

# *The European School of Urbanism and Architecture*

*A MODEL CURRICULUM TO MEET THE CHALLENGES  
OF THE 21<sup>ST</sup> CENTURY EUROPEAN BUILT ENVIRONMENT*

## VOLUME I: SUMMARY AND CONCLUSIONS

FOLKEUNIVERSITETET INNLANDET

KUNGLIGA TEKNISKA HÖGSKOLAN

MODERNO AS

PRO PATRIMONIO

SIV. ARK. MNAL ARNE SØDAL

NEUE STADTBAUKUNST

TECHNISCHE UNIVERSITÄT BERLIN SCHINKELZENTRUM

KARL-HEINZ MASCHMEIER ASSOCIATES

FACULTATEA DE ARHITECTURA,

UNIVERSITATEA POLITEHNICA DIN TIMISOARA

MICHAEL MEHAFFY CONSULTANCY

A VISION OF EUROPE

JOANNA ALIMANESTIANU ASSOCIATES



Folkeuniversitetet



moderno<sup>o</sup>



PRO PATRIMONIO FOUNDATION  
Saving the endangered Romanian heritage!

SIV ARK MNAL  
ARNE SØDAL



Neue  
Stadt Baukunst



Karl-Heinz  
Maschmeier  
Associates



Michael Mehaffy  
Consultancy



A VISION  
OF  
EUROPE

JOANNA ALIMANESTIANU ASSOCIATES  
ARCHITECTURE AND URBAN PLANNING  
NEW YORK, NEW YORK, USA · BRUSSELS, BELGIUM



*“The knowledge we acquired during the workshop seems enormous to us. It has been a unique experience to participate in such a big scale (and real) project...”*

*“The experience of the last five workshops has determined the way I see my education, the profession, the craft, the human values that are connected with skills and life...”*

*“For me the ESUA project has been the most exceptional experience of my architectural education.”*

*- Student comments from the test module evaluations (Volume II)*



A MODEL CURRICULUM TO MEET THE CHALLENGES  
OF THE 21<sup>ST</sup> CENTURY EUROPEAN BUILT ENVIRONMENT

*The European School of Urbanism and Architecture*

VOLUME ONE: Summary and Conclusions

CONTENTS

---

ONE: EXECUTIVE SUMMARY.....	9
TWO: CURRICULUM RESEARCH SOURCES.....	15
THREE: FOUNDATIONAL REFERENCES.....	19

APPENDICES

<i>Appendix I: KEY POINTS OF THE BOLOGNA PROCESS.....</i>	21
<i>Appendix II: SUMMARY OF THE BOYER REPORT.....</i>	31
<i>Appendix III: SUMMARY OF THE WINDSOR FORUM.....</i>	35
<i>Appendix IV: THE VISEU DECLARATION.....</i>	37

*Appendix V (on CD):*

ESUA Foundational Documents

*Bologna Process \* Boyer Report \* Viseu Declaration \* The Windsor Forum \* The Egan Review of Skills for Sustainable Communities \* The Prince's Foundation Education Programme \* et al.*

ESUA Memos – Correspondence and Notes

*Euro-urb Dialogue \* Memos from advisors \* Notes from meetings \* et al.*

ESUA Research – Additional Resources

*Accreditation Requirements \* Curriculum Theory \* Reading Lists*

ESUA Research – Comparable Course Curricula and Syllabus

*Viseu, Portugal \* TU Dresden \* Harvard University \* New York University \* Edinburgh University \* Yale University \* Parsons New School for Design \* Notre Dame \* University of Illinois \* et al.*

ESUA Research – Curriculum Papers on Innovative Topics

*Collaboration \* Professional Education \* e-learning research \* Sustainability and Green Design \* Biophilia \* Evidence-based Design \* et al.*

ESUA Research – Partner Curricula

*KTH \* TU Berlin \* University of Miami \* Michael Stojan \* et al.*

ESUA Research – Reading Lists

*Reading list recommendations from advisors \* Reading list from UC Berkeley \* Draft master reading list*



