting and maintaining their academic nature and freedom.

It is crucial to find out ways to redefine the grounds of this relationship at European level, and the initiatives that have to be taken in order to ensure the conditions for the successful generation of the European Higher Education Area.

Introduction to the Session

Panel

Lawrence Johnston, Belfast, United Kingdom

Leen Van Duin, Delft, the Netherlands

Chair

Michèle Tilmont, Lyon, France

Denis Radford, Leicester, United Kingdom

Michèle Tilmont, Lyon, France

As Chairwoman of this session, along with Denis Radford, we will open this new session with the report from the working group in Antwerp about "Profession and Education". I would like to first of all thank Richard Foqué, the Dean, who welcomed us in Antwerp for two days last March and opened the door for us to discuss this main issue and wish to also thank the members of the group, Denis Radford from Leicester, U.K., Lawrence Johnston from Belfast, U.K., Heiner Krumlinder from Bohum, Germany, Sylvain De Bleeckere from Diepenbeek, Belgium, Bal_zs Balogh from Budapest, Marina Roosebeeck, from Amsterdam, the Netherlands, and Leen Van Duin from Delft, the Netherlands, for their hard and work. My special thanks go to Leen Van Duin and Lawrence Johnson who were in charge of setting up the questionnaires, examining the results and reviewing all of the answers from the thirty-four schools of architecture. We express our thanks to those schools that took time to complete this form and returned it back to Lawrence and also extend our thanks to Lawrence for all of his work.

I would like to take the opportunity to make some preliminary remarks. First, I do believe that professional education is a very important question for the future as life long learning is an issue to deal with. Secondly, there were large variations in answering the questionnaire due to specific national situations, and there is no need to enter into an extended dialogue with the profession on the subject of having to act more closely. These ethnic differences are reflected in the different positions on internship, which is also a large problem, ranging from the stance that internship is not needed to the position that more internship should be required as a prerequisite to practise architecture. From my point of view, education should not be too close but not too far from professional contacts. Now I will ask Denis to delve more closely into this subject.

Denis Radford, Leicester, United Kingdom

Our group met in Antwerp along with the other groups and I think it was very interesting because this group of volunteers was diverse, and it was the first time we had ever met and worked together. The notion at that stage was to start to hammer out the route forward. It was quite interesting that after perhaps half a day of discussion, we realised we had to begin to define what the terms meant, we needed a sort of "common currency". I think that was Lawrence Johnston's suggestion, which was a very healthy one and out of that evolved the questionnaire. Perhaps, in hindsight, we realise that all the questionnaires could perhaps have been put together. There was a fair amount of overlap but that's inevitable when you have new groups working and the groups were beginning to work on what seemed to be separate, but in fact, are a series of interlinked problems. Discussions at lunchtime very interestingly let us note how quickly the factual base has changed. Around the table we began to realise that some of the facts that Lawrence is going to present to you today, are already beginning to change. This led us to discuss that the motion we needed was more dynamic and fast moving or should we say a fast input base, upon which these records could be kept, because obviously if your information is out-of-date you find yourself in a very difficult position, especially with the architectural profession changing and the various bodies who are involved in this. I unfortunately missed this afternoon's workshop but I believe that this notion of a database is something that is surfacing and something that I think we are all very interested in, participating in, and working out. It should be theoretically possible to have this, the technology is there and maybe we need as a group to find the money for that. Anyway, Lawrence will take

us forward and present the final or the interim report. I think we are going to move on from this and then various members of the group will give us their input. So with that I will hand you over to Lawrence.

EAAE – ENHSA Inquiry on Architecture Profession and Education – Working group

Summary of findings from the questionnaire received

Lawrence J G JOHNSTON, Co-ordinator of Working Group on Professional Education

Heading - Responses

UIA Definitions

Generally a majority of respondents agreed with the definitions overall. Some disquiet about the restrictive nature of the wording and the scope.

Fundamental Requirements

Again there was general agreement that the fundamental requirements were a good guide. However it has become clear, since the date of introduction that the social, economic, professional and ecological/environment aspects of the context of architectural education has changed. In some places this change has been rapid and almost imposed e.g. Information Technology. In some sectors the change has evolved due to economic or social pressure, e.g.; entrepreneurial skills and management led procurement. In some sectors it is climate and environment awareness e.g. Sustainability.

Codes of Ethics and Conduct

General agreement on these. Disagreement contrasted from "too loose", "too restrictive", "not enforced".

Registrations, Licensing, Certification

Overall general agreement. Major differences between those states that have legislation in respect of architecture and those that do not.

Forms of Practice

Overall agreement in the majority. Observations and disagreements including "too restrictive", "out of date". These reflect the changes in our professional scope of services as mentioned under Fundamental Requirements. Several returns highlighted the concern of "legal entity" and what that meant in a particular state, e.g. Legal registration is a weak barrier towards free market forces". Also noted was an observation that the presence of many very small, often individual practices were small forces, politically and economically against larger professional companies, e.g. engineers.

Practice of Architecture

Majority agreement across returns with the disagreement including: too restrictive, out

of date with the diversity of activities that architects engage in e.g. web design, fashion and information technology.

Scope of Practice

General agreement, with points noted as before.

Practical Training Experience

This sub topic provided a wide range of responses.

Internship

Initially the question was on definition, later in this working group further questions were posed, as to whether or not it existed, how it existed and did it have any place in the overall scenario of architectural education and training.

Several disagreements were strongly made on the need. Majority agreed, several wanted more time for training.

Accreditation Validation and Overall majority agreement with the definition. Several Authority/Body Undertaking these disagreements with the principle of it. Good range of authority/bodies undertaking this including: Professional body, State body, Independent Quality Assurance Agencies, Panels of Experts, Academic Internal Institutions. One return indicated the % balance across six bodies including national and regional representations on Accreditation bodies.

This next section of this inquiry covers the topic of the profession, the requirements needed to pass a gateway to permit the practice of architectural services and to establish what processes are undertaken by each state in terms of control, licenses, limitations.

Voluntary Professional Body

This was an important question to ask. Why, because it asked if the body to which architects joined was voluntary or not. The majority of responses indicated that each state with some minor expectations has a body. Where there exists legal or state legislation the body may be managed by the authority. In many states there is more than one body. So the picture we get from this is; Professional body yes, often State/National body yes, and very frequently regional or local body.

Gateway to Profession of Architects

Generally for this topic all of the responses agreed with academic evidence, examinations etc. Method and means of assessment is part of another working group.

Internship

The subject of practical training/internship was rather more mixed. The responses can be grouped as follows:

- a. No internship required at all. The academic qualification or academic award is

sufficient for full ability to practice.

- b. Periods of internship built into the curriculum as part of the academic and professional content of the award. Periods range from six weeks to six months.
- c. Periods of internship undertaken midway through the academic study and after completion of studies, often as an examination requirement. This formed the greatest majority of responses.
- d. Observation from many responses that more internship should be required and in several instances a prerequisite to professional life as an architect. Several states are in a process of implementing this.
- e. Observations that employment difficulties would mean in some states, that students of architecture may not be able to find a suitable practice for such employment and if those students were not interested in the practice of architecture mainstream then they could go into other areas of activity, e.g. fashion, information technology, interior design.

Entry Examination to Permit Practice

This question highlighted the variations which exist across states, the responses can be grouped into three.

- a. No further examination required and to introduce one would be interference on the freedom of architects.
- b. Yes, examinations in one form or another do exist and they are managed/controlled by a wide range of bodies, including one or more of these: academic, professional body, state legislative body, national body, and regional body.
- c. Recognition that entry examinations are needed and assessment combined with practice experience and evaluation are required to be put in place to maintain high standards of professional services and quality provision.

Permission to Practice

The responses to these questions were very clear. They subdivided into categories

- a. There exists no state legislation on architecture. There is no restriction on the practice of architecture and no licenses, controls required. This was a small number of returns.
- b. There exists state legislation and there is some form of control, but may not include a physical action, such as stamping or licensing for each project.
- c. State legislation exists, projects and architects services are licensed/stamped to prove evidence that the architect has the ability and quality to provide for that project. Authorities undertaking this included Professional body, Chamber of Architects and a particular state and/or Regional state Authority, or combination.
- d. In some responses there exists a separation between licenses to the architect controlled by state and certificate to the project controlled by local authorities.

Practice Services, Scope, Limitations

The question in this area were an attempt to find out if the previous definitions the UIA definitions were still relevant on the scope of architectural practices. To see if states had

placed limitations on architect's services and to find out if it was a free market with architects having to compete for work with non architects delivering architecture services.

Responses fell into three groups:

- a. Free market, anyone can practice architecture – this was a small number of states. Under certain floor areas, architects not required, again a small number of responses.
- b. Architects deliver architectural services with no limitations on size, complexity, etc, use complementary professionals, e.g. engineers, landscape, and interior design all part of the character and culture of architecture design.
- c. Architects can deliver services but with existing limitations for experience or quality or enhancements. Sub areas included in the majority urbanists, urban projects and conservation projects. Often special certificates were needed in addition to the architects mainstream qualification.

Education and Professional Relationships

This section of the questionnaire addressed the education providers, the professional bodies, the state legislative authorities and finishes with a factual request in respect of the Bologna agreement on course structures, having asked about autonomy of provision.

This part of the inquiry produced the most variation and probably the range might have been expected but still surprising. Some responses declined to answer this at all.

- a. In respect of no relationship between education providers and any professional body, 15% said this was the case and comments went on to say that in several states they did not wish to have any relationship.
- d. For a close relationship, 21% indicated they had this and comments ranged from very valuable, hoped it would continue as long as it was fruitful and healthy, close interrelationships which was beneficial to both parties, and the University should be allowed to be a laboratory and ahead of the profession.
- c. For several responses, this question proved to be too black and which, there emerged the grey areas. These included some dialogues between providers and professional bodies/state authorities and some tensions over the process and procedures of Accreditation for the course and education/training providers.

Control of Provision

The overall majority of responses 71% said that they had autonomy of control of the provision of architectural education, and in their respect of comments they all wished to retain that autonomy. Several suggested they wished to have more independence and freedom.

12% indicated they had partial autonomy or a range of autonomy in various sectors e.g. autonomy over delivery, but not of facilities or contents or equipment.

Dialogue Between Education Providers and Professional Body, Stage Body

Three responses indicated they wished to have no dialogue with professional body/state body, now or in the future.

The overall majority 53% said they had a dialogue, many said it was good and might be

better. Several had dialogue but did not wish to be interfered with. Many indicated that it was in existence and healthy.

Four responders said they partial dialogues with professional body and other authorities.

Office Ready

53% believed that practitioners wished to have architectural students office ready. 18% said no to this question. Two said it varied.

Bologna Accord Structure of Architecture Course

This was an attempt to find out what was up to date perspective on the Bologna Accord and may overlap with other working groups on the subject.

NOT INTRODUCED	11
ADOPTED	16
IN PLACE YES	7
NO	4

AWARDS

The awards range included:	Bachelor
	Masters
	Doctorate
	Masters and Special
	Subject With
	Research Element

Shaping the Relations between the European Higher Architectural Education Area and the Professional Bodies

Discussion

Coordination by

Michèle Tilmont, Lyon, France

Denis Radford, Leicester, United Kingdom

Denis Radford, Leicester, United Kingdom

I think we can open the floor to discussion now.

Pierre von Meiss, Lausanne, Switzerland

Having worked on several peer committees on evaluations, I must say one of the most confusing situations has to do with internship. There are schools where they even count internship as credits, which we would absolutely refuse in our school. There are schools where they do internship in weeks and others where it is at least twelve months of which at least six months are consecutively in the same office, which is completely different. We will probably have to wait ten or fifteen years until there will be any directives, so why doesn't, the EAAE make a recommendation which would make it easier for people who are working in the different countries to at least have an EAAE statement/confirmation saying that internship is not permitted to count as credits. Then of course some countries may ask for four months, another one twelve, but that is where we have to be clear on things like that. I don't think it will come from anywhere else so that's why I say this could be an EAAE recommendation along with other things as well. There are other things that could be added, your groups are now working on these things, and from that I would expect that maybe in a year from now we can have something that carries us a little bit further than just among ourselves.

Leen van Duin, Delft, the Netherlands

It is a good idea, if we can work it out, maybe in the future we can have a sort of Hania statement too.

Lawrence Johnston, Belfast, United Kingdom

We now have that information and we can put it together from the responses of this inquiry.

Denis Radford, Leicester, United Kingdom

Quite a significant thing came up at lunch time and Heiner, who was part of our group, could tell us of a development in his own part of the world.

Heiner Krumlinde, Bochum, Germany

I spoke about this theme in the working group before. Some weeks ago a letter came from our regional government saying we have 15% too many architects in our country. So the government said that because the building market is very low in Germany for new buildings, we have to cut the staff of our school by 15%. So that is the danger of politics if the schools of architecture are too close to practice. Unless our schools claim that we are not only doing practical training close to practice but we are also doing research and looking to the future by cooperating with other disciplines and other European states and schools, so in the future we will have a European community in education and research and so on, there will be no chance to keep alive even very small schools like ours. We have about 600 students in Bochum and this is a normal situation in Germany. There are many, maybe forty, fifty, sixty and some universities, but most students of architecture in Germany are educated in the smaller, regional schools, so there is always the fear of them being closed down. The problem is thought to be financial, politically speaking, however it is not proper or right because there is another movement in Germany saying we have to be more cultural in architecture. It's the year of culture in architecture and there are two different political directions, the regional and state politics. In regional politics there is a finance minister who decides how much money we receive but tells us that we are very autonomous with our school, so we get some funds but we have to decide what it is for, so that is the danger we have in Germany now. I am very hopeful that we will get a European recommendation from Hania and that we must be a European 'concert' of architectural schools with a network working together for the future of Europe.

Aart Oxtenaar, Amsterdam, the Netherlands

I would like to react to the proposition of Leen van Duin to make an EAEE statement against awarding points for practice or at least for internship. I would like to move strongly against this motion and I will speak for six other schools in the Netherlands. We have been awarding points for practice, at least in our school, for almost a hundred years now with great success. Our school has recently been validated and accredited as a four-year, full time Master's Program. We award 120 ECTS points for academic training within the school and we give another 120 ECTS points for practical training. We have just defined competencies for what we expect students to do in external training. So from the point of view of education and as an educator, controlling it by the diploma you give out, you can define the competences that you expect your students to acquire before they become practising architects. The point is not to move against awarding credits for practice but to move for extending architectural training to include practice. There are many countries that already do that and Part III in England also demands a certain amount of practice before you can get formal registration. Belgium does the same thing and in Holland our state architect is now moving towards a system where you first have your academic training, you get a Master's Degree, and then there are two years of practice with defined competencies and slowly but surely moving towards some sort of an exam. The point is, we should not award points for internship or working practice and,

I would be strongly against any kind of EAAE statement for this, but we should say a Master's program is two years, with some period of practice then you will have, as Delft very clearly stated: "We do not train architects, we train engineers and Masters of Science who have a specialty in Architecture. If you want to be a professional architect, and to be active in the profession, you will need another two years to become one". That trajectory needs a curriculum, defined competencies, and may need some form of examination, Britain already has it, and may need points.

Another interesting point that we are starting to discuss in Holland, now; is that we may also need some money from the state. If there is a political move towards demanding from professional people that a Master's is not enough, further formalised practical training, and that the state has passed legislation to implement full time four-year Master's Program, irrespective of whether we agree or disagree with the decision, then we can approach the state and make some demands. We can claim that if the state is expecting from us, together with the profession, to come up with a 120 ECTS points and the profession will do most of the educating work, but we have to steer towards and accredit the points, then they will have to give us some money to do it. Again, my opinion is, let's not move against something, it's never a good idea to move against something. Let's move for something and let's move towards a stronger position for these two extra years that you need in order to get fully accredited as a practising architect, as a Master of Architecture rather than as a Master of Science in Architecture.

Pierre von Meiss, Lausanne, Switzerland

You can continue the discussion later but first of all I am not suggesting to move against something, maybe you are suggesting it, but just be aware of one thing, if the program is 120 ECTS points per year, three years for a Bachelor's degree and a minimum 120 points and two years for the Master's degree, in these credits, the credits for practical experience should not be included. That's what I mean. These credits are academic credits, because German schools have out of the 120 credits, 60 credits, twice a year, 60 are in practical experience and they count as academic ECTS, which I don't agree with. The situation in Germany is now very difficult because, as we have just heard, the whole education system is still with the regional governments and every regional government gives slightly different directives, so the difficulty lies in the fact that there is no point of reference.

Aart Oxenaar, Amsterdam, the Netherlands

Already in Bachelor's studies, schools that have to cut costs resort to including some internship which is cheap and easy to do. The point we should make and we all agree on is that 120 ECTS points is a Masters and you need two full years of academic in-school training to become an architect. Many formal bodies of architecture and many states agree that the architectural profession needs two years of practice to register, like doctors and lawyers, etc. and, maybe, we should as EAAE move in that direction and say that we support a more formalised accreditation or curriculum for those two years in practice, leaving untouched 120 ECTS points for in-school training. By moving ahead together towards those two years of practice being formalised or at least strongly advised by the EAAE we might help ourselves, and especially help our German colleagues, but, of course, stressing and we all agree that you cannot do without these 120 points.

Selahattin Önür, Ankara, Turkey

There is something else that needs to be credited and it is rated with the evaluation of ECTS credits. In the ECTS handbook it says that internship practices are included as points. Now this is a great problem because in our system we have six months of practice during the undergraduate program. When you are going to evaluate and give sixty credits for every academic year there is a problem if you give credits to the practical work because you get points which are higher than sixty. So this needs to be clarified because it is demanded that you include the practical work of internship, so these ECTS credits include all kinds of work that students are expected to fulfill.

Leen van Duin, Delft, the Netherlands

The EU says though that we require two years of practice.

Selahattin Önür, Ankara, Turkey

But that's something else, it's after you graduate, but what I am saying is if you have the practice during your education, which is the same as with us, we have.... (interruption)

Leen van Duin, Delft, the Netherlands

This is not the point.

Selahattin Önür, Ankara, Turkey

The thing I have omitted and intentionally not included in the ECTS points is the internship program and I am doubtful if this is correct because it states very clearly that we have to include all kinds of work load in evaluating the total ECTS credits. In evaluating the total ECTS credits this needs to be clearly stated. It is not rated with the internship that you do after graduation and this is a problem.

Pierre Von Meiss, Lausanne, Switzerland

I think quite a good system is the British system because they have a year out after the Bachelor's program. Of course not every country will want to do the same thing but I am sure in Switzerland we will adopt this. We will not accept any Master's students without having approved the Bachelors degree and one year of internship.

Aart Oxenaar, Amsterdam, the Netherlands

There is one other possibility like we have been doing the past one hundred years and it's what's called the concurrency system. In our masters program students will not be enrolled unless they have a position in practice, so they have to work a minimum of twenty hours of practice, usually it is thirty-two so it is four days, and spend twenty hours a week in academic training. That way in this concurrent system there is also symbiosis between working and practice and in-school training. It's a part time program over four years.

You receive 120 points not in two years but in four because you are combining education and practice. The one is constantly influencing the other so there is a back and forth movement between practice and education and there is growth because the one complements the other. From this we have also been able to define very precise competencies. We check on what the students do in practice and every year they make a portfolio of what they have been doing and we make sure there is enough development. Also, from that there can be reciprocity in the sense that we urge students to discuss, with the architects with whom they are working with, their progress and also request from these architects tasks in order to develop themselves within the office. This is another model apart from the year out or apart from first acquiring a master's and then having two years of practice afterwards.

Herman Neuckermans, Leuven, Belgium

I just wanted to add to the discussion something that you, probably, will all remember; although we discuss architectural education, we have also been stressing, which is in the Hania Statement, the diversity and specifics of the different schools. What I hear in this discussion again is that all the schools have to behave in the same way. Be aware of the fact that a lot of schools are moving from the education of an architect to the education in architecture and I presume that the cases of broadening choices in the profession are those we are talking about. Some people are talking about this, and others are not. That is one good reason to have internship after academic training.

Secondly, I fear expressing the intensity of the contact with practice in terms of time, I prefer to have it in achievements. This is especially so because if you take two years I know what happens, (Juhani Katainen you should listen to this), practice is very reluctant to the abolishment of this kind of internship where our graduates after five years of study are paid as much as cleaners. Where is the competence?

Denis Radford, Leicester, United Kingdom

Have things past you by or do you still want to speak?

Stéphane Hanrot, Marseille, France

I just want to ask a question to the group regarding whether they have thought about the possibility, (perhaps a bit like Pierre Von Meiss said on the English system), for the student to have a practical period during the Bachelors cycle or just after. Not necessarily one year but enough to discover the way they will specialise during the Master's program, so this period is not for the accreditation to be a professional but it's a beneficial experience to understand the context of his next work or activity Have you thought about that?

Denis Radford, Leicester, United Kingdom

I think the short answer is that we feel we are still exploring, and still as it were, finding out the range and the diversity that is available and trying to put that down in a meaningful way. So no, I think that is a short answer but Larry, Leen wants to add to that?

Leen Van Duin, Delft, the Netherlands

In the discussion Pierre was making I want to mention one extra problem and, I think the Greek people here raised it a couple of years ago. The Bologna system in the end can be for all of the universities in Europe a way to minimise the educational costs of our universities. This is especially important for the Master's courses because in Holland I think the Bachelor's courses are subsidised, but the Master courses in the future maybe have to be financed in another way. Our students at this moment in Holland doing their Masters are not full time students, they are already part-time, but they don't work in offices, they work in places like MacDonald's because they have to earn a living. They spend no more than twenty to thirty hours a week on their studies and 80% of the rest of the time at work to earn a living. This is a problem we have to address.

Theano Fotiou, Athens, Greece

Are fees paid for students for their master's course studies?

Leen Van Duin, Delft, the Netherlands

Yes, they are but that is not the problem, they have to live and rent accommodation, that's the problem.

Aart Oxenaar, Amsterdam, the Netherlands

Already the point of what will happen to your student was raised, when he goes to work and I think here the Bachelor's degree is very important. The question is: What is the civil effect of your Bachelor's degree? What is somebody who has a Bachelor's in Architecture? In Holland, up to now, it has been a clear-cut position that in the collective contract of Dutch workers they are not interns when they come into the office. They get a form of what we call CRO income. It's a clear-cut position, our students have formal contracts with the offices they work in and they get paid the same as our colleagues because the civil effect of their Bachelor's degree gives them the position of Draftsman Assistant Designer. So within this whole context it is very important that if you want to have your students do sensible work rather than work at MacDonald's, you should have a clear cut idea of what a Bachelor's degree is so you can discuss with the architectural firm that when our students go in as workers of a normal status, they should receive a fit wage. We never have financial problems with our students because they are given suitable wages. Another thing that is important when you talk about internships or dual trajectories of learning, which is very much in fashion now, where there are often three part-time contracts. It is a triangle: the school and the employer make a contract, the employer with the employee and, then the student and the school make a contract. We do not want that triangle because the school should not be in between a contract with an employer and an employee. We want to have a contract with our student where we demand things from him/her and he/she can demand things from us and the student has a contract with his/her employer. That way the employer can never say I am educating your student so I will pay him less. The Dutch government helps by saying that the VAT will decrease a little if you have somebody working in your office that is also studying. That way there is a small tax deduction but we do not want to get into the middle of that

because there is another danger which is and, you are very right in saying that interns will be abused by being paid a low income and can work for years with very low wages and not get ahead.

Denis Radford, Leicester, United Kingdom

I'd like to steer the discussion in another area at the moment and perhaps I could start with a sort of anecdotal emphasis. Many of you, or at least some of you might know that the University of Cambridge has decided not to offer professional education in architecture. They are now moving away from seeking recognition from the Registration Board and this might be a new beginning in Britain. You might begin to see research based institutions. Institutions that are particularly proud to have or wish to develop their research. Perhaps they are now finding that it is actually almost impossible to educate within a fairly restrictive or micro-managed environment in terms of the registration board and research is in its way so there seems to be that friction developing in Britain. One can imagine that the old Russell group of universities might go in the direction of not offering full professional education. Maybe people have some comments on other national perspectives about this situation. It could be particularly British or maybe it is a larger European one. Can I have any comments on this?

Dimitri Kotsakis, Thessaloniki, Greece

It is both a comment and a question. There are about fourteen professional profiles, fourteen that a university can work on. I'll just read them: Architectural Interior Design, Building Design, Urban Design, Town Planning, Conservation, Landscape Design, Industrial Design, Construction, Art & Fashion Technology, Academic Teaching, Research and Professional Writing. These are the professions and I find the discussion here incomplete because it does not deal with those professions the old schools of architecture were teaching the students. Maybe Cambridge is trying to cope with the problem in an academic way. In these six-year discussions some of us, not everybody of course, have put forth another concept that integrated studies will lead to the maximum of those professions, that is it cannot be the fourteen of them but certainly not only one or two of them for example, Interior Design, Landscape Architecture or Conservation, which is one out of fourteen. Maybe Cambridge, in an academic way, is trying to respond to that and maybe we can look for other responses to this.

Denis Radford, Leicester, United Kingdom

Any response?

Koray Gökan, Istanbul, Turkey

I think all of the universities have been changing quite rapidly and professional education is coming into university education. All of the professions are suffering from this along with architecture and medicine. I think architects are more worried about our professional education, which is why we are discussing how we can educate architects. What we are assuming is that all of our graduates are going to build houses; this is not true anymore

in the 20th Century. What is going on now is that our graduates of schools of architecture are not going to be practitioners in it at all. In our country we are probably educating too many architects, but that is another issue. If you look at what is happening, certain groups are discussing architecture without building houses and that in my words is 'virtual' architecture. They are experimenting in a new area of studies and probably they are democratic or are right and in the end there will be an outcome that might be suited to the university education concept. I think, especially in our generation, professors of fifty and sixty years old, are stiff and that is a mistake we are making and we should start changing our minds and start thinking about educating the students with new concepts. One thing we are certain of is that architectural education is one of the best in higher education in the universities because we teach the students inter-dimension versions, how to make decisions and we teach and make them aware of quite a number of other things. So in terms of general education our architectural education is one of the best compared to the other disciplines. Probably we are in a dilemma in this aspect, but we should stop talking about professional education and consider more theoretical aspects. I call it virtual education, this is a bit difficult....

Denis Radford, Leicester, United Kingdom

Anybody likes to comment on that? It has perhaps occurred to me to take the group's work forward and look at where graduates go. In other words, are we educating the majority of our graduates for the profession? Or are we educating graduates for a number of professions, the fourteen that were brought up? Maybe that is something we also need to find out. I know it is commonly held in the United States that only half the students who graduate register as architects. So the rest never pursue architecture as a formal career.

Pierre Von Meiss, Lausanne, Switzerland

I have one question; I don't know if it is to your group or if I have to ask one of the other groups, but Dimitri mentioned a lot of other professions that architecture may lead to. We are considering, but I don't know what the attitude is elsewhere in Europe, to introduce into the Master's program the idea of a major and a minor. You would have a major in Architecture and maybe a minor in Landscape Design or a major in Architecture and a minor in Structures and so on. In Zurich for example, they are going another way, and thinking about introducing directly a Master in Landscaping, a Master in Structures or so on. So far we feel it is better to keep the general title instead of being enclosed into individual degrees like Landscape. I don't know whether your group is working on kinds of options like that or other ones, but I think this could be discussed.

Denis Radford, Leicester, United Kingdom

Any other comments people wish to make? I think what I might do is hand the microphone over to Lawrence Johnston who is scribbling very heavily here, he has been the scribe I think this evening. Oh, Michelle Tillmont has been the scribe. I was just wondering whether we could sum up, I have been nipping around with this microphone so maybe somebody who has been taking notes might give us a summary, I will just ask the group, do we feel

we have sufficient material to move on to the next stage? We assume it is a working group with an onward momentum and that we haven't just dusted off a report and that is it. Could I perhaps have some suggestions then?

Juhani Katainen, Tampere, Finland

On reading the title, if I've understood correctly, we should be talking about the educational area and its relationship to professional bodies, but more or less we have been talking about internship, which is naturally part of this relationship but what about the professional bodies? I have been working on the Architectural Council of Europe for a third year now, that is one professional body covering Europe. We know the past so the question is, what kind of relationships are we going to build for the future? We could also include in these bodies the business of registration in different countries. There are statistics on what is happening but couldn't we add a few words about our attitude towards the business of entering the profession and how we see today's professional bodies? Are they working as they should be or do we want to send other messages to them? So this is one issue, which is interesting from our view, because they are sending messages to us asking about architects, so what is our message to the professional bodies? We should also remember we are not only academicians but professionals as well, part professional and the other half is teacher, so this is also an issue. I don't know whether we have time to talk about it at the moment but it is something we should do some thinking about it and not only thinking but writing and speaking.

Herman Neuckermans, Leuven, Belgium

As a rule, from an ethical point of view, I think academic education has to be independent from practice. It has to develop a relationship, but somehow it should not be so extreme as it was said in Delft, that they must not care about practice, but I think that education should not have too many professional constraints because our students will be somewhere in the next ten, twenty or thirty years and it is not for the professionals of today to say what is required as an academic education in the future. We are supposed to have the vision of the future and we can consult practice, but the issue of internship is maybe the most intricate place where this relationship appears. But also there should be some kind of independency in terms of the competencies that is not expressed in time but in achievements.

Leen Van Duin, Delft, the Netherlands

I think tomorrow morning James Horan is going to go into detail about the question of the relationship with EAAE, ACSA and the other professional organisations. So maybe we can continue this item tomorrow morning.

Theano Fotiou, Athens, Greece

I would like to add an idea or thought completely different from what we are talking about at the moment. We face the professional bodies as they have existed up until now but the professional bodies of the future don't have the same power any more in a united Europe as before because the free market is more powerful and now the

professional bodies are threatened by the orders and the "cannons" of the free market. The free market is imposing its rule on our schools, so the enemy or the problem nowadays is not the professional bodies. They are more recognised now, so we have to talk with them to understand each other better. Autonomy is not a problem; we can keep it if we want to in our schools. We have to discuss seriously about the profession and the future of the professor with the professional bodies since the professional bodies are being attacked because the free market doesn't need the professional bodies anymore because of the free unions that exist and the free relationships between individual architects. Europe is now trying to change the professional bodies to unions of professions. It's not that simple anymore and it is something new that we have to face.

Denis Radford, Leicester, United Kingdom

We have five minutes left.

Steven Spier, Glasgow, United Kingdom

It seems strange to me that we are still talking about architectural education as if it is an entity because the "3 Plus 2" seems to me to change all of that. The lesson of Cambridge is that it is the first school in Europe that has drawn the obvious conclusions which is that the Bachelor in Architecture and the Master in Architecture will increasingly become very different things from each other and not all schools will offer the master's program. This seems inevitable and maybe something that we could discuss at this meeting is what the Bachelor's and Master's programs look like look because that starts to address one of the issues about the diversity of the profession and what it has become. Also, we can't talk about architectural education as if it is one big lump any more because people will leave, and in Britain people do leave education after achieving their bachelor's and they go on to be very productive people, but they do not become architects.

Michèle Tilmont, Lyon, France

The last opinion about that because we have to close this session is maybe we should invest in a survey with the schools on data about what becomes of our students, in which profession they head towards and what they do five, maybe ten years after leaving their schools. In France we have very few indications of what our students are doing but I think it is very precious to have a kind of photographic image of what they actually do after they study. Maybe some school of information about that.

Denis Radford, Leicester, United Kingdom

Ok, the last remarks.

Herman Neuckermans, Leuven, Belgium

I think this is an interesting suggestion but we have to reflect on how to do this because for example, our university is not so small, there are 27,000 students. They make it a rule to check what students are doing the first and second year after graduation and we get an idea. In architecture, there has appeared this transition of internship and all the other

things we cannot do so much about. So in turn, if we decide to go into this kind of inquiry, you have to think about when to ask graduates to respond and not one or two years after, but maybe five or ten years.

Denis Radford, Leicester, United Kingdom

That was "five or ten years we should look at" for those at the back.

Chapter 3

Shaping the Exchanges and Mobility in the European Higher Architectural Education Area

From the 2002 Hania Meeting it became apparent that all Schools pursue mobility. It was accepted that mobility has developed so far on the basis of personal contacts and acquaintances. Schools have not adopted very clear policies on exchange and mobility in order to enhance their curricula.

It was agreed that exchanges constitute an essential mechanism for the creation of the European Higher Architectural Education Area. It was also pointed out that the ECTS is an important tool for the development of mobility and comparability of different educational environments. It was suggested that there have to be clearer strategies adopted by the schools with regard to mobility and exchange for a more direct and effective impact, of these collaborations, on school curricula. Finally, it was suggested that there is a need for structuring collaborations, between schools, respecting and appreciating the particular identity of each school.

To exhaust the investigation in the effectiveness of mobility and exchange, we need to understand the ways in which a school defines an ECTS credit. It is similarly important to identify the policies of schools on student and staff mobility. The question that emerges is whether it is possible for a common type of credit to be invented, which can cover various types of modules. Proposals on policies and strategies for the development of exchanges should be put forward so that they can contribute significantly to the improvement of architectural education

Introduction to the Session

Panel

Koenraad Van Cleempoel, Antwerp, Belgium

Michèle Michel, Bordeaux, France

Chair

Nur Çaglar, Ankara, Turkey

Discussion Group 1

Coordination by

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Exchanges and Mobility in European Schools of Architecture

Koenraad Van CLEEMPOEL, Antwerp, Belgium

Michèle MICHEL, Bordeaux, France

Introduction

Mobility of students and staff was recognised by EAAE as an important tool towards internationalisation of the discipline. In 2002 a working group was composed to work on this subject. The members are: Andrzej Baranowski (Gdansk, Poland), Nur _aglar (Ankara, Turkey), Ebbe Harder (Copenhagen, Denmark), Michèle Michel (Bordeaux, France), Guy Pilate (Brussels, Belgium) and Koenraad Van Cleempoel (Antwerp, Belgium). This group met during the preparatory meeting in Antwerp in March 2002 where the working methodology was discussed. A chart of the present situation by means of a questionnaire was considered as the right way to start. The first results hereof is the subject of the present paper.

It was apparent that a key issue in mobility, that is ECTS (European Credit Transfer System), overlapped with the contents of the working group on curriculum. But as ECTS is so important and as the results of the questionnaires show that there is still so much confusion on the subject, some repetition is justified.

Three out of the four articles of the Chania Statement 2001 refer to ECTS. Article 3, in particular, states that "EAAE will actively collaborate in developing the ECTS-credit system in their schools and considers this system as the keystone towards mobility of students, modularity, flexibility in the curricula, necessary for the cultural, regional and pedagogical diversity they think to be invaluable for the education in architecture in Europe."

Our conclusion is that this aim has not yet been achieved and that is why we put so much emphasis on the subject of ECTS in this paper.

1. Questionnaire – Results & Discussion

Student mobility

a. Statistics

Student mobility is widely accepted in European schools of architecture as all the schools responded to participate in the Socrates – Erasmus programme.

Outgoing students:

49% of the schools have between 2% and 5% of their students going abroad

31% of the schools have less than 2% of their students going abroad

14% of the schools have between 5% and 8% of their students going abroad

6% of the schools have more than 8% of their students going abroad

Incoming students:

42% of the schools welcome between 2% and 6% incoming students

41% of the schools welcome less than 2% incoming students

14% of the schools welcome more than 8% incoming students

3% of the schools welcome between 5% and 8% incoming students

b. ECTS

a. facts

The European commission devised the 'European Credit Transfer System' in 1998 as a tool for quantitative measuring workload. EU also composed an ECTS user's guide, which is available in all languages of the member states on the Erasmus-Socrates site (http://europa.eu.int/comm/education/programmes/socrates/ects_en.html). Its usage is not only limited to exchange; it is equally an instrument for curriculum composition.

ECTS is a value allocated to course units to describe its workload that is required to complete them; therefore ECTS reflects a quantity of work including:

- lectures
- practical work
- seminars
- personal study time

The latter is the most elusive and difficult to measure component. 1 credit should be at least 25 hours and maximum 30 hours, so that one academic year consists of 60 ECTS credits and one semester of about 30. This corresponds to annual workload between 1500 and 1800 hours.