## *The European School of Urbanism and Architecture*

---

### BOARD OF ADVISERS:

DR. JAVIER CENICACELAYA, UNIVERSITY OF BILBAO, SP  
ANDRES M. DUANY, CO-FOUNDER, CONGRESS FOR THE NEW URBANISM, US  
TORBJORN EINARSSON, ARCHITECT, STOCKHOLM, SE  
DR. BRIAN HANSON, BIRKBECK COLLEGE, UNIVERSITY OF LONDON, UK  
DR. HARALD KEGLER, LABORATORY FOR REGIONAL PLANNING, GRÄFENHAINICHEN, DE  
DR. RAMÓN ABONCE MEZA, TECNOLÓGICO DE MONTERREY, MX  
PAUL MURRAIN, UNIVERSITY OF GREENWICH, UK  
DR. ERNESTO PHILIBERT-PETIT, GOVERNMENT OF MEXICO CITY, MX  
DR. YODAN ROFE, BEN GURION UNIVERSITY OF THE DESERT, IS  
DR. WOLFGANG SÖNNE, TECHNICAL UNIVERSITY DORTMUND, DE  
LUCIEN STEIL, ARCHITECT AND LECTURER, LU  
DR. EMILY TALEN, ARIZONA STATE UNIVERSITY, US

### OUTSIDE PROGRAMME EVALUATOR:

DR. CHARLES BOHL, DIRECTOR  
KNIGHT PROGRAM IN COMMUNITY-BUILDING  
UNIVERSITY OF MIAMI (US)



*ESUA curriculum symposium at the “Climate Change and Urban Design” Conference, Oslo Norway, 14-16 September 2008*



# Executive Summary

*“The European School of Urbanism and Architecture will offer an integrated curriculum of urbanism and architecture that is aimed squarely at the latest challenges of the European built environment, including: degradation of the natural environment (including climate change); urban fragmentation and sprawl; loss of local identity in the face of globalisation; loss of skills needed to protect and build upon local heritage, and to realise its economic value; and incoherence of the development process. We will promote a professional response that meets these challenges, and that holds as its primary duty the quality of life, health, prosperity and well-being of people. We will do this through a model of learning that is project-based, inter-disciplinary, collaborative, and international. We will develop this curriculum for entering students, graduate students and continuing professionals through an open model of collaboration and dissemination with our partners, and with others who share these goals.”*

*- Mission Statement of the European School of Urbanism and Architecture  
(Complete Mission Statement is in Appendix I)*

## INTRODUCTION

The daunting challenges of the twenty-first century are coming into sharp focus. We are all now well aware of the alarming crisis of climate change, and the other interconnected challenges of resources, ecology, economy and geopolitical stability. The words of Buckminster Fuller seem more relevant than ever: “Humanity is entering its final exams.”

There are particular challenges for those responsible for shaping the built environment – the architects, planners, builders, tradespeople and many others who together comprise the “culture of building”. We will have to learn to produce more ecologically benign buildings, with innovative energy systems and sustainable materials. Moreover, we will have to build more sustainable neighbourhoods, offering compact, walkable, appealing places to live and work – places that offer diversity and capacity for growth and opportunity. And we will have to learn to work together in new ways to do this.

This means there will be great challenges for educators of architects, planners, builders and tradespeople as well. While there will always be a place for artistic expression, increasingly education for the built environment will have to make room for a rigorous treatment of other disciplines and other sectors: ecology, sociology, economics and more. Non-design fields will need to learn the habits and the value of design. Students will need to understand more than specialties: they will need to understand how specialties can come together to solve new problems. They will need to be designers, but they must also be managers, technicians, facilitators -- systems thinkers.

## THE ESUA PROJECT

The European School of Urbanism and Architecture is a pilot programme aimed at developing effective responses to precisely these challenges. It is a modular development programme of integrated urban and architectural study funded by the European Union's Leonardo da Vinci programme in vocational education and training. It has been developed in particular to address the following challenges:

- Degradation of the natural environment and its resources, and in particular the challenges of climate change;
- Urban fragmentation and sprawl, including social isolation, functional segregation and loss of coherence;
- The loss of local heritage and identity, and their related economic benefits;
- The loss of craft skills and the “culture of building” needed to protect and revive Europe's vast range of built heritage – and to provide for a range of viable ways of life, with reliable regional employment;
- Incoherence of the development process. Lack of effective collaboration across national borders, disciplines and sectors; lack of effective public and private cooperation to meet long-term needs and to remain economically competitive; lack of effective local participation of stakeholders in public process.

**By their nature, these interrelated challenges demand an inter-disciplinary, international and cross-sector approach.** The professions of the built environment are meeting this demand by adopting more collaborative models of working, more able to respond to a broad range of complex conditions. Today’s students will very likely be required to cope with even more inter-disciplinary and dynamic modes of working. In addition to specialized skills, they will need skills for on-the-job learning and collaborative work.

**In response, the ESUA programme has been developed through a collaboration of thirteen partners in seven countries, representing four universities, four NGOs, and five practitioner firms.** Following the nature of the challenges, the project itself has been inter-disciplinary, international and cross-sector. Extensive research has been done on other programmes, and on new combinations of elements. The material has been drawn from existing programmes, and from a series of test modules that brought together students and instructors from a number of partners.

This volume presents the results of the research, and the key conclusions. The appendix includes extensive documentation, including materials in CD format. Volume II reports on the test modules, and Volume III reports on the proposed curriculum model.

## KEY GOALS OF THE PROJECT

One of the key motivations for the formation of the European Union **was to secure the competitive advantage of the European states in an increasingly global (and increasingly competitive) trade environment.** In that spirit, the Leonardo da Vinci programme was established to raise European standards for vocational education and training. As its website says, the programme “aims to establish and bolster the competitiveness of the European labour market by helping European citizens to acquire new skills, knowledge and qualifications and have them recognised across borders.”

A key gap has been **the interdisciplinary education of professionals, tradespeople and other actors in the built environment.** Henceforth education has been largely confined to isolated specialties of building design, landscape design, urban planning and the like. As a result of this separation of disciplines, practices developed over years of urban development are now incompatible with conventional engineering and planning standards. Terms and standards within various fields are not consistent, and are further compromised by national

variations of language and practice. As a result, the competitiveness of European practitioners on a global stage has been compromised.

The European School of Architecture and Urbanism is particularly focussed on the goal to develop a pilot curriculum **that integrates the disciplines of architecture and urban design**. The ESUA project brings together existing initiatives in several European countries, to develop innovative measures and instruments to promote a recognised European qualification in urban design and architecture.

The project rests on the premise that **urbanism and architecture should be taught as an integrated discipline that brings interdisciplinary technical expertise to the complex problems encountered in city and town design**. Present European courses in architecture and urban design are divided into separate disciplines, with European urbanism as a topic mostly excluded from architecture and taught in specialised schools. Students and practitioners from the different fields have little contact with each other's ideas during education and professional life.

**The ESUA project introduces urban design as a main curriculum topic from the beginning**, to form the basis for all design and architecture. Course modules will be developed to address areas that are particularly sought after by governments and the market. These include but are not limited to: community involvement in planning; design for walkable neighbourhoods; transport-oriented development; urban sustainability; building conservation; urban regeneration; adaptive re-use of abandoned buildings; transport planning; regional vernacular architectures of Europe; infill development in historic centres; redevelopment of social housing estates; traditional building crafts; and architectural design to enhance historic environments.

The project's university and lifelong learning partners have designed, tested and assessed a transnational curriculum in a pilot programme by its 13 partners. Institutional partners can offer this curriculum as modular elements of a full degree programme through their institutional accreditation. **The project will develop course materials for modules able to be taken as units for Continuing Professional Development (CPD), as a Bachelor of Architecture, as components for a part-time Master of Arts (MA) in Urban Design, or as required precursors for Doctoral study.**

**The ESUA project aims for these courses to become available as modular curricula for adoption by other universities, or as accredited units for students to take as part of other courses across Europe.** To this end, we will encourage continuous training of teachers as well as practitioners. Modules will focus on specific issues relevant to each country, and the aim will be to add more modules and more countries to the project in the future.