ECTS offers to students:

- a guarantee of academic recognition of studies abroad
- access to regular courses alongside local students
- flexibility for further studies abroad – possibility to be awarded a degree

To institutions, ECTS should offer (in principle)

- curriculum transparency by providing detailed information on curricula by means of the course catalogue
- assistance in the academic recognition of courses followed by students abroad
- the ECTS grading scale, which helps to 'translate' the grades of the host institution as there are many different grading systems in Europe
- a catalyst for reflection on course curriculum structures, student workload and learning outcomes

The key documents are:

- the information package (ECTS guide with detailed descriptions of all courses)
- the learning agreement
- the transcript of records

b. questionnaire & discussion

The questionnaire clearly shows that very few schools operate such an ECTS system. There is also contradiction.

74% say that they apply ECTS and 96% say that will implement ECTS in the near future. Some schools in France only operate the system for incoming and outgoing students, but not for their regular students. When asking what one takes into account in calculating the value of the credits (ratio), the result is the following:

	<i>yes</i>	<i>no</i>
Contact hours only:	30%	70%
Personal study time:	15%	85%
Contact and personal study time together:	65%	35%
Studio/Exercises/Practice/Training:	53%	47%
Study visits:	23%	77%
The importance of courses:	44%	56%

One school also includes 'complexity and level' of the course, and another the 'personal progress' of a student.

It was stated that 96% intent to implement ECTS in the near future, so when asked if the school intends to have the credits related to the same components as before the results are as follows:

	<i>yes</i>	<i>no</i>
Contact hours only:	12%	88%
Personal study time:	25%	75%
Contact and personal study time together:	87%	13%
Studio/Exercises/Practice/Training:	50%	50%
Study visits:	37%	63%
The importance of courses:	50%	50%

The conclusion is that very few schools apply ECTS correctly. The ECTS user's guide mentions that 'practical works' and 'seminars' ought to be included in the calculations, whereas 50% of the schools say they will not include studio work. The aimed 'readability' of curricula of other schools will not be achieved in this way.

We believe that it would be beneficial if EAAE could take a firm position and stipulate what should or should not be taken into account when calculating ECTS credits in schools of architecture. If three out of the four articles of the Chania Statement 2001 there is reference to ECTS. It is vital that all schools understand precisely what it is meant by this, and also its implications.

c. Curriculum

a. questionnaire

The results of the questionnaire are as follows:

	yes	no
- Do you have an evaluation of the host school programme?	48%	52%
- Do you use the Learning Agreement of Study Abroad? (Some schools only use this for studio work)	80%	20%
- Do you insist on your students following certain courses in the host School that would be similar to yours? (Some school motivate this by stating that their students have to complete the home university's curriculum, or for compatibility and professional awards)	42%	48%
- Do you ever require supplementary work when the students return?	36%	64%
<i>If yes is it based</i>		
On ECTS credits	55%	45%
On your evaluation of the performance of the host school?	66%	34%
- What level of studies seems to be, from your point of view, the most appropriate for exchanges?		
Third and fourth year of study (Istanbul-Turkey) (Gazimagusa-Northern Cyprus) (Warsaw-Poland) (Diepenbeek-Belgium) (Finland); 7th and 9th semester (Athens-Greece); fourth and fifth year (Espoo-Finland) (Lisbon-Portugal) (Barcelona-Spain); 4th year (Gothenburg-Sweden) (Clermont-Ferrand-France) (Copenhagen-Denmark) (Cedex-France) (HvdV-Belgium) (Grenoble-France); 4th grade (we have a 6 year program) (Setubal-Portugal); Third year (Bochum); Postgraduate BArch students (Belfast); Bachelors (Kaunas-Lithuania); Second or half of their curricula (Vallès-Spain); Postgraduate (Eindhoven-The Netherlands); In Masters and Doctoral (PhD.) level (in 5th year's study) (Bratislava-Slovakia).		
	yes	no
- Do you intend to develop mobility in the future?	100%	0%
In which way:		
Typical Erasmus exchanges	88%	12%
Bilateral agreements for common diplomas	66%	34%
Mobility for students who take their first degree or second degree in another school	62%	38%
International experience in the framework of short mobilities on the basis of joint courses of less than one month	74%	26%
Other kinds of mobility		
Mobility of students who are engaged in professional stages (Lisbon-Portugal); IAESTE scheme administered by British Council (Belfast); Intensive programs (Diepenbeek-Belgium); NORDPLUS exchanges and		

normal bilateral exchanges (Copenhagen-Denmark); International workshops, lectures and/or meetings (Antwerp, Bochum)

b. discussion

We believe that there are two important conclusions:

- that few schools are well informed about the educational programme and pedagogical visions of their exchange partners;
- that a large proportion (36%) of schools demand extra work of their outgoing students on return

The reasons for this may be threefold: because the student has not obtained sufficient credits, a negative evaluation of the receiving institution and uncertainty about the academic level of certain courses.

It is especially the latter that called our attention as it is incompatible to the Erasmus philosophy, which is based on mutual trust between partner institutions. Here the student becomes the victim of the lack of information between two schools, or from the fact that institutions think that courses from certain institutions are better than those from other without objective criteria to prove this. The student is thus expected to produce extra work at home before his/her Erasmus programme will be recognised.

This procedure is further echoed by the 42% of school that require from their outgoing students to follow a programme similar ('mirror programme') to that of the home institution. Here the sending institutions intervene directly in the selection of courses that their students will follow in the visiting institution.

A consistent and systematic usage of the 'European grading scale' can already give the sending institution objective information of how their student's scores compare to those of local students. A great discrepancy is recognised in marking students, both at the level of institutions, as well as within national traditions. Here, again, Erasmus students, in some occasion, become victims. In order to solve this problem elegantly, some schools do not give their Erasmus students a grade, just a 'pass' or 'not pass'. This is communicated to the students before their departure. In order to improve trust and confidence over curricula of partner institutions, EAAE may find itself in the right position to gather specific information and provide this on their website. In this respect it could also be recommended to make a critical comparison between the curriculum and mobility questionnaire.

d. Financial conditions for students

a. questionnaire

The results of the questionnaire are as follows:

	yes	no
- Do you have special financial programmes in addition to the E.U. grants?	50%	50%
If yes, from which sources?		
State	90%	10%
Local authorities	30%	70%
Private sources	0%	100%

Others

From the school's budget (Copenhagen-Denmark); Additional support from the rector, given to the best students (Warsaw-Poland); University grant (Gazimagusa-Northern Cyprus)

yes no

- Can you specify the amount of the grant for your Erasmus students?

33% 67%

300 euro per month (Athens-Greece, Bratislava-Slovakia); 600 euro per semester (Copenhagen-Denmark); It differs each year. For academic year 2003/04 - its been defined at 130 euros/month (Warsaw-Poland); 1200 euro/semester, 1700 euro/academic year (Finland); About 500 euro per month (Cedex-France); 50 euro per month (Clermont-Ferrand-France); 450 euros/month + Erasmus grant (Grenoble-France); 350 euro (Talence-France); 450-550 euro/month (Kaunas-Lithuania)

yes no

- How do you help incoming students?

Financial 34% 66%

Accommodation 73% 27%

Others

Language training and a great deal of administrative and social service (Gothenburg-Sweden); Language facilities (Setubal-Portugal); Academic orientation (Barcelona-Spain); Integrate with the cohort of students in the relevant studio group (Belfast); Orientation (international tutors), free-time activities arranged by student union (Finland); Tutoring, advising (Cedex-France); Student secretary and ombuds (Diepenbeek-Belgium); Student card/food card (Athens-Greece); Student assistantship (Gazimagusa-Northern Cyprus); Languages courses (Vallès-Spain); Contacts with German students of the school (eg. Mixed studios) (Karlsruhe-Germany); Special welcome for exchange and foreign students-ECTS information package sent to them before their arrival (Grenoble, France); Intense help with composing the curriculum and finding appropriate housing / social programme by the student's council (Antwerp, Belgium)

Staff mobility

Schools' policy yes no

- Does your School encourage teaching mobility? 84% 12%

In which way

For short periods of time (8 hours/1 week) 90% 10%

For long periods of time (more than 2 weeks) 28% 72%

If not why

Problem of a small number staff and organisational problems (Diepenbeek-Belgium); Staff shortage (Gazimagusa-Northern Cyprus);

Existing pressures on staff leave no time and no other staff that can assume responsibilities in absence (Portsmouth)

	yes	no
- Do you organise mobility on the basis of		
Invitation in the framework of a curriculum	87%	13%
Simple acceptance of the applicants	41%	59%
Common teaching programs	59%	41%
Research programs	46%	54%
- Do you have a policy for attracting incoming staff from abroad?	20%	80%
If yes, please specify:		
<p>If possible we would like have more incoming staff from other schools of architecture. Funding is always a problem (Belfast); By organising an international workshop week called the 'Antwerp Design Science Lectures' (Antwerp-Belgium); Centre of Central European Training Centre in Spatial Planning (SPECTRA)-Excellence (Bratislava-Slovakia); Research and training external work place in Banska Stiavnica (Bratislava-Slovakia)</p>		

2. Mobility after Bologna

As yet, the questionnaire did not focus on this subject. What follows are some comments by members of the working group. Some of these aspects may lead to further discussion in meetings to come.

1. From horizontal to vertical mobility

So far, and in general terms, when discussing mobility we refer to 'horizontal mobility', whereby a student visits another institution for a certain length of time as part of a curriculum exchange programme. The study period is situated between two degrees. This may well change after the ongoing implementation of the two-tier degree system.

BA-MA offers a possibility for flexible choices whereby students can compose without too much administrative difficulties an individual degree. This 'vertical mobility' will result in a specific hunt for ECTS credits and perhaps even an 'education à la carte'. Mobility may not be limited anymore to a period between two degrees. The new degree system will also generate various second cycle programmes and joint programmes.

This process will make it increasingly important for students to obtain a diploma supplement at the end of their study career: a document with all the subjects the student has followed, the institutions and marks.

2. The role of the universities in the Europe of knowledge

On February 5, 2003 the European commission issued a document in which they wish to start a debate on the role of universities within the knowledge society and economy in

Europe and on the conditions under which they will be able to effectively play that role. Mobility occupies an important place in the reflections of the commission, of which a summary follows:

In the Lisbon Meeting of 2000 an ambitious target for Europe was set: 'becoming the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'. European Universities have to play an important role to achieve this. But, the communication, continues, the European university world is not trouble free, and European universities are not at present globally competitive with those of other major partners...'. Therefore a number of areas within which reflection, and often also action needed, are raised. Central to this is the notion to rethink the ideal model of the European University as defined by Wilhelm von Humboldt. The European universities can only release their potential by undergoing the radical changes needed to make the European system a genuine world reference. The commission sees three challenges to be pursued simultaneously:

- Ensuring that European universities have sufficient and sustainable resources and use them efficiently;
- Consolidating their excellence in research and in teaching, particularly through networking;
- Opening up universities to a greater extent and increasing their international attractiveness.

Our working group supports these notions and believes that mobility can become an important tool in increasing the attractiveness of schools of architecture.

3. Conclusion – Points of Discussion

We believe that a great deal of information of the different working groups is interrelated and should be linked to one another in order for 'appropriate' exchange partners to operate mobility to be found. The EAAE website may become a useful tool in that respect. It could also enhance bilateral and/or multilateral agreements.

On ECTS, we believe that EAAE is the appropriate body to stimulate the use of a coherent system for all its members, so that we all use the same credit system and include the same ingredients for calculating them.

Issues on curriculum and mobility are related when they deal with innovative teaching methods such as e-learning, virtual mobility / Distant Education. Within 'vertical mobility' it will be the curriculum that will steer mobility, and not vice versa. The Bologna Process makes students more active in composing their curriculum (personalisation) under supervision of the institution.

Staff mobility is a problem: almost all schools agree that it is good, but difficult to operate due to obstacles of availability (both personal and institutional). This shortcoming can perhaps be solved by sharing programs at Masters level, offering integrated curricula, common diploma and shared research programmes.

Shaping the Exchanges and Mobility in the European Higher Architectural Education Area

Discussion

Coordination by

Nur ÇAGLAR, Ankara, Turkey

Koenraad VAN CLEEMPOEL, Antwerp, Belgium

Michèle MICHEL, Bordeaux, France

Nur Çaglar, Ankara, Turkey

I would first like to introduce the members of our working group: Andrzen Baranowski from Gdansk, Poland, Ebbe Harder from Copenhagen, Denmark, Michèle Michel from Bordeaux, France, Guy Pilate from Brussels, Belgium and Koenraad Van Cleempoel, from Antwerp, Belgium. As indicated in your programme sheets, I am going to chair the session. That is the easy part of the work and my colleagues Michèle and Koenraad are going to make the presentations. However, we have decided to take the contribution of all of the members of our working group. This is very easy for us to do, as you can see from the number of members, that we are the smallest of the four working groups.

The presentation is structured as you see on the screen. We will go through four items, starting with the questionnaires, meaning that we are going to talk about the work we have already done in Antwerp in March. Secondly, we will discuss ECTS a little bit because it's a very important tool for the future of, and the development of mobility and exchange. Then we will go through the role of the universities in the 'Europe of Knowledge' as Koenraad would like to share some important data regarding the mobility and exchange issues on a document that he recently received from the European commission, entitled: "The Role of the Universities in the Europe of Knowledge". Following this, we will draw some conclusions. So, now I will ask Koenraad to start his presentation.

This is more or less the data that we have been able to gather since the meeting in Antwerp last March, but I would like to ask the other members of our working group if they wish to make their contribution to the debate.

Andrzen Baranowsky, Gdansk, Poland

I would like to make one very short remark. The questionnaires were divided into specific European areas. One thing that is quite obvious is the inequality in terms of the exchange of incoming and outgoing students, especially in the eastern parts of Europe. There are many more outgoing students and only a few incoming students. This is understandable temporarily, but should not be continued in the long term. There is a great need for better information on what the Eastern European schools represent, what they can offer to other

European schools and what their expectations are. Therefore, the geographical regions of the exchange and mobility programs require further consideration.

Nur Çağlar, Ankara, Turkey

You can all say that we skipped the financial problems, we haven't made any comments on this issue yet.

Andrzen Baranowsky, Gdansk, Poland

Koenraad Van Cleempoel has prepared a list of problems that have been mentioned during the session and I would like it to become the basis for our discussion. We think it would be easier to have this picture on the screen, but it does not necessarily mean we have to strictly follow what is written here step by step. But to organise the discussion let us start with this list if you don't mind. Now the floor is yours.

Christian Huetz, Regensburg, Germany

You are pointing out two kinds of mobility. The future types of mobility are e-learning and curriculum based mobility. I think e-learning, virtual mobility as you call it, doesn't exist. It is just a different way of collecting information. Anyone can say they are in Hong Kong by pressing some buttons in the World Wide Web when they are actually sitting in Baden. I think mental mobility may be very important here, the mental mobility to exchange information from one country to another one.

What is also very important is physical mobility, as you refer to curriculum-based mobility. It must not just be curriculum-based mobility but can also be mobility caused by the curiosity of the student: What is going on, what can I find, can I have more of the information? Since mobility includes all of Europe, you have different cultures. You should step into the culture, get to know the people....Anyways, this is what I wanted to point out.

Heiner Krumlinde, Bochum, Germany

I have three questions or three remarks on what Michèle has presented to us. First of all, I just want to say thanks for your work; I think it is excellent. One problem is the relationship between mobility and ECTS. It is fine that we have ECTS which is comparable but it must be decided how to evaluate in different countries. For instance, if someone from Germany goes to Milano, Italy, like we have thirty times already, it is very important for the students not only to have 30 ECTS credits for half a year, but also to learn the language, take Italian courses to improve their language and to live with Italian people and with Italian students. I always recommend going into a community of students with three or four Italians. It is also important for them to find their way. It is very difficult for foreign students to know everything at once, even if they are in their third year. This is the reason why I am thinking about the "weight" of ECTS. I think it is enough that the students have half of the 30 ECTS credits when they go abroad. The other half is as important for them, so what I demand from them is to bring for instance, fifteen ECTS or two projects or two different courses equivalent to that number of credits.

The second problem is incoming and outgoing students. We have a lot of outgoing

students because of my efforts after Hania last year, and previously, but we have very few incoming students. I ask our colleagues from France and Holland why they don't let their students go. They have such a strong curriculum, yet you tell the students if you go out of your country you will have to study one more year. This is not correct; it is not in our sense of Europe. A lot of changes need to be made. A third point, which is actually part of the second problem, is that there are too few places for the students for their first stage in offices. We have a lot of offices of only two people that are willing to negotiate students. It is one possibility, but this is not an exchange in studies.

The third problem is staff mobility. I think about this every time I have contact with colleagues from other countries. The problem is that they are bound to their families. I can't find any solution to this problem for the long term. To go away for two weeks and do a workshop or a short course like a compact course is fine, but you can't go for a long period or you would have to change wives or husbands. Otherwise, I think there is no solution.

Guido Onorato Morbelli, Torino, Italy

I would like to say that one of the most important things that came out after Bologna is the three plus two. We have discussed the possibility of students attending courses at different universities around Europe. It might not be agreeable that students start with the three systems; they could get the first diploma in a school in Germany or Italy, and then if they find an exciting program at another European school more valuable, they can choose to go there.

Then of course there is the problem with learning the language of another country. English is already much practised, so maybe there could be some lectures done in English. I think this is a challenge and EAAE should foster and help in this direction.

In Torino we developed a model for students to be able to complete their final courses in another school. Eventually I have been able in my course of studies of which is in the second faculty to arrange to have a double diploma with the College of Director of Marseille. A contract was signed in the beginning of April stating that our students may spend the fifth year in Marseille (which we now call the second year of specialised courses and for Marseille, the first year of the first cycle) and Marseille students at our university. There have been some difficulties matching the Italian system with the French system, but the reality is we have students going there, following courses of the last year and in the end they will have a double diploma that is valuable both in France and in Italy. This system of double diplomas might be a good system and maybe will help make the students more enthusiastic about going abroad. The Shanghai Treaty says that if you are already a member of an institution then you can practise architecture anywhere. This is linked with the very important fact, also as a cultural point of view, that people have a very complete experience abroad and can start to have links in order to have a profession here or there and can also, perhaps, have an academic career in both countries. This is quite a challenge and I think EAAE should be getting this kind of result.

Patrick Labarque, Gent, Belgium

I wanted to say something about the mobility of teachers. We have had bad experience with this, especially when you go abroad. From time to time, a lot of you will recognise

the feeling that you are condemned to be a tourist. There are different reasons for making it difficult to enter into a programme. It can be that the time isn't suitable, or the institution where you want to go may not be prepared to have a Flemish teacher, Spanish teacher, or you don't speak the language in the curriculum at that moment. I would like to make a proposition that perhaps can act as a trigger to take more advantage of this possibility. The institutions could cover the cost of guest teachers between the programs. Each of the institutions that have an exchange program should have a period in their curriculum, in a certain year, for guest teachers. It can be a workshop, a conference, or other different formulas, but that there is a place for an English or a French speaking person, depending on their language. You can offer a guest teacher a sense of purpose for his visit, that he is not only going there to visit the students, but that he can do something valuable when he is there. Perhaps this can be discussed. It is a very simple proposition. I don't think it is a perfect one, but it is perhaps a start to help solve some of the problems with staff mobility. If it can start with a short period, the long-term exchanges can come after that.

Andrzen Baranowski, Gdansk, Poland

Maybe before there are other speakers, I would like to make a short comment about the first remarks. We can draw the conclusion that we should not over estimate the administrative or bureaucratic parts of the issue, but should also be concerned with the curiosity and the learning of cultures of different countries, habits and heritage, which are in fact important parts of the mobility programs, and are not even calculated within the ECTS system.

Ebbe Harder, Copenhagen, Denmark

Just a little comment about staff exchange. It is rather important that we, as an EAAE organisation, can do more than we do to establish better communication about staff exchange. We already have the possibilities in some links. In my opinion, the thematic networks are very, very important. Maybe we can create more thematic networks. For example, there is one person in our school who is responsible for doing work in the field of Architectural Photography. I don't think many schools have a person like him, maybe there are ten, but we could create a thematic network on such a specific theme, with these ten people. They can gain from this network; they can exchange their experience, and maybe also be some part of a staff exchange. Creating thematic networks will also create more possibilities for exchanging staff. We should also go a little further, now that we have heard the ideas about the EAAE guide presentation to the schools. Can we also create more information about staff in the website? In the future, if you would like to know about a specific person that knows about a certain topic, it would also be an information base in that direction. So the EAAE website can create a better base for staff exchange. I think that most of our doctorates in the curriculum already have a period where they are going to be apart. So that is also a part of what we can collaborate about having staff exchange specifically for people who are doctorates.

Finally, we should have a programme in the EAAE like the one that has gone on for years in Drama, Greece. It is a pedagogical exchange for young teachers and is also a kind of knowledge base that could be exchanged. Maybe it shouldn't be Drama that does it in the future, but other schools, in other places, could host it and in that way it could increase the possibilities of staff exchange. We should not only pay attention to staff

exchange, as I mentioned here, but also to ask what we can develop as an organisation to create a better base for mobility.

Spyros Raftopoulos, Athens, Greece

I would just like to say that we do support student mobility in our school without ignoring that there are certain problems. Some are very practical problems that we try to solve, such as the language barrier. We organise separate groups to teach some of the students our language, our difficult language, as far as it can be taught in a short period of time. These are the minimal sort of problems that are being solved by the efforts of certain staff, voluntary most of the time, to try and enhance as much as possible, the mobility between students.

I think we have more important problems. Such problems arise with the quality of the contents of each subject that are being taught in different schools, in different countries. I may exaggerate with an example when I mention that. But how can we prevent a student from traveling around Europe, taking subjects in different schools that have a high degree, or a higher number of credits, much more than what is required in the school of origin. In that case, finishing studies, getting the credits that are required, but having studied less, and having a lower quality of education in the end. That is one of the problems and when I say I am exaggerating the example, it is a system where somebody can more or less circumscribe a system that is being applied all over Europe.

We replied positively to the question of whether we require supplementary work when the students returned. We do that on our evaluation of the performance of the host school. It is not an arrogant sort of approach, where we say our school is of higher quality, but it is a way of comparing the contents of each subject that is being taught in different schools and trying to set a standard of what is required for our students when they finally graduate from our school. This is not a formality of the credit system or the ECTS system (like promised, we are going through the process of trying to apply the system). The problem is the quality of the contents rather than the quantity and this is what was meant when we answered in such a way. I don't know if it was understood or not but we should try to discuss this problem. There is such a variety in our schools all over Europe that I don't think we could ever require, and, it shouldn't be necessary, to try and bring everything to the same level. There are so many different parameters in our countries: there are cultural, scientific and professional differences, or whatever else you may consider, that we couldn't achieve this. So what is the reaction, or the approach of the different people, of different schools, from different countries?

Andrzen Baranowsky, Gdansk, Poland

Thank you very much. I think this was a very important comment because it is a very controversial issue concerning the recognition of the system as such, and some sort of mistrust in specific cases, which may undermine the system again. But the question remains, nevertheless.

Jan Westra, Eindhoven, The Netherlands

I think we should ask ourselves what makes the architectural student? In Eindhoven, it is

really very simple; we don't talk about the ECTS problems. It is very important that you know the other party and you can communicate with the other schools. We have many students that go to Brazil, South Africa; they go all over the world. If you make constraints you will hinder the students from going abroad. I remember as a foreign exchange student in the United States, I took drawing classes for example that had nothing to do with the classes that I took at home, and nobody asked the question whether I would be less qualified at my school back in the Netherlands when I returned. There are some limits, but you can discuss these limits with the other party.

We are here at this conference, as I understand, because it is my first year, as heads of schools of Architecture. So the solution is right here. I take it I can call on anyone who is sitting in this room and say "you are getting a student from Eindhoven, he is doing a programme, and we understand that you have such and such a programme, and that you deliver so many ECTS credits." If you trust the other party, then everything will work out. There are of course limits in the sense that on entering, the student should be fit and he or she should not be put in a negative position. All of these discussions about ECTS shouldn't be done here, but we should actually say to each other: all heads of schools of architecture in the future, in the next ten years, will swap places for at least two weeks. It would be very interesting to see how things work in other schools.

We should also try to get more acquainted with the production of the architectural work that is done in other schools. We, for instance, make little books. I don't know whether all of these books from universities are available in quantities so that we can look at projects that they do and can communicate with the people that are guiding these projects.

Then there is the matter of personal communication, and it is very motivating for the students if you say you really should go there instead of asking, beforehand, how does this work with the ECTS scheme in architecture.

Christian Huetz, Regensburg, Germany

Along the same line, why should we always take the worst point and say that the student will study at a poor level and disregard everything which is in the process. So, I don't see this point because we have the possibility, you were right, to look for schools that offer some programmes that are compatible to our programmes. You have the possibility of what schools will be accredited and this is a sort of quality. Why should we think that a student is not a smart boy or a smart girl, I don't accept that. Well you see, George Orwell is everywhere, it's a question of egalitarianism. I think we are equal but we are not "more equal" and there are no people that are "more equal" than others. There are no schools that should be "more equal" than other schools. I think it is a problem of profile. Just yesterday we talked about the problem of profile: what does a school offer and what goals does the school set for its students? I think that students will move, they will take what they want, and not always at a very low level.

Ebbe Harder, Copenhagen, Denmark

I would like to make a comment about the ECTS points that you mentioned. Maybe you could say the problem is that the students are very aware about what they can obtain by staying in another school. So, in the first place, they will know from the coordinators in your own school that if they go there, they can get enough ECTS points for the study

programme at that school. Maybe that is one of the "borders" we have to fight. I am not sure of the students, but I think that most of us have had this experience: the idea is not only to have study programmes, but also to be a part of another culture and another language. This means something to the student and when a student is a serious one, it will always be something he or she will gain from. This is a discussion that we have had for many years but I think that the point we are saying is that exchange mobility is good but now we have to find ways to increase mobility.

The other point I would like to mention is that the results from the questionnaire about mobility were very low and I am not quite sure if the figures show us the correct picture. If you take the amount of students coming from abroad to your school, and combine that to the number of students that you have at that school, it is not the right percentages you had at that time. You know that students will be there for five or six years. I am not sure, because I haven't seen the calculations, but I think that it was a very, very low percentage and in my opinion it is higher than the statistics. I do think it is a very good idea to increase the number of exchange students and I don't know if there is anything more to say in this session. I would like you to pay attention to what said: that you are very, very welcome to contribute ideas to the organisation and also to ask what we as an organisation can do to increase the mobility of students and better the staff exchange.

Michel Paulin, Lyon, France

In my opinion, the networks operate only if there is a degree of confidence between all the institutions working together. So, this confidence is based on the cooperation and recognition shown by interaction with teachers and deans, as well as an awareness of each study programme on offer and not simply based on student choice. In other words, institutions will have to invest time and commit themselves before sending/receiving exchange students. That is very important. On the other hand a problem can appear if some students compose their programme only with their elective subjects. In each school there are more important courses and some less important, for example, courses like photography or dance. Maybe some students can travel through all of these secondary subjects and asked to be evaluated exactly as they have completed a main course. Maybe we have to think about a general framework of European architectural programs showing many kinds of abilities; a percentage of design, practice or research, and a percentage of cultural experience or learning gained from each foreign country and so on. If this framework works it is not important to assess each specific course, in each contract that we have with each student.

Christian Huetz, Regensburg, Germany

We have the agreement of the EAAE and the Accreditation System. There is a very decent framework of what an architect's skills should be so I don't think there is anything to discuss on this matter. It's all in the proceedings.

Spyros Raftopoulos, Athens, Greece

I would like to clarify something, because I think what I said may have been misunderstood. What I meant about the possible differences between schools is not a problem of mistrust

or lack of confidence; it is a matter of the emphasis that certain schools put on certain subjects. This is the problem, actually, what I am talking about (remark from audience)

Andrzen Baranowsky, Gdansk, Poland

You mean the profile, the profile.

Spyros Raftopoulos, Athens, Greece

(continuation of discussion) obviously is the final profile of the architect and what is expected of a student to graduate from a certain school. Let's take for example, the case of a student who may have the subject of Building Construction in a certain school in Europe. He or she may get the three, five or ten credits that are required in this subject, but the content that a certain school may give in this subject may be higher or even lower than what we may require. So it is not a matter of lack of confidence that we require the student to bring back the work that he or she has done. We look at the work, and if it is equivalent, with similar content, quality or quantity, we accept it and the student gets the credits required.

If I may take a little more of your time without trying to monopolise the discussion, I would like to talk about the circumscription of the system. We have cases in the past few years where Italian universities send us Greek students that are studying in Italy, to spend time in Greece in our university. Now, in a way this is circumscribing the system because as it was mentioned earlier, when we have this mobility, we expect not only the academic relationship of the student but also the cultural, social, and so on. It is circumscribing the system when Greek students that have permanent residence in Greece come from an Italian university and study a certain time in Greece. We have to accept them because they have been sent to us. These are some of the problems that we are trying to face.

Nur Çağlar, Ankara, Turkey

Any more comments? I understand there is not enough time to make conclusions out of all of these comments but perhaps tomorrow there will be more time to summarise what has been said during the workshop. So if there are no more comments thank you very much for attending the workshop.

Chapter 4

Shaping the Academic Assessment and the Quality Assurance in the European Higher Architectural Education Area

The first attempt to collect information on assessment revealed at Hania last year the existence of polymorphic systems, methods, techniques and procedures implemented in schools of architecture in order for their curricula to be assessed. The EAAE, in its Hania Statement 2001, committed itself to undertake initiatives in the direction of the development of a quality assurance and assessment system tailored to the needs of architectural education while respecting its diversity.

As a result of this information, the perspective for the creation of a European system of evaluation is a challenge despite the obvious difficulties it entails and worth investigating further. This system may refer to the 'academic' assessment of the educational programs by means of a peer review and not to the 'professional/ governmental' assessment of the diploma leading to the accreditation and the validation by the professional/ governmental bodies of the member states.

Further work was proposed to shed more light on assessment by finding out more about the various methods and techniques applied by schools in order to control and improve the quality of their education. The work will elaborate further on recording and discussing the various methods employed by schools of architecture and will assess their efficiency given the particularities of architectural education and its divergence in the structure and organization of studies in different schools of architecture in Europe. This record will also target at identifying the key points which should be subject to assessment.

Introduction to the Session

Panel

Herman Neuckermans, Leuven, Belgium

Katia Baltzaki, Thessaloniki, Greece

Chair

Richard Foqué, Antwerp, Belgium

Discussion

Coordination by

Herman Neuckermans, Leuven, Belgium

Matteo Robiglio, Torino, Italy

Richard Foqué, Antwerp, Belgium

Richard Foqué, Antwerp, Belgium

Dear colleagues and friends, this morning we have a session on quality, quality assessment and quality assurance and it was said in the meeting at the start of this conference that we should try not to take a step further but look more into content and quality rather than repeatedly discussing structures. During the conference the four discussion groups worked very hard to present their results so far. There was a good debate on the results. I think quality may be the cornerstone for this discussion on content and we ask ourselves; where do we go from here? I will put a few points forward just to open the session and then I will give the floor to Herman Neuckermans. I will not have to introduce him again as everyone knows him, and he will comment on the results of the working group who worked around this team. It's not in the program, but I have asked Marvin Malecha, he doesn't need any introduction either, from North Carolina State University, to give a brief comment or report on how assessment and accreditation is done in the States. Marvin was, and still is, a member of many, many commissions involved in assessment and accreditation in the USA. This is a long tradition in the US so I asked him also to teach us some lessons from his own experience. Thirdly, we have the questionnaires and Katia Baltzaki, PhD student from Aristotle University of Thessaloniki, Greece, will comment on the results of that inquiry. We will have the presentations, and discussions to follow.

What is the scene concerning quality control in Europe? As far as I am concerned, it's kind of a complicated puzzle, with many pieces. We don't always know if the pieces will fit, sometimes they do, sometimes they don't. There are an enormous amount of initiatives on several levels. I try, and I may be incomplete, to make a little resume of all of these initiatives. First of all we have to start with the European directives. Everybody is aware of them, possibly going back as far as the 1980s. One of the first ones, giving a very broad, general description, is putting forward the goals and aims the curricula should fulfill. They are very broad and very general based on the list of schools, the so-called business schools that offer a recognised diploma throughout the European Union. That is one point. We heard from James Horan in his inaugural speech that in fact, the European Committee that has worked on the recognition of diplomas and the recognition of new schools, does not exist anymore, or does not work, or is out of order so to speak. We also learnt that ACE, the Architectural Council of Europe, is trying or is intending to fill that gap and if we are not conscious of that, or if we don't put our own goals forward, we may be out of the game. So that is one aspect, which you could say is at a political level. Then we have the regulations in the individual countries of Europe. In the individual countries there are several levels. On the level of the university itself, most of the universities and institutions in Europe have their own system of quality control, self assessment, evaluation, accreditation, or whatever you can call it, peer review, visitations, commissions or benchmarking, etc. All of the countries have legislations around these things or are working on that. Governments want to know where the money is going and what you do with it. They don't want to interfere with the contents of the curriculum but they want to know what the quality is. Is the quality acceptable, is it measurable and is the quality up to standards, whatever those standards may be. Then they decide if it is still worth it to give money to that school. I put this in a very general and straightforward way but that is more or less what is going on in most of the countries.

Thirdly, you have the emergence of what I would call 'commercial organisations' that you can call in and give quality labels, whatever the quality of that quality label is, and

private organisations that do accreditations. You have within several of the European countries, professional bodies that apply, we heard from Koenraad Ven Cleempoel's and Lawrence Johnston's studies, about several very different rules on how to get into the profession. Some countries say a diploma of a recognised school is enough and they don't ask for more. Other countries even organise professional exams; other countries involve internship, one or two years etc. There is quite a diversity of rules, legislations and customs. The EAAE as the organisation of schools has to play an important role and that was in fact put forth in the Hania statement in 2001. It is good to refer to the Hania statement where it was clearly said that the EAAE should play a role in quality assessment and quality assurance and that there should be a distinction made between academic evaluations and professional ones.

As we did last year, we will start as working groups and I would like to put forward the names, I may forget a few because I don't have the exact list before me. Unfortunately Alan Bridges could not come to the conference and he was the coordinator and chairman of the group. He instructed me to give some notes to Herman Neukermans also part of the working group who will report, as I said already, on the results of that. We have Hansjoerg Hilti of Liechtenstein, Matteo Robiglio of Torino Italy, Katia Baltzaki, who did the work on the questionnaires, Selahattin _n_r from Ankara, Turkey and myself. It was a very small working group but I think we did good work. One of the things we did, and Herman will now comment on that, was to try and get the definitions right. As you all know we are using so many words for so many things, and maybe for the same things. We are speaking about accreditation, validation, about self-assessment, quality assurance, visitation, pre-interview, etc, etc. I asked Herman to comment on that and also to comment on the results of the working group.

Assesment in Architectural Education

Herman NEUCKERMANS, Katholic University of Leuven, Department of Architecture, Leuven, Belgium

The world of education today is facing more and more the issue of quality control and quality assurance, not at least because of the increasing mobility of people and services in Europe and abroad. Also, since the 1980s, institutions for Higher Education in Europe have been solicited to demonstrate their quality and assure the quality under the pressure of society asking what is the return of investment in education. This economy driven evolution follows the mainstream of quality control that has been a tradition in industry for a long time, as expressed full-grown in ISO-9000. The terminology used in this respect is not always clear and therefore the EAAE/ENHSA working group preparing the session on assessment started by clarifying concepts such as assessment, validation, accreditation. After a first part devoted to existing information and experiences, the second part focuses on questions and actions for EAAE/ENHSA.

Part 1. Definitions

Assessment

Because the more 'procedure oriented' ISO 9000 industry model, appears not to be applicable as such to the more 'content oriented' higher education, specific instruments have been developed for quality control and assessment in education within the framework of the European Network of Quality Assurance in Higher Education agencies (ENQA) established/committed by the EU, confer <http://www.enqa.net>.

Assessment is the determination of the quality of a school; it comprises as well evaluation (=qualitative judgment) as well as quantitative appraisal. Assessment is the essential part of a quality control and assurance process.