**The project results are also transferable to others, such as town planners, politicians, and people interested in the future development of their cities and villages. The process will include dissemination of the course curriculum free to others worldwide.**

## KEY FEATURES OF THE PROJECT

The curriculum as developed and tested **offers a number of key innovations:**

1. Students work on actual projects, alongside practicing professionals and stakeholders. There they learn “meta-skills” such as collaboration, facilitation, leadership and on-the-job self-education.
2. Students learn to collaborate with others across borders and with varying local conditions, languages and standards of practice.
3. Students learn a range of subjects in addition to technical specialties, including urban subjects (sociology, economics, political science, et al).
4. Students travel to varying locales and study local history and precedent. They learn to listen to local residents, research local conditions, and diagnose local needs and assets. They learn to analyze and compare the evolution of urban and architectural history in different cultural contexts.
5. Students gain hands-on experience in the building process, through study of building trades and crafts, and through hands-on exercises.
6. Students learn to develop and test design hypotheses through collaborative simulation processes, applying an evidence-based approach.

## RESEARCH AND DEVELOPMENT PHASE

The ESUA curriculum has been developed through a two-year pilot phase that included five test modules in four countries. The modules have been built around actual workshops that brought pilot students from several partners and elsewhere together with professionals and other stakeholders on actual projects, and tested their ability to learn in such a dynamic on-the-job environment. The workshop programme was supplemented with lectures and student preparation activities, to create a full working model of each of the five primary modules.

In addition to the test modules, the curriculum has been developed with extensive research as well as input from partners and other leading experts in the field, including:

1. Research into existing curricula and curricular materials in Europe, the USA and other countries. (Summarised in Section Two, p. 15.)
2. Three curriculum development workshops, combining elements of existing partner curricula, research into new curriculum approaches, and new pilot curriculum concepts. (Videos and notes archived.)
3. A project Intranet with all draft material posted and discussed among partners via email.
4. Two papers presented at the 50<sup>th</sup> Anniversary Conference on Architectural Education in Oxford, England, July 2008, as well as circulation and discussion of the draft curriculum amongst other conference attendees, representing European leaders in architectural education.
5. A paper presented at the August 2007 Sibiu, Romania Conference on Eastern European Heritage, representing numerous educational institutions from the area.
6. Presentations and discussion at a research seminar at University College London, July 2008, and at a conference of the Congress for the New Urbanism in Austin, Texas, USA, April 2008.
7. A final research and dissemination conference, in conjunction with the Council for European Urbanism’s Third Annual Congress on “Climate Change and Urban Design” in Oslo, Norway, September 2008.

8. Extensive circulation of draft material to a board of colleagues representing universities across Europe, and to three professional urban discussion lists. (Responses are included in the appendices.)
9. Publication of 10,000 copies of a summary prospectus for the curriculum and the programme, with invitations to contact programme partners with comments and proposals for partnership.

The curriculum is planned to be further developed and disseminated through a second phase, the Education and Dissemination in Urbanism, Architecture and Craft (EDUAC). This phase will develop additional detailed curricular materials and test the more detailed operational requirements.

## KEY CONCLUSIONS

As a result of the research, test modules, and curriculum development, the partners of the European School of Architecture and Urbanism reach the following conclusions:

1. **Major curriculum reforms are needed.** There is widespread consensus on this point, given the challenges and the step-change that will be required to meet them. The initial results from the test module period shows that such major reforms are feasible.
2. **More “soft skills” are needed:** facilitation, collaboration, problem-solving in complex and fast-paced social environments, and “learning to learn” over a lifetime.
3. **More inter-disciplinary learning is needed.** Students need to understand the connections between fields, as well as the specialised knowledge within a field.
4. **More integration is needed between architecture, urbanism, construction and craft.** Students need to see how buildings relate to urbanism, and to understand and engage the process of construction as a complex craft requiring special skills. They need to understand how design must integrate with adaptation, growth and maintenance over the life of a building.
5. **More emphasis is needed on sustainability – for buildings, and for urbanism.** Students need more integrated curriculum in new topics, including ecology, economics, energy and other fields. They need to take an evidence-based, “systems approach” to architectural and urban design.
6. **More emphasis is needed on local capacity and local identity in Europe.** Students must understand the economic, social and political values that operate within a local context, and have the tools to support and build upon them.
7. **More emphasis is needed on the lessons of history, both beneficial and cautionary.** This means a greater emphasis on architectural and urban history, and on useful lessons as well as failures. A “siloesd” culture of radical artistic novelty is not compatible with the evolutionary processes required to achieve sustainability. Rather, it is critical to build on the evolutionary successes of history, and learn from its failures too -- as nature itself does.
8. **More integration is needed between theory and practice.** Students need to experience actual projects and their challenges first-hand, learning by doing.
9. **Project-based learning offers a remarkable model for rapid and effective learning,** supplemented with well-structured coursework. This was well-established during the test module phase, when students offered comments such as this: “The knowledge we acquired during the workshop seems enormous to us.”
10. **Travel between countries offers remarkably effective opportunities** for study of history and local culture, as well as literacy in the varied legal and economic frameworks across borders, and skills to adapt to such variations.