In general it consists of an external assessment by a representative committee of independently acting peers, who perform an audit of the institution, its educational activities and eventually its research activities, its service to society. The basis for such an evaluation is the self-assessment report produced by the institution/faculty/department itself, followed by an audit in situ. The ingredients of the self-evaluation report are:

1. the formulation of the mission statement of the institution, its goals and aims, its expected outcomes and parameters to measure / assess these. These are the premises on which every quality assessment is based.
2. the inputs or constraints within which the mission statement has to be realised; this implies screening the management of the institution, policy, staff, students, funding, facilities.
3. the analysis of educational activities; Vroeljenstijn (confer ref 12 NS 60) proposes the following model:

	Programme			Students	Staff	Output	Satisfaction
Goals & Aims	Content	Organisation	Examinations	Selection	Qualifications	Pass rate	Opinion students
	Translation Goals/aims	Didactic concept	Procedures	counselling	Competencies	Drop out	Opinion alumni
	Coherence Program	Curriculum design	Organisation		Co-operations	Average graduation time	Opinion labour market
	Contribution each course towards goals and aims	Innovations	Level				
			Reflection program			Achieved standards	Opinion society

4. if applicable, an assessment of the research activities. Several models for the evaluation of research have been developed. They look at research policy, research programmes, research management, qualifications and competence of staff, the international framework, Ph.D. programmes, they take into account scientific production measured in number of publications, presentations at international conferences, projects, external funding, reports, dissemination of results, etc.

Considerable amounts of work have been done regarding conventional assessment methodologies. For example, the UK's Quality Assurance Agency for Higher Education has published Codes of Practice for:

- a. Assessment of Students
http://www.qaa.ac.uk/public/cop/copaosfinal/COP_AOS.pdf
- b. Placement Learning
<http://www.qaa.ac.uk/public/cop/COPplacementFinal/PlacementLearning.pdf>

AlsoVLIR (Vlaamse Interuniversitaire Raad / Flanders - Belgium) has published guidelines for visitation committees of educational programmes. This is a Dutch document. We have reproduced here the overall structure they propose for the self-assessment report.

The Self-Assessment Report

Aims

- stimulating internal quality assurance
- preparation for the external audit/visitation
- providing information to the visitation committee

Contents (each topic comprises elements of quality and elements of self-evaluation)

- pedagogical profile, goals and achievements
- mission statement
- programme: its structure and content, pedagogical practices, examination/evaluation: we need more than a list of subjects, but also the goals and the achievements at the end of the course.
- final year thesis work or project and internship

- students: intake, evolution (success rates and efficiency, numbers, male/female repartition, foreign students, policy)
- feasibility
- graduates
- buildings and infrastructure
- staff and staff policy
- international dimension
- research component of education
- internal quality control system
- strengths and weaknesses

Manuals are available for the schools, as well as manuals for the visitation committee.

Source: VLIR, April 2001, Brussels

Quality control and assurance

Assessment is a part of a quality control procedure which firstly has to find out whether the school delivers what it says or what the organizing authorities expect, and secondly to assure that quality persists in course of time.

Assessment and periods of remedy alternate in a permanent loop of quality assurance.

Several countries have instated the practice of having an internal QA every 3 or 4 years alternating with an external QA at a similar pace.

Accreditation

Accreditation is the formal recognition of a programme leading to a degree by an independent body, stating that the programme "meets an established minimal standard of quality- and level".¹³

One distinguishes 3 types of accreditation:

- Academic accreditation: diploma's or degrees accredited by the government: guaranteeing that this diploma is a diploma of architecture. As a rule the procedures for existing ones and new ones differ. The situation is different in different countries.
- Professional (countrywide) accreditation by professional bodies is a part of the process to access/ registration to the profession of an architect. It assesses whether an educational programme is sufficient to start or continue on a career as a professional. In those cases where the access to the profession is not guaranteed by the diploma as such (i.e. without any further requirement), registration as an architect is done on the basis of an individual assessment or exam by the profession (for example by R.I.B.A.).

Rather confusing however is the practice initiated by R.I.B.A. -a pure U.K. professional body- to accredit educational programmes and diplomas delivered by foreign schools. This accreditation is in fact merely used as a quality label by the schools without giving legal access to the profession.

- International accreditation in view of the free exchange of people and services (= Schengen agreement). In Europe, so far, one of the prerequisites to access the

profession of an architect was that the diploma had to be issued by a school from the list of schools in the 15 countries named in the architect's directive from 1985. The major task of the advisory committee was to accredit programmes presented by schools not figuring in the list. With the extension of the EU this procedure has to be updated (confer the discussion about the abolishment of the advisory committees).

This international accreditation is defined by the EU: the following URL provides links in the standard EU languages to the current Directive on the Recognition of Professional Qualifications, within which Section 8 relates to "Architect". Annex V.7 (section 5.7.1) defines the knowledge and skills necessary to qualify as an architect and the following tables (section 5.7.2) list the approved educational institutes whose qualifications are recognised as providing those skills.

Link to access the Directive in the standard EU languages:

http://europa.eu.int/comm/internal_market/en/qualifications/02-393.htm

English version of the Directive:

http://europa.eu.int/comm/internal_market/en/qualifications/com02-119_en.pdf

One might question the need for an accreditation of bachelor degrees, European wide and/or in networks allowing easy transfer to another school in Europe, without the need for (extensive?) individual screening of students. The tendency by now seems to be to accept students on the basis of a portfolio.

Validation

Is the procedure of testing the pedagogical achievements: the acquired skills, attitudes, knowledge and competence.

Whereas accreditation is looking at the input to the course, validation looks at the performances of the output / graduates.

Validation or academic assessment is measuring a student's progress and the degree to which specific learning objectives were being met. As a rule it is a part of the quality assessment procedure. The definition of subject content needs to be defined in more detail than was the case for accreditation. One example is the U.K. Subject Benchmark Statement for Architecture:

<http://www.qaa.ac.uk/crntwork/benchmark/architecture.pdf>

Evaluation / Assessment of Design

Assessment of design deserves special care and attention, because indeed this relates tightly to the specificity of schools of architecture and because existing evaluation tools and schemes do not specialise on design so far.

One document that does discuss design product-evaluation and which could provide a model, is the UK's Commission on Architecture and Built Environment (<http://www.cabe.org.uk/>) guidelines on Design Review. A copy of the Guidelines is available through the CABE site by selecting "Publications", scrolling down through the publications (which are ordered by date of publication) to March 2002 and selecting the pdf of "Design Review". A further complication in assessing design work is that several schools undertake

group work in design and that a group's work tends to be assessed rather higher than individual work.

A further, related topic, is the evaluation of design-based research.

In assessing design, one has to distinguish between:

1. assessing the students capacities/competences through assessment of the design (product) quality
2. assessing the pedagogical process: quality of the design teaching and learning process (trajectory,...), including the quality of the teacher (quality of tutoring,...) and pedagogical materials, methods and tools

Assessment of design quality is an issue that transcends the mere issue of pedagogy, because it is applicable to real world projects, maybe in a slightly different format because for example of the different aims in real world competitions. It deserves a place in the self-assessment report.

Pertaining self-assessment of the design (product) quality in a school, the following strategies could be considered:

1. team or jury deliberation
2. explicit or articulated argumentation
3. voting
4. intuitive versus global
5. levels of detail
6. oral / written argumentation

Pertaining the self-assessment of the pedagogical process (in design):

Two major aspects come into play: teacher evaluation as well as student learning process evaluation. This can be done by using a questionnaire. We include here, as an example, the teacher's evaluation from KU Leuven:

- does the tutor highlight the relevance of the assignment within the broader context of architecture
- the specific goals of this design assignment are clearly described
- the assignment is well defined (site, brief, norms and laws,...)
- are the deliverables well defined (plans, models, quantity, quality, level of detail, presentation,...)
- criteria of evaluation are set clearly right from the beginning
- the assignment can be done within the limits of the time scheduled
- the in-between-deadlines are feasible
- working in the design studio is stimulating
- research for design can be done within the allocated time

- time spend to design assignments in surplus of allocated time hampers my commitments to other subjects
- appointments with the tutor are OK
- evaluation fits the criteria at the outset
- I feel that the staff evaluation estimates correctly my personal involvement
- evaluation is proportional to my effort
- the intermediate evaluation is frequent enough
- the final evaluation/jury is fair
- the tutors comments were right
- I am well-enough prepared to make this design
- this assignment allows me to improve my technical competence
- this assignment allows me to improve my designer's skills
- this assignment widens my scope on architecture
- enough material/documentation is available while designing
- working in group has enriched my personality
- working in group functions quite well
- my input in the group work was evaluated correctly.

As said before assessing student's achievements as part of the evaluation of the learning process, is in fact a part of the validation process. Assessment thus clearly makes the distinction between goals (what are your ambitions) and achievements (what you realised from your ambitions).

Assessment of staff

A complete different track, where assessment plays a crucial role is the procedure of enrolment, nomination or promotion of academic staff. Criteria specific to architecture have to be developed, because some of those used in sciences are not applicable, nor relevant as such to architecture, while others are missing. Developing such a set of criteria could be a task for EAAE. The following list is typical in a university context:

Appointment / promotion criteria

- Age
- Teaching
- Ph.D. promotership
- Publications
- Projects
- Pedagogical evaluation
- Scientific consultancy
- Seniority in previous rank

Publications (last 5 years)

In international and refereed magazines

In other scientific magazines

Papers presented in international conferences and symposia

- published in proceedings
- only available as an abstract or not published

Presentations at national conferences, symposia, workshops...

- published in proceedings
- only available as an abstract or not published

Internal reports

Theses

Books

- author of the entire book
- contributor
- editor

Part 2. Questions and Proposals

In the preparatory discussion the working group also focussed on how the links provided by EAAE/ENHSA might enable schools to improve the quality of research and teaching by looking for examples of "best practice" within the community. In other words; how may we learn more from each other? The group identified a number of questions (rather than solutions) which, it was felt, could help the process of learning from each other to progress. These questions were (see details in appendix 1):

- What are the main learning objectives pursued by your school (the real issues rather than the "mission statement")?
- What do you believe your school does best?
- How does your school attempt to improve the quality of its work?
- Does your school undertake any form of self-assessment (quality assurance)? If so please outline the topics covered.
- Does your school participate in student or staff exchanges with other schools?

Possible action lines for EAAE/AEEA

1. Assessment of Architecture Schools and curricula

- as part of a self-evaluation procedure
- as a contribution to mutual agreements on curricula and exchange
- role of the EAAE/AEEA in peering Architecture Schools (might provide international peering staffs for assessing educational institutes)
- EAAE/AEEA could establish a common and unified self evaluation + peering procedure (i.e: self evaluation with mission statement, state evaluation, indicators, goals, timetable etc.; reviewing procedure; quantitative and qualitative standards etc.)

2. Assessment of research in Architecture

- assessment should be based on understanding the specific identity of architectural research, not necessarily adopting existing indexing systems (which mainly reflect knowledge diffusion in the math-phys. sciences scientific community)
- methodological and theoretical research in architecture seems well established in universities and schools (existing journals, congresses etc.) but fragmented and mainly academic
- but an action of EAAE/AEEA might enlarge "local" media to EU scale (for instance, EAAE/AEEA might support and foster an "European Journal of Architectural Education")
- what still lacks recognition is research done by design, leading to the paradoxical situation that an outstanding design might make you famous and become a milestone in architectural debate and research, but would not be worth anything in an academic curriculum
- publication of design outputs is to be taken as an indicator of research also for design research, but including a selection of non academic reviews of established quality (for instance "Casabella" is not indexed by ISS and other scientific indexing systems)
- EAAE/AEEA could assess a selection of design reviews and magazines (for instance by pre-assessment, i.e. a sort of "quality label" awarded by EAAE/AEEA)
- assessment shall take in account the specific identities and traditions in different countries
- (minimal) requirement for assessment could be
- the establishment by the review of a transparent submission-reviewing-acceptance procedure (make access to publication clear and as open as possible)
- presence of an official and recognizable panel (scientific committee or other form)
- the availability of English (and French?) translations
- (other)

Further lines of action:

EAAE: list and ranking of journals

Own list of topics important for academic carrier

Research by design to be explored....

Appendix

Questionnaire proposed by Selehatin Önür:

A. Questions for reflecting on the mission, vision, and performance of the school

1. How can you formulate your school's mission (regarding its specialities and specific virtues ensuing from its social, cultural and historical context, ideals, continuing traditions, resources, visions related to its development, etc.)?
2. What are visions related with the continuum and development of your school's existence?
3. What are the major strengths and weaknesses that you identify with your school (its specialities)?
4. What do you find or consider to be the most effective methods to improve the quality of your school's specialities?

B. Questions on the school's experience of, or intention for assessment

1. What assessment procedure(s) has your school so far gone (or is going) through: self-assessment; 'peer' assessment; assessment by a quality assurance agency (national or international); assessment by an accrediting governmental and/or professional body?
2. What was(were) the intention(s) behind the decision for the assessment(s) done (or being carried on) in your school? Are these intentions fulfilled? What has the school gained (or is expected to gain) from these assessment(s)?
3. Is your school planning to have an assessment done? Why? What type of assessment (see B1)? Why?

C. Questions for opinion and information

1. What do you think are key issues of assessment in schools of architecture?
2. How can the quality of 'architectural design' studio education be assessed?
3. Can you give names of colleagues from your school who are experts in their fields at an international level of competence (who can internationally make critical assessment of work in their field)? (This is important for cross-cultural 'peer' assessments across schools.)
4. What would you think of the establishment of an independent body for quality assessment of architectural education at European level in association with EAAE?

Sources:

Preparatory meeting Antwerp 26 March 2003

References:

Herman Neuckermans News Sheet no 60, pp.5-11

Vroeyenstein – Chania 2001

Alan Bridges

Selehatin Önür

Matteo Robiglio

Questionnaire Constantin Spiridonidis

Commentary on the Process of Accreditation and Assessment in the United States

Marvin MALECHA, North Carolina, United States

I was asked to give you a commentary on the process of accreditation and assessment in the United States. As I was asked to speak at the last minute, I don't have the prepared comments. When we use the term accreditation in the United States we are referring to the process that is essentially a legal process. It is professional or institutional accreditation. If you said the word accreditation to architectural educators in the United States it would mean, or they would immediately assume, it was the National Architectural Accrediting Board. If you use the word assessment, assessment implies "the air that you breath" in the American university. It's everyday, in every class and in every way and there are a whole variety of ways of doing this assessment. I will give you some examples: In my institution we use some acronyms when referring to how to assess faculty. RRPT, means Review, Reappointment, Promotion and Ten year faculty and we call these criteria. There is another acronym in my institution called CRTF, Comprehensive Review of Ten Year Faculty, which exists every five years for a ten-year faculty. This assessment process goes on almost daily.

Quickly talking about the National Architectural Accrediting Board, you have to understand that this is not a government agency; it is a professional group, essentially a self-measurement process. This is not the United States government or one of the states of the United States doing this. It is in fact a coalition of the American Institute of Architects, American Institute of Architecture Students, Association of Collegiate Schools of Architecture and the National Council of Architectural Registration Boards who come together as these private, professional associations to comprise the National Architectural Accrediting Board, which also includes public members in its constitution. It comprises of three members from each of the four member associations and two public members, which constitutes the fourteen members of the National Architectural Accrediting Board. It is voluntary for an institution to go through accreditation, however, if you do not have accreditation, your degree credentials do not count towards licensing in the United States. If you do not have accreditation, you cannot be a member institution of the Association of Collegiate Schools of Architecture. The question is: is it really voluntary? For most public and private institutions it is not really voluntary unless they want to be teaching architecture as a Fine Art. There are several of these in the United States that choose to do that. To let you know about my background, I have been on accrediting teams and visits in the United States for about a period of seventeen years and I have chaired visits at twenty-seven schools. The most recent school that I chaired a visit at was Yale. I have chaired visits at private proprietary institutions, as well as institutions like Yale, and at what we call large, comprehensive land grant institutions. An example of that is the University of Oklahoma. I have chaired a variety of visits around the country.

The process of accreditation is first the school decides that it wishes to go through accreditation. It will then be identified as a candidate school where they will then be in candidacy. Next they will receive a candidacy visit. Once they are in a candidacy status they will go through initial accreditation within two years. After they have achieved initial accreditation, there is a three-year term. The team will return after the three-year term has been met, and if all goes well, the school will then be granted a normal term of six years. Then if all goes well the team will start coming back on a six-year basis. The teams that come to the school are a peer institution review. The team comprises of one member from each of the American Institute of Architects, National Council of Architectural Registration Boards, Association of Collegiate Schools of Architecture, a student member, and the schools are allowed to invite up to two observers to the team who participate fully on the team except for the final voting on the outcome of the visit with the approval of the team chair. The National Architectural Accrediting Board appoints the teams. They appoint the members of the team from a list provided to them by each of the member groups except for another list, which is anybody who has been a past board member of the National Architectural Accrediting Board and will remain as a nominee for future teams. For example, as a past board member of the National Architectural Accrediting Board, I am forever listed as a potential team member. The schools cannot challenge the team chair. The board, specifically for each school, chooses the team chairs very carefully. They try to match up the experience of the team chair with the experience and the needs of the schools. However, the school can challenge one of the other members. Let's say for example, I have an individual coming to my school from the National Council of Architectural Registration Boards and that individual and I have been regularly engaged in debates about whether professional education, is professional education or professional training and we have developed a less than happy relationship with each other. If suddenly this person is scheduled for my team, I can say to the National Architectural Accrediting Board, that there is a serious conflict of interest happening here, 'please don't have that person come to our school'. Now you don't want to reject every team member to the point of turning it into an issue, but you do want to make sure you don't have those conflicts of interest. Secondly, no member of the team can have a conflict of interest relative to the school. Say I am a graduate of Harvard and I am also a graduate of the University of Minnesota, I could never serve on a team in an official capacity voting because of that conflict of interest, unless one of those institutions invited me as their guest and I was approved by the team chair. That happened in my situation this past year. My daughter is an architecture student at Illinois and I was asked to work as team observer to the process, however I could not participate in the final discussion on the recommendation of the team and the duration of accreditation to the National Board. The team comes to the campus on Saturday night; they stay through Sunday to Tuesday and mid-day Wednesday they make their final report to the school, the administration and the senior administration. The flow of the visit is very simple, on Saturday night the team converges and the team chair proceeds to train the team members. Every member of the team is supposed to have already received an architectural program report and they have already supposedly attended a team training session at one of their professional associations. However, it is the responsibility of the team chair to make sure everybody on that team understands the process, understands their role in the process and to make assignments to the team members relative to what they are doing on the teams. So a role of the team chair is to provide training. It is about a three-hour session with the entire team. If at any time during the course of the visit the team chair feels one of the members

of the team is not on the page of responsibility or attitude, the team chair can evict a team member from the team. In twenty-seven visits I have evicted one team member. It's not a pleasant thing to do but it is sometimes necessary. Beginning on Sunday morning, and through the day, the team goes into a team room. There is a requirement that each school have a team room, which is a private lockable room with a display of work with all of the course syllabi and written examples of the student's work to be reviewed. Somebody on that team reads every single syllabus. The review of the work is continued through the day. Then you have interviews with individual faculty members and meet with alumni from the school. You meet with the chair of the department, the dean of the college and with the president, chancellor or provost of the university. In the case of Yale, I did finally meet with the president of the university, but only because we were having a conflict over one element of the report. Normally at a large university like Yale you would meet with the provost. Next is a series of visits; you visit classes and you sit in on studio reviews. The school is asked for some studio reviews to be going on while the team is there. The students are visited at their workstations in studio. You go through that entire process. Tuesday becomes very team oriented, where as Sunday and Monday are very gregarious, as you are meeting with a lot of people, student groups, interested parties, people from the university. Tuesday becomes a full workday. Wednesday mid-day, you have the completed reports and you visit with the president or provost of the university. At a visit with the dean you present your report with your recommendations, and then you make a public report to all of the students and faculty in a public forum. There are about thirty to thirty-five schools going through this process every year. Then the team makes a recommendation to the board. The team does not announce that recommendation to the school, as they are not permitted to do this. It is a secret, confidential recommendation to the board. The board makes the decision on the term of accreditation based on the recommendations of the team. There is a reason for this confidentiality and this has happened to me in both directions. I have been on teams that have said this school needs a visit again in three years and they should not get a full six-year term. The board takes a look at the report and the assembled materials and says they think that the school deserves six years. In another situation I had a team say this school is doing very well and that we have confidence they will continue to improve, so we recommend six years. The board came back and said we don't think so and they gave a three-year term. So it has happened both ways for me in those twenty-seven visits.

Basically the accreditation process begins with the team preparing what is called an Architectural Program Report. That program report is supposed to contain responses to the previous team's comments and very specific responses to what the last team said and what you have done to respond to and improve the continuation of your program. It involves responses to twelve conditions. One of those twelve conditions has thirty-seven criteria imbedded within it. Eleven of those twelve conditions deal with the independent leadership of your program. In other words, you can't have a landscape architect serving as chair of an architecture department; it has to be an architect serving as the chair. There has to be a minimum number of faculty and a minimum amount of operating budget relative to your program. The faculty's salaries have to be commensurate and fair with faculty salaries of other parts of the university. Required is a student/faculty ratio of no greater than fifteen students in studio per faculty. A permanent, 24-hour workstation

has to be provided for every student enrolled in the architecture program. These are the facilities, operating budget, and the library. One of the conditions has to do with the quality of the library. I will be the first to tell you that I think that the conditions are too low in that regard. I was the one who advocated for library requirements when I was on the NAAB board. Unfortunately, I went off the board before they made the decision and they set the number at 5,000 volumes. In my opinion this is way too low. At any rate the 12th condition is the thirty-seven criteria. The thirty-seven criteria are based on levels of awareness, understanding and ability. This is half of the six of something that is called "Bloom's Criteria". The six steps in "Bloom's Criteria" are awareness, understanding, ability, synthesis, analysis, and evaluation. My opinion is that the schools spend a lot of time writing on the first three steps and what the team does intuitively when they arrive is the next three steps. I have shared my opinion with the NAAB board and it is something that needs to be discussed some more. The thirty-seven criteria goes all the way from general education, writing ability, professional writing ability, and all the way over to intense professional practice expectations. There is one criterion that many schools have difficulty with and it is called comprehensive design. That is where a school has to demonstrate that not only have they done the design work but also that they have large sections on how the assemblies work and what the materials and mechanical systems are. How you would build a building. That is famously known as 'criteria twenty-nine'. Everybody knows it because it is the most difficult criteria to pass. That is when The National Council of Practicing Architects zeros in on those sections and starts to read whether or not those people really understand materials and methods. The best way to think about those thirty-seven criteria is how I once had them described to me. If you begin with a brand new car and you get a dent in the fender or maybe you loose a hubcap; at what point does a brand new car become a "junker"? Which means it is very rare for the team to say that a school has met all the thirty-seven criteria. The team has three choices; they can say you have met the criteria, you have met it with concern, or you haven't met it. I have never been on a visit anywhere where a school has gotten all thirty-seven criteria. It just happens that way. The team report is required to go on reserve in the library; it becomes a document and is considered public information. The school has to put that document on public information and we find increasingly that potential graduate students are accessing our library to get to the program report to see what the visiting team has said about the school. This gives you a very brief look.

I say to every team member that I train: "we come as guests to the university and not as regulators or policemen". We are people who are giving our time pro-bono to help the university. That's the posture and we are not there to tell them how to do it. Their strategic plan is one of the twelve conditions. They tell us how they are special and what their mission is. At Yale it is going to be one kind of mission statement and at North Carolina State University, a public land grant research intensive institution, it is going to be another kind of mission statement. We serve our publics differently and that will shade how we deliver our curriculum. The accreditation team is there to see how you are doing and how you are doing against certain specified outcomes. They are not there to tell you how to do it. As an example; if I arrived at a school that said teaching studio in the old model is gone and we are not doing it that way any more, it wouldn't be for me to say to that school, you must go and teach studio the way we have always taught it. It is to understand the outcomes of their process of teaching design. Whether they use seminars, the Internet

or traditional methods, the process is to look at the outcomes and to help that institution to come to those outcomes. Obviously in the United States, accreditation is required to be qualified for licensure. If you don't have an accredited degree program in your credentials you cannot go forward for the licensing test. That does not mean in all of the states you go straight to licensure to become an architect because most states require that you do internship, which there is now a required intern development program monitored by the National Council of Architectural Registration Boards. Students register and begin their internship approximately one year before they graduate. They can use up to one-year worth of summer employment and other activities prior to graduation with the minimum of three years. That is when they qualify to sit for the examination in the various processes in the various states. For us, the accredited degree is the ticket to the kind of mobility to any state in the country and it's what really allows for the incredible diversion of programs in the United States. I made some diagrams based on the first day's diagrams and they want to publish them, but I was asked to sign the paper because it was hard for them to believe how diverse the programs are in the United States. I think there is even more than I showed them. That diversity is made possible by accreditation and by the mobility that happens.

I recognize fully what I just described to you may have some application or may have no application to what you are doing. It comes from a very unique history in the United States. Accreditation began in the 1930s as a result of some organizations who saw the rapid expansion of programs in the United States. These organizations founded the Association of Collegiate Schools of Architecture approximately ninety years ago. In the 20s and early 30s they saw that there were many schools coming on line around the country and they were concerned that they were coming on line without the appropriate credentials to conduct quality programs. There are about eight or ten schools, I can't remember all of them, the University of Illinois, MIT, who argue about who had the first program in the United States. One claims that they had the program first and the other one takes credit for graduating the first student. I think it was MIT that graduated the first student and they had the first library for Architecture in the United States. Berkley, Columbia, Michigan and Harvard were also part of that group. They all came together and said we need some standards that are self-imposed that will let people know what the standards are for Architectural Education. By the late 1930s these standards had evolved into an accreditation process that was jointly managed by the National Council of Architecture Registration Boards and the American Institute of Architects and it had already evolved away from the schools. This was something born inside the Association of Collegiate Schools of Architecture with the intention to have a minimum standard that people would meet. I am not sure, but that may be closer to what you are starting to discuss now. If you are interested relative to assessment policies that we use in my college, we have very rigorous assessment in North Carolina State University; both of programs and of faculty, I will be glad to send them to you.

Relative to faculty assessment, there are university standards, but each college is required to have its own standards and then each academic unit within a college has its own. For example, I have six academic units within my college. Architecture has different criteria for its faculty than what Graphic Design has for its faculty, so each has its own standard.

My responsibility as a dean is to sit once a year in front of the chancellor's group that makes the final decision on promotion and tenure, and go over the document of the college and of the academic unit to make them understand why we are different than Physics, Engineering, Bio-technology or Veterinarian Medicine and to explain our criteria to them as a group. This is done so when they make a decision on one of our faculty members, they make it based on our criteria, as well as university expectations. If you are interested in seeing those I will be glad to give them to you.

Relative to the assessment of programs inside the college we are also required to do the same and we have recently designed some measures on how you measure program quality, specifically studio quality inside the college. I am working right now on a major report for my chancellor and I have some of the documents with me that I will read to you. I didn't realize I would be doing this so I will do it quickly. Measuring curriculum effectiveness we use semester reviews, semester reviews of students and sample presentations where the faculty have an opinion on about how the progress is. We use external professional portfolio reviews and jury members where we ask the people who are visiting to send us a letter after they have visited us to tell us how they think we are doing. In every semester in each class, students complete evaluations of instruction in a pre-approved format. The results get registered and recorded in every faculty member's file. There are senior exit interviews and surveys and every graduating student in the college is interviewed relative to what they thought their experience was. These interviews have a pre-approved list of questions. Another measurement on how we are doing is awards publications and competitive scholarships. If five or six schools are competing for student scholarships and our student wins one, it counts as a mark of excellence for the college. The Professional Practice Course that our school offers was recognized with a National Award from The National Council of Architectural Registration Boards. That kind of notice gets sent to our chancellor and it makes him take notice that one of our courses has gotten a National Award. The success of students in gaining internship and full time employment is also a way to assess how we are doing. We survey the employers and ask how the students are doing and would they like to hire more of our students. We have a graduating class of about fifty students and every spring around thirty-three or thirty-four architectural firms show up to hire our students. Every spring we have at least 35 firms that come to interview students. The fact that firms are coming back indicates a pretty good mark of excellence. We use the success of students gaining admission to graduate programs as a measurement. Once our students finish the four year component and get into MIT, Yale or Harvard, we consider that a mark of excellence and success in the program. Expressions of alumni are important and alumni are our friends in many, many ways so we want to make sure they are happy. The interest of faculty from other institutions is important. There are several universities who regularly survey us in terms of the progress of our programs and this influences other programs, so that is a mark of excellence as well and is something else we can use in our assessment.

If you are interested in any of the things I have discussed, you can give me your business card and I will be glad to send you the information and share with you what we have. As I mentioned, assessment for us is just a part of everyday life. Accreditation is a requirement for us in the United States and I recognize you are all in your own context,

so I am not coming here to give you a formula, that is the last thing I am going to try to do. As I already stated, I have been a chair for more than twenty visits and I have been visited more than twenty times by accreditation teams, so I have sat on both sides of the table. I have six academic units in my college and each of those units have their own accreditation agencies, so I can tell you the difference between what a Planning Accreditation, Graphic Design Accreditation, Fine Arts Accreditation, and what Architecture Accreditation looks like. I have had the unusual experience of making a morning outgoing report at a school in New York, flying home, to receive a report from a visiting team that afternoon. In one day I moved from one side of the table to the other, from being aggressive to defensive in literally six hours. I have been on both sides of the screen and I can share with you my observations.

Accreditation and assessment is about improving the program and is not about becoming defensive. It is about how the program can improve and how to sustain your programs off into the future. How you come about your process will come in due time. It will happen. I hear more and more you are being assessed and evaluated in-house, and that the profession is demanding voices in how you are doing your program. This is all very similar in what I hear in the United States. You will find a process that will suite you but I don't think you have to rush into it and I don't think you should do it by narrowing the options. Accreditation in the United States has allowed multiplying the options of programs not narrowing them. In the three years that I served on the Accreditation Board in the United States, I always kept in mind that I am a child of the 60's and I have a fundamental distrust of any regulator. You need to understand that, I don't like regulators, I don't like people telling me how to do my business and I always remembered that while I was sitting on the Accreditation Board. I think the net result of this accreditation has actually allowed incredible freedom in programs. As I said, the people who received my notes on American programs were in disbelief over the number of variations that actually exist in the United States. I believe this is a result of outcome standards that are applied with great open mindedness about how they are applied, which is really important in this process. If you stay focused on what's being accomplished rather than on what the criteria is, I think that will be very helpful to you. If you wish to have any information on how we do accreditation and assessment in the United States please leave me your business card.

Richard Foqué, Antwerp, Belgium

Thank you Marvin for this very useful contribution to us. Are there any information related questions? No discussions, just information type questions.

Dimitri Kotsakis, Thessaloniki, Greece

Have you ever started either a discussion or a process discussion of what I might call a second order assessment? Which is the assessment of the assessment bodies. We have a second order justice or a second order cybernetics which means that I can go down to this assessment body and make an assessment according to awareness, understanding and ability. Are you aware, do you understand and are you able to make assessments?

Marvin Malecha, North Carolina, USA

One thing I neglected to tell you is how we get to the twelve conditions and thirty-seven criteria. I saw the word validation up on the screen and if you say validation to an American Architectural educator, that's the process by which we evaluate the accreditation process. So every three years all these associations get together and assess the accreditation process. It's in that discussion where they determine changes. Those changes will be discussed at the Association of Collegiate Schools of Architecture and Administrators meeting that is coming up in Hawaii. There are three sessions that will be conducted by the National Architectural Accrediting Board about the process of accreditation and the recommended changes. The deans will have consultation over what that is. So there is this regular evaluation. There used to be seventy-eight criteria and a major criticism for example, was a criterion on whether the students were taught about the appropriate use of the disposal of toxic waste. That became so specific that it was difficult to answer and so it has now been removed with a more generalised statement about awareness of environmental sensitivity. So yes, we do these evaluations of evaluations. Yes, every three years.

Dimitri Kotsakis, Thessaloniki, Greece

What is the body that is doing the evaluation?

Marvin Malecha, North Carolina, USA

Each of these organisations, the Association of Collegiate Schools of Architecture, the American Institute of Architects, the American Institute of Architecture Students and the National Council of Architecture Registration Boards send representatives to a meeting where this is debated and discussed and a report is prepared from that meeting and then shared with all of the organisations. Another issue that came up a few years ago on which there was a huge debate, was whether or not an accredited degree should be required for licenship. It was a huge debate and some people thought that it should be removed in order to provide for the person who is self taught to sit through the examination. Others battled it the other way around, where the degree was setting the base standard. The degree people won the argument. For those people who took the position that they didn't want accreditation to interfere with the architectural curriculum,

were taking the position that accreditation should not be required to sit for licenseship in order to free the universities. That was the debate.

Richard Foqué, Antwerp, Belgium

Okay, thank you Marvin for this comment. Now I will ask Katia Baltzaki to present the results and then we can have a short break and go into the discussion.

Implementation of Self-assessment Procedures in European Schools of Architecture

Katia BALTZAKI, Thessaloniki, Greece

In September of 2002, a presentation of a questionnaire took place in Hania, concerning the implementation of self-assessment procedures in European Schools of Architecture. The presentation was followed by a very lively discussion which emphasised the urgent need to collect information about Schools' considerations, decisions and methods related to quality assurance and assessment systems.

The questionnaire was designed in order to scrutinise efforts and perceptions of the Schools on Self-assessment issues, the bodies involved, the role of the state, practices and methods that are being followed and generally the experience that has been gathered so far. The working group on Assessment decided in Antwerp (April of 2003)¹, that besides the above information two key questions should be addressed to the schools:

- A. What are the main learning objectives pursued by your School?
- B. What do you believe your School does best?

The first question was set based on the fact that a School cannot apply self-assessment procedures unless its learning objectives are clearly set. The second question was a "self-assessment" one which challenged Schools to describe their strengths.

By July of 2003, forty-six Architecture Schools supported the research by responding to the questionnaires distributed.

The Schools answered the first question declaring a great diversity of learning objectives: Design culture formation, emphasis on active learning, encouragement of teamwork, pushing creativity, preparation of comprehensive and competent professionals,

European Commission – Socrates Thematic Network
European Network of Schools of Architecture
6th Meeting of Heads of European Schools of Architecture

These are the main learning objectives which are pursued by Schools of Architecture:

- Combination of academic studies and practical work
- Consciousness
- Creation of cultural, social and economic environment
- Emphasis on academic research and PhD-education in design technology, sustainability, buildings and urbanisation.

¹ Working groups of EAAE, consisted of representatives from European Architecture Schools, met in Antwerp for the preparation of Hania's meeting in September of 2003.

European Commission – Socrates Thematic Network
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The strengths of the Architecture Schools are:

- Interdisciplinary projects
- Innovative IT – education
- Groupworking
- Public work
- Exhibitions
- Workshops
- Production of confident and capable students through the studio system

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The strengths of the Architecture Schools are:

- Consciousness about the ethical function of architecture
- Teaching
- Research
- Keeping close contact with professional practice
- Development of creative thought

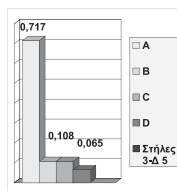
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The strengths of the Architecture Schools are:

- Awareness of the local and regional problems and capacity of response
- Encouragement of individual development
- Cooperation with other academic faculties
- Developing students capacity of decision making.

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- A : Schools that implement Self-assessment Procedures to their educational practices
- B : Schools that will implement Self-assessment Procedures to their educational practices
- C: Schools that negotiate with the perspective of implementing Self-assessment Procedures for the development of their educational practices
- D: Schools that exclude the contingency of applying Self-assessment Procedures to their educational practices



combination of academic studies and practical work, consciousness, creation of cultural, social and economic environment and finally emphasis on academic research and PhD education in design, technology, sustainability, buildings and urbanisation.

The answers to question B demonstrated the strengths of the schools : Interdisciplinary projects, innovative IT-education, groupworking, public work, exhibitions, workshops, production of confident and capable students through the studio system, consciousness about the ethical function of architecture, teaching, research, keeping close contact with professional practice, development of creative thought, awareness of the local and regional problems and capacity of response, encouragement of individual development, cooperation with other academic faculties and developing students' capacity of decision making.

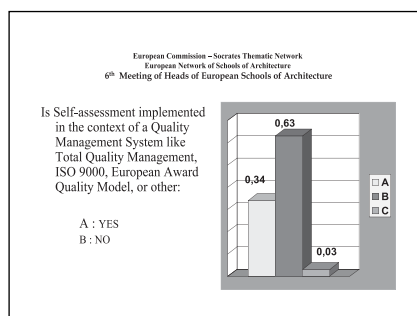
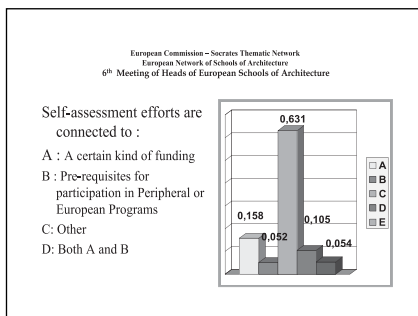
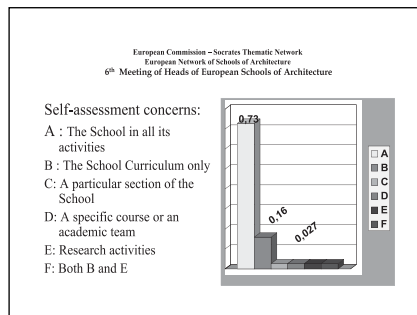
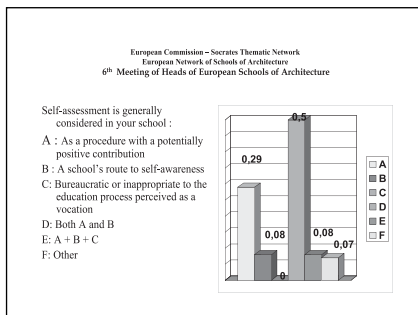
The above answers may offer the typical "right" information for externals but they cannot provide any true self-assessment and feedback procedures with useful information. In fact, they indicate that schools are reluctant to get into a deeper analysis, even that concerning their own strong points. This hesitation addresses additional questions as for example questions concerning terminology interpretation.

The questionnaire was divided into three parts. Questionnaire Part I was addressed to those schools which have already implemented or will implement self-assessment procedures. Questionnaire Part II, was addressed to those schools which negotiate with the perspective of implementing self-assessment procedures.

Finally, Part III was addressed to the schools that don't apply or don't intend to apply self-assessment.

It seems that 38 Schools, that is the majority of architecture schools, implement or intend to implement self assessment procedures. From the 46 Schools, only three excluded the idea of implementing self-assessment.

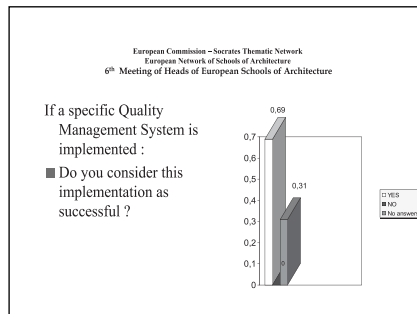
Architecture Schools generally consider that self-assessment is a procedure with a potentially positive contribution and in a lot of cases a school's route to self-awareness. A very small percentage of the schools find self-assessment procedures bureaucratic or inappropriate to education.

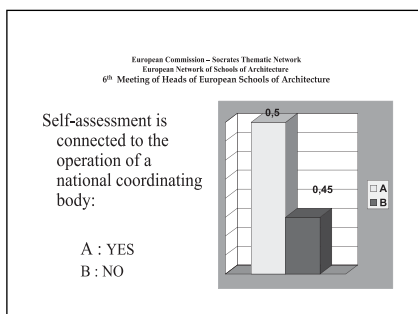
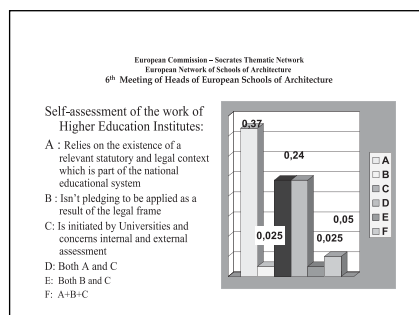
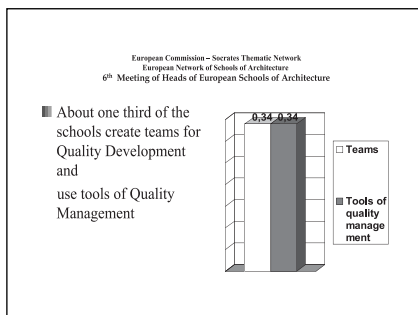
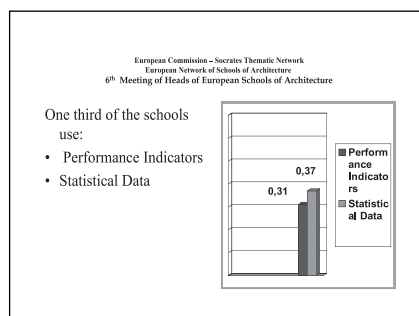
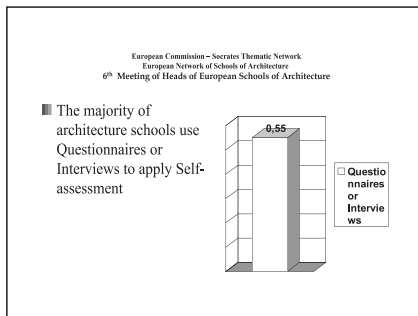
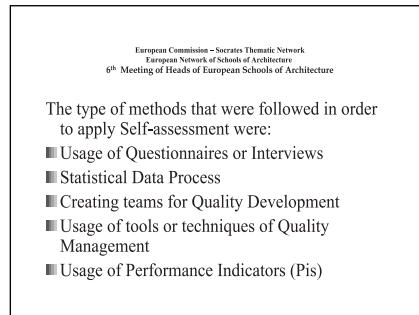
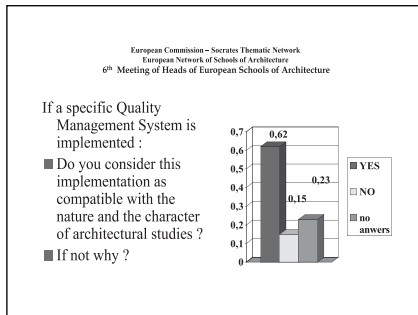


In most of the cases where self assessment is implemented, it concerns the School in all its activities, besides the school's curriculum and research activities which are among the top priorities as well.

Surprisingly or not, funding or participation in programmes are not the principal reasons for self-assessment efforts. On the contrary, Schools that implemented self-assessment mentioned reasons such as: Assessing quality of academic staff, recording students' opinion on courses and lectures, contributing to University's strategic planning efforts, governmental policies, quality development programmes performed by the school or accreditation demands.

About one third of the Architecture Schools of the sample implements self-assessment in the context of a Quality Management System like Total Quality Management, ISO 9000 or European Award Quality Model. The experience of these Schools is expected to be valuable for others, since a great deal of serious questions arise. These are mainly questions of methodology or other problems related to Quality Management Systems implementation on architectural education considering its special nature, questions about the true results from these efforts and of course





questions about their consequences on educational work. The first kind of information related to the above is that most of the Schools with a specific quality management system consider its implementation successful. Nearly 60% of the schools consider this implementation as compatible with the nature and character of architectural studies. Since applying quality systems in education is a subject of great debate among educators, it would be very useful to have a deeper analysis of these schools' relevant experience.

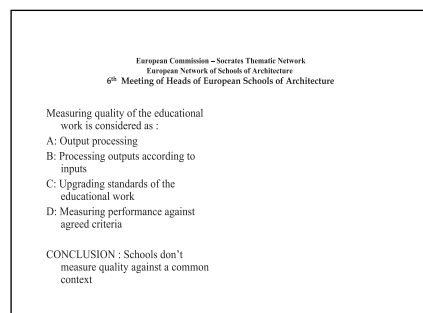
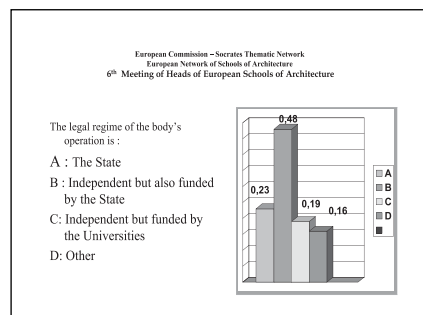
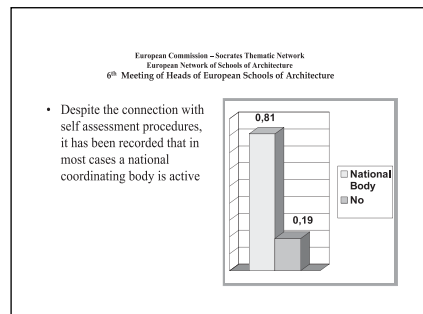
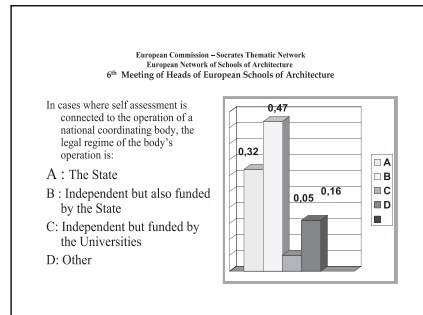
Apart from the conventional adaption of the above systems it was very encouraging to be aware of schools which have already started to develop their own systems for quality enhancement, adjusted to the particularities and characteristics of their own provided education. These attempts can really build a connection between self-assessment and quality, since they are authentic and not compulsory or imposed. A very interesting point would also be the presentation of these schools' methods and the results of their work in this field.

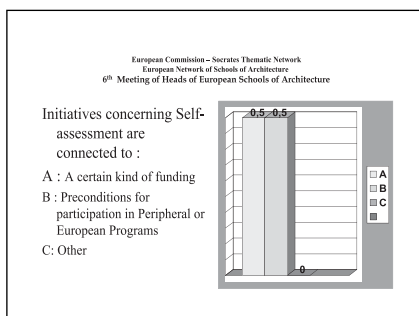
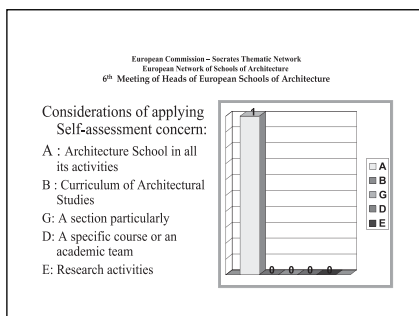
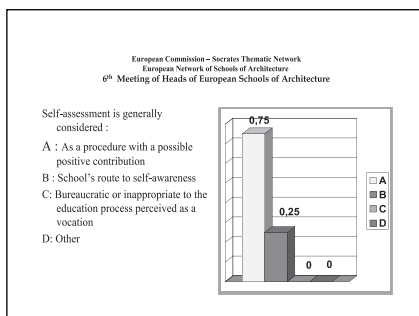
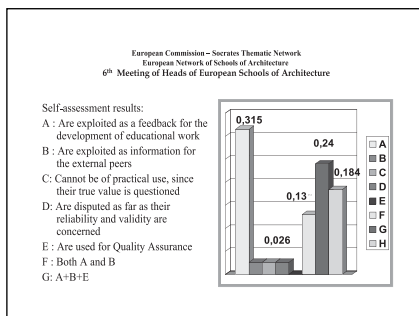
Half of the Schools of Architecture use Questionnaires or Interviews in the context of self-assessment implementation. About one third of them use Statistical Data and Performance Indicators. Quality Development teams and tools or techniques of quality management are used by one third of the Schools as well. Three interesting questions concerning the choice of the above methods are:

- How is every method evaluated from each School?
- What are the Schools' criteria for every chosen method?
- In what way the results are used as a feedback to serve Self-assessment process?

In more than one third of Architecture Schools that answered the Questionnaire, self-assessment procedures rely on the existence of a relevant statutory and legal context which is part of their national educational system. In about 24% of these cases, self-assessment procedures are initiated by the Universities. Self-assessment is connected to the operation of a national coordinating body for half of the Schools. In most cases the legal regime of the body's operation is the State or Independent but funded by the State. Despite the connection with Self-assessment procedures, it has been recorded that mostly a national coordinating body is active with the same legal regime as before.

Measuring quality of the educational work was considered as: output processing, processing outputs according to inputs, upgrading standards of the educational work, measuring performance against criteria. The results of the research showed that Architecture Schools don't measure quality against a common context.





During a Self analysis of a School, in order to deal with self-assessment procedures, quality values must be scaled so that objectives and priorities are set. According to Architecture Schools the grading for what is considered a priority for quality assurance and development of educational work is:

1. School's Reputation
2. Duration of studies
3. Employability
4. Academic Qualifications and numbers of staff
5. Professional activities of academic staff
6. Curriculum innovations
7. Assessment results
8. Staff training
9. Postgraduate programmes
10. Graduate Status
11. Research results
12. Student participation in Architectural Competitions or Design Exhibitions
13. Staff development
14. General activities
15. Funding (raise or cut)
16. Economic benefits for the staff
17. Grades
18. Number of students

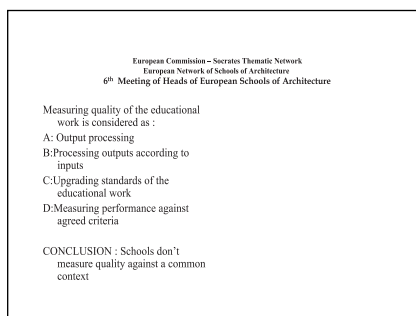
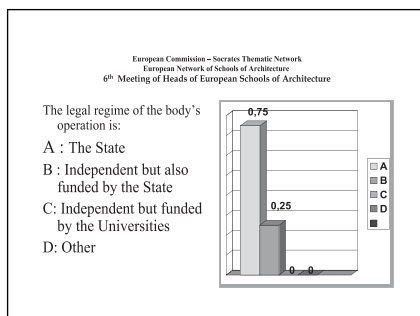
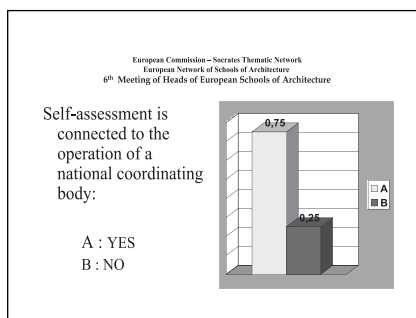
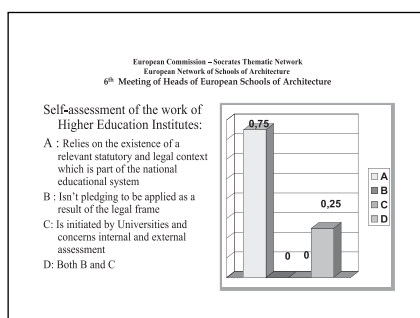
According to the majority of the answers, self-assessment results are exploited as a feedback for the development of the educational work and as information for the external peers as well.

Returning to the beginning of the questionnaire, only five out of 46 Schools still negotiate with the perspective of implementing self-assessment procedures for the development of educational practices and only three schools exclude the contingency of applying self-assessment.

The following is the description of the results which came out of the schools' group that replied to the second part of the questionnaire: self-assessment is generally considered as a procedure with a possible positive contribution and a school's route to self-

awareness. Considerations of applying self-assessment concern a school in all its activities. Initiatives related to self-assessment are connected to funding issues or with preconditions for participation in programmes. That is why it did not seem surprising that self-assessment in the countries of this group of Schools relies on the existence of a relevant statutory and legal context which is part of the national educational system. Self-assessment is connected to the operation of a national body and the legal regime of the body's operation is in most cases the State.

Lastly, it should be mentioned that the easy part of this presentation was processing the data from the 46 questionnaires. The hardest part though was to manage to collect them and this has been accomplished thanks to Constantin Spiridonidis's and Maria Voyatzaki's systematic and patient efforts.



Shaping the Academic Assessment and the Quality Assurance in the European Higher Architectural Education Area

Discussion

Coordination by

Richard Foqué, Antwerp, Belgium

Herman Neuckermans, Leuven, Belgium

Matteo Robiglio, Thessaloniki, Greece

Richard Foqué, Antwerp, Belgium

Thank-you very much for being on time. Before starting the discussion, our esteemed colleague from Finland, Juhani Katainen, asked me if he could have five minutes just to add some important information related to ACE, regarding the problems of quality and accreditation.

Juhani Katainen, Tampere, Finland

I would like to comment on what our chairman said; that ACE may take on some issues which we are discussing here. I don't think this is so as ACE is just as concerned as we are here. I have been ACE Vice President this year, and the past president. We will be having our next board meeting in a few weeks and I will be revealing to them all of the positive things that have been going on at this conference. The reason I am speaking about this is that I have to give information about the negotiations between ACE, on behalf of the European Union, and different countries in the world. An agreement is being negotiated between the EU and Mexico so that Mexican architects can be accepted in Europe and our architects in Mexico. We have also been dealing for two years with the American Architects Associations, AIA and ENCORN on a similar MRA agreement and it is going well. The Americans are using their system, as Marvin wonderfully explained, to approve of their architects' quality. We are confident that all schools included in the architects' directive lists are doing the same fine work, and as insiders it is important that we do it properly. We should discuss today these issues referred to in these pages in order to make the work really feasible. We now have our American colleagues' trust but we have to continue to work for that trust. We really rely on the Architects Directive, article 3 and there is a list of the schools, so we are honoured but we have to work for that honour.

The last thing for further discussion is the question: "To whom do we have to prove that we are good?" I will give you one answer to that, but there are many others, which is our students, management or money givers and so forth. An important issue when we are creating the systems is, how we do these things and also one has to answer, whom we are working for.

Richard Foqué, Antwerp, Belgium

Thank-you very much Juhani for this addition. I think it is very important for us to understand that we are not two different parties or contrary to each other, but that in fact we can be three in this case. To start the discussion, we have prepared together with Matteo and the working group a couple of questions for which points can be raised. We thought it was important that we show again what we discussed and decided in the 2001 meeting, the so called Hania statement, and since it should not always be in English, we took the French version. We stated in Hania that the EAAE wanted to participate in the development of a system of control and assurance of quality, which would be specific to the needs and particularities of architectural education with respect for the diversity of educational research throughout the schools in Europe. I think that is important as a starting point because if we don't take a firm position then quality risks being assessed regardless of the specifics of architectural design education. It is a very important point and this issue was raised during this conference, as well as at the previous one by several participants. As we have already experienced and seen in the results of the questionnaires, some universities already apply the systems of assessment or are using criteria that are not properly adapted to architectural education. Therefore, the first question we could discuss is: Should EAAE as an organization under take positive actions, maybe at a "political" level, to ensure that these specifics are taken into account and should we take action? The second question to discuss is: As an organization, should we try to establish general guidelines and criteria standards for assessment and quality assurance specific to the architectural field? The third question: Should EAAE, according to Marvin's American example, establish a list of qualified peers, experts or whatever you want to call them? Maybe the first and most important thing for discussion is the guidelines and criteria standards. That is it so far and, now it's up to you from the floor. Who wants to start?

Aart Oxenaar, Amsterdam, the Netherlands

We have just had our accreditation visit. I don't know how many schools have already had them, but we now have some experience. The Dutch system is very much on the move. The points for discussion are very good, important and necessary but maybe we should add one question, and ask ourselves how to react to situations. When the Governments are doing things, how should we react? We can ask ourselves as EAAE why not become proactive and become an accrediting body? In the Netherlands accreditation has now been privatised. The state has a meta evaluation. They evaluate the accrediting organizations, but anyone can start their own accreditation organization. As EAAE, as a group of schools or as professional bodies, we could also do that. You can organize your own accrediting committees and in that way you take it on hand. I think that could also be a point for discussion. I have heard from talking to other people, that if the peer reviewing system and visiting committees remain national and local, quite

soon you will end up visiting and accrediting each other. I think it is very important to internationalise peer reviews and visiting committees and, in fact, I moved for that when we had our first accreditation and the Dutch authorities didn't want to pay for translating so it had to be a Dutch speaking committee. Luckily we could bring in a Dutch speaking Belgian and a person of Dutch origin from England who had been teaching there for a long time. I think it is very important to have internationalised committees and this is a suggestion for discussion.

Matteo Robiglio, Torino, Italy

Maybe we can react to this at once because the working group has been considering that EAAE become an evaluation or an assessment body. I don't think we should debate this at the moment as the group conceded it is a distant, master scenario. The first steps to be taken are political where universities are evaluated with criteria specific to architecture. In time it might eventually come, and though, it might be an output of the work, such solid work that we become so reputable to be seen from the outside as an accreditation body. However, it is the feeling of the working commission on this theme that it is not an immediate objective of the EAAE. At this moment the subject hasn't ripened and we feel we are not ready for such a big step.

Herman Neuckermans, Leuven, Belgium

Just another question concerning information, because to be sincere, we have lost last year's list of who in the room has already been subjected to evaluation. Therefore, we would like to have this list. I'm asking if we can circulate the list and collect it.

Richard Foqué, Antwerp, Belgium

I think Matteo made the correct point that we should first do our own homework and that we may start with setting our own guidelines before we really move into action.

Dimitri Kotsakis, Thessaloniki, Greece

There are four points I would like to make. The first one is that we cannot go on discussing assessment further unless we put it with the discussion about curriculum. Assessment is a feedback process because the schools make the programs, they are assessed, then they go back to remaking the programs. The two discussions have to be put together before we make any conclusion and go on, besides, it is not possible to have any final conclusion with this discussion only. That is the first point.

The second point which I've raised before deals with the key issue in the mission of the assessment. In Marvin's explanation of the American system a contradiction emerged and I am not sure if we realized it. I want to point out that it was between two objectives or two mission statements. The one is that the assessor is a councillor or helper and based on your mission statement and your objectives, we are councillors or our job is counselling. This is an emerging definition of assessment. Another necessary definition of assessment from the past is the 'control of the authorities'. From this definition of assessment comes like in the American system, for example, other things

such as the process of objecting to a member of the team as it is like in the court of justice where we object to a member of the jury. This is from the definition of the authority applied to the school. Within this same definition of 'authority' assessment is the secret report from the assessing team given to the body. These two definitions of assessment, the one that is counselling, and the other imposing a kind of authority, whether we call it state or market authority or of society, these definitions are different, so, when we go into the discussion it is a delicate question. Of course, we prefer the first definition, the counselling one, but the second one exists. Let us be very precise on this, it does exist.

The third point, the first order and second order is the assessment of the schools and the assessment of the assessors or assessment bodies.

This point has caused many complications because again we have the feedback procedure so the assessed has to assess the assessors. Only in this case the second order assessment has any meaning. It does not create a super authority on top of the authority.

Now we come to the forth question, what is EAAE going to do with this. My position is that unless we answer all the previous questions we cannot go further.

Marvin Malecha, North Carolina, United States

Just a very quick response, the only thing that can be held in confidence between the team and the National Architectural Accrediting Board itself is the term of accreditation. Everything else must be in the public report. So the visiting team can say we recommend a six-year term or we recommend a three-year term, that's all it can say in confidence. The reason for this is the final decision is the board's decision. Everything else is public and the school has the right to respond to the visiting teams report prior to the boards reading of the report. It is very important to understand that and I just wanted to make that clear, otherwise I agree with you, there is ultimately some element of regulation that the school chooses to enter into in order to be recognized so their students can be qualified to sit for licensure. There is that aspect of it, yes.

Richard Foqué, Antwerp, Belgium

Thank-you Marvin for this clarification. Thank-you also Dimitri for your comment, I think it is quite valuable and we should take it into account, but I would actually prefer if we could really go a bit deeper into the guideline criteria standards. This is a very important point and it is really related to the content of what we are aiming at. But of course within the context you were pointing out there was.... Yes comment?

Gunnar Parelus, Trondheim, Norway

I would like to comment on the question: "should the EAAE develop the common guidelines?" What I have seen from these discussions, in that we do agree upon the words sometimes, but we do not agree upon the reality behind the words. There are so many different types of schools in Europe and if we agree too early upon the words, it would be a counter productive situation. We need to have the knowledge of the

difference between the types of schools and the criteria set within each school, and their own way of doing it or else these guidelines would be some kind of lip service to words only.

The other point and, I am not quite sure if this is obvious, but when you have accreditation you have to ask what is good enough and if it is of good quality. It is one kind of discussion a really good school, but it is quite a different kind of discussion whether we should really use all these assessments to develop the school's rating, not to be just like the government and just say this is a good enough school. You can get a levelling down of the quality all over and that is a dangerous development if you are not focusing on it.

Matteo Robiglio, Torino, Italy

I just wanted to make a comment and let's keep to Herman's definition. We are not talking about accreditation, because in any state there is an accreditation system and until we have a European accreditation system it is useless to discuss this. We are talking about assessment and what it means that we will never say that your school is better than the other school or that there is a European scale of schools that nobody else wants. The idea is to help each school to say, "I am here and I would like to go there - how can I measure this?"

The second problem that we have all considered; is, imagine you are in a polytechnic school discussing with your colleagues of Mathematics and Physics how you evaluate a full professor in architecture. There are two possible outputs of this discussion. He is either measured by the parameters of the other scientific communities or our scientific community produces solid proof to the others that we can evaluate ourselves; otherwise, they will do it for you because in our Polytechnic school that is the risk. When my department refused to submit themselves to quantification, points were taken off, and in my opinion this was right. You can despise quantification but if you don't elaborate on your own self assessed standards then someone else will impose their meter and say you are too small, that is what they usually say. Please be clear, we don't want to go either for accreditation or for classifying and ranking of schools, this is not the problem.

Dimitri Kotsakis, Thessaloniki, Greece

As a response to that; the words here say criteria and standards and that's some kind of levelling and common ground.

Matteo Robiglio, Torino, Italy

I just want to give an example of standards. Let's say what is relevant when you judge the impact of a design scheme upon debate. How do you do that? I would like to invite everybody, as if we were trying to do some kind of brain storming, to say I would propose this kind of criteria or to say in my country we use this kind of standard. By putting together these ideas we get a portrait of what these guidelines could be and whether the working commission can go on working on these themes. I would suggest we discuss not if but how this could be done.

Gunnar Parelus, Trondheim, Norway

I'm not quite sure you got my point, so if it wasn't clear, I apologize. You need the process to make the schools good; that's an important thing and that the criteria and standards being discussed are very useful, but are not set on the European level of thinking, which would help make every different kind of school good in this process. The important thing is the process in which to make the schools efficient.

Richard Foqué, Antwerp, Belgium

I think Matteo put an important point forward; how do you measure what are within the schools themselves? Do you use the same criteria as one does in Maths or Physics? Or does an architectural school have its' own? How to appoint a professor is another matter? I think this is important and it is what I have heard over these three days and previously.

Patrick Labarque, Gent, Belgium

I think what you said now, how you measure it, is the important thing. It's important that we communicate how we do it among the different schools, which I think is a role that the EAAE can play. The question about "what", I think we have to let the universities decide. It's a question with lots of elements as I read in the text and they talk about identity and about diversity. I think it is still in a defensive way and has to put in a more positive way. If you say that diversity has quality and that this diversity is interesting, you may not define it on a European level. What is important is how we measure it and that we communicate to each other how we do it so that we learn from this process. I think to learn about how we do it is very important and it's a question of communication.

Theano Fotiou, Athens, Greece

I do agree with the two colleagues and their remarks because I think we are in a very unstable situation now and a very transient and continually changing landscape in Europe in the field of architectural education. It's not the time to establish criteria that are so general and that have no meaning. What we need is first to understand what everybody is doing around Europe and to understand our diversity and the special qualities each of us have. Let's face reality; the assessment process normally brings difficulties and conflicts. So we are not at the level to start with these conflicts or to generalize in such a way that we drop the standards of quality. We are an organization that has to establish very strong relationships and understanding through collaboration so that we can really understand what we are producing and, then, perhaps we will be able to make real generalizations from words. That's my point.

Pierre von Meiss, Lausanne, Switzerland

Listening to what is being said, there may be some misunderstanding. Perhaps we could take away the word 'standards'. It has nothing to do with standards of teaching but standards of evaluation. I think that is what you mean, if I am right.

Herman Neuckermans, Leuven, Belgium

I feel some defensive attitude towards what has been said but I would like to emphasize at least one advantage in my experience. When somebody from outside of the school is looking at the school, he can show you the picture that you can never see yourself. It's the same thing when we have students from abroad. Even if we don't teach them anything, the first thing that they gain is to look at their situation from the outside. This is one of the strong points of this procedure of assessment. If you have others looking at your situation, not to blame you, but in the counselling process, it is very valuable as it is very difficult to perceive yourself from where you are on your own. This is the reason why I think that the rich experience of Marvin having been in many places is a very valuable position.

Gunnar Parelus, Trondheim, Norway

My point is that it is a very valuable situation the fact that we are many different schools and that we need to open up dialogue between the schools that are keeping up what is beneficial, and keeping it alive. Then you don't have to have this outside criteria decided upon by any one party, about what is good, before you have this dialogue. It is important to open up the dialogue and not to have a third party decided upon by one party.

Richard Foqué, Antwerp, Belgium

I think, as Pierre said, we may have some trouble understanding each other and maybe it is a case of communication difficulties. I think what Herman was saying now is very wise. It's the fact you get a mirror of yourself by peer review and you see yourself more clearly. It's very well known that you are too close to the situation to see it. I don't think it should be a role of the EAAE to set standards. Standards is not a good word and thank-you, Pierre, for mentioning that, but maybe EAAE could help to describe elements. I am very cautious about what I am saying now, but elements could be used in each peer review, which we consider is of general importance, taking into account the diversity of the schools and their systems.

Pierre von Meiss, Lausanne, Switzerland

In fact there already exists quite reasonably thought through systems. One of them you might not know of because you don't read German, but the Germans have these guidelines that have been adapted for architecture in several versions, as Germany is not one country in terms of education as you know. I have been on an evaluation for a school in Germany and they are not bad systems and if we collect the information on the ones that do exist I think it wouldn't take too long to develop these guidelines. I think we should do it because it is a pity that there is a British and German one, (not just one German, but many German ones). I have been working on one which a pedagogical institute in Austria has done because it didn't fit architecture, which is terrible, and we should avoid this.

Richard Foqué, Antwerp, Belgium

Indeed you are right and I learnt from the statistics, although they were sort of moving

fast on the screen, that about one third of the schools already apply a self-assessment procedure, so these schools should have their information on this as well. Maybe it would be a good idea to collect these and compare them to see what comes out of it.

Dimitri Kotsakis, Thessaloniki, Greece

I think that this particular group must be very clear on one issue.. We cannot make final statements on recommendations or anything at all concerning assessment. In the group on curriculum we said in principle that we are not going to say anything or write anything that looks like we are issuing rules or directives towards what the best curriculum is. We must be very precise on that; we decided we are only working on awareness and knowledge and on defining the state of the art. Nothing is to be written or spoken which insinuates that we are trying to issue rules.

I must stress this because and I will say why. We are rushing into power with the pretext of counselling that is very dangerous; we are rushing into it on a level that the ground is slippery. This Association is a free association and if we are not careful we will not make it stronger or greater but we will destroy it. I will stress this point for the third time and, if necessary, 103 times.

Richard Foqué, Antwerp, Belgium

Dimitri I don't think you should be afraid. I don't think it is an issue...

Dimitri Kotsakis, Thessaloniki, Greece

I am not afraid, I know. Fear and knowledge or experience are two different things. I don't have the slightest fear..... I don't have the slightest fear, I have knowledge.

Richard Foqué, Antwerp, Belgium

No, but I don't think it is a question about imposing rules, but guidelines are something else. They are something you set up to help people and to help schools on how they can help themselves to improve their own quality. I think that is what we are talking about and not about imposing rules or legislation, that's not the case.

Dimitri Kotsakis, Thessaloniki, Greece

I come from the east which knows very well how to use this trick; to say one thing and do the other.

Richard Foqué, Antwerp, Belgium

That's too heavy.

Herman Neuckermans, Leuven, Belgium

I fully support my suggestions because I think we have to collect existing systems, then,

present them and hopefully we can learn from them. In no way are we going to impose anything; that is not our ambition. Another issue and maybe one difference that has to be brought to the floor with regards to what was presented from the States is that we face the problem of different languages. In the States you can go and assess the schools and read everything but here it is different. It's not a matter of the self-assessment report but you have to read all of the documents of the projects and all of the interviews of the people, and language is a problem. But this is not the story and maybe it's a wrong term for the guidelines. That's the reason why I presented the one list and didn't say this is the only list. I say this is the list that they use in Belgium and it is a secondary revised list after more than fifty of these visits. We have to look at this and say this seems interesting or this is not interesting for us and for each school, and not for us as a whole. I also reject the idea of EAAE as being the assessing board. Sorry, but in my opinion that is the aim of this organization.

Per Olaf Fjeld, Oslo, Norway

Whether we like it or not I think as a group we should have the capacity to understand Dimitri's comments because whatever guidelines we make, however general they might be, maybe there is still a beneficial way of making these guidelines. We should try to do that, but at the same time we should take into consideration what Dimitri was talking about within the awareness of not putting this into a set of rules. We should not be so strong on one opinion related to this that one couldn't really listen to oppositions like what was said by Dimitri.

Matteo Robiglio, Torino, Italy

I have the impression that the debate is on the principle of taking the word guidelines as if it were guidelines for the schools to do this or do that. We were talking about the possible elaboration of guidelines and criteria for evaluating architectural design education, research and teaching, which is something completely different. It is not a guideline that you should accomplish as an institution, but a guideline to help us understand how we can establish sound criteria adapted to architectural teaching and to its diversity. I have the impression that the guidelines that belong to polytechnic schools or technical universities where there are many other disciplines know this problem very well through their own experiences. I will give you an example, a story that might help break the ice. I was talking with the director of PhD programmes in my school and he asked me how we decide what is scientifically relevant in our sector. He knows fairly well what is relevant and what is not in his field (physics an complexity), just by checking two or three main international journals. He happens to be a friend of Zaha Hadid, and once asked her how she would judge relevant work in her (ours) field - architecture - if she were to select a new teacher for her school. She answered: by checking the results of the latest international competitions. This is a clear criteria and that's what we are looking for. For instance we should debate, which is a major concern according to the statistics that Katia was working on, the scientific relevance of professional work. That is an enormous issue because we risk having schools that have a certain set of criteria, and a professional body on the outside that considers what is relevant that is completely different. That schizophrenia is really dangerous. I would really like to put forward criteria on how we judge what is reviewed.

Another problem is that our architectural reviews are not indexed in an easy way. Maybe we should try to develop an indexing system in architecture so when I publish something and you quote it in your work, it makes the work relevant for both of us. This idea could be completely useless, but these are the kinds of things we were looking for in clues on how to build something that mirrors or that gives the image of others, as was said before, and not to make it a deforming mirror, because if I look at myself in the mathematician's mirror I am either too thin or too small. We should try to be more concrete and less ideological about evaluation and to set standards, and not to have a single measure. There is no single measure, but there will be, in my opinion, if we don't do this work, and it will be stated by somebody else. Another precious contribution would be to say what we judge as being relevant when we judge architectural teaching and architectural work.

Per Olaf Fjeld, Oslo, Norway

But if it is as simple as you suggest, maybe each school has the capacity to do it on their own. There is another type of knowledge within this discussion that is more important.

Pierre von Meiss, Lausanne, Switzerland

Well today it is not like that. The schools don't have the freedom to develop their own structure and assessment criteria. They receive either from a government agency or some kind of authority the way the assessment and their self-report should be structured. The very difficult thing and I really don't see a solution so far to the problem, is when it comes to design because if one school looks at design with a certain philosophy and the other with a different one you cannot start to compare them, except to say that they are different. It is very difficult to make a guideline on how to assess the design quality of the school. I don't really see how to do it, because there is ideology behind it and how can you make a guideline to evaluate ideology?