## SUMMARY OF PROJECT RESULTS, 2006-2008

The results of this pilot phase, documented through the detailed reports and assessments of the test modules, and available in a separate report, can be summarized as follows:

- The modules functioned successfully.
- Students reported that they benefited greatly from the “immersive” workshop experience, and from work across a range of countries and contexts. (From a student group report: “The knowledge we acquired during the workshop seems enormous to us. It has been a unique experience to participate in such a big scale (and real) project.”)
- Work of the students was received enthusiastically by other workshop participants.
- Students reported that they believed they needed such a curriculum, and were not receiving it in their education.
- The project gathered detailed feedback on the success of specific elements, and areas needing further development.
- All participants concluded that the test module period was a strongly encouraging success.
- The curriculum has been developed with extensive positive feedback and encouragement.
- A separate report on the curriculum has been completed by outside evaluator Dr. Charles C. Bohl, and will be forwarded separately. His preliminary report stated:

“Let me be clear about how impressive this initiative is: when I survey the full scope of what you have accomplished, the challenges and set of steps you have laid out to move into the next phase of implementation – it is something akin to a 21<sup>st</sup> century reformation movement in architecture and urbanism.”

# Curriculum Research: Summary of Existing Sources Surveyed

Following is a listing of the existing curricula that were surveyed and examined for lessons for the ESUA curriculum. The research covered a wide range of approaches and subjects, varying according to the national context and set of specialties. At the same time, there were some evident lessons to be drawn. (See p. 13.)

## **Within the ESUA partnership:**

Royal Institute of Technology, Stockholm  
*See curriculum survey materials in appendix*

Technical University, Berlin  
*See curriculum survey materials in appendix*

Timisoara University  
*See curriculum survey materials in appendix*

Various  
*ESUA partners teach as adjunct faculty and co-creators of other programmes in their home areas, some of which are listed below.*

## **Beyond the ESUA partnership – Somewhat Comparable Programs:**

The University of Greenwich, UK  
*ESUA Advisor Paul Murrain is an endowed chair at this integrated architecture and construction programme, with an emphasis on urban studies*

The Prince's Foundation for the Built Environment, UK  
*ESUA Partner Michael Mehaffy directed the creation of this programme as its Director of Education, now being implemented as a Masters Programme at the University of Oxford*

Technical University of Dortmund, Germany  
*ESUA Adviser Wolfgang Sönne is a co-founder of the Dortmund Institute for Urban Design Arts*

Tecnologico de Monterrey, MX  
*ESUA Partner Michael Mehaffy assisted in the creation of a “Masters in Architecture and New Urbanism, now in its third year. Key professors and co-creators Ramon Abonce Meza and Ernesto Philibert Petit are advisors in ESUA.*

The University of Miami, USA

*ESUA Advisor Andres Duany, co-founder of the Congress for the New Urbanism, helped to create the programme in architecture and urbanism. ESUA outside evaluator Charles C. Bohl is director of its Charles L. Knight Program in Community-Building, which focuses on inter-disciplinary topics in sustainable development.*

The University of Notre Dame, USA

*ESUA advisor Lucien Steil teaches at its Rome Programme. The university has extensive and highly-regarded programmes in historic preservation, Classical design and urban design. Its graduates are known to have a high rate of post-graduate employment.*

The University of Oregon, Portland Center

*ESUA partner Michael Mehaffy teaches as an adjunct faculty member, and works closely with colleague Hans Joachim Neis, Director of the Portland Urban Architecture Programme. The University of Oregon is a recognised leader in sustainability education in architecture.*

Escuela Tecnica Superior de Arquitectura, Bilbao, Spain

*ESUA advisor Javier Cenicacelaya is a professor of architecture and urban design.*