Gunnar Parelius, Trondheim, Norway

Well I don't think the disagreement is that extensive. The disagreement is about whether you want one document of guidelines from this organization or does this organization start developing communication between schools on how to do it, to get other schools in to do it and to get the kind of discussion that is public. There is the question of architectural criteria and guidelines as opposed to the way other disciplines do it. It's a very relevant one and how do we address it; by multiple voices or just one voice with just one kind of criteria. That is the whole disagreement here.

Richard Foqué, Antwerp, Belgium

I think you are right, it is not so much a disagreement here but in addition to Pierre Von Meiss's intervention, the problem is situated on the level of design and how do you look at that and compare it.. I don't want to confuse the discussion but from my very limited experience on that level, I know for instance it is difficult to get European money for typical architectural research programs. I don't know why this is but I guess it may have to do

with exactly what Matteo was saying, that maybe they are using criteria not applicable to the architectural research status that we use ourselves. It's also, in my opinion, a question of money and also getting to know these directives as well. So I think it's a lot more complicated than we think and there are lot of consequences as well.

Herman Neuckermans, Leuven, Belgium

For your information I haven't done that in my school. I am not sure, but in one of the assessment sessions, colleagues of ours made a proposal to evaluate the quality of the teaching of design, not as I said, judging on the result. I will read and translate it in English and you can either forget about it or listen if you like. Does the tutor highlight the relevance of the assignment within the broader context of architecture? Then there are the statistics of all of these questions. Are the specific goals of the design assignment clearly described? Is the assignment well defined with side briefs, notes and are the laws that are deliverable well defined? What are the criteria of evaluation and are they set clearly right from the beginning? Can the assignments be done within the limits of the time scheduled? Are the in between deadlines feasible? Is working in the design studio stimulating? Can the research for design be done within the allocated time? Does the time spent on design assignments and the surplus of allocated time hamper my commitment to product subject, etc.? Are appointments with the tutor appropriate? Does the evaluation fit the criteria? Are the intermediate evaluations frequent enough? Is the final evaluation and jury fair? Were the tutor's comments suitable? Am I properly prepared to make the design? Does this assignment allow me to improve my technical competence? Does this assignment allow me to improve my designer skills? Does this assignment widen my scope on architecture? Is there is enough material and documentation available while designing? Has working in groups enriched my personality? Do the working groups function well? Was my input into the group work evaluated correctly? That is the context and I can read it, but if you like to know what kind of questions they use to evaluate how the tutoring is, it's a sample and you can say I don't like it, or I do.

James Horan, Dublin, Ireland

Thank-you Richard. I have just been listening very carefully to this very interesting area of discussion this morning and something has crossed my mind. To some extent we always have to find a way to go forward and to think about what we must do next, but I think we have to be careful about how we find that way forward. Let me give you an example that just occurred to me. Supposing we had a problem about painting the wall at the back of this building and we have invited six architects to tell us the colour that they want it painted and we get six colours put forward. How do we evaluate the guy who says it should be red against the guy who says it should be blue? I suspect that in schools of architecture we don't really know how we evaluate design. We instinctively tend to agree on what's a good project, what's a mediocre project and what's a poor project. We use devices like the end product, the process by which it is reached and various other techniques to assess and evaluate it. There exists a really interesting possibility to try and challenge schools. The EAAE should challenge its membership to tell us how you personally, in your school, evaluate design and if we were to collect, for example, that as a piece of information, i.e. a body of probably enormously conflicting

knowledge, but it is nevertheless knowledge and information and out of it we might all enrich the process in which we engage. It is only by taking these kinds of steps gradually and carefully, one at a time, that we can get to a point where we could begin to decide how we would assess the schools or develop guidelines and major criteria. We should start with areas that we know are uncertain, explore them and see what we can discover.

Spyros Raftopoulos, Athens, Greece

Well I think James Horan's remark is very valid but I would like to go back to Herman Neuckermans' list of criteria. Without trying to be funny, do the students reply before grading or after grading?

After grading, if the student is not satisfied he may reply in many different and definitely negative ways. It's a very delicate problem of how to evaluate the answers of students. We have come across that dilemma as we have a self-assessment system in our school in Athens and we find that the good students give very positive answers to some of these questions and some of the past students don't give any positive answers but usually respond negatively. So how do you evaluate these answers and how do you take these answers into consideration in the whole process of self-assessment or assessment by other people of the curriculum and the school?

Herman Neuckermans, Leuven, Belgium

I would say not automatically but with wisdom, if sixty percent of the answers say this tutor is not showing up then maybe the forty others are right. It's all statistics, and you can object to statistics but of course you have to read statistics in the proper way. It's a matter of information. I know when I read these results, which I didn't propose myself; they looked very controlling. It was just an input you can add on to the others.

Selahattin Önür, Ankara, Turkey

We are out of time but I feel that we have the chance of focusing on the role of the EAAE and what we want it to be. It is crucial and I think it is most appropriate for this group that is meeting here to discuss the next role of the EAAE, i.e. to emphasise something that was said in the beginning, that maybe EAAE can be functional in facilitating the International Organization of External Assessment by means of peer groups. Can we make a statement of this sort before going into criteria and guidelines because it seems that most of the reactions are based on the feeling that there is an intervention, which I tend to agree with. We need these of course but...

Another point is what we have been doing so far with these interview inquiries exploring what the schools are doing and finding their methods and experiences which I think came out from the questions. If EAAE can make a report of what the schools are doing I think that can be a positive way forward.

Herman Neuckermans, Leuven, Belgium

I am a little bit disappointed that something I said before is happening again. I have the

feeling that architecture is reluctant to build upon the knowledge of others but are willing to reinvent the work time and time again. Inform yourself and learn from others, then judge yourself and say: "this is not applicable but at least I informed myself".

Chapter 5

Conclusions and Proposals for Future Actions and Strategies

Plenary Session

Constantin Spiridonidis, Thessaloniki, Greece

The working groups have presented their work and they have had the opportunity to discuss their work and give perspectives of their future work. They have requested to allot a small amount of time to this closing session in order to present a summary of the debates and discussions they prepared after their presentations and what developed out of the sessions. In this session the task group on Curriculum asked to give a short presentation and I would like to ask them to go first. I hope that it will not be as extended as the sessions and we will continue after with a discussion.

Kees Doevendans, Eindhoven, the Netherlands

There will be a short presentation and only a few words from me as I was fortunate to chair the task group last year. What did we do during these meetings? We had the presentations; which were based on the results from the meeting in Antwerp and the results of the questionnaires. During the meeting there were discussion groups and workshops on curriculum, sometimes with a few members and once with almost the whole group. We made a summary of the discussions with the main topics that came up and based on this we made a plan for the future. This indicates that we would like to continue our activities as a group. I hope this will be possible and maybe there will be some new people that would like to join this group. I am very grateful for all of the contributions and the things that have been done, I would like to give the floor to Loughlin, our secretary who will present the summary of the discussions and our action points for the future.

Loughlin Kealy, Dublin, Ireland

Good afternoon. I would like to report quickly on the work of the group on Curriculum and the workshops as well as present this afternoon, a perspective on the work of the meeting that has its origins in Hania. We have seen it developed in three phases since then with the support of the ENHSA network. The phases can be described as the agenda phase, which occurred in Antwerp, the investigative phase through the questionnaires distributed by ENHSA and the discussion phase here. What we present now is an outline of the discussion phase and some conclusions. Of these conclusions the central one is that we have unfinished business that requires, we believe, a further phase if much of the value of the work that has been done so far is not to be lost, but for the moment here is an outline of the discussion of this meeting. The contributions to the discussion were as normally the case, a mixture of reflections on the information generated by the questionnaires, some reactions to other people's reflections, accounts of related experiences and attempts to perhaps relate questions of curriculum to political and market pressures. We do not feel that we should document individual contributions in this report here now. Participants are aware that the sessions have been recorded and I am not sure whether there will be a transcript at some stage, but if they are you should be able to reconstruct the details of the various contributions from that. The principal themes that emerged in our discussion were the question of the bachelor level and what it means in terms of competences, the potential role of graduates in the industry, the general need to describe curriculum in terms of competences, the knowledge and the skills to be focused upon, the impact of the market on the approaches and priorities in education and training, the question as to whether there were commonalities of knowledge

and experience that had to be protected in the new educational space, the question of the role of practicing architects in schools, the relationship between practitioners and academics, the impact of the research driven agenda at master's level, the need to research the culture of architecture, the need to monitor developments in the bachelor/master relationship as experience accumulates, the need to report developments here and in Hania next year, the relationship between generalized architectural education and specific related domains such as urban design and landscape architecture. These need to be investigated and reported on. Now from these I suppose certain conclusions can be drawn from the exercise we have been through, bearing in mind that the purpose of the whole exercise is to develop a knowledge and understanding of a rich and complex tapestry in such a way that the task of the members of the meeting here in shaping their direction can be supported and they can find other people to support them also. We felt our purpose was to clarify not to simplify. There were two principle conclusions and from these conclusions we also put forward a number of actions that we see as necessary. These were put forward not because we want to make more work for ourselves, but in order to bring what has been done to a point to where it is really helpful. So, the first conclusion is that a further analysis of the questionnaires is necessary. In particular, it is necessary to cross-relate certain key categories of information. This became very apparent from the very first presentation of our group when Kees showed you the kind of information that was arising from the questionnaires. The second conclusion is that we, as a meeting of heads of schools, are not yet in a position to engage in fruitful discussions about the replacing of research in the architectural curriculum. Further developing the first conclusion might assist in resolving the second issue, so accordingly we wish to state a proposition regarding the work of the Curriculum group in the hope that the meeting will support it as we look forward to Hania, 2004. First we propose to generate a series of matrix sets that would relate various factors identified by the questionnaires: size of school, staff structure, program structure and specializations to name a few. We hope to present the results next year in a format that would facilitate deeper discussion based on common ground. Secondly, we propose action to help clarify ideas about research. For this purpose we would like to initiate a dialogue between existing networks of schools that have research collaboration as a key objective. At this time we have four examples in mind and there may be others that we will need to include in this, but the four that we know of are, the work of the Nordic Academy,

Architectonics, the French discussions and I am sure there are others. We would propose that the outcome of this dialogue would be focused on a presentation at Hania next year and hope that then there would be an opportunity to advance our understanding to a workshop discussion. Here we conclude for the present time; we believe if our common purpose in meeting here is to advance our understanding in order to help us shape education in a way that supports architecture in a changing world and that we have to continue to build on what we are learning and what is already done. We hope that EAAE and ENHSA will continue to support this agenda in the ways we put forward today.

Constantin Spiridonidis, Thessaloniki, Greece

I consider this as a proposal on behalf of the task group and I would like to open the discussion with this proposal and with any remarks, comments or other ideas that you could contribute to a better formulation of these issues raised by this working group.

Denis Radford, Leicester, United Kingdom

Without sounding too glib I propose that we accept the proposal by the working group and give them the mandate to go forward.

Constantin Spiridonidis, Thessaloniki, Greece

As all of you know the members of the group, not only on Curriculum but for each working group that we defined last year, made a request and put their names on a list. I would like to ask if there is anyone here for the first time who would like to add their names to the list or anyone who made the decision last year not to participate in those working groups to reconsider so that we can have an enrichment of this initiative.

Kees Doevendans, Eindhoven, the Netherlands

This is an invitation to those people who want to participate to email me and then we will see how these people can be of service and divide tasks among the members, as we have a lot of work to do. Please email me if you are interested in the work of the task group and, also, if you think you may have information that could be useful, such as information about networks of curriculum and research development. Please let us know.

James Horan, Dublin, Ireland

Just as a point in connection with what Kees has just said and following on the invitation that I offered yesterday for people to communicate with me and with the council directly about any issue. If somebody feels they would like to join a working group under any of the headings we have dealt with they should make that known today before the session ends. You can always communicate later by email but we are here, now, and there is an opportunity to consolidate something and to give mandates for people to continue to develop the work to be done. If people really feel they would like to identify themselves to be involved in a working group, and, indeed, if someone is in a working group and would like to maybe work in a different group, there are no rules about this, we should allow people to do however they wish, but it is better if we do it before the business of the day closes.

Constantin Spiridonidis, Thessaloniki, Greece

I would also like to propose something practical. We could probably arrange for the working groups to have dinner together this evening in their groups considering that as a first step of this future collaboration that will develop during the year. If you don't agree, it is just a suggestion, not an obligation.

Christian Huetz, Regensburg, Germany

How about those people that do not belong to groups? What will happen to them?

Constantin Spiridonidis, Thessaloniki, Greece

Nobody threw you out, okay. Not to create some kind of exclusion because we invited all the people who put their names on the lists.

Christian Huetz, Regensburg, Germany

Well, I was on the list but I do not know what happened!

James Horan, Dublin, Ireland

Could I perhaps make another point that we have just begun to discuss and explore in connection with next year and what we are going to do. Constantin Spiridonidis has very fortunately been able to tell us that there is a very strong possibility that the seventh meeting of the heads will take place in Hania next year because there are funds being made available by the efforts that Constantin Spiridonidis made on behalf of the organization. It's important that we might look at the way to develop and advance, and this year has been particularly successful because of the fact that the working groups prepared a lot of ground work beforehand, and the calibre of the discussion and the information presented was the result of a number of meetings with each group during the year. I think this has been hugely successful. One of the difficulties of course is that we could do the same thing next year and find we are in the same place. So, a suggestion that we have begun to explore and, again, I would welcome your comments is that we would identify a single area as being the central theme of next year's meeting. It doesn't mean that the working groups won't report, they will. But one of the areas of investigation should become the in-depth work of the next conference. If that were identified we could begin to prepare for that now. It is very difficult in what is a relatively short space of time to cover the full landscape of matters that we have been discussing over the last week. So, I ask, if you want to make suggestions about this, that the council will over the next number of months identify an in-depth session for next year on one particular aspect and, if we were to get that level of depth into the discussion, I think we could make some serious advances.

Stéphane Hanrot, Marseille, France

On that point perhaps we could ask ourselves if the next meeting is mainly an informative meeting on what has been seen throughout the different working groups or if we could prepare through the working groups some, not decisions but some key points on which the assembly could take a stand. I think this meeting was very interesting because of the information that was brought out and presented. I am not sure we would be able together to go into depth on any subject but it would perhaps be easier to discuss some proposals according to the problems we have seen at the moment and the ones to be discussed.

Dimitri Kotsakis, Thessaloniki, Greece

Only a quick response to that. If we are to do in-depth work we should not just continue with the four groups. The four groups should finish the publishing job very quickly and publish only the information, nothing more than that, and then discuss in-depth about

the whole subject. If we go on and establish these groups as groups of action that would not be in-depth work. So my proposal for this is to conclude with this phase of the information and then start the in-depth discussion on what the future mission is of EAAE.

Loughlin Kealy, Dublin, Ireland

Yes, I am conscious that it is always difficult to get information around quickly but it does strike me that if we are to move things on at our next meeting, in whatever format it takes, we need to accept the discipline of having papers circulated in advance and if you like, working backwards from that to establish a timetable for the work that is done.

Constantin Spiridonidis, Thessaloniki, Greece

I would like to add a few comments to that. We need first of all a conclusion from the working groups. In order to achieve better understanding and knowledge we need to raise more profound information about these issues that we developed and raised up until now. This work must be done, but on the other hand it is not possible to continue these meetings in the same manner. We have already covered these issues through debate and I have the feeling even this year that we discussed the same issues and arguments in the same way. We have to go one step forward with a more focused approach and thorough information that we collect and proceed that way. We have to find a combination or such as like what James is proposing more focused on something, like curriculum for example, and to use the other groups to support this discussion or anything else that we will decide together, but at the same time to generate more systematic, diffusible and coherent information about the state of the art of architectural education. I would like to repeat once again that we have to avoid directing ourselves towards statements and common decisions, in general, because it is evident in this room that there are so many views and we have to protect ourselves in order to remain open and to give this meeting the character and opportunity to be a free step for debate, dialogue and exchange of aspects from all the spectrum of different view points that someone can project into the European Schools of Architecture.

James Horan, Dublin, Ireland

I might make one quick suggestion before Richard takes the microphone. We do need to try and deepen the discussion and I don't think we have any difficulty with agreeing that is a good principle. The trick is how to do it. One proposal that I would make to the meeting is that the working groups become enriched with new people that can help complete their work much in the way Dimitri has identified so that there is some base document from each of the working groups. Maybe the meeting of the working groups could be earlier, because last year we only got moving in March, so, could we possibly start before this and get some work done before the end of 2003? We could identify a single topic at the meeting of the working groups, the first one whenever that is, and then ask a number of people who hold opposing views about this topic to prepare position papers to make a very serious, harsh and deep debate and maybe reach a conclusion or agree we can't reach a conclusion. I was impressed this morning by some of the aspects that Marvin Malecha was telling us about American accreditation. There is a big difference, however, between the United States of America and the Europe in which

we live. We are in a multicultural, multilingual society and the type of rigor that is applied across the United States of America can't just be imported into the European situation. It's complex and maybe the model may be informative but it certainly can't be imported exactly, any more than American automobiles can comfortably travel between the narrow streets in some cities in Greece. We have to find a European model, which is going to be complex, difficult and protracted. I am suggesting we might begin to find a way in which the debate is advanced and Herman was right this morning when he said we mustn't re-invent the wheel every time. So some how we must find a new mechanism to push the advancement of one topic at least for next year, which would be an improvement and if that happened for five years we have then advanced the entire discussion. It's not as fast as we might like, but at least it is movement and in a direction.

Constantin Spiridonidis, Thessaloniki, Greece

May I ask for clarification of this idea? It is probably possible to find one topic that would have a very particular view on these four subject areas that we are discussing, how we see curriculum, the profession or anything else the four working groups see through a very particular view point. That could be one focus that would legitimise the presence of the working groups that must contribute to that topic so there exists a kind of correlation between them. Do you have any proposals on that or is it just the structure that you propose?

James Horan, Dublin, Ireland

If we could identify the topic early enough, as we know that the nature of architectural education means that the events that have been taking place in the individual working groups can't really be seen in total isolation, they do actually impact on each other. If one was identified as the focus, the work of the other working groups could be steered towards looking at that aspect of their work and then could be continued with another aspect the following year.

Juhani Katainen, Tampere, Finland

There is one critical aspect and, that is, if we lose the architecture directives, as is the case today, we should somehow seek ideas on how to replace the essential parts of the directives because we know that all of our agreements in the outside world are based on these principles and also the actions that have happened during the years from 1985 to this day. We are the only organization in Europe that could produce productive ideas on that evaluation and whatever it includes. I am not saying that we are making unified systems with pressure; this is a huge challenge, but if we can't answer to that nobody will answer on our behalf, so this is the most crucial point that should be studied.

James Horan, Dublin, Ireland

Could I respond to that Juhani? As I mentioned yesterday, the Architects Directive, as you and I both know, as we have worked many years in this organization, is likely to be abandoned by Brussels. I also said in discussions yesterday that we should not jump into sudden decisions or to make statements until we are ready to make them. However, the

directive or at least the eleven points in the directive are hugely flexible. They are the basis on which most of our schools, or at least those schools in the European Union, are recognized and identified. There is no reason, in my opinion, that this group today in Hania next year, could decide to say that we, as a group, support the spirit and the points of the Architects Directive, no more, no less. All we are doing is reiterating and saying to Brussels, before you guys throw this thing into the dustbin, bear in mind that one hundred schools of architecture don't think you should.

Loughlin Kealy, Dublin, Ireland

That is a very straight forward suggestion and I would lend it my support. I am not sure that it is going to have any immediate effect but at least it might prepare the ground for a more intelligent substitution for the committee that is now in suspension.

Richard Foqué, Antwerp, Belgium

I also support it because we don't realize the possible lobbying power we could exercise with what we now commonly know as Brussels. The variety in all of Europe, the different cultures and opinions and so on, is at the same time a richness but also a weakness. A weakness because we still operate on very individual and different positions. Therefore I support what you were saying James in that we should at least, by these conferences every year, try to define a few common ideas and agree on them step by step as we mount up the hill and see if we have a common ground, then go further. I would really like to support your idea of going into depth on a specific topic and from that make a couple of statements that we could all support as a common ground to use as lobbying power on the political level.

Dimitri Kotsakis, Thessaloniki, Greece

I did not understand one point, if we say that we do not accept the Directive we have made a statement. So the best thing to do this year is to say that we have made the Hania statement and it states that we have to achieve the requirements of these three documents, the Architects Directives, the UIA UNESCO Charter, and the UIA Recommendations. We have taken a stand on that and if we now liquidate this position, that is a position and if we take a stand without a discussion that is a very difficult thing to do. So the proposal is to say nothing. We have the Hania Statement, so let's reaffirm the Hania Statement because it takes a stand on three things. First this, second the framework and it says that the framework is not only Bologna but also many other things. So the second position does not pick out Bologna as the privileged framework of the Hania Statement. It makes these relevant with the rest, so this is also in it. The third is the four points. So my proposal is to reaffirm the Hania Statement.

Selahattin Öñür, Ankara, Turkey

I think we have a very strong topic "Shaping the European Higher Architectural Education". We are not finished with that so why don't we keep it. There could be one or two topics to add to that, but I think it is the process that will project us into the future. It may be a

good point to have a coherent, kind of running major topic because everything that we are discussing is related to this, so it is also my proposal.

Constantin Spiridonidis, Thessaloniki, Greece

So shaping is the topic?

James Horan, Dublin, Ireland

In response to Dimitri Kotsakis's comment I sometimes think Dimitri Kotsakis should have been a lawyer, he sees through to the kernel of things immediately. He's absolutely right that we have already identified the Directive as being important in the original Hania Statement and, now, I would like to say that maybe we modify the proposal to say that this meeting, two years later, reaffirms this position and that can be a statement from this meeting. In the absence of action from Brussels, this meeting reaffirms its position on the Architects' Directive. That is my proposal.

Constantin Spiridonidis, Thessaloniki, Greece

So James will refer to me later the renewal of this agreement and we will distribute it to the participants as soon as possible.

Patrick Labarque, Gent, Belgium

I am new to this conference and I don't know exactly the statement of two years ago or other statements, but when I read some of the statements I have the impression that they are a little too defensive. It would be good to reread them and decide if they are only defensive and whether they should be reformulated to become more prospective. For instance, this morning the idea of identity and diversity was mentioned, and it was said we should respect the diversity and also have a maximum of diversity if it suits quality. I think perhaps we have to reread the statements.

Herman Neuckermans, Leuven, Belgium

I would suggest not changing the statement because if you change what you say every year you will lower the power of what was said. If something important is put forth then that statement should remain. I just heard the comment that we should reaffirm the statement, which in fact means that we still agree with it and I hope if we do change our minds in a year's time and if we want to launch into reaffirming, it has to be officially regulated. Maybe we are all happy and nobody knows it. The Hania Statement has been sent to all of the ministers and I asked all of the participants in their country to also divulge it.

Constantin Spiridonidis, Thessaloniki, Greece

So would you like to define the way that we would declare this?

James Horan, Dublin, Ireland

I think the actual wording of it has to be carefully phrased and perhaps in a single sentence, that this group that we identify as the Hania Meeting of the Heads of Schools with one hundred and ten delegates, representing eighty five schools of architecture, reaffirm the Hania Statement of 2001 in which the Architects Directive has been recognized and that we ask Brussels to take note of this, no more, no less. It wasn't my intention at all in fact to try and bring any statement out of this meeting because my starting position yesterday was a position of exploration and that still stands. But I think that it is very valuable that there is this enormous consensus among us about the need not to throw away something of value that we possess. That does not prevent us from exploring, investigating, asking questions, carrying out debate and reaching conclusions. Even if those conclusions are different from what we currently believe we should not reject what we already have until there is something that is better to replace it.

Selahattin Önür, Ankara, Turkey

I have a short question. In Berlin there is the meeting of the Ministers and we have the position paper of the EAAE. I wonder if that is somehow going to be taken up in this meeting. There are many parties that are going to participate besides the ministers, so does that mean also that EAAE or anybody else could somehow be representing us?

Herman Neuckermans, Leuven, Belgium

Sorry I am taking the floor again . I was the President then and the idea of making the Hania Statement was, in fact, inspired by something that I had read in preparing how to learn about the European situation in architectural education. It was in one of the meetings of the Ministers that they really started to take into account the position papers because initially the Ministers had no position papers, and then some people started to react, so I said, "this is the moment for us to have a reaction". What happened after the Hania Statement is that I personally gave it to our Rector of the University who is on the board of the European Conference of Rectors preparing a paper (position and input) into the Ministers' conference. Of course I am not in Berlin so I gave it in written form and personally in speech. It has been sent to all Ministries in Europe and a few have acknowledged receipt.

The question is whether this can be followed up. I presume it can be followed up, yes.

Constantin Spiridonidis, Thessaloniki, Greece

I would like to add to what Herman said previously. The Hania Statement appeared in the official site of the Berlin meeting and that produced results because the key-note speaker that we invited to Hania that year was the same person responsible for the collection of the different positions on the Bologna process and after that someone confined the statement in the official site as a position statement. All of these documents produced on the processes have been directed towards the people who are decision makers. I am not sure if they have any influence but it is beyond our willingness. If there is anything else probably we can diffuse it the same way.

Herman Neuckermans, Leuven, Belgium

Just another aspect of feedback, I know from the engineers that they envy us a little bit because they do not have such a position and I know from other colleagues that are involved in this kind of organization that they already know the position of the architects, so I know it went around and the position is well known.

Per Olav Fjeld, Oslo, Norway

For me it is important to realize or recognize that EAAE cannot necessarily make any school, or anyone of us better, and EAAE cannot save the schools either, but we do have the capacity to understand each other better. That is probably the strongest strength that we have. It means that we should continue to gather information that supports our common understanding of certain things. It is very important to realize that the diversity that came up during this meeting has matured since the previous meetings, which is probably our most common strength. It is not necessarily the commonality but the diversity in each of the schools together that makes this body very powerful. For me it is very clear that the position within this discussion is not based on finding all kinds of commonalities but to strengthen through the diversity of the schools in which there is another creative act within the discussion.

Pierre von Meiss, Lausanne, Switzerland

Of course I still agree with the Hania Statement of two years ago but it would be a little weak leaving here with just restating what we said two years ago. This time we have the advantage, thanks to the ENSA project, that we are better prepared than before because there are the working groups, so the conclusion should be a little bit towards that and not just the restating of the Hania Statement.

James Horan, Dublin, Ireland

Pierre, if I might just respond to that, I think you are absolutely right. If you were a cynical politician in Brussels you might very well take the view that the Hania Statement of 2001 was some kind of a hot headed response from a group of architects who happen to be taking in the sun in Crete. I believe that if we phrase this correctly, that as a result of two years of reflection, the establishment of sub networks among the schools of architecture, the meetings that developed the discussion around those subjects, that the level of thought and consideration has obliged us to restate the Hania Statement. We say not just that, but in the absence of action from Brussels, and in the context of these two years of very careful consideration, we are now telling you again guys; you haven't been listening to us. If this group will entrust the council with the phrasing of that document, because the way we write it in English can't be done at this meeting or in any other language for that matter, and give us the mandate, we will issue this statement within a week or two of this meeting. Can I ask for the mandate?

Lawrence Johnston, Belfast, United Kingdom

Mr. President, I think it might help your statement to use the evidence that we gained in

our working group, which was to ask the schools if they agree with the fundamental requirements in the Architects Act 85. We now have the physical, electronic evidence that says yes, so it actually supports what we are doing as a group, and in the two years that investigation has confirmed it, so in fact it can be added into those words or statements you are going to make, because we can produce the evidence.

James Horan, Dublin, Ireland

I think that would be very valuable. We shall definitely do that.

James Horan, Dublin, Ireland

It is rather interesting that Brussels is paying for the proceedings. I was going to propose that we have reached a point in this conference.....

Constantin Spiridonidis, Thessaloniki, Greece

Maybe there were other working groups that would like to contribute, like the working group on Curriculum, so, sorry but I think that it is legitimate to give the opportunity to the other working groups to present what they have already prepared, so Lawrence with the working group of Curriculum, Denis Redford and Lawrence Johnston.

Denis Radford, Leicester, United Kingdom

Like the previous group, what we were seeking was some understanding from our group, in other words from the larger group here, we took down a reasonable number of notes, we had a meeting, compared our understanding and we have prepared a mandate for the future. I am not too sure what the debate of the last half hour will produce in terms of amending or changing that, so I think the best thing is to ask Larry, who was our scribe, to perhaps repeat these and then we can perhaps take it from there because a lot of the debate we have just had does have a material effect on our proposals. I am a little 'betwixt' and in between at the moment so maybe we could take it from there.

Lawrence Johnston, Belfast, United Kingdom

We haven't got the presentations in terms of laptop but we did make some bullet points very much along the lines of the previous working group. We realize that these groups were established last year and it was our wish that we be endorsed to continue with the work, and I hope that will be the case from the forum. Already we have been approached from a number of participants who would like to join the group. In particular, Hans Lindgren from Goteborg, Sweden, who is here, voiced his support of the work we are doing and as Dinos and the President have said, we would be very happy for additional volunteers to help us with this. A number of us met, not everybody in the group because Marina is not here, and Leen wasn't in the lunch discussion, and we proposed that we would again meet in early spring, March as James has said is maybe a little late, so we can agree on a date. Whether the entire working groups meet at one time is up to the organization, but particularly we as a small group of eight or nine could do that. Arising from the discussion after the presentation there are a number of items that we feel we could

continue to look at. There seems to be a lot of debate about internship, office experience and training and where it really sits in the relationship between academic and profession. That is one area that we could perhaps gain more information on or perhaps get some more guidance on. The whole concept of life long learning, which James touched on it in his introductory inaugural speech, is a subject that our group could assist in. In the British Isles it is known as continuing professional development and I suppose in every state there is a phrase or a term that describes it. That is one area that this group could particularly develop because of the link between academia and the profession. In some states it's mandatory, and if you want to continue to be a registered as member of the RIBA in the UK you must complete a period of CPD every year. I can tell you friends it is monitored, as I had to do a return last year and not only that but I had to tell them what I was going to do next year. In some states it is actually very, very forceful. Also what came out of the discussion and much of the debate of the three days is that if there is a database produced, I am not sure if it is with EAAE or whether it is going to be some other organization, but that it has to be kept up to date and has to be resourced in terms of funding and human resources. Someone has to continually input that data, and I am not sure, James, whether that is within your mission statement, but certainly that is where the value of these meetings, the networks, and the contacts we make is very formative. Related to that we would like each of you to nominate, volunteer, or press someone who would be the contact person for us in your institution or your school that we could liaise and network with. I am right Denis in saying that? Those are the points I make and is there anyone else in our group that would like to add to those that weren't in our lunch discussion?

Denis Radford, Leicester, United Kingdom

One of the major things is to have an up-to-date base because the problem seems to be that often the information goes out of date almost immediately after it is produced. We need to find in the technological basis that we have now, a way of keeping the information really up-to-date and accurate.

Lawrence Johnston, Belfast, United Kingdom

Part of that database would be to ask schools if there is an organization, institution or polytechnic university that keeps their own internal database of the destination of graduates after they receive their diploma. The debate that we had within the group and within the forum was we cannot do that, it is too big of an organizational problem, but if each institution has one, then we could tap into that and perhaps have evidence as to what happens to an architectural student after five years or ten years. It was generally agreed that two years was too short, twelve, maybe fifteen years was too long, so a period of between five and ten years is appropriate and that again might inform our curriculum group and might inform our training.

James Horan, Dublin, Ireland

Lawrence, thank you very much. One of the things I would like to endeavour to do during the coming year is to make sure that our database is up to date and some people have already identified this to me since I became president yesterday, that some of the

information contained on the EAAE database is no longer valid. Could I please ask anyone who wishes to have the database modified to email it to me directly and I will ensure that happens. Luis.

Luis Conceicao, Setubal, Portugal

I noticed in one slide shown yesterday that the number of schools and the number of architects in Portugal was information from 1998 or '95 and it is not up to date. I don't remember the numbers that were shown but I do know the actual numbers.

James Horan, Dublin, Ireland

We will endeavour to resolve any ambiguities. With any database there is a two-way flow and we in the EAAE must be accurate and diligent about recording the information we receive. Equally, if a school has a change of something, a person in charge, a different email address, or something of the sort they should tell us as quickly as possible. If those two things happen the database stays up to date, so we need to cooperate on this one.

Lawrence Johnston, Belfast, United Kingdom

Thank-you my colleague. In fact Leen Van Duin who had undertaken that research work with his university and the Council of Europe produced that overhead, so it was recognized as just a snapshot that is maybe six years old.

Constantin Spiridonidis, Thessaloniki, Greece

I would like to invite one of the two other working groups to speak if there are any comments, remarks, conclusions, suggestions, proposals or views. Yes, Michéle.

Michéle Michel, Bordeaux, France

I would be interested to have some information about the specialized seminar you organized on the field of Construction and Studio Design because it could be related to our debate and to know more about the kind of information exchanged during this seminar and the conclusion on the way of teaching in these fields.

Richard Foqué, Antwerp, Belgium

I don't know if this is an answer but the proceedings of these meetings are being published, you can see what has been said there, word for word. Did I misunderstand you?

Michéle Michel, Bordeaux, France

It is the question we ask about curriculum because we are in a large debate and we are always on a general subject, but during this seminar some important things may be emphasized or clarified.

Constantin Spiridonidis, Thessaloniki, Greece

I think Michèle is right because it appears there is a kind of split between the activities of the sub-networks on the specialized networks and the debates that we have here and the type of discussion that we developed during the meeting of heads is a little bit different from the types of discussions that those working groups develop and produce. All of this effort is unique and it is linked and we discussed here some structural and organizational issues, and of course the academic ones that were discussed during these meetings are equally significant and correlated. I am not sure it will be easy to find ways to interpenetrate these two kinds of discussions, but the people who participated are here now so they can contribute through their experience something about this issue.

Richard Foqué, Antwerp, Belgium

As our team came up this morning with a very lively discussion on the matters of Quality Assurance and Quality Assessment I don't think it is useful to start again, it's still fresh in everyone's mind. As a conclusion I would say a lot of themes came up with a variety of very great and interesting opinions and we concluded that we should absolutely go on discussing these very important topics. We also learned that a lot of schools, and this came up in the questionnaire, do self-assessment and that certain kinds of evaluations are going on. I would like to suggest to the council also to give the working group a mandate and I really invite other people to join us to continue this work and to hopefully present some more evidence and results next year.

Pierre von Meiss, Lausanne, Switzerland

Maybe one should not wait until next year and it would be interesting if you could produce a sort of position and proposal and circulate it. This is a thought we had and maybe you will only get a two percent response, but it is more interesting to read that than the questionnaires because at least you see something that comes after the questionnaire that is the production now. If you could send it sometime in November or before the end of the year and let's say something to the different representatives of the different schools and ask them to respond, how about that?

James Horan, Dublin, Ireland

Richard I think if you are prepared to do that, that would be very wonderful because we know Pierre Von Meiss' view of questionnaires.

Pierre von Meiss, Lausanne, Switzerland

Was that a question to have some intermediate in-between, now, and the proceedings that will probably appear in the beginning of the next year?

Constantin Spiridonidis, Thessaloniki, Greece

The proceedings will appear by the beginning of the year. We have a constraint to submit to the Socrates Program the report with all the work that we have produced. I think it is

the 30th of January, something like that. So until that date we have to have all of this material produced, the proceedings, documents and reports, etc. etc. The appearance of the proceedings could be useful for the working groups because they will reread or be reminded of the discussions and the debates that we had here. It would be rational to have the first meeting of the working groups just after the appearance of the proceedings. This is just one approach, but if we follow this logic, then the first meeting of the working groups can take place in February, which is not very different from being in March like last year and we recognize it was a little bit late since all the work arrived to be done during the summer. After saying that I feel that probably an earlier meeting would appear more reasonable and fruitful, say the end of November or the beginning of December. The working groups could probably make some suggestions during dinner today or by next week.

I just want to react to Pierre because he directed an invitation to me and of course I want to produce a couple of pages on this. But to be honest, it should be part of a global strategy within the total work of the organization, so I want to add that comment.

Herman Neuckermans, Leuven, Belgium

As a member of that same group it was my intention, and that is why I circulated the list, to contact these people and ask them precise information about some of the issues we were discussing this morning and quickly further this collection of information.

Koenraad Van Cleempoel, Antwerp, Belgium

I think I can speak for the group on Mobility that we strongly support the idea of a database. As I heard in comments afterwards, people are really interested in the profile of each other's schools when we discuss mobility. It would be valuable if the database could be linked to the ENHSA or EAAE website and made available to everybody who visits the site. I don't know if that could be made operational in a short period of time.

Constantin Spiridonidis, Thessaloniki, Greece

The database or the data?

Koenraad Van Cleempoel, Antwerp, Belgium

The data or the database.

Constantin Spiridonidis, Thessaloniki, Greece

There is a very delicate issue and maybe it is not the moment to discuss it, but the question is whether we will present the data or not because the questionnaires arrived with some kind of information and what we presented was intentionally screened, and instead of names of schools we had numbers in order to avoid any kind of value judgements that someone could make or use. We considered that for many reasons we had to make the presentation this way, with the names of the schools replaced with numbers, because the information is sort of confidential up to a point that the schools sent to the working

groups and in order to make public this statement we have to have your permission. Of course it is an issue that we probably don't have to decide on right away, but it is an issue.

Pierre von Meiss, Lausanne, Switzerland

Yes but the School which receives wants to know where it stands. At least you can give them their number.

Constantin Spiridonidis, Thessaloniki, Greece

Yes, that will be a possibility, yes, or the school can recognize his number because he has the data.

Marko Savic, Belgrade, Serbia and Montenegro

Actually I would call this database 'net boxes'. All of us will return tomorrow to our schools and the result of this conference that is everyone will have gained ideas and share some information with their staff. In the development of the website of the EAAE it will be useful to make these 'net boxes' as links to the websites of the faculties of the schools. It will be part of the work of each school to make links especially formalized for exchange of ideas in the meaning of our work here and it will be very useful for those working groups to collect ideas and information from other schools than the ones they have in these small groups.

Pierre von Meiss, Lausanne, Switzerland

I would advise you not to publish at all at this point the statistics you showed the first day. If they fall into the hands of politicians they could produce architects much cheaper than we do. So I think it is dangerous as they are not correct, not because of any of the work that you did, but because of misunderstanding of the people who responded to the questions. We have already seen sitting together here that there is a lot of misunderstanding. I still say the only way to get the right answers to the questionnaire is to send somebody to spend a day in each school and help the schools to fill them out.

James Horan, Dublin, Ireland

I will just respond briefly to that Pierre, I heard the comment you made on the first day, and it is valid from a technical point of view. It is very difficult to know precisely what any organization is doing when they are filling out a questionnaire and even if you send somebody into a school and they sit down opposite of the head of the school at the table, you don't even know if he is going to tell you the truth. However, the point about this gathering of information is not the individual pieces but the trend. We can say that 30% of the schools have some difficulty about the ERASMUS or Socrates programs and they look for additional information from their students. That's valuable, it's not precise, it may not be a 'Swiss watch' but it's serious information, it's an 'Irish computer'. Well maybe for the next two years the best thing you guys are going to have is an 'Irish

computer' and maybe after that a 'Swiss watch', we are working up to it. I am personally saving up to buy a Swiss watch.

Constantin Spiridonidis, Thessaloniki, Greece

On the other hand the elementary knowledge of statistics says there is no objective data but there is approximate data up to a point. It is not right to say that the data is not correct. We know very well about the quality of this information and it's not a question about correctness but that the statistical approach has its own characteristics.

James Horan, Dublin, Ireland

I am conscience about the time. We have reached the point where we have discussed a great deal of things over a number of days. The level of discussion, the level of the information presented and the quality of what has happened at this conference has been exceptional. I personally am going away with a very positive outlook about what is going to happen over the next twelve months. I know that Constantin Spiridonidis may need to rap up technically and thank various people because there are many, many people to be thanked on an occasion like this. For my part I would like to first of all thank all of you, the participants, because this is what has made the thing work and function and to thank the working groups who during the year came here and presented the fruit of their efforts and directly stemming from that the amazing work of both Constantin Spiridonidis and Maria Voyatzaki who almost single handily allowed EAAE the possibility of this wonderful support from Brussels through ENHSA to allow these working groups to take place and to lift the level of what this conference is about. The Centre for Mediterranean Architecture has provided us again with this most wonderful place, and I thank them enormously and all of the people who contributed to every aspect of the running of this event. There are so many people behind the scenes; I don't even know where to begin. Only Constantin Spiridonidis and Maria Voyatzaki know the real story of what goes on here, but we as a group are eternally grateful for what they have done. I feel that we have arrived at a point of what I might call the beginning of maturity. There is a seriousness about our work and despite the heat of the debate that has occurred from time to time, there is an enormous unanimity of direction, because at the bottom of each of our hearts there is only one thing we are concerned about and that is the quality of architectural education, the philosophy behind it and how we can deliver it to our students and to the people in Europe generally. I hope that the next year will be equally productive, if not more so, than the one that has just gone by. I thank Herman Neuckermans, past president and the members of council and the 'chargée de mission' on the council or in the EAAE who have brought us to the point where we are now. The last point I would make to finally finish, our doors and our minds are open. Thank you.

Appendix

Documents about Architectural Education and the Common European Higher Education Area

The Role of the Universities in the Europe of Knowledge

Commission of the European Communities

Brussels, 05.02.2003

Summary

This Communication seeks to start a debate on the role of Universities¹ within the knowledge society and economy in Europe and on the conditions under which they will be able to effectively play that role. The knowledge society depends for its growth on the production of new knowledge, its transmission through education and training, its dissemination through information and communication technologies, and on its use through new industrial processes or services. Universities are unique, in that they take part in all these processes, at their core, due to the key role they play in the three fields of research and exploitation of its results, thanks to industrial cooperation and spin-off; education and training, in particular training of researchers; and regional and local development, to which they can contribute significantly.

The European Union therefore needs a healthy and flourishing university world. Europe needs excellence in its universities, to optimise the processes which underpin the knowledge society and meet the target, set out by the European Council in Lisbon, of becoming the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. The European Council in Barcelona recognised this need for excellence, in its call for European systems of education to become a "world reference" by 2010².

However, the European university world is not trouble-free, and the European universities are not at present globally competitive with those of our major partners, even though they produce high quality scientific publications. The Communication notes a number of areas within which reflection, and often also action, is needed, and raises a series of questions such as:

- how to achieve adequate and sustainable incomes for universities, and to ensure that funds are spent most efficiently;
- how to ensure autonomy and professionalism in academic as well as managerial affairs;
- how to concentrate enough resources on excellence, and create the conditions within which universities can attain and develop excellence;
- how to make universities contribute better to local and regional needs and strategies;
- How to establish closer co-operation between universities and enterprises to ensure better dissemination and exploitation of new knowledge in the economy and society at large

¹ In this Communication, the term "universities" is taken to mean all higher education establishments, including, for example, the "Fachhochschulen", the "polytechnics" and the "Grandes Ecoles".

² Barcelona European Council - Presidency Conclusions.

- how to foster, through all of these areas, the coherent, compatible and competitive European higher education area called for by the Bologna Declaration, as well as the European research area set out as an objective for the Union by the Lisbon European Council, in March 2000.

This Communication, which has been prepared in the context of the 2003 Spring European Council, invites responses to these questions from all those concerned with higher education, research and innovation. The Commission will review the state of the debate in the summer of 2003 and identify suitable initiatives, possibly in a further Communication for examination by the Education Ministers in the Education Council and the Research Ministers in the Competitiveness Council, as well as by the European Summit of Higher Education Ministers scheduled for 18-19 September 2003 in Berlin.

1. Introduction

The creation of a Europe of knowledge has been a prime objective for the European Union since the Lisbon European Council of March 2000. Subsequent European Councils, particularly Stockholm in March 2001 and Barcelona in March 2002, have taken the Lisbon objective further forward.

The Lisbon agenda calls for efforts from a wide range of players. These include the universities, which have a particularly important role to play. This is because of their twofold traditional vocation of research and teaching, their increasing role in the complex process of innovation, along with their other contributions to economic competitiveness and social cohesion, e.g. their role in the life of the community and in regional development.

Given their central role, the creation of a Europe of knowledge is for the universities a source of opportunity, but also of major challenges. Indeed universities go about their business in an increasingly globalised environment which is constantly changing and is characterised by increasing competition to attract and retain outstanding talent, and by the emergence of new requirements for which they have to cater. Yet European universities generally have less to offer and lower financial resources than their equivalents in the other developed countries, particularly the USA. Are they in a position to compete with the best universities in the world and provide a sustainable level of excellence? This question is particularly topical as enlargement draws nearer, considering the frequently difficult circumstances of universities in the accession countries as regards human and financial resources.

To implement the Lisbon agenda, the European Union has embarked upon a series of actions and initiatives in the areas of research and education. One example is the European area of research and innovation, to achieve which fresh perspectives have just been opened up³ and, in this context, the objective to increase the European research and development drive to 3% of the Union's GDP by 2010⁴.

In the area of education and training, we can mention the achievement of a European

³ European Commission, Communications "Towards a European research area", COM (2000) 6 of 18.1.2000 and "The European research area: providing new momentum", COM (2002) 565 of 16.10.2002.

⁴ European Commission, Communication "More research for Europe/towards 3% of GDP", COM (2002) 499 of 11.9.2002.

area of lifelong learning⁵, the implementation of the detailed work programme on the objectives of education and training systems⁶, work to strengthen the convergence of higher education systems, in line with the Bologna process, and vocational training systems, in line with the Copenhagen declaration.

European universities as such have not recently⁷ been the focus of reflection and debate at European Union level. The Commission seeks to contribute to such a debate, and this Communication accordingly examines the place and role of European universities in society and in the knowledge economy (Section 3), offers some ideas on universities in a European perspective (Section 4) and sets out the main challenges facing the European universities, along with some issues for consideration (Section 5).

The Commission calls upon all players concerned (universities themselves, the rectors' conferences, national and regional public authorities, the research community, students, business and the people of Europe) to make known their comments, suggestions and points of view on the various aspects addressed by this Communication⁸. In the light of the contributions the Commission receives from this consultation, it will determine future action and whether to submit a follow-up communication for the Education Ministers (in the Education Council) and the Research Ministers (in the Competitiveness Council), as well as to the European Summit of Higher Education Ministers scheduled for 18-19 September 2003 in Berlin as part of the Bologna process.

2. The European University Today

2.1 *The universities at the heart of the Europe of knowledge*

The knowledge economy and society stem from the combination of four interdependent elements: the production of knowledge, mainly through scientific research; its transmission through education and training; its dissemination through the information and communication technologies; its use in technological innovation. At the same time, new configurations of production, transmission and application of knowledge are emerging, and their effect is to involve a greater number of players, typically in an increasingly internationalised network-driven context.

Given that they are situated at the crossroads of research, education and innovation, universities in many respects hold the key to the knowledge economy and society. Indeed, universities employ 34% of the total number of researchers in Europe, although national figures vary in the ratio of one to three between Member States (26% in Germany, 55% in Spain and over 70% in Greece). They are also responsible for 80% of the fundamental research pursued in Europe.

In addition, universities train an ever increasing number of students with increasingly higher qualifications, and thus contribute to strengthening the competitiveness of the

⁵ European Commission, Communication "Making a European area of lifelong learning a reality", COM (2001) 678 of 21.10.2001.

⁶ Detailed work programme on the follow-up of the objectives of education and training systems in Europe, OJ C 142 of 14.06.2002, p. 1.

⁷ European Commission, Memorandum on higher education in the European Community, COM (1991) 349 of 5.11.1991.

⁸ See Section 7 "How to make a contribution".

European economy: one third of Europeans today work in highly knowledge-intensive sectors (over 40% in countries like Denmark and Sweden), which have on their own accounted for half the new jobs created between 1999 and 2000).

Universities also contribute to the other objectives of the Lisbon strategy, particularly employment and social cohesion, and to the improvement of the general level of education in Europe. Many more young Europeans have a higher education qualification today than in previous generations. While some 20% of Europeans aged between 35 and 39 hold such qualifications, this figure is a mere 12.5% for the 55-59 age group. If we look at the total population aged 25-64, the rate of employment of persons holding higher education qualifications (ISCED 5 and 6) stood at 84% in 2001, i.e. almost 15 points above the average taking all education levels together, and nearly 30 points more than people having completed only lower secondary level (ISCED 0 to 2). Finally, the rate of unemployment amongst those holding higher education qualifications stood at 3.9% in 2001, one third of that of persons with a low level of qualifications.

3. The European university landscape

There are some 3 300 higher education establishments in the European Union, approximately 4 000 in Europe as a whole, including the other countries of Western Europe and the candidate countries⁹. They take in an increasing number of students, over 12.5 million in 2000, compared with fewer than 9 million ten years previously.

The European university landscape is primarily organised at national and regional levels and is characterised by a high degree of heterogeneity which is reflected in organisation, governance and operating conditions, including the status and conditions of employment and recruitment of teaching staff and researchers. This heterogeneity can be seen between countries, because of cultural and legislative differences, but also within each country, as not all universities have the same vocation and do not react in the same way and at the same pace to the changes which affect them. The structural reforms inspired by the Bologna process constitute an effort to organise that diversity within a more coherent and compatible European framework, which is a condition for the readability, and hence the competitiveness, of European universities both within Europe itself and in the whole world.

European universities have for long modelled themselves along the lines of some major models, particularly the ideal model of university envisaged nearly two centuries ago by Wilhelm von Humboldt in his reform of the German university, which sets research at the heart of university activity and indeed makes it the basis of teaching. Today the trend is away from these models, and towards greater differentiation. This results in the emergence of more specialised institutions concentrating on a core of specific competences when it comes to research and teaching and/or on certain dimensions of their activities, e.g. their integration within a strategy of regional development through adult education/training.

⁹ By way of comparison, there are over 4 000 higher education establishments in the USA, 550 of them issuing doctorates, and 125 identified as "research universities". Of these, some 50 account for the lion's share of American academic research capacity, public funding in support of university research and the country's Nobel prizes for science.

3.1 *The new challenges facing European universities*

All over the world, but particularly in Europe, universities face an imperative need to adapt and adjust to a whole series of profound changes. These changes fall into five major categories.

Increased demand for higher education

This will continue in the years ahead¹⁰, spurred on simultaneously by the objective of certain countries of increasing the number of students in higher education¹¹ and by new needs stemming from lifelong learning. This increase, which Europe's low birth rates are not expected to slow down in any great measure, will further intensify capacity saturation in the universities.

How can this increasing demand be met, considering the limited human resources (which can be expected to become a deficit, both as regards teaching staff and as regards researchers, in the years ahead) and the limited financial capacity (which does not keep in step with requirements)? How can sustainable funding of universities, constantly beleaguered as they are by fresh challenges, be ensured? It is crucially important to maintain and strengthen the excellence of teaching and research, without compromising the level of quality offered, while still ensuring broad, fair and democratic access.

The internationalisation of education and research

The momentum of internationalisation is considerably speeded up by the new information and communication technologies. The result is increased competition. Competition between universities and between countries, but also between universities and other institutions, particularly public research laboratories (where research staff are not expected to meet simultaneous teaching commitments), or private teaching institutions, often specialised and sometimes run on a profit-making basis. An increasing share of the funds allocated to the universities is distributed on a competitive basis and this means ever keener competition to attract and keep the best talent.

Be that as it may, European universities are attracting fewer students and in particular fewer researchers from other countries than their American counterparts. The former in 2000 attracted some 450 000 students from other countries, while the latter attracted over 540 000¹², mostly from Asia¹³. More significantly, the USA in proportion attracts many more students from other countries at advanced levels in engineering, mathematics and informatics, and are successful in keeping more persons with doctorate qualifications: some 50% of Europeans who obtained their qualifications in the USA stay there for several years, and many of them remain permanently.

¹⁰ European Commission, Joint Research Centre, Report on "The future of education between now and 2010", June 1999.

¹¹ Countries such as the United Kingdom and Denmark have set a target of training 50% of a given age group at university level between now and 2010.

¹² European Commission, DG RTD, Key Figures 2002 (based on OECD and Eurostat data)

¹³ Students from four Asian countries (China, India, Japan and South Korea) on their own accounted for nearly 40% of the total of foreign students in the USA (Open Doors 2001, IIE, New York).

European universities in fact offer researchers and students a less attractive environment. This is partly due to the fact that they often do not have the necessary critical mass, which prompts them to opt for collaborative approaches, e.g. creation of networks, joint courses or diplomas. But other factors, outside the university, play also an important role, e.g. the rigidities of the labour market or lower entrepreneurship entailing fewer employment opportunities in innovative sectors. This is reflected in lower performances in e.g. research funding, links to industry, patenting rates and spin-off creating rates than in the USA and Japan¹⁴.

To develop effective and close co-operation between universities and industry

Co-operation between universities and industry needs to be intensified at national and regional level, as well as geared more effectively towards innovation, the start-up of new companies and, more generally, the transfer and dissemination of knowledge. From a competitiveness perspective it is vital that knowledge flows from universities into business and society. The two main mechanisms through which the knowledge and expertise possessed and developed by universities can flow directly to industry are the licensing of university intellectual property, and spin-off and start-up companies.

Although little data is currently available in Member States on the extent to which universities are commercialising their research, so that it is difficult to say how well universities across the European Union are exploiting research results with the enterprise sector, some data are available through the "Community Innovation Survey" (CIS). The CIS asks enterprises, inter alia, about the most important sources of information for innovation. The results¹⁵ show that education-related and public research sources are ranked very low. Less than 5% of innovative companies considered information from government or private non-profit research institutes, and from universities or other higher education establishments, as being a very important source of information.

It would facilitate the dissemination of knowledge into the EU industrial fabric, including SMEs in traditional sectors, if universities were actively to pursue the promotion of effective university-industry relationships, and better to exploit the results of their knowledge in relationships with industry. Evaluation criteria for the performance of universities' could take account of this challenge.

The European Commission will continue to analyse the existing barriers and factors conducive to this co-operation and will disseminate the results widely to interested circles.

The proliferation of places where knowledge is produced

This development and the increasing tendency of the business sector to subcontract their research activities to the best universities mean that universities have to operate in an increasingly competitive environment. The result that is on top of the traditional links between the universities of a given region and the businesses in the surrounding area

¹⁴ European Commission, Communications "Towards a European research area", COM (2000) 6 of 18.1.2000 and "The European research area: providing new momentum", COM (2002) 565 of 16.10.2002.

¹⁵ "Statistics on Innovation in Europe" Data 1996-97, EUROSTAT

new relations have appeared in the picture. Geographical proximity is no longer the main basis for selecting a partner. High-tech businesses, for their part, tend to set up near the best-performing universities. The shortening of the time lag between discoveries and their application and marketing raises the question of the role and the contribution of universities to the process of technological innovation and the links between them and the business sector.

The reorganisation of knowledge

This is to be seen in particular in two trends which pull in opposite directions. On the one hand, we have the increasing diversification and specialisation of knowledge, and the emergence of research and teaching specialities which are increasingly specific and at the cutting edge. On the other, we see the academic world having an urgent need to adapt to the interdisciplinary character of the fields opened up by society's major problems such as sustainable development, the new medical scourges, risk management, etc. Yet the activities of the universities, particularly when it comes to teaching, tend to remain organised, and more often than not compartmentalised, within the traditional disciplinary framework.

The reorganisation of knowledge can also be seen in a certain blurring of the borders between fundamental research and applied research. This does not go so far as totally to remove the meaning of the difference between, on the one hand, the pursuit of knowledge essentially for its own sake, and on the other its development with a view to specific objectives, particularly the conversion of existing knowledge into products, processes and technologies.

Fundamental research therefore remains a major area for university research activity. It is this capacity in the big American research universities that makes them attractive partners for industry, which in turn provides them with substantial funding for it. Fundamental research in this context is therefore conducted with its application very much in mind, but at the same time without losing its fundamental character. In Europe, universities tend to undertake directly applied research for the business sector, extending even to the provision of scientific services, which if taken to excess could endanger their capacity to contribute to the progress of knowledge.

The emergence of new expectations

Alongside its fundamental mission of initial training, universities must cater for new needs in education and training stemming from the knowledge-based economy and society. These include an increasing need for scientific and technical education, horizontal skills, and opportunities for lifelong learning, which require greater permeability between the components and the levels of the education and training systems. European universities are directly concerned by scientific education, in particular because they train science teachers for secondary education. In addition, the contribution expected of universities to lifelong learning strategies leads them gradually to widen the conditions of access to this area of tuition (in particular to allow access to those not coming through the route of upper secondary education, through better recognition of skills acquired outside university and outside formal education); to open up more to industry; to improve student

services; and to diversify their range of training provision in terms of target groups, content and methods.¹⁶

The growth of the knowledge economy and society also leaves universities to become more closely involved in community life. Alongside and as a natural result of the exercise of its fundamental missions to produce and transmit knowledge, the university today functions particularly as a major source of expertise in numerous areas. It can and must increasingly become a forum of reflection on knowledge, as well as of debate and dialogue between scientists and people.

Given that they live thanks to substantial public and private funding, and that the knowledge they produce and transmit has a major impact on the economy and society, universities are also accountable for the way they operate and manage their activities and budgets to their sponsors and to the public. This leads to increasing pressure to incorporate representatives of the non-academic world within universities' management and governance structures.

4. What is at stake for Europe?

4.1. Universities and the European dimension

Responsibilities for universities lie essentially in the Member States at national or regional level. The most important challenges facing the universities, by contrast, are European, and even international or global. Excellence today is no longer produced or measured at the national level, even in the biggest European countries, but at the level of the European or world community of teachers and researchers.

The question arises in this context as to the compatibility and the transparency of the systems whereby qualifications are recognised (which lies at the core of the Bologna process of convergence), and that of the obstacles to the mobility of teachers and researchers¹⁷ in Europe. Student mobility, for instance, is still marginal in Europe. In 2000, a mere 2.3% of European students were pursuing their studies in another European country¹⁸ and while the mobility of researchers is higher than that of the average of the population concerned, it is still lower than it is in the USA. The divergence between the organisation of universities at Member State level and the emergence of challenges which go beyond national frontiers has grown over the past few years and will continue to do so, as a result of a combination of factors:

- the emergence of a true European labour market in which the people of Europe must be free to move around as they wish¹⁹ and in which problems concerning the recognition of qualifications become a thing of the past;

¹⁶ European Commission, Communication "Making a European area of lifelong learning a reality", COM(2001) 678 of 21.10.2001.

¹⁷ Strategies in favour of Mobility within the European Research Area, Communication from the Commission, COM(2001) 331 final of 26 June 2001.

¹⁸ This low average masks substantial disparity across the Member States. For instance, 68% of Luxemburgish students, 10% of Greek students and 9% of Irish students were studying outside their own country. Conversely, only 0.7% of UK students and 1.2% of Spanish students went to study beyond their own borders.

¹⁹ In this connection, the European Commission has submitted an action plan on skills and mobility, COM(2002)72 of 13.2.2002.

- the expectations with regard to recognition which have been created by action taken by the European Union itself to encourage mobility, particularly through the ERASMUS initiative;
- the emergence of a globalised provision of a wide range of university courses, the continuing brain drain leading to the loss of top-level students and researchers, and a continuing comparatively low level of activity by European universities at the international level;
- the worsening of these factors which will come with the enlargement of the Union, owing to the greater level of heterogeneity of the European university landscape which will ensue.

The nature and scale of the challenges linked to the future of the universities mean that these issues have to be addressed at European level. More specifically, they require a joint and coordinated endeavour by the Member States and the candidate countries, backed up and supported by the European Union, in order to help to move towards a genuine Europe of knowledge.

4.2. European Union action for the universities

Support is available to universities from a variety of Community initiatives in the areas of research and education. On the research front, they receive around one third of the funding under the framework programme for technological research and development, and particularly the support actions for research training and mobility (Marie Curie actions).

The advantages of the Framework Programme for the universities should further increase with the Sixth Framework Programme²⁰ with the stepping up of training and mobility support actions, the introduction of a support structure for the creation of young teams with a potential for excellence, and the increased focus that will be placed on fundamental research within "networks of excellence" or "integrated projects"²¹, and particularly as part of action to promote research "at the frontiers of knowledge" (NEST action).

The universities also have a major role to play in initiatives under the "Science and Society" action plan²², designed to foster the development and improve the coordination of national activities and policies in areas such as scientific opinion and dialogue with the people, ethics, science education, and "women and science".

Universities are also involved in certain of the actions pursued by the Union relating to technological innovation, e.g. the support actions for utilising R&D results achieved by science parks, through the Framework Programme or with the support of the Structural Funds or the European Investment Bank (EIB).

²⁰ Decision of the Council and of the European Parliament 1513/2002 in OJ L 232 of 29.8.2002, p. 1.

²¹ The "networks of excellence" are an instrument of integration of European research capacity designed to further knowledge, the "integrated projects" a tool for conducting research targeting a specific objective. Both are designed to gather a critical mass of resources and are used in the seven "priority thematic areas" under the sixth Framework Programme.

²² European Commission, Communication "Science and Society Action Plan", COM (2001) 714 of 4.12.2001.

As far as education and training are concerned, universities are very much involved in all the actions of the SOCRATES programme, particularly the ERASMUS action. Since it was launched, over a million students have benefited from this action and every year some 12 000 teachers opt for ERASMUS mobility. Many thematic inter-university networks also contribute to strengthen cooperation at European level, acting as a think tank for the future or the development of their subject area. The Community has provided support for the European course credit transfer system (ECTS) for the recognition of periods of study. The LEONARDO programme provides support for mobility projects between universities and the business sector, involving 40 000 people between 1995 and 1999. Universities are also involved in the eEurope initiative and its eEurope 2005 Action Plan, which encourages all universities to develop on-line access ("virtual campus") for students and researchers²³.

This cooperation also extends to other regions of the world. Most of the Community research Framework Programme is open to every country in the world and in particular provides support for cooperation with the countries with the Mediterranean region, Russia and the Newly Independent States, as well as developing countries. Through the TEMPUS programme the Union supports university cooperation with the countries of the former Soviet Union, southeast Europe and, since its extension in 2002, the Mediterranean region. There are also initiatives covering relations with other geographical areas, e.g. ALFA and Asia-Link. All these activities help to project the European academic universe around the world. It is also worth mentioning the proposal for the "Erasmus World" programme, which will enable the Union to support "European masters" in order to attract to Europe some of the world's best students for studies pursued in at least two European countries.

Lastly, the Commission supports and helps to foster the Bologna process which is designed to create between now and 2010 a European higher education area which is consistent, compatible and competitive, through reforms which converge around certain defining objectives.

5. Making European Universities a World Reference

If they are to play their full role in the creation of a Europe of knowledge, European universities must, with the help of the Member States and in a European context, rise to a number of challenges. They can only release their potential by undergoing the radical changes needed to make the European system a genuine world reference. There are three objectives to be pursued simultaneously:

- ensuring that European universities have sufficient and sustainable resources and use them efficiently;
- consolidating their excellence in research and in teaching, particularly through networking;
- opening up universities to a greater extent to the outside and increasing their international attractiveness.

²³ The eEurope Action Plan - Designing tomorrow's education, Communication from the Commission, COM(2001)172 final, 28 March 2001.

5.1 Ensuring that the European universities have sufficient and sustainable resources

Insufficient means

On average the Member States spend 5% of their GDP on public expenditure for education in general. This figure is comparable to that of the USA and higher than Japan's (3.5%). Public expenditure, however, has not increased with GDP in recent years in Europe, and has even dropped in the past decade. Total expenditure on higher education alone has not in any member state increased in proportion to the growth in the number of students. A substantial gap has opened up with the USA: 1.1% of GDP for the Union compared with 2.3%, i.e. more than double, for the USA. This gap stems primarily from the low level of private funding of higher education in Europe. This stands at a meagre 0.2% of European GDP compared with 0.6% in Japan and 1.2% in the USA.

American universities have far more substantial means than those of European universities – on average, two to five times higher per student. The resources brought by the students themselves, including by the many foreign students, partly explain this gap. But American universities benefit both from a high level of public funding, including through research and defence credits, and from substantial private funding, particularly for fundamental research, provided by the business sector and foundations. The big private research universities also often have considerable wealth, built up over time through private donations, particularly those from graduate associations.

The worsening under-funding of European universities jeopardises their capacity to keep and attract the best talent, and to strengthen the excellence of their research and teaching activities²⁴. Given that it is highly unlikely that additional public funding can alone make up the growing shortfall, ways have to be found of increasing and diversifying universities' income. The Commission plans to conduct a study on the funding of European universities, in order to examine the main trends in this area and identify examples of best practice.

At the March 2002 Barcelona European Council, the Union set as its target to increase Europe's research effort to 3% of its GDP²⁵. This implies a special effort as regards human resources for research.

5.1.1. Increasing and diversifying universities' income

Four main sources of university income can be identified:

- Public funding for research and teaching in general, including research contracts awarded on a competitive basis: this is traditionally the main source of funding for European universities. However, given the budgetary situation in the Member States and the candidate countries, there is a limited margin of manoeuvre for increasing public support. And while the Member States did in Lisbon in March 2000 give a commitment to substantially increase human resource investment, it is highly unlikely

²⁴ The Commission sets out ideas for consideration and discussion on the matter of university funding in its Communications "Investing efficiently in education and training: an imperative for Europe" (COM(2002)779 of 10 January 2003) and "More research for Europe: towards 3% of GDP" (COM(2002) 499 of 11.9.2002).

²⁵ European Commission, Communication "More research for Europe: towards 3% of GDP", COM (2002) 499 of 11.9.2002.

that this effort alone can cover the anticipated increase in the number of students or make it possible to catch up with the USA.

- As is the case in the USA, private donations can prove a substantial source of income for universities. However, this solution comes up against a whole range of problems in Europe, particularly the low fiscal attractiveness of private donations, and the status of the universities, which does not always allow them to amass private funds and wealth. These problems also explain, at least in part, the absence of a philanthropic tradition on the scale of that to be found in the USA, where former students often remain linked to their universities long after they have qualified.
- The universities can also generate income by selling services (including research services and flexible lifelong learning possibilities), particularly to the business sector, and from using research results. But these sources do not today contribute in any substantial way to the funding of European universities, partly because of a regulatory framework which does not allow them to really take advantage of their research activities, or does not encourage them to do so, e.g. because the royalties are paid to the state and not to the university or the researchers themselves.
- Lastly, contributions from students, in the form of tuition and enrolment fees. In Europe, these contributions are generally limited or even prohibited, in order to allow democratic access to higher education.

Questions for the debate

- How can adequate public funding of universities be secured, given the budgetary constraints and the need to ensure democratic access?
- How can private donations be made more attractive, particularly from a tax and legal point of view?
- How can universities be given the necessary flexibility to allow them to take greater advantage of the booming market in services?

5.1.2. Using the available financial resources more effectively

Universities must use the limited financial resources they have as efficiently as possible. They have a duty to their "stakeholders": the students they train, the public authorities that provide their funding, the labour market which uses the qualifications and skills they transmit and society as a whole, for whom they fulfil important functions related to economic and social life. The objective must be to maximise the social return of the investment represented by this funding. There are many signs²⁶ which show that it is not currently used in the most efficient way.

- A high dropout rate among students, standing at an average of around 40% in the Union. The "education for everybody" approach in higher education has resulted in huge expansion of the student population, with no fundamental change in university structures and living conditions. In most Member States, a successful secondary school

²⁶ These are analysed in detail in the Communication "Investing efficiently in education and training: an imperative for Europe".

career gives automatic right of access to university studies with no additional selection. This right is considered as an essential element of democracy to guarantee equality for all citizens. Many students thus embark upon higher education without any real academic vocation and do not get what they need from university training. In certain Member States, the universities themselves apply selection systems, in particular certain subject areas²⁷ sometimes apply additional selection criteria.

- A mismatch between the supply of qualifications (which is shaped by a medium-term perspective, as a result of the duration of studies) and the demand (which often reflects very short term needs and is more volatile) for qualified people, which may result in particular lasting deficits in certain broad types of qualifications, especially in the area of science and technology. University training in fact does not only affect the people who benefit from it: society at large must endeavour to optimise the social return on the investment represented by the studies it pays for. A mismatch between the qualifications offered and those requested is thus an illustration of non-optimum use of resources.
- The duration of studies for a specific qualification can vary in the ratio of one to two in Europe. This explains the huge disparities in the total cost of a student calculated on the basis of an average number of years of study. In Germany, for instance, it usually takes five to six years to train a civil engineer and this training is totally funded from the public purse. In the United Kingdom, it takes up only three years of university studies paid for from public funds, followed by three to five years of training in a company, this training attested to by a state-recognised exam – all paid by the employer, and backed up by on-the-job experience. These differences in duration, even between countries which mutually recognise their qualifications, are striking when one considers that there is widespread support for the Bologna process which is designed to create a European area of higher education by 2010. The difference in cost for the public purse prompts scrutiny of what constitutes optimum use of resources.
- In the same line of thinking, the disparity of status and conditions of recruitment and work for researchers at the pre and post-doctoral levels in Europe is not conducive to the best allocation possible of the means granted to them.
- Europe also suffers from the lack of a transparent system for calculating the cost of research in European universities. This is because of the disparity, the opacity and complexity of the accounting systems used. This prompted the high level group of Commission advisers on research (EURAB, European Research Advisory Board) to suggest the development of a simple and transparent accounting system to calculate the real cost of research and to allow comparisons.

Questions for the debate

- How can the maintenance of democratic access to higher education be combined with a reduction in failure and dropout rates among students?
- How can a better match be achieved between supply of and demand for university qualifications on the labour market, through better guidance?

²⁷ Particularly medicine and veterinary science.

- Is there a case for levelling out the duration of courses for identical qualifications?
- How can the transparency of research costs in the universities be enhanced?

5.1.3. Applying scientific research results more effectively

Application of research and insufficient creation of spin-off companies

The universities are one of the primary sources of new knowledge and as such play an ever stronger part in the process of technological innovation. But they do not do so in Europe to the extent they could and should. Since the mid-1990s, the number of young technological ("spin-off") companies created by universities has been on the rise in Europe, particularly around certain of them. Their average density nevertheless is far smaller than it is around the American campuses. Fewer companies are set up in Europe by researchers or in association with them, and those created in Europe tend to grow less quickly and not to last as long.

A major obstacle to better application of university research results is the way intellectual property issues are handled in Europe. In the USA, the "Bayh-Dole" Law has given organisations in which research is conducted using federal funds, particularly the universities, ownership of their results in order to encourage application of academic research results. In recent years, in Europe, several national legislations have converged towards solutions of the Bayh-Dole Act type, and other Member States where provisions of this type have not yet been adopted are about to do so. The actual effect of these measures cannot yet be evaluated. However, the divergences which continue in relation to the provisions enforced in certain Member States, and the national nature of the regulations concerned, have in Europe complicated and limited the transfer of technology and transnational cooperation. More broadly, while the Community patent opens up opportunities for European scale application, it is a matter which is still under discussion.

In addition, European universities do not have well-developed structures for managing research results. They are less well developed, for instance, than those of public research bodies. Another contributory factor is the lack of familiarity of many university staff with the economic realities of research, particularly the managerial aspects and issues regarding intellectual property. The idea of applying research results is moreover still looked upon with distrust by many researchers and university leaders, particularly because of the delicate balance to be struck between the requirements of economic use on the one hand, and on the other the need to preserve, in the common interest, the autonomy of universities and freedom of access to knowledge.

Questions for the debate

- How could it be made easier for universities and researchers to set up companies to apply the results of their research and to reap the benefits?
- Is there a way of encouraging the universities and researchers to identify, manage and make best use of the commercial potential of their research?
- What are the obstacles which today limit the realisation of this potential, whether legislative in nature or as regards intellectual property rights? How can they be overcome, particularly in countries where the university is funded almost exclusively from the public purse?