Arizona State University, USA

*ESUA adviser Emily Talen is a faculty member and editor of the Journal of Urbanism. The programme in planning works closely with its Global Institute of Sustainability, and other design departments within ASU.*

Birkbeck College, University of London, UK

*ESUA Advisor Brian Hanson is a professor of architectural history.*

Ben Gurion University of the Negev, IS

*ESUA advisor Yodan Rofe is a professor of architecture and planning.*

Unieuro University, Center for Design, Brazil

*Pedro Palazzo is a professor of theory, architecture and urbanism.*

University of British Columbia, CA

*Patrick Condon is professor of landscape architecture and a leader in sustainable planning.*

University of Grenoble, France

*Nicolà Ragno teaches Classical architecture and urbanism.*

Technical University, Delft

*Professor Jaap Dawson teaches architecture, and professor Paul Drewe teaches planning.*

University of Isfahan, Iran

*Dr Mehrdad Hejazi is head of the Traditional Structures Center, specializing in historic restoration and infill.*

Politecnico de Bari, Italy

*Claudio d'Amato Guerrieri is a professor in architecture and traditional urbanism.*



University of Bologna, Italy  
*Giuseppe Amoruso is a professor of architecture and urban design.*

University of Ferrara, Italy  
*Cristiana Bartolomei teaches in the program of Urban Architecture at the School of Engineering.*

Lund University, Sweden  
*Johan Rådeberg is professor, Urban Planning, Department of Architecture, and leader of the research project "Towards the Human City"*

Oxford Brookes University, UK  
*Marcel Vellinga is professor and director of the International Vernacular Architecture Forum.*

Virginia Technical University, US  
*Professor Peter Katz leads the "Academy for New Urbanism."*

University of California, Berkeley, US  
*Several founding members of the Congress for the New Urbanism teach in this programme, including Peter Calthorpe and Daniel Solomon.*

University of Michigan, US  
*Master of Urban Design Program covers New Urbanism and Sustainable Community development.*

Yale University, USA  
*Dean Robert A.M. Stern has developed an integrated programme in architecture and urbanism, combining a wide variety of philosophical approaches.*

### **Beyond the ESUA Partnership – Leading Conventional Programs**

Architecture Association, London, UK  
*Leading European design school with an inter-disciplinary and critical focus.*

Harvard University, Graduate School of Design, USA  
*A wide range of degree programmes including inter-disciplinary environmental design degrees.*

Parsons School of Design, USA  
*A leading US design school with an inter-disciplinary and critical focus.*

Massachusetts Institute of Technology, USA  
*A wide range of courses in architecture, civil engineering, urban design and planning. Features a pioneering "open courseware" format, providing all courses on line at no charge. (Materials are summarized in the appendix.)*

## **Beyond the ESUA Partnership – Other Providers**

### Seaside Institute

*Leading USA provider of seminars and conferences on topics of New Urbanism. Seaside-Pienza Institute, a sister institution, has a focus on US-European topics.*

### National Charrette Institute

*Leading USA provider of training in community workshops and collaborative design processes, focusing on the well-known “charrette” model.*

### Planetizen On-Line Courses

*A major provider of continuing-education courses for planning professionals in the USA. The ESUA partnership has secured an expression of interest for a collaboraiton in delivery of ESUA e-learning content in Europe.*

### Institute for Classical America

*Provider of courses in classical design and construction. A major US provider of continuing education, increasing skill levels for building trades as well as professional practitioners.*

## Foundational References

*(See Appendix for extended excerpts)*

The European School of Urbanism and Architecture takes its place within a well-established and evolving reform movement in architectural and urban curricula, in response to widely-recognised new challenges. These include ecological, economic and social challenges, as well as organisational challenges particular to the European Union.

Following is a partial list of the key foundational references that have been consulted extensively in the development of the ESUA curriculum.

Guide to the Bologna Process. The UK Higher Education Europe Unit, 2004.  
<http://www.europeunit.ac.uk/resources/Guide%20to%20the%20Bologna%20Process%20booklet.pdf>

Building Community: a New Future for Architecture Education and Practice: A Special Report ("The Boyer Report.") Ernest L. Boyer and Lee D. Mitgang. Princeton, N.J.: Carnegie Foundation for the Advancement of Teaching, 1996.