5.2. Consolidating the excellence of European universities

5.2.1. Creating the right conditions for achieving excellence

If Europe is to have and to develop real excellence within its universities, a number of conditions need to be in place. Some of these exist already in some Member States; and the list itself does not claim to be all-inclusive. Nonetheless, it sets out a reference for the debate. As with many other areas mentioned in this Communication, these issues need to be tackled within the structures of the universities themselves, as well as within the structure of regulation within which they operate. However, if this is not done in a convergent and coherent manner across Europe these efforts will lose much of their value. The aim must be to bring all universities to the peak of their potential, not to leave some behind; and piecemeal implementation of these issues will reduce the momentum of the university world in Europe generally. Such a convergent process would also, as with the structural reforms that have followed the Bologna Declaration, provide a supporting context within which Member States could achieve such change.

Need for long term planning and financing.

The precondition for the development and support of excellence is a context in which long-term planning is possible. Excellence does not grow overnight. Building up a reputation for excellence in any discipline (or sub-discipline) takes years, and is dependent on the critical attitude of peers, measured not country-wide, but Europe-wide and indeed world-wide. Accumulating the intellectual capital represented by effective and world-class teams of researchers, led by the best combination of vision and doggedness, and operated by individuals whose contributions complement each other in the best way, takes a long time and requires that worldwide recruitment to teams be possible.

And yet governments, which are still the major paymasters of universities, budget on an annual basis, and have difficulties in looking beyond a limited number of years. Although a number of Member States have moved to multi-annual contracts with universities, the time period involved rarely exceeds 4 years. Equally, at the end of the four-year period elections may have intervened, the position of the government may have changed, the objectives sought previously may have diminished in importance or, in extreme cases, been discarded.

Member States thus need a general consensus within political and civil society as to the contribution which excellence in research and in universities makes, and the need to enable it. Such consensus should seek in part to insulate the research sector from the hazards of changing financial circumstances, insofar as this is possible. The period within which universities should be enabled to plan, to develop their own strategies, and to exercise the autonomy suggested in Section 5.1 above, could rise to 6 or even 8 years where possible.

Need for efficient management structures and practices.

A second condition is that the governing structures of a university must respond both to the varied needs of that institution and to the expectations of society - those who provide its core funding. That implies that they should have an effective decision-making process, a developed administrative and financial management capacity, and the ability to

match rewards to performance. Equally, the system should be designed with issues of accountability clearly in mind. Managing a modern university is a complex business, and one which should be open to professionals from outside the purely academic tradition, provided that confidence in the university's management remains strong. It should also be said that freedom of funding will of itself change the financial culture of a university; but it will not by itself increase the quality of that management.

Need to develop interdisciplinary capability.

A third condition needed for excellence is that universities be enabled, and encouraged, to develop more work falling between the disciplines. As has been noted above (Section 3.3), advanced research increasingly falls outside the confines of single disciplines, partly because problems may be more complex, more because our perception of them has advanced, and we are more aware of the different specialisations required to examine different facets of the same problem.

Organising work on an inter-disciplinary basis requires that universities have flexibility in their organisation, so that individuals from different departments can share their knowledge and work together, including through the use of ICT. It also requires flexibility in the way careers are evaluated and rewarded, so that inter-disciplinary work is not penalised for being outside normal departmental frames. Finally, it requires that departments themselves should accept "cross-border" work as contributing to faculty-wide objectives.

Questions for the debate

- How can the consensus be strengthened around the need to promote excellence in the universities in conditions which make it possible to combine autonomy and management efficiency?
- Is there a way of encouraging the universities to manage themselves as efficiently as possible while taking due account simultaneously of their own requirements and the legitimate expectations of society in their regard?
- What are the steps which would make it possible to encourage an interdisciplinary approach in university work, and who should take them?

5.2.2. Developing European centres and networks of excellence

A combination of the absolute need for excellence, the effects of the precariousness of resources and the pressure of competition, forces universities and Member States to make choices. They need to identify the areas in which different universities have attained, or can reasonably be expected to attain, the excellence judged to be essential at European or at international level – and to focus on them funds to support academic research. This type of policy would make it possible to obtain appropriate quality at national level in certain areas, while ensuring excellence at the European level, as no Member State is capable of achieving excellence in all areas.

As to which areas should be given preference, this should be based on an evaluation within each university system. If it is to be objective and reflect the perception of the European and international scientific and academic community, this evaluation should be carried out by panels including people from outside the national system concerned.

The academic excellence to be evaluated could in fact include that of other universities with which the institutions examined are associated through transnational cooperation arrangements. The choice of areas and institutions should be reviewed regularly, in order to ensure that excellence is maintained and to allow new teams of researchers to show their potential.

The concentration of research funding on a smaller number of areas and institutions should lead to increased specialisation of the universities, in line with the move currently observed towards a European university area which is more differentiated and in which the universities tend to focus on the aspects situated at the core of their research and/or teaching skills. While the link between research and teaching naturally continues to define the ethos of the university as an institution and while training through research must remain an essential aspect of its activity, this link is nevertheless not the same in all institutions, for all programmes or for all levels.

The support for excellence and its dissemination, particularly academic excellence is a key principle of the Sixth Community Framework Research Programme. Through this programme's "networks of excellence" the Union is endeavouring to foster the building up of "virtual" capacity for excellence which has the critical mass needed and is, whenever possible, multi-disciplinary.

Questions for the debate

- How can providers of university funds be encouraged to concentrate their efforts on excellence, particularly in the area of research, so as to attain a European critical mass which can remain competitive in the international league?
- How should this excellence be organised and disseminated, whilst managing the impact of the steps taken on all institutions and research teams?
- How can the European Union contribute more and better to the development and maintenance of academic excellence in Europe?

5.2.3. Excellence in human resources

In order to maintain its position and strengthen its role internationally, the Union needs a pool of top-level researchers/teachers, engineers and technicians. The university remains the focal point for training such people. In terms of quantity, the Union is in the paradoxical situation of producing slightly more scientific and technical graduates than the USA, while having fewer researchers than the other major technological powers. The explanation for this apparent paradox lies in the smaller number of research posts open to scientific graduates in Europe, particularly in the private sector: 50% only of European researchers work in the business sector, compared with 83% of American researchers and 66% of Japanese researchers.

The situation in Europe could well get worse in the years ahead. The absence of career prospects will alienate young people from scientific and technical studies, while science graduates will look to other more lucrative careers. Furthermore, around one third of the current European researchers will retire over the next 10 years. As the situation is similar in the United States, the competition between universities internationally is set to become even keener.

One way of stemming this trend would be to increase the number of women in scientific and technical careers, where they are substantially under-represented, particularly at the top end of the ladder. On average, in the countries of the Union, there are two to four times more men than women graduates in the sciences. Also, women represent only a quarter to a third of laboratory research personnel in Europe. Action is being taken under the "women and science" initiative²⁸, to encourage women to participate in the European research drive, by pinpointing the obstacles to their presence and generally applying the most effective steps taken by Member States to remove these obstacles.

Another solution would be to enhance the pool of resources by strengthening not only intra-European academic mobility, but also mobility between university and industry. In this context virtual mobility based on the use of ICT has also an important role to play.

Although the situation has improved slightly in the wake of initiatives taken in a number of Member States, European universities continue essentially to recruit people from the country or region in which they are established, or even within the institution itself. Furthermore, the evaluation of researchers is based on criteria which neither stress the advantages of nor encourage periods in other European universities.

In this context there is also the core issue of recognition of studies and qualifications at European level. Not having a quick, simple system of recognition for academic or professional purposes is today a major obstacle to research and mobility _ and therefore to a greater cross-fertilisation of ideas and research between European universities, and to their wider influence. Specific instruments (such as ECTS, the Diploma Supplement, NARICs, Community directives) have been developed and almost all Member States and candidate countries have invested in quality assurance systems which are networked within the ENQA (European Network for Quality Assurance). It is urgent to examine whether and how a solution could be found (within the framework of the Bologna process for greater transparency and compatibility) to the problem of recognition, which is currently preventing the universities from using their potential and resources efficiently and limiting their wider audience.

In qualitative terms, excellence in human resources depends largely on available financial resources, but is also affected by working conditions and career prospects. Generally speaking, career prospects in European universities, characterised by the multiplicity of configurations, are limited and shrouded in uncertainty. The Commission supports the Bologna process, including its extension to doctorate level training, and is interested to note the experiments in progress on dual doctorates or doctorates under joint supervision. It also stresses the need to train prospective doctorate candidates to a greater extent in an interdisciplinary work perspective.

European universities also offer fewer possibilities at post-doctorate level than their American counterparts. There would be a case for expanding the range of opportunities for holders of doctorates outside research careers.

²⁸ ETAN working party report "Science policies in the European Union: promoting excellence through mainstreaming gender equality", 1999; Resolution of the European Parliament on Women and Science of 3 February 2000 (EP 284.656); Commission working document "Women and science: the gender dimension as a leverage for reforming science" SEC (2001) 771 of 15 May 2001; Council Resolution on science and society and on women in science of 26 June 2001; OJ C 199, p.1 of 14.7.2001; Report by the Helsinki Group on Women and Science "National policies on women and science in Europe" - March 2002.

The Union has pursued a number of initiatives to encourage and facilitate research and mobility in Europe. Under the project on the European Research Area, it has defined a strategy to foster research and mobility through a range of tangible measures. Moreover, the Commission will shortly submit a Communication on the matter of scientific careers.

Questions for the debate

- What steps could be taken to make scientific and technical studies and careers more attractive, and to strengthen the presence of women in research?
- How _ and by whom _ should the lack of career development opportunities following doctoral studies be addressed in Europe, and how could the independence of researchers in carrying out their tasks be fostered? What efforts could universities make in this regard, taking particular account of the needs of Europe as a whole?
- What ways are there of helping European universities to gain access to a pool of resources (students, teachers and researchers) having a European dimension, by removing obstacles to mobility?

5.3. Broadening the perspective of European universities

5.3.1. A broader international perspective

European universities are functioning in an increasingly "globalised" environment and find themselves competing with universities of the other continents, particularly American universities, when it comes to attracting and keeping the best talent from all over the world. While European universities host only slightly fewer foreign students than American universities, in proportion they attract fewer top-level students and a smaller proportion of researchers.

All in all, the environment offered by the European universities is less attractive. Financial, material and working conditions are not as good; the financial benefits of the use of research results are smaller and career prospects are poorer²⁹; there is also the inappropriate and poorly harmonised nature of arrangements with regard to visas and residence permits for students, teachers and researchers from other countries _ be they from the Union or from other countries in the world. Several Member States have recently taken steps to enhance the attraction of their universities, their laboratories and their businesses for top-level researchers and students and qualified workers from third countries, e.g. through "scientific visas".

Similarly, the Commission has submitted a proposal for a Council directive on the conditions of entry and residence of students from third countries. A parallel initiative for researchers from these countries is expected in 2003. The Union will also step up support to enhance the attractiveness of European universities through action to support mobility under the Sixth Framework Programme, which will enable over 400 researchers and doctoral students from third countries to come to European universities between 2003 and 2006, and under the "Erasmus World" initiative.

²⁹ See also Section 5.1.3 on the management of intellectual property.

Questions for the debate

- How can European universities be made more attractive to the best students and researchers from all over the world?
- In a context of increasing internationalisation of teaching and research, and of accreditation for professional purposes, how should the structures, study programmes and management methods of European universities be changed to help them retain or recover their competitiveness?

5.3.2. Local and regional development

There are universities throughout the Union's regions. Their activities often permeate the local economic, social and cultural environment. This helps to make them an instrument of regional development and of strengthening European cohesion. The development of technology centres and science parks, the proliferation of regional cooperation structures between the business sector and the universities, the expansion of university regional development strategies, the regional networking of universities, are all illustrations of this dimension of university activity.

The regional dimension of the university activity is thus set to get stronger, given its essential role in achieving the Europe of knowledge, particularly looking ahead to enlargement. The European Union supports these developments, particularly through the Structural Funds and the Sixth Framework Programme.

In addition, the role played by the universities as a source of expertise and a catalyst for multiple partnerships between economic and social players within a range of networks is very relevant at the regional and local levels.

The increased involvement of the universities locally and regionally should not, however, overshadow a more outward-looking international perspective and a constant endeavour to improve their excellence in research and education. These remain essential and will indeed enable the universities to make a more effective contribution to the development of their local and regional environment.

Questions for the debate

- In what areas and how could the universities contribute more to local and regional development?
- What ways are there of strengthening the development of centres of knowledge bringing together at regional level the various players involved in the production and transfer of knowledge?
- How can greater account be taken of the regional dimension in European research, education and training projects and programmes?

6. Conclusions

This Communication makes a number of points which reflect the profound changes taking place in the European university world. After remaining a comparatively isolated universe for a very long period, both in relation to society and to the rest of the world,

with funding guaranteed and a status protected by respect for their autonomy, European universities have gone through the second half of the 20th-century without really calling into question the role or the nature of what they should be contributing to society.

The changes they are undergoing today and which have intensified over the past ten years prompt the fundamental question: can the European universities, as they are and are organised now, hope in the future to retain their place in society and in the world?

If it is to achieve its ambition of becoming the world's most competitive and dynamic knowledge-based economy and society, Europe simply must have a first-class university system -- with universities recognised internationally as the best in the various fields of activities and areas in which they are involved.

The questions raised in this document are intended to help in determining what action should be taken for a move in this direction within the enlarged EU.

All interested parties -- institutions, public authorities, individuals or representative associations -- are therefore urged to give their points of view on this subject, and describe their experiences and their "best practices".

How to Contribute

The Commission intends to review the contributions it has received up to the end of May 2003.

These contributions can be sent to either of the following two dedicated e-mail addresses:

- eac-consult-univ@cec.eu.int
- rtd-consult-univ@cec.eu.int

They can also be sent by physical mail to:

European Commission
EAC A1 (Consult-Univ)
(B7 - 9/58)
B - 1049 BRUXELLES

Realising the European Higher Education Area

**Communiqué of the Conference of Ministers responsible for Higher Education
in Berlin on 19 September 2003**

Preamble

On 19 June 1999, one year after the Sorbonne Declaration, Ministers responsible for higher education from 29 European countries signed the Bologna Declaration. They agreed on important joint objectives for the development of a coherent and cohesive

European Higher Education Area by 2010. In the first follow-up conference held in Prague on 19 May 2001, they increased the number of the objectives and reaffirmed their commitment to establish the European Higher Education Area by 2010. On 19 September 2003, Ministers responsible for higher education from 33 European countries met in Berlin in order to review the progress achieved and to set priorities and new objectives for the coming years, with a view to speeding up the realisation of the European Higher Education Area. They agreed on the following considerations, principles and priorities:

Ministers reaffirm the importance of the social dimension of the Bologna Process. The need to increase competitiveness must be balanced with the objective of improving the social characteristics of the European Higher Education Area, aiming at strengthening social cohesion and reducing social and gender inequalities both at national and at European level. In that context, Ministers reaffirm their position that higher education is a public good and a public responsibility. They emphasise that in international academic cooperation and exchanges, academic values should prevail.

Ministers take into due consideration the conclusions of the European Councils in Lisbon (2000) and Barcelona (2002) aimed at making Europe "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion" and calling for further action and closer co-operation in the context of the Bologna Process.

Ministers take note of the Progress Report commissioned by the Follow-up Group on the development of the Bologna Process between Prague and Berlin. They also take note of the Trends-III Report prepared by the European University Association (EUA), as well as of the results of the seminars, which were organised as part of the work programme between Prague and Berlin by several member States and Higher Education Institutions, organisations and students. Ministers further note the National Reports, which are evidence of the considerable progress being made in the application of the principles of the Bologna Process. Finally, they take note of the messages from the European Commission and the Council of Europe and acknowledge their support for the implementation of the Process.

Ministers agree that efforts shall be undertaken in order to secure closer links overall between the higher education and research systems in their respective countries. The emerging European Higher Education Area will benefit from synergies with the European Research Area, thus strengthening the basis of the Europe of Knowledge. The aim is to preserve Europe's cultural richness and linguistic diversity, based on its heritage of

diversified traditions, and to foster its potential of innovation and social and economic development through enhanced co-operation among European Higher Education Institutions.

Ministers recognise the fundamental role in the development of the European Higher Education Area played by Higher Education Institutions and student organisations. They take note of the message from the European University Association (EUA) arising from the Graz Convention of Higher Education Institutions, the contributions from the European Association of Institutions in Higher Education (EURASHE) and the communications from ESIB – The National Unions of Students in Europe.

Ministers welcome the interest shown by other regions of the world in the development of the European Higher Education Area, and welcome in particular the presence of representatives from European countries not yet party to the Bologna Process as well as from the Follow-up Committee of the European Union, Latin America and Caribbean (EULAC) Common Space for Higher Education as guests at this conference.

Progress

Ministers welcome the various initiatives undertaken since the Prague Higher Education Summit to move towards more comparability and compatibility, to make higher education systems more transparent and to enhance the quality of European higher education at institutional and national levels. They appreciate the co-operation and commitment of all partners - Higher Education Institutions, students and other stakeholders - to this effect.

Ministers emphasise the importance of all elements of the Bologna Process for establishing the European Higher Education Area and stress the need to intensify the efforts at institutional, national and European level. However, to give the Process further momentum, they commit themselves to intermediate priorities for the next two years. They will strengthen their efforts to promote effective quality assurance systems, to step up effective use of the system based on two cycles and to improve the recognition system of degrees and periods of studies.

Quality Assurance

The quality of higher education has proven to be at the heart of the setting up of a European Higher Education Area. Ministers commit themselves to supporting further development of quality assurance at institutional, national and European level. They stress the need to develop mutually shared criteria and methodologies on quality assurance.

They also stress that consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework.

Therefore, they agree that by 2005 national quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved.
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results.
- A system of accreditation, certification or comparable procedures.

- International participation, co-operation and networking.

At the European level, Ministers call upon ENQA through its members, in co-operation with the EUA, EURASHE and ESIB, to develop an agreed set of standards, procedures and guidelines on quality assurance, to explore ways of ensuring an adequate peer review system for quality assurance and/or accreditation agencies or bodies, and to report back through the Follow-up Group to Ministers in 2005. Due account will be taken of the expertise of other quality assurance associations and networks.

Degree structure: Adoption of a system essentially based on two main cycles

Ministers are pleased to note that, following their commitment in the Bologna Declaration to the two-cycle system, a comprehensive restructuring of the European landscape of higher education is now under way. All Ministers commit themselves to having started the implementation of the two cycle system by 2005.

Ministers underline the importance of consolidating the progress made, and of improving understanding and acceptance of the new qualifications through reinforcing dialogue within institutions and between institutions and employers.

Ministers encourage the member States to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the European Higher Education Area.

Within such frameworks, degrees should have different defined outcomes. First and second cycle degrees should have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs. First cycle degrees should give access, in the sense of the Lisbon Recognition Convention, to second cycle programmes. Second cycle degrees should give access to doctoral studies.

Ministers invite the Follow-up Group to explore whether and how shorter higher education may be linked to the first cycle of a qualifications framework for the European Higher Education Area.

Ministers stress their commitment to making higher education equally accessible to all, on the basis of capacity, by every appropriate means.

Promotion of mobility

Mobility of students and academic and administrative staff is the basis for establishing a European Higher Education Area. Ministers emphasise its importance for academic and cultural as well as political, social and economic spheres. They note with satisfaction that since their last meeting, mobility figures have increased, thanks also to the substantial support of the European Union programmes, and agree to undertake the necessary steps to improve the quality and coverage of statistical data on student mobility.

They reaffirm their intention to make every effort to remove all obstacles to mobility within the European Higher Education Area. With a view to promoting student mobility, Ministers will take the necessary steps to enable the portability of national loans and grants.

Establishment of a system of credits

Ministers stress the important role played by the European Credit Transfer System (ECTS) in facilitating student mobility and international curriculum development. They note that ECTS is increasingly becoming a generalised basis for the national credit systems. They encourage further progress with the goal that the ECTS becomes not only a transfer but also an accumulation system, to be applied consistently as it develops within the emerging European Higher Education Area.

Recognition of degrees: Adoption of a system of easily readable and comparable degrees

Ministers underline the importance of the Lisbon Recognition Convention, which should be ratified by all countries participating in the Bologna Process, and call on the ENIC and NARIC networks along with the competent National Authorities to further the implementation of the Convention.

They set the objective that every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge. It should be issued in a widely spoken European language.

They appeal to institutions and employers to make full use of the Diploma Supplement, so as to take advantage of the improved transparency and flexibility of the higher education degree systems, for fostering employability and facilitating academic recognition for further studies.

Higher education institutions and students

Ministers welcome the commitment of Higher Education Institutions and students to the Bologna Process and recognise that it is ultimately the active participation of all partners in the Process that will ensure its long-term success.

Aware of the contribution strong institutions can make to economic and societal development, Ministers accept that institutions need to be empowered to take decisions on their internal organisation and administration. Ministers further call upon institutions to ensure that the reforms become fully integrated into core institutional functions and processes.

Ministers note the constructive participation of student organisations in the Bologna Process and underline the necessity to include the students continuously and at an early stage in further activities.

Students are full partners in higher education governance. Ministers note that national legal measures for ensuring student participation are largely in place throughout the European Higher Education Area. They also call on institutions and student organisations to identify ways of increasing actual student involvement in higher education governance.

Ministers stress the need for appropriate studying and living conditions for the students, so that they can successfully complete their studies within an appropriate period of time without obstacles related to their social and economic background. They also stress the need for more comparable data on the social and economic situation of students.

Promotion of the European dimension in higher education

Ministers note that, following their call in Prague, additional modules, courses and curricula with European content, orientation or organisation are being developed.

They note that initiatives have been taken by Higher Education Institutions in various European countries to pool their academic resources and cultural traditions in order to promote the development of integrated study programmes and joint degrees at first, second and third level.

Moreover, they stress the necessity of ensuring a substantial period of study abroad in joint degree programmes as well as proper provision for linguistic diversity and language learning, so that students may achieve their full potential for European identity, citizenship and employability.

Ministers agree to engage at the national level to remove legal obstacles to the establishment and recognition of such degrees and to actively support the development and adequate quality assurance of integrated curricula leading to joint degrees.

Promoting the attractiveness of the European Higher Education Area

Ministers agree that the attractiveness and openness of the European higher education should be reinforced. They confirm their readiness to further develop scholarship programmes for students from third countries.

Ministers declare that transnational exchanges in higher education should be governed on the basis of academic quality and academic values, and agree to work in all appropriate fora to that end. In all appropriate circumstances such fora should include the social and economic partners.

They encourage the co-operation with regions in other parts of the world by opening Bologna seminars and conferences to representatives of these regions.

Lifelong learning

Ministers underline the important contribution of higher education in making lifelong learning a reality. They are taking steps to align their national policies to realise this goal and urge Higher Education Institutions and all concerned to enhance the possibilities for lifelong learning at higher education level including the recognition of prior learning. They emphasise that such action must be an integral part of higher education activity.

Ministers furthermore call those working on qualifications frameworks for the European Higher Education Area to encompass the wide range of flexible learning paths, opportunities and techniques and to make appropriate use of the ECTS credits.

They stress the need to improve opportunities for all citizens, in accordance with their aspirations and abilities, to follow the lifelong learning paths into and within higher education.

Additional Actions

European Higher Education Area and European Research Area – two pillars of the knowledge based society

Conscious of the need to promote closer links between the EHEA and the ERA in a Europe of Knowledge, and of the importance of research as an integral part of higher education across Europe, Ministers consider it necessary to go beyond the present

focus on two main cycles of higher education to include the doctoral level as the third cycle in the Bologna Process. They emphasise the importance of research and research training and the promotion of interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally. Ministers call for increased mobility at the doctoral and postdoctoral levels and encourage the institutions concerned to increase their cooperation in doctoral studies and the training of young researchers.

Ministers will make the necessary effort to make European Higher Education Institutions an even more attractive and efficient partner. Therefore Ministers ask Higher Education Institutions to increase the role and relevance of research to technological, social and cultural evolution and to the needs of society.

Ministers understand that there are obstacles inhibiting the achievement of these goals and these cannot be resolved by Higher Education Institutions alone. It requires strong support, including financial, and appropriate decisions from national Governments and European Bodies.

Finally, Ministers state that networks at doctoral level should be given support to stimulate the development of excellence and to become one of the hallmarks of the European Higher Education Area.

Stocktaking

With a view to the goals set for 2010, it is expected that measures will be introduced to take stock of progress achieved in the Bologna Process. A mid-term stocktaking exercise would provide reliable information on how the Process is actually advancing and would offer the possibility to take corrective measures, if appropriate.

Ministers charge the Follow-up Group with organising a stocktaking process in time for their summit in 2005 and undertaking to prepare detailed reports on the progress and implementation of the intermediate priorities set for the next two years:

- quality assurance · two-cycle system · recognition of degrees and periods of studies

Participating countries will, furthermore, be prepared to allow access to the necessary information for research on higher education relating to the objectives of the Bologna Process. Access to data banks on ongoing research and research results shall be facilitated.

Further Follow-up

New members

Ministers consider it necessary to adapt the clause in the Prague Communiqué on applications for membership as follows:

Countries party to the European Cultural Convention shall be eligible for membership of the European Higher Education Area provided that they at the same time declare their willingness to pursue and implement the objectives of the Bologna Process in their own systems of higher education. Their applications should contain information on how they will implement the principles and objectives of the declaration.

Ministers decide to accept the requests for membership of Albania, Andorra, Bosnia and Herzegovina, Holy See, Russia, Serbia and Montenegro, "the Former Yugoslav Republic of Macedonia" and to welcome these states as new members thus expanding the process to 40 European Countries.

Ministers recognise that membership of the Bologna Process implies substantial change and reform for all signatory countries. They agree to support the new signatory countries in those changes and reforms, incorporating them within the mutual discussions and assistance, which the Bologna Process involves.

Follow-up structure

Ministers entrust the implementation of all the issues covered in the Communiqué, the overall steering of the Bologna Process and the preparation of the next ministerial meeting to a Follow-up Group, which shall be composed of the representatives of all members of the Bologna Process and the European Commission, with the Council of Europe, the EUA, EURASHE, ESIB and UNESCO/CEPES as consultative members. This group, which should be convened at least twice a year, shall be chaired by the EU Presidency, with the host country of the next Ministerial Conference as vice-chair.

A Board also chaired by the EU Presidency shall oversee the work between the meetings of the Follow-up Group. The Board will be composed of the chair, the next host country as vice-chair, the preceding and the following EU Presidencies, three participating countries elected by the Follow-up Group for one year, the European Commission and, as consultative members, the Council of Europe, the EUA, EURASHE and ESIB. The Follow-up Group as well as the Board may convene ad hoc working groups as they deem necessary.

The overall follow-up work will be supported by a Secretariat which the country hosting the next Ministerial Conference will provide.

In its first meeting after the Berlin Conference, the Follow-up Group is asked to further define the responsibilities of the Board and the tasks of the Secretariat.

Work programme 2003-2005

Ministers ask the Follow-up Group to co-ordinate activities for progress of the Bologna Process as indicated in the themes and actions covered by this Communiqué and report on them in time for the next ministerial meeting in 2005.

Next Conference

Ministers decide to hold the next conference in the city of Bergen (Norway) in May 2005.

From Berlin to Bergen

The EU Contribution

European Commission, Directorate General for Education and Culture
Higher Education: Socrates-Erasmus-Jean Monet Project

Brussels, 8 November 2003

1. Introduction

On 19 September 2003, the Ministers of Higher Education of the Bologna Signatory States gathered in Berlin and adopted a Communiqué taking note of progress made so far and defining three intermediate priorities for the next two years: quality assurance, two-cycle system and recognition of degrees and periods of studies. A stocktaking exercise will be organised before the next Ministerial meeting in Bergen, Norway in May 2005.

Ministers also decided that the doctoral phase will be covered by the Bologna Reforms (transparency, quality assurance etc.) and to promote closer links between the European Higher Education Area (EHEA) and the European Research Area (ERA).

The Bologna process coincides with Commission policy in higher education supported through European programmes and notably Socrates-Erasmus. The Commission supports and stimulates Bologna activities at European level and participates as a full member in the Bologna Follow-up Group and the Bologna Board.

From an EU perspective the Bologna process fits into a broader agenda defined in Lisbon in March 2000, when EU Heads of State and Government decided on an objective and a strategy to make Europe by 2010 *"the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion"*. In Barcelona, in March 2002, they added that the European education and training systems should become a "world quality reference".

EU Education Ministers have translated this far-reaching ambition into a series of shared objectives for the different education and training systems in Europe. Progress in reaching these objectives will be evaluated against "Reference Levels of European Average Performance" or "European Benchmarks".

The Commission presented in November 2003 a draft for the Interim Report on the implementation of the shared objectives, to be submitted jointly by the Commission and the EU Ministers of Education and Training to the European Council in spring 2004. Although its overall scope is wider, the Interim Report will also recall commitments made by Ministers in Bologna, Prague and Berlin; will stress the link with the Copenhagen process on enhanced European co-operation in Vocational Education and Training, launched in December 2002, and look for possible synergies in important fields such as transparency of qualifications, credit transfer and quality assurance.

In Berlin, four countries from the Western Balkans joined the Bologna process: Albania, Bosnia and Herzegovina, "the Former Yugoslav Republic of Macedonia" and Serbia and Montenegro, as well as Andorra, the Holy See and Russia. The Commission is considering specific support measures for the countries covered by Tempus-Cards and Tempus-Tacis.

The current paper sets out the EU contribution to the Bologna process, provided by the European Commission, in partnership with the higher education sector and endorsed by the Member States represented in the Socrates Programme Committee.

The paper starts with the Commission contribution to the realisation of the three intermediate priorities defined in Berlin: quality assurance, two-cycle system and recognition of degrees and periods of study. In addition, the paper describes Commission initiatives on promoting mobility, raising the attractiveness of European higher education and developing the doctoral phase (EHEA-ERA). The paper also addresses horizontal issues, such as the Stocktaking exercise, the training of Bologna Promoters and support to Bologna Seminars and Conferences. Relevant sections of the Berlin Communiqué are quoted in italics.

2. Quality Assurance

"The quality of higher education has proven to be at the heart of the setting up of a European Higher Education Area. Ministers commit themselves to supporting further development of quality assurance at institutional, national and European level. They stress the need to develop mutually shared criteria and methodologies on quality assurance."

2.1 ENQA Mandate

"At the European level, Ministers call upon ENQA through its members, in co-operation with the EUA, EURASHE and ESIB, to develop an agreed set of standards, procedures and guidelines on quality assurance, to explore ways of ensuring an adequate peer review system for quality assurance and/or accreditation agencies or bodies, and to report back through the Follow-up Group to Ministers in 2005. Due account will be taken of the expertise of other quality assurance associations and networks."

The Commission will support and contribute to the realisation of this Mandate given by Ministers to ENQA. Two Working Groups organised by ENQA will examine proposals prepared by experts on the different elements of the Mandate. Most likely one Working Group on standards, procedures and guidelines and one Working Group on setting up an adequate peer review system. Experts would draw on existing studies and on experiences of ENQA and its members, organised in regional (North and Eastern Europe) or specialised networks (European Consortia for Accreditation). They will examine EUA Institutional Evaluations, the competence based approach of the Tuning Project as well as the work of subject specific professional accrediting agencies such as EQUIS. Experiences in other parts of the world, notably the United States, will be considered as well.

ENQA will present its Work Plan for the Mandate to the Bologna Follow-up Group on 14/15 October 2003 and report on progress made in the first and second half of 2004. A Pre-final Report would need to be presented by the beginning of 2004 in order to be finalised in advance of the Ministerial meeting in Bergen in May 2005.

2.2 Networking of Agencies

"Therefore, they [Ministers] agree that by 2005 national quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved.*
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results.*
- A system of accreditation, certification or comparable procedures.*
- International participation, co-operation and networking."*

The Commission has no role in setting up national systems but contributes to the realisation of this objective by supporting the networking of agencies and systems through ENQA, the European Network for Quality assurance in Higher Education, established on the basis of the 1998 Council Recommendation on European Cooperation in Quality Assurance in Higher Education. ENQA supports its members through exchange of information and good practice, staff training and seminars. ENQA undertakes and publishes studies and surveys on quality assurance developments in Europe and maintains a web site.

ENQA also functions as a Policy Forum on European quality assurance developments. For this purpose higher education sector organisations are represented in the ENQA Steering Committee and government officials take part in the annual General Assembly.

ENQA intends to transform itself into an association and extend its membership to agencies from all 40 Bologna Signatory States. The General Assembly of May 2004 will decide which reforms are needed for ENQA to carry out its triple task of service provider to its members, policy forum and organiser of transnational evaluations. A first outline of these reforms was discussed at the General Assembly of 29/30 September 2003 in Budapest and decisions will be taken at the next General Assembly in June 2004 in Stockholm.

ENQA intends to set up a European Register for Quality Assurance Agencies, covering public, private and professional agencies, operating on a regional, national, European or international basis. The register would be based on the outcomes of the Mandate received in Berlin.

2.3 Quality Culture within Institutions

"They [Ministers] also stress that consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework."

The Commission supports higher education institutions building up their own internal quality assurance capacity through a pilot scheme, organised by the European University Association EUA. In annual rounds, six groups of universities and other higher education institutions work together on themes such as "research management", "teaching and learning" and "implementing Bologna reforms". The pilot scheme helps institutions to introduce internal quality assurance mechanisms, improve their quality levels and being better prepared for external evaluations. The first round in 2002-2003 demonstrated the need for strong university leadership and university autonomy in developing a quality culture. A second round takes place in 2003-2004 and a third round is foreseen for 2004-2005, thus spreading this experience across a variety of institutions in Europe.

2.4. Transnational Evaluation and Accreditation

Most evaluation and accreditation is carried out on a national or regional basis. It is expected that these local exercises will become more comparable and more European through the use of "an agreed set of standards, procedures and guidelines" and the involvement of foreign experts. In a limited number of cases there is scope for transnational evaluation and accreditation. For instance in highly internationalised fields of study like business and engineering or in cases where universities or sponsors (public or private) seek to obtain a label for reasons of branding or consumer protection. Integrated study programmes, like joint masters, obviously require a collaborative effort of the respective quality assurance agencies.

The Commission supports the setting up and testing phase of transnational evaluation and accreditation. As an experiment, ENQA has carried out in 2002-2003 an external evaluation of 14 departments against sets of common evaluation criteria in three subject areas: History, Physics and Veterinary Science. The Transnational European Evaluation Project (TEEP 2002) has shown that it is possible to evaluate study programmes across borders against sets of common criteria as long as the universities concerned agree to take the common criteria as a starting point for the evaluation.

ENQA intends to organise more transnational evaluations of single, double and joint degrees. The Commission would welcome such proposals as well as proposals from subject specific professional organisations setting up European accreditation in fields like medicine or engineering.

In January 2004, the Commission will present a Report to the Parliament and the Council of Ministers on the implementation of the Council Recommendation of September 1998 on European co-operation in quality assurance in higher education. Drawing lessons from the experiences acquired, the Commission Report will contain proposals on how to make European quality assurance more coherent in line with the commitments made by Ministers in Bologna, Prague and Berlin.

3. The Two Cycle System – Towards a European Qualifications Framework

"All Ministers commit themselves to having started the implementation of the two cycle system by 2005."

"Ministers encourage the member States to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the European Higher Area."

The Commission supports initiatives enhancing the comparability and compatibility of qualifications and notably the university project "Tuning Educational Structures in Europe" in which professors from 135 universities seek to describe the content of qualifications in nine different subject areas in terms of workload, level, learning outcomes, competences and profile. The Commission supported the Copenhagen Bologna Seminar on Qualification Structures in March 2003 and will support an initiative to design an overarching framework of qualifications for the European Higher Area against which national frameworks would articulate.

4. Recognition of Degrees and Periods of Study

"Ministers stress the important role played by the European Credit Transfer System (ECTS) in facilitating student mobility and international curriculum development. They note that ECTS is increasingly becoming a generalised basis for the national credit systems. They encourage further progress with the goal that the ECTS becomes not only a transfer but also an accumulation system, to be applied consistently as it develops within the emerging European Higher Education Area."

"They set the objective that every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge. It should be issued in a widely spoken European language."