Changing Architectural Education, Towards a New Professionalism, edited by David Nicol and Simon Pilling. London; New York: E & FN Spon, 2000.

The History of History in American Schools of Architecture, 1865-1975, edited by Gwendolyn Wright and Janet Parks. New York, N.Y.: Temple Hoyne Buell Center for the Study of American Architecture and Princeton Architectural Press, 1990. (Series: Buell Center books in American architectural history no. 1)

The Liberal Education of Architects: A Symposium Sponsored by the Graham Foundation for Advanced Studies in the Fine Arts. Lawrence, Kan. University of Kansas, School of Architecture and Urban Design

Windsor Forum on Design Education: Toward an Ideal Curriculum to Reform Architectural Education, Vero Beach, Florida, April 12-14, 2002. Stephanie E. Bothwell et. al. Miami, Fl.: New Urban Press, 2004.

The Teaching of Architecture and Urbanism in the Age of Globalisation: Proceedings of the 5-9 May 2003 Portugal Conference. Council for European Urbanism and International Network for Traditional Building, Architecture and Urbanism. Caleidoscopio, 2006.

The Egan Report: Skills for Sustainable Communities. London: Riba Enterprises, 2004.  
<http://www.communities.gov.uk/documents/communities/pdf/152086.pdf>

The Oxford Conference: A Re-Evaluation of Education in Architecture. Roaf, S. and Barstow, A. (2008). WIT Press. Southampton, UK. *(Includes a paper by A Engh on the ESUA programme, and a related paper by M Mehaffy. See Appendix V.)*

The Prince's Foundation for the Built Environment, London, UK. Transcripts of curriculum development conferences, 2004-2005. Developed by ESUA partner Michael Mehaffy. *(See Appendix V.)*

# Appendix I:

## KEY POINTS OF THE BOLOGNA PROCESS

*From "Guide to the Bologna Process," the UK HE Europe Unit*  
<http://www.europeunit.ac.uk/resources/Guide%20to%20the%20Bologna%20Process%20booklet.pdf>

### *Action line 1*

#### *Adoption of a system of easily readable and comparable degrees*

##### Introduction

The establishment of readable and comparable degrees across Europe underpins many of the Bologna Process reforms. The improved flexibility and transparency provided by degrees that can be easily read and compared with qualifications across Europe enables students and teachers to have their qualifications recognised more widely. This facilitates freedom of movement around a more transparent EHEA. The readability of European degrees will enhance the attractiveness of European HE to the rest of the world.

##### Recent developments

The Bologna Process sees an important role for the Diploma Supplement in realising this action line. The Berlin ministerial summit in 2003 called for "every student graduating as from 2005 to receive the Diploma Supplement automatically and free of charge". The Diploma Supplement is a document to be issued to students by their higher education institutions on graduation. It is widely used in many Bologna signatory countries and aims to describe the qualification received in a standard format that is easy to understand and easy to compare. It also describes the content of the qualification and the structure of the higher education system within which it was issued. It is not a curriculum vitae and simply acts as a supplementary explanation of the qualification certificate rather than a substitute for it. The European Commission has recently published a proposal for a 'Europass', an online document providing a single framework for the recognition of qualifications and competences across Europe incorporating the Diploma Supplement and other existing transparency instruments.

The Bologna Process requires all signatory countries to ratify the "Convention on the Recognition of Qualifications concerning Higher Education in the European Region". It was formulated by the Council of Europe in Lisbon and is hence usually referred to as the 'Lisbon Convention'. The Convention states that no discrimination should be made against holders of qualifications across European countries. Access to further HE study and use of an academic title should be granted to holders of qualifications on the same grounds as citizens from the country where recognition is sought. It places responsibility to demonstrate that an application does not meet the requirements for further higher education study with the institution making the assessment. The Convention also encourages all signatory countries to issue the Diploma Supplement to their graduating students.