The Commissions has taken several initiatives to promote ECTS. Institutions wishing to introduce ECTS for the first time may apply for an ECTS Introduction Grant. Institutions which use ECTS in all first and cycle degree programmes may apply for the ECTS label. Label holding institutions (50 to 100 in 2004) may apply for an ECTS Accumulation Grant. They will form a fast growing Pilot Group, testing the use of "ECTS for Lifelong Learning".

In 2004, the Commission will launch a special Campaign to promote the wide and consistent use of ECTS throughout Europe. A short brochure "ECTS Key Features" is available on the web and will be distributed widely in hard copy. The ECTS Users Guide on the web will be restyled and completed with examples from the ECTS practice. Country Teams of ECTS/DS Counsellors, active in 31 countries will be reinforced and given extra support in their task of advising universities on how to introduce ECTS correctly and how to prepare for the label.

In parallel, the Diploma Supplement is being promoted, leading to a Diploma Supplement label. By the end of 2003, the Commission will come forward with a proposal to integrate different transparency instruments developed for vocational training (like Europass, European Portfolio and the European CV) and bring them together into a single European Framework for Transparency of Qualifications and Competences, called EUROPASS, which will include the Diploma Supplement, used in higher education.

The Commission continues to support the NARIC network of credential evaluators, cooperating closely with the parallel network of ENIC centres coordinated by Council of Europe/UNESCO-CEPES. The Commission will support measures to enhance the visibility and effectiveness of the centres and welcomes in particular the cooperation between ENIC/NARIC and ENQA, exploring the links between recognition and quality assurance.

5. Promotion of Mobility

"They [Ministers] note with satisfaction that since their last meeting, mobility figures have increased, thanks also to the substantial support of the European Union programmes, and agree to undertake the necessary steps to improve the quality and coverage of statistical data on student mobility."

"They reaffirm their intention to make every effort to remove all obstacles for mobility within the European Higher Education Area. With a view to promoting student mobility, Ministers take the necessary steps to enable the portability of national loans and grants."

The Commission will seek to increase mobility figures even further, based on the use of both public and private funding. A Call will be launched in the framework of Socrates

Action 6 (Observation of education systems, policies and innovation) to support activities aiming at mapping student and teacher mobility, eliminating obstacles to mobility and enabling the portability of national loans and grants.

6. European Higher Education Area and European Research Area – Two Pillars of the Knowledge Based Society – Cooperation at Doctoral Level

"Ministers call for increased mobility at the doctoral and postdoctoral levels and encourage the institutions concerned to increase their co-operation in doctoral studies and the training of young researchers."

The Commission welcomes the proposed extension of the Bologna reforms (transparency, credits, quality assurance, recognition etc.) to the doctoral level. In February 2003, the Commission adopted a Communication "The Role of the Universities in the Europe of Knowledge", exploring the challenges universities are faced with at the crossroads between education, advanced training, research and innovation. In July 2003, the Commission adopted a Communication "Researchers in the European Research Area, One Profession, Multiple Careers"², which recommends that doctoral programmes take into account broader needs of the labour market and integrate structured mentoring as an integral part. The time may indeed be right to take a fresh look at the notion of "European doctorates" and the recognition of doctoral degrees in Europe for the purpose of careers in R&D. Bologna Signatory States are called upon to adjust the legislative framework so that joint doctorates can be implemented more easily and obstacles to recognition removed. The Commission will present proposals for follow-up measures in the first half of 2004.

As a concrete step, the Commission will support in 2003-2004 a pilot project examining the status of doctoral candidates, the functioning of doctoral programmes in Europe, ways to improve them and to promote pooling of resources in cross-border activities and programmes, possibly leading to a "European Doctorate".

7. Promotion of the European Dimension in Higher Education

"Ministers agree to engage at the national level to remove legal obstacles to the establishment and recognition of such degrees and to actively support the development and adequate quality assurance of integrated curricula leading to joint degrees."

The Commission helps universities developing integrated study programmes through Socrates-Erasmus Curriculum Development Projects. The implementation of integrated programmes is supported through Socrates-Erasmus student and staff mobility and Intensive Programmes (like summer courses). Special support for the implementation of Joint Masters will be provided as from 2004 through the proposed programme Erasmus Mundus, building inter alia on the Joint Masters Pilot Project 2002-2003.

¹ COM(2003) 58 final of 05.02.2003

² COM(2003) 436 final of 18.07.2003

8. Promoting the Attractiveness of the European Higher Education Area

"Ministers agree that the attractiveness and openness of the European higher education should be reinforced. They confirm their readiness to further develop scholarship programmes for students from third countries."

The Commission will award up to 8000 scholarships to students and scholars from other continents and from Europe in the framework of the Erasmus Mundus programme. Through this programme, the Commission will also support a marketing strategy for European Higher Education, bringing European quality and distinctiveness higher up the attention scale of the best partners, students and scholars world-wide.

9. Stocktaking

"Ministers charge the Follow-up Group with organising a stocktaking process in time for their summit in 2005 and undertaking to prepare detailed reports on the progress and implementation of the intermediate priorities set for the next two years."

The Commission will help to undertake a coherent stocktaking exercise in close cooperation with the Bologna Board and the Bologna Secretariat. The result should be a clear overview of the progress made in the signatory states ("Bologna Scoreboard") and an analytic report to be presented at the Bergen Ministerial Conference in May 2005. The Commission will also consider establishing a Compendium of institutions having successfully introduced the Bologna reforms.

10. Bologna Promoters

"Ministers welcome the commitment of Higher Education Institutions and students to the Bologna Process and recognise that it is ultimately the active participation of all partners in the Process that will ensure its long-term success."

The Trends III report and the Eurydice Survey have demonstrated that Bologna is gaining ground, but, being a top-down process it has in many cases not yet reached the work floor. In too many cases, the reforms are so far only plans or promises, without real steps to implement them. The Commission therefore will take the initiative to support the training of National Teams of Bologna Promoters. Senior Academics, (Vice-)Rectors, Deans and Directors of Study and International Relations Officers who are successful in introducing the Bologna reforms in their institution will be invited to advise colleagues in their country and occasionally abroad. The Bologna Promoters would also function as ECTS/DS Counsellors.

11. Bologna Seminars and Conferences

The Commission will support a limited number of official Bologna Seminars in priority areas, the Pre-Bergen Higher Education Convention and the Bergen Ministerial Conference.

BOLOGNA ACTION LINES

Bologna Declaration

1. Adoption of a system of easily readable and comparable degrees
2. Adoption of a system essentially based on two cycles
3. Establishment of a system of credits
4. Promotion of mobility
5. Promotion of European cooperation in quality assurance
6. Promotion of the European dimension in higher education

Prague Communiqué

7. Lifelong learning
8. Higher education institutions and students
9. Promoting the attractiveness of the European Higher Education Area

Berlin Communiqué

10. European Higher Education Area and European Research Area – two pillars of the knowledge based society.

Relevant Web Sites

DG Education and Culture

http://europa.eu.int/comm/dgs/education_culture/index_en.htm

Objectives of Education and Training

http://europa.eu.int/comm/education/policy_en.html#programme

Lifelong Learning

<http://europa.eu.int/comm/education/life>

Bologna Process

http://europa.eu.int/comm/education/bologna_en.html

<http://www.bologna-berlin2003.de>

Bruges-Copenhagen Process

http://europa.eu.int/comm/education/copenhagen/index_en.html

http://europa.eu.int/comm/education/copenhagen/resolution_en.pdf

Communication on the role of the universities in the knowledge society

http://europa.eu.int/comm/education/com_2003_0058_f_en.pdf

Communication on Investment

http://europa.eu.int/eur-lex/en/com/cnc/2002/com2002_0779en01.pdf

Communication on Benchmarking

http://europa.eu.int/comm/education/keydoc/2002/bench_en.pdf

Erasmus World programme proposal

http://europa.eu.int/comm/education/world/index_en.html

E-learning programme proposal

http://europa.eu.int/eur-lex/en/com/pdf/2002/com2002_0751en01.pdf

ENIC and NARIC networks

<http://www.enic-naric.net>

PLOTEUS

<http://www.ploteus.net>

Tuning educational structures in Europe

<http://odur.let.rug.nl/TuningProject/>

<http://www.relint.deusto.es/TuningProject/index.htm>

ENQA

<http://www.enqa.net/>

EUA

<http://www.unige.ch/eua>

EURASHE

<http://www.eurashe.be/info/info.htm>

ESIB

<http://www.esib.org>

Forward from Berlin: the Role of Universities

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To 2010 and Beyond

1. Universities are central to the development of European society. They create, safeguard and transmit knowledge vital for social and economic welfare, locally, regionally and globally. They cultivate European values and culture.
2. Universities advocate a Europe of knowledge, based on a strong research capacity and researchbased education in universities – singly and in partnership – across the continent. Cultural and linguistic diversity enhances teaching and research.
3. The development of European universities is based on a set of core values: equity and access; research and scholarship in all disciplines as an integral part of higher education; high academic quality; cultural and linguistic diversity.
4. Students are key partners within the academic community. The Bologna reforms will: facilitate the introduction of flexible and individualised learning paths for all students; improve the employability of graduates and make our institutions attractive to students from Europe and from other continents.
5. European universities are active on a global scale, contributing to innovation and sustainable economic development. Competitiveness and excellence must be balanced with social cohesion and access. The Bologna reforms will only be successful if universities address both the challenge of global competition and the importance of fostering a stronger civic society across Europe.
6. Universities must continue to foster the highest level of quality, governance and leadership.

Universities as a Public Responsibility

7. Governments, universities and their students must all be committed to the long-term vision of a Europe of knowledge. Universities should be encouraged to develop in different forms and to generate funds from a variety of sources. However, higher education remains first and foremost a public responsibility so as to maintain core academic and civic values, stimulate overall excellence and enable universities to play their role as essential partners in advancing social, economic and cultural development.
8. Governments must therefore empower institutions and strengthen their essential autonomy by providing stable legal and funding environments. Universities accept accountability and will assume the responsibility of implementing reform in close cooperation with students and stakeholders, improving institutional quality and strategic management capacity.

Research as an Integral Part of Higher Education

9. The integral link between higher education and research is central to European higher education and a defining feature of Europe's universities. Governments need to be aware of this interaction and to promote closer links between the European Higher Education and Research Areas as a means of strengthening Europe's research capacity, and improving the quality and attractiveness of European higher education. They should therefore fully recognise the doctoral level as the third "cycle" in the Bologna Process. Universities need to keep pressing the case for research-led teaching and learning in Europe's universities. Graduates at all levels must have been exposed to a research environment and to research-based training in order to meet the needs of Europe as a knowledge society.
10. The diversity of universities across Europe provides great potential for fruitful collaboration based upon different interests, missions and strengths. Enhancing European collaboration and increasing mobility at the doctoral and post-doctoral levels are essential, for example through the promotion of joint doctoral programmes, as a further means of linking the European Higher Education and Research Areas.

Improving Academic Quality by Building Strong Institutions

11. Successful implementation of reforms requires leadership, quality and strategic management within each institution. Governments must create the conditions enabling universities to take long-term decisions regarding their internal organisation and administration, e.g. the structure and internal balance between institutional level and faculties and the management of staff. Governments and universities should enter negotiated contracts of sufficient duration to allow and support innovation.
12. Universities for their part must foster leadership and create a structure of governance that will allow the institution as a whole to create rigorous internal quality assurance, accountability and transparency. Students should play their part by serving on relevant committees. External stakeholders should serve on governing or advisory boards.

Pushing Forward the Bologna Process

13. The Bologna Process must avoid over-regulation and instead develop reference points and common level and course descriptors.
14. Implementing a system of three levels (the doctoral level being the third) requires further change. Universities see the priorities for action as:
 - Consolidating ECTS as a means to restructure and develop curricula with the aim of creating student-centred and flexible learning paths including lifelong learning;
 - Discussing and developing common definitions of qualification frameworks and learning outcomes at the European level while safeguarding the benefits of diversity and institutional autonomy in relation to curricula;
 - Involving academics, students, professional organisations and employers in redesigning the curricula in order to give bachelor and master degrees meaning in their own right;
 - Continuing to define and promote employability skills in a broad sense in the

curriculum and ensuring that first-cycle programmes offer the option of entering the labour market;

- Introducing the Diploma Supplement more widely, and in major languages, as a means to enhance employability, making it widely known among employers and professional organisations.

Mobility and the Social Dimension

15. Student mobility in itself promotes academic quality. It enables diversity to be an asset, enhancing the quality of teaching and research through comparative and distinctive approaches to learning. It increases the employability of individuals. Staff mobility has similar benefits.
16. If the EHEA is to become a reality governments must: tackle the current obstacles to mobility, amend legislation on student support, e.g. to make study grants and loans portable and improve regulations on health care, social services and work permits.
17. Governments and institutions together must give incentives to mobility by improving student support (including social support, housing and opportunities for part-time work) academic and professional counselling, language learning and the recognition of qualifications. Institutions must ensure that full use is made of tools which promote mobility, in particular ECTS and the Diploma Supplement. Possibilities also need to be increased for short-term mobility, and mobility of part-time, distance and mature students.
18. Career paths for young researchers and teachers, including measures to encourage young PhDs to continue working in/return to Europe, must be improved. Gender perspectives require special measures for dual career families. Restrictions on transfer of pension rights must be removed through portable pensions and other forms of social support.
19. Increasing the participation of women in research and teaching is essential in a competitive Europe. Gender equality promotes academic quality and universities must promote it through their human resource management policies.
20. The Trends 2003 report demonstrates that the information base, in particular in relation to mobility issues, is inadequate. National governments should cooperate to improve statistical data and work with the European Commission to review existing monitoring mechanisms. There should be more research on issues related to the development of the EHEA.
21. Joint programmes and degrees based on integrated curricula are excellent means for strengthening European cooperation. Governments must remove legal obstacles to the awarding and recognition of joint degrees and also consider the specific financial requirements of such collaboration.
22. Institutions should identify the need for and then develop joint programmes, promoting the exchange of best practice from current pilot projects and ensuring high quality by encouraging the definition of learning outcomes and competences and the widespread use of ECTS credits.

Quality Assurance: a Policy Framework for Europe

23. Quality assurance is a major issue in the Bologna process, and its importance is increasing. The EUA proposes a coherent QA policy for Europe, based on the belief: that institutional autonomy creates and requires responsibility, that universities are responsible for developing internal quality cultures and that progress at European level involving all stakeholders is a necessary next step.
24. An internal quality culture and effective procedures foster vibrant intellectual and educational attainment. Effective leadership, management and governance also do this. With the active contribution of students, universities must monitor and evaluate all their activities, including study programmes and service departments. External quality assurance procedures should focus on checking through institutional audit that internal monitoring has been effectively done.
25. The purpose of a European dimension to quality assurance is to promote mutual trust and improve transparency while respecting the diversity of national contexts and subject areas.
26. QA procedures for Europe must: promote academic and organisational quality, respect institutional autonomy, develop internal quality cultures, be cost effective, include evaluation of the QA agencies, minimise bureaucracy and cost, and avoid over regulation.
27. EUA therefore proposes that stakeholders, and in particular universities, should collaborate to establish a provisional "Higher Education Quality Committee for Europe". This should be independent, respect the responsibility of institutions for quality and demonstrate responsiveness to public concerns. It would provide a forum for discussion and, through the appointment of a small board, monitor the application of a proposed code of principles, developing a true European dimension in quality assurance.

Universities at the Centre of Reform

28. The Bologna Process was initially politically driven. But it is now gaining momentum because of the active and voluntary participation of all interested partners: higher education institutions, governments, students and other stakeholders. Top down reforms are not sufficient to reach the ambitious goals set for 2010. The main challenge is now to ensure that the reforms are fully integrated into core institutional functions and development processes, to make them self-sustaining. Universities must have time to transform legislative changes into meaningful academic aims and institutional realities.
29. Governments and other stakeholders need to acknowledge the extent of institutional innovation, and the crucial contribution universities do and must make to the European Research Area and the longerterm development of the European knowledge society as outlined in the Lisbon declaration of the European Union. By united action, European higher education – which now touches the lives of more than half the of the population of Europe – can improve the entire continent.

Leuven, 4 July 2003

Concerning the Advisory Committee on Education and Training in the Field of Architecture

Statement of Experts Assembled in Koln 3 May 2003

1. Introduction

Following the refusal of the Commission to co-operate in facilitating a meeting of the Advisory Committee, which its President sought to convene in accordance with the Committee's Rules of Procedure, the President then informally met with four other experts in Koln on 3 May 2003. Arising from that meeting, this statement is addressed to the Member States, the European Parliament, the Council and the Commission and represents the considered and unanimous opinion of the five experts whose names are appended hereto with regard to:

- (a) the Commission's proposal for a European Parliament and Council Directive on the recognition of professional qualifications, COM(2002)119-2002-061(COD), insofar as it relates to the field of architecture, and
- (b) the Commission's disregard for the role and function of the Advisory Committee in recent years.

2. Proposal for a Directive on the Recognition of Professional Qualifications

- 2.1 This proposal, insofar as it relates to professional qualifications in architecture, is inadequate in that it fails to amend deficiencies which already exist in Directive 85/384/EEC in relation to the duration of courses and the omission of reference to practical training and experience.
- 2.2 It is also inadequate in that it creates new deficiencies, particularly in the relegation of the principles of Article 3 (of Directive 85/384/EEC) to a mere annexe status, in the introduction of different "levels" of qualifications for provision of services *vis-à-vis* establishment, in the lack of relevance to the consultation process of 2001, in the denial of the established right of the Member States to raise doubts as to compliance of qualifications with standards and in the priority given to the "market" over consumer protection and over all that architecture means and stands for in terms of concepts of protection of the environment with particular reference to Europe's architectural heritage – a philosophy which is enshrined in the preambles to Directive 85/384/EEC and is now proposed to be replaced by an ill-considered new order driven only by market conditions.
- 2.3 The proposal is at variance with the findings of all previous studies undertaken into the performance of the existing Architects' Directive and, in particular, with the findings of the Commission's own report on the SLIM initiative.
- 2.4 The proposal is at variance with the Council Resolution on architectural Quality in

the Urban and Rural Environment, adopted in February 2001 (2001/C 73/04) which specifically called on the Commission to "ensure that architectural quality and the specific nature of architectural services are taken into consideration in all policies, measures and programmes".

- 2.5 The proposal is furthermore at variance with UNESCO-UIA Charter for Architectural Education (July 1996) and with the UNESCO-UIA Validation System for Architectural Education (July 2002).
- 2.6 The repeal of the existing Architects' Directive is neither required nor justified on grounds that enlargement of the EU will make an Advisory Committee unworkable.
- 2.7 Having regard to all of the above, it is recommended that the existing Directive, in its entirety, be retained and that Council's Decision 85/385/EEC be amended to provide for a more appropriately constituted Advisory Committee consistent with the enlargement of the European Union. It is noted that the European Parliament's Committee on Legal Affairs and the Internal Market also advocates the retention of the existing Architects' Directive.

3. The Commission's Disregard of the Role and Function of the Advisory Committee

- 3.1 The Advisory Committee was established by Council Decision 85/385/EEC of 10 June 1985 for the purposes of advising the Commission in relation to architectural education and training and especially to assess and to advise on doubts which might, from time to time, be expressed by Member States as to the compliance of any diploma in architecture with the standards set down in the Directive. Meetings are normally convened by the Commission but may be convened by the President of the Committee.
- 3.2 Whereas the rules of Procedure require that the Committee meet at least once a year, it last met on 26 November 2001! When the President, in accordance with the Rules, sought (on 30 December 2002) to convene a meeting, it took the Commission until 27 March 2003 to make a substantive reply to the President's letter. The Commission concluded that it was not now appropriate to seek the advice of the Committee in relation to the proposal for a new Directive, on grounds (*inter alia*) that it has consulted other (unnamed) "representatives" on an "ad hoc" basis.
- 3.3 In November 2001 the Committee advised that further information be sought from the competent authorities of Spain in respect of six diplomas about which doubts had been expressed by the Governments of the Netherlands and Norway. Notwithstanding this, the Commission unilaterally caused these diplomas to be listed in the Official Journal of 10/09/02 as "recognised" diplomas.
- 3.4 More recently, certain Finnish diplomas were listed as "recognised" notwithstanding doubts expressed by the Government of Italy. In this case, the diplomas had not even been referred for assessment or advice to the Advisory Committee in contravention of the specific provisions of the Directive!
- 3.5 The above instances are cited merely as examples. They do not constitute an exhaustive list but are indicative of the Commission's negative attitude towards the Committee especially established by the Council for the purpose of advising the Commission in relation to education and training in the field of architect. Above all,

this attitude and the consequent approval of the diplomas mentioned in points 3.3 and 3.4 above has made it possible for new types of professionals to enter the market, nominally as architects but with qualifications different from those envisaged by directive 384/85.

- 3.6 Having regard to all of the above, it is recommended that the Parliament and Council stay the legislative procedure in which they are currently involved in relation to the draft Directive (COM (2002) 119 final) until such time as the Advisory Committee on Education and Training in the Field of Architecture has formally been convened, has met and has issued its advice in relation to the proposed new Directive, in so far as that Directive deals with the matter of architectural education and training and the free movement of architects.

GUNTHER UHLIG Dr Ing. Professor an der Universität Frideriziana Karlsruhe, Architect, President Advisory Committee

MARIO DOCCI Architect, Past President Advisory Committee, Director RADAAR Department at Roma University "La Sapienza"

ROLAND SCHWEITZER Architect, Past President Advisory Committee, formerly Member of SLIM Committee, Member UNESCO-UIA Council for the Validation of Architectural Education

JOHN E. O'REILLY Architect, Chairman, Working Group 'Formation' (of the Advisory Committee), formerly President CLAEU and formerly Vice-President ACE.

JAMES HORAN Architect, Chairman, Working Group 'Diplomas' (of the Advisory Committee), Vice-President and President-elect EAEE.

EAAE Chania Statement 2001

Regarding the Architectural Education in the European Higher Education Area

The Heads of Schools of Architecture in Europe assembled in the 6th meeting of Heads of European Schools of Architecture in Hania, Crete from 3 until 6 September 2003, reaffirmed the Hania Statement of 2001.

The Heads of Schools of Architecture in Europe assembled in the 4th meeting of Heads of European Schools of Architecture in Chania, Crete from 1 until 4 September 2001, discussed in depth the future of architectural education within the European Higher Education Area and its implications for architectural education.

Most of the ideas expressed in the EHEA have since 25 years been the 'raison d'être' of EAAE and the focus of its collective efforts, its conferences, workshops, projects and publications. Today EAAE is representing more than 155 schools of architecture.

Having reviewed the EU initiatives so far concerning the profession and education of an architect, namely:

1. The Architects' Directive 85/384/CEE (1985) and the advices produced by its advisory committee
2. The UIA/UNESCO Charter for architectural education (1996)
3. The UIA Accord and Recommendations (2000)

Being informed about the recent state of the art of the Bologna implementation process.

Being fully aware that architectural education can lead to a wide variety of professional and academic careers,

Within the framework of:

The Magna Charta Universitatum, 1988

The Joint Declaration of the European Ministers of Education, Bologna 1999

The Salamanca Convention of European Higher Education Institutions, 2001

The Student Göteborg declaration, 2001

The Meeting of European Ministers in Charge of Higher Education, Prague 2001

Committed to the exchange of ideas and methods in teaching and research as well as of students and staff among the schools in the prospect of a European Higher Education Area based on diversity and mutual understanding,

The Heads of Schools state the following:

1. The studies leading to the diploma of architecture which gives access to the profession of an architect, should be minimum 5 years or 300 ECTS credit points leading to graduate level ('masters'), in order to meet the achievements listed in the above mentioned documents 1, 2, 3.

2. Following a comparable but flexible qualification framework each school may decide to structure their curriculum as a 5-years integrated (i.e. unbroken) programme or subdivided in two cycles (3+2 years or 180 ECTS + 120 ECTS credit points), in which case the first cycle can not give access to the profession of an architect.
3. EAAE will actively collaborate in developing the ECTS-credit system in their schools and considers this system as the keystone towards mobility of students, modularity, flexibility in the curricula, necessary for the cultural, regional and pedagogical diversity they think to be invaluable for the education in architecture in Europe.
4. EAAE is willing to play a role in the development of a quality assurance and assessment system tailored to the needs of architectural education and respecting its diversity. With respect to this a clear distinction should be made between the 'professional/governmental' assessment of the diploma leading to the accreditation and the validation by the professional/governmental bodies of the member states and the 'academic' assessment of the educational programmes by means of a peer review.

The EAAE will install a representative committee at European level and will present its result and proposals regarding the evaluation of the two cycles before the end of the year 2002.

The Heads of School underline their commitment to further elaborate and contribute to the development of the European Higher Education Area.

Chania, 4 September 2001

The Heads of Schools of Architecture in Europe

Inaugural Address as President of EAAE

James F Horan

Last year when I was asked to become the Vice-President of EAAE I was reminded of a story of two brothers, one who ran away to sea and the other one they made a Vice-President. Neither was ever heard of again! Fortunately or unfortunately that is not what has happened on this occasion and like it or not I suppose you are now stuck with a Vice-President who has become a President. I thank you for electing me.

The topic we are about to consider relates to the future of EAAE. However, it is not really my intention to engage in discussion about this; at this stage I would merely like to put a position to you and when that position has been articulated there will be an opportunity for members of the General Assembly to establish a communication link with the Council on a more structured basis. I will come to that in a moment.

There is a Chinese saying 'may you live in interesting times'. This in fact is not a well wish, it is a curse. If the Chinese are not happy with you, they say 'may you live in interesting times'. Usually in China when you live in interesting times you were very likely beheaded. We, however, are now in interesting times. I believe that the EAAE finds itself in interesting times.

We are living in times when a lot of things are happening in architectural education both from a philosophical point of view and also from a political point of view. We have discussed this in the Council on a number of occasions during the past year, and consequently one of the major agenda items has been about the future of EAAE.

The EAAE, as you know, was founded in 1975. In the intervening years it has grown into a very significant organisation. It has now reached a point where it has to take stock of where it has come from, where it is now, and where it is going. What in fact do we, the members of EAAE, want it to become in the future?

Let me just perhaps take a few minutes to describe my understanding of the climate in the Europe in which the EAAE finds itself. As you are aware the European Directive on Architectural Education developed by the European Union has been a vehicle used by Member States in the EU as an identification of Schools of Architecture which had reached an acceptable standard. Interestingly enough the UIA, the International Union of Architects, adopted in their charter a directive almost identical to what had been devised in Brussels as long ago as 1985. However, the Commission in Brussels seems to have decided, without officially saying so, that the Directive is no longer important. Some of you may already know that for almost twelve years, with others who are here in this room I have been serving on the Advisory Body to the Commission in Brussels. This Advisory Body was set up to assist the Commission in deciding which Schools of Architecture should be recognised under the Directive. The Advisory Body would meet at least once a year, or more often if specific issues needed to be discussed. These meetings of the Advisory Body have now ceased. There has been no meeting for almost two years, and while no official declaration has been made by Brussels it is clear that it is not the intention of the Commission to have any further meetings. In April of this year a number of the members of the Advisory Body, including three past Presidents, had a meeting in Koln where a letter was written to the Commission expressing dismay at the attitude of Brussels for the

apparent lack of interest in standards in architectural education. This letter is available in four languages English, French, German and Italian. I quote from it as follows:

"The Advisory Committee was established by Council Decision 85/385/EEC of 10 June 1985 for the purposes of advising the Commission in relation to architectural education and training and especially to assess and to advise on doubts which might, from time to time, be expressed by Member States as to the compliance of any diploma in architecture with the standards set down in the Directive. Meetings are normally convened by the Commission but may be convened by the President of the Committee.

Whereas the rules of Procedure require that the Committee meet at least once a year, it last met on 26 November 2001! When the President, in accordance with the Rules, sought (on 30 December 2002) to convene a meeting, it took the Commission until 27 March 2003 to make a substantive reply to the President's letter. The Commission concluded that it was not now appropriate to seek the advice of the Committee in relation to the proposal for a new Directive, on grounds (inter alia) that it has consulted other (unnamed) "representatives" on an "ad hoc" basis."

The full version of this letter is being made available. That has been the position and remains the position.

This situation, in fact, creates a vacuum. The profession of architecture has been continuously expressing a concern about the fact that the directive is not being followed or implemented. Consequently, ACE [the Architect's Council of Europe] has been actively involved in pursuing a position to fill the vacuum left by the Advisory Body. What this ultimately could mean is that an organisation such as the Architect's Council of Europe might seek to be in a position to provide accreditation for all architectural schools. This is a serious situation. It is not acceptable that accreditation or any form of control would be in the hands of one single group such as the Profession. Education is essentially the business of educationalists. Universities and Schools of Architecture must be free to decide how they will educate, and what type of educational programmes they will deliver.

On the other hand, the strength of the Advisory Body came from the fact that it had representatives from the educators, the professionals and the National Governments. This meant that each Member State had three people who sat on the Advisory Body. The Government representative was there because they were responsible to those who made the funds available for education. The professionals were there because they had an interest in what the educators were doing and the type of graduates coming from the Schools, and the educators were there because they were the experts in education. These different groups brought balance to the discussions. If the Advisory Body is now likely to be replaced by any single group then the prognosis for education in Europe is poor. This might appear like a gloomy picture. All of us know individually in our Schools that we may have a sense of educational freedom, and certainly I know in many cases the Ministers for Education have little or no interest in the content of what is being taught. But what they do have an interest in, is how much it is costing to educate architects. I believe it is important that we as educators have a voice in this wider discussion and wider debate. Let me just for a moment illustrate a vision for the future of architectural education in Europe.

I believe that architectural education is a fifty year process. We in the Schools engage mostly with education at a narrow point of great intensity. But the day when someone leaving a School of Architecture – graduating with a Bachelors, a Masters, or a Doctorate

– is regarded to be fully educated are no longer with us. The notion or the concept of continuous lifelong education is becoming increasingly imbedded in the minds of both the professionals and the educators. The courses of continuing professional development provided by Schools and by the professional institutes right across the world have become almost a requirement for graduates of architecture. Certainly those who wish to practice, are obliged to involve themselves in various forms of continuing education on a regular basis. This is an opportunity. It is an enormous opportunity for the educators. If we accept the notion that the education of an architect, irrespective of which branch of architecture they may be involved in, is a lifelong process, then the responsibility for that education has to be a shared responsibility by everyone involved. The responsibility not only lies with the educators, but also with the professions and with the governments, whose funds allow the educational process to take place. A debate and a discussion should occur between these three interested parties. I don't see this as a negative, in fact if the notion of shared educational responsibility is grasped, then the possibilities for Schools of Architecture to expand increases to an enormous degree. Not only will we provide undergraduate, postgraduate, doctorate and post-doctorate programmes, we now can become involved in the process of the continuing educating of graduates, practitioners and everyone involved in the various fields of architecture. Many of you will have had the experiences of Universities or Schools closing down because of lack of numbers. In fact a colleague from Germany yesterday spoke about this very problem. Some Schools have had to amalgamate because of insufficient numbers of students to support and sustain an individual School. If we grasp the notion to expand the level and type of education we provide we assure the future of architectural education in Europe. If we assure the future of its framework we are then free to deliver what we wish within that framework. The minute the framework is threatened we become vulnerable. We must be open to change, I believe that our organisation has reached a state where it is becoming a seriously regarded professional body. I don't mean professional in the sense of Practitioners, I mean professional in the way it does its business. We have now more than 100 Schools as members of EAAE. We have established credibility in the projects that we are pursuing and what we are publishing. The work that has been presented at this conference testifies that we are becoming the guardians of a serious body of knowledge. Knowledge is strength and knowledge is power and the more convincing we become in the way we assemble, collect, archive and disseminate this knowledge the more significant we will be as a group on the European stage. In fact, I would go so far as to say that ultimately our objective would be to make a global impact. There are already established relations with counter organisations in the United States and elsewhere.

During the past year we have examined the sort of subject headings that would form part of a future agenda for the Council of EAAE, and for all its members here. Some of the questions we have asked are as follows:

What is our philosophy? Where have we come from? Where are we now? What is our vision? Where are we likely to go? It is our vision that underpins everything. This is a huge discussion, an enormous debate, it is perhaps the theme of an entire Conference and even then the answers may not be complete. However, the first step now is to begin to ask the questions and open up the discussions.

The second area deals with the activities in which the EAAE is involved. We know from the reports today that these activities are both extensive and wide reaching. We must ask the question whether or not they are the appropriate activities for EAAE. To some

extent the answer to that question will be informed by the answer to the first question about the philosophical position. As these positions become clear I would like to think we would develop a Strategic Plan about the way we engage in activities that is carefully thought through and is a direct consequence of where we want the organisation to go.

The third issue is the structure. We must examine the structure of the organisation, we must examine the structure of Council, we must examine the role of President, the role of the Vice-President and the role of individual Council members and Charges des Missions. A permanent Secretariat will be critical to the identity of EAAE. At present the Secretariat is located in Leuven in Belgium. This location has been partially due to the historic circumstances. However, as the EAAE was set up under the legislation of Belgium law it is probably wise to have the secretariat located there. This secretariat I believe needs to have a recognised place of existence irrespective of the nationality of the President or the members of Council. In order to make the secretariat permanent there must be financial security. The financial structuring of the organisation needs to be examined. This is the fourth point of discussion.

During the past year some exercises have already been carried out to look at business planning. The financial planning of the organisation is critical in order to ensure its growth and development. The cost of membership to individual Schools, the cost of publications, and the cost of our communications generally will form part of this plan. The issue about sponsorship should also be on the agenda. Are we prepared to engage with sponsors? How can we feel comfortable interacting with our sponsors? How do we avoid compromising our philosophical position?

The fifth point deals with communication. This I believe is the point at which we must begin. It is the first thing we should address. Today there are more than 100 people gathered at this conference in Hania discussing matters on architectural education. On Monday morning next each one of us will be at our individual desks in different cities, in different countries, and the problems that await us on that desk will tend to push matters discussed here at EAAE slightly into the background. Let us attempt to keep the channel of communication open. During the past year the Thematic Sub-networks were enormously instrumental in developing a sense of continuity of communication between one general assembly in Hania and the next. I now hope that we will increase the level of communication between us. I invite all members of EAAE to make submissions to Council or directly to myself on any or all of the issues I have identified this morning. It is important that your President and your Council hears the opinions of the members of the organisation. Any action that is taken by Council should be based on the best possible information from the membership. The collective wisdom of the people in this room is an enormous resource from which we must draw.

Because I believe we are at a point of change, and at a watershed about the future, we have taken the unusual step this year of not identifying any new Council member today. What we would like to do is to develop a strategy to the point where the Council will be in a position to identify its new members by the specific skills and abilities that they will bring to the Council table.

Notwithstanding the issues related to developing the organisation of the EAAE itself, I believe there are two priority areas in which we should concentrate our efforts during the next year. Firstly, through the Thematic Sub-networks and through other processes we should explore our philosophical positions on architectural education. The philosophical

discussions about our educational position should be central. I believe that the meeting in Hania this year has already gone a long way to establishing that process.

Secondly, I think we should also engage in discussions with the representatives of the profession to advance the notion of shared responsibility for the total education of the architect, and provide a platform of unity to assist us in dealing with any actions by others which might result in the lowering of educational standards. It is clear, at least across the countries of the European Union that architecture doesn't appear to be a very high priority in the minds of many of the Ministers for Education. These Ministers and the Governments they represent should be fully appraised of the role and function of architecture and architectural education. Like it or not the educators of architects and the practising architects of the profession jointly have responsibility for significant aspects of the quality of the environment in which we live. It is my intention to instigate discussions with the Architects Council of Europe to explore where problems may lie and how we can be of mutual benefit to each other.

I suppose the climate I have described and some of the difficulties I have outlined could to some extent be indicative of what one might refer to as a 'wake-up call' for those of us involved in education. I am reminded of another Chinese proverb that says 'It is much easier to wake a man who is really asleep than a man who is pretending to be asleep'. I would like to think that if anyone among us or in our Schools appears to be asleep that they are actually sleeping so that we have some chance of waking them.

I thank you once again for electing me your President. I look forward to two years of what I hope will be intensive and interesting work. I again issue the invitation to you to communicate. It is our ability to communicate that makes this organisation possible. I think we should use it well, wisely and regularly.

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