#### Further information

UK HE Europe Notes E/04/10, E/04/14 and E/04/18 on the Diploma Supplement and E/04/17 on the Masters degree: [www.europeunit.ac.uk](http://www.europeunit.ac.uk)

European Commission Diploma Supplement guidelines:

[www.europa.eu.int/comm/education/policies/rec\\_qual/recognition/diploma\\_en.html](http://www.europa.eu.int/comm/education/policies/rec_qual/recognition/diploma_en.html)

European Commission Diploma Supplement Label:

[www.europa.eu.int/comm/education/programmes/socrates/ects/guide\\_en.pdf](http://www.europa.eu.int/comm/education/programmes/socrates/ects/guide_en.pdf)

Diploma Supplement national description for England, Wales and Northern Ireland:

[www.naric.org.uk/ds.asp](http://www.naric.org.uk/ds.asp)

The Lisbon Convention: [www.conventions.coe.int/Treaty/en/Treaties/Html/165.htm](http://www.conventions.coe.int/Treaty/en/Treaties/Html/165.htm)

UK Bologna seminar on 'Using Learning Outcomes': [www.bologna-bergen2005.no](http://www.bologna-bergen2005.no)

Europass:

[www.europa.eu.int/comm/education/programmes/europass/index\\_en.html](http://www.europa.eu.int/comm/education/programmes/europass/index_en.html)

UK Socrates-Erasmus Council, including list of UK Bologna Promoters:

[www.erasmus.ac.uk](http://www.erasmus.ac.uk)

#### ***Action Line 2***

#### ***Adoption of a system essentially based on two cycles including qualifications frameworks***

##### Introduction

The Bologna Process requires the adoption of a system based on two cycles (undergraduate and graduate). The Bologna Declaration stated that the first cycle should last a minimum of three years while no length is specified for the second cycle Masters qualification. This has required extensive restructuring of higher education systems in many European countries. Ministers from Bologna signatory countries have recognised the value of qualifications frameworks in making Europe's HE qualifications more transparent and compatible with one another. Qualifications frameworks at national and at European level have the potential to make mobility and qualification recognition across Europe easier.

##### Recent developments

Following progress across Europe in establishing a two-cycle system, Ministers at the Berlin ministerial summit in 2003 called on the Bologna Follow-Up Group to explore how to link shorter HE programmes, such as the UK's Foundation degrees, to the first cycle.

Also in Berlin, Ministers called on signatory countries to establish national qualifications frameworks by 2005, "which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile". At European level, the summit called for the elaboration of "an overarching framework of qualifications for Europe". A sub-group of the Bologna Follow-Up Group is responding to the call and has agreed that the so-called 'Dublin Descriptors' – generic qualifications descriptors for Europe – should be included in such a framework. Key issues which are being addressed concern the scope of such a framework and whether credit should be included. The group will make recommendations to the ministerial summit in Bergen in May 2005.

Work is also underway on qualifications frameworks within the so-called Bruges-Copenhagen Process on enhanced European cooperation in vocational education and training (VET). Launched in 2002 in Copenhagen, the Bruges-Copenhagen Process includes 31 European countries and aims to introduce common

reference levels for VET in Europe. A follow-up ministerial summit in Maastricht in 2004 called for the introduction of a credit system (ECVET) for vocational education and training. The European Commission has recently set up an 'Expert Group on a European Qualifications Framework' to bring together the initiatives in both the Bologna and Bruges-Copenhagen Processes and "produce a blueprint of a European qualifications framework".

#### Further information

The Bruges-Copenhagen Process:

[www.europa.eu.int/comm/education/copenhagen/index\\_en.html](http://www.europa.eu.int/comm/education/copenhagen/index_en.html)

Scottish Credit and Qualifications Framework (SCQF): [www.shefc.ac.uk](http://www.shefc.ac.uk)

Credit and Qualifications Framework for Wales (CQFW):

[www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612](http://www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612)

Framework for Higher Education Qualifications in England:

[www.qaa.ac.uk/public/heguide/guide.htm#22](http://www.qaa.ac.uk/public/heguide/guide.htm#22)

### ***Action Line 3***

#### ***Establishment of a system of credits***

##### Introduction

At the outset the Bologna Process saw the introduction of a European credit system as contributing to the removal of obstacles to academic mobility and facilitating mutual recognition of qualifications and periods of study. Credit is seen to have an important role to play in curriculum design and in validating a range of learning in an era of lifelong learning. The European Credit Transfer System (ECTS) was introduced by the European Commission to facilitate recognition of exchange programmes under its Socrates-Erasmus programme. ECTS is used widely across Bologna signatory countries as a mechanism for both transfer and accumulation.

##### Recent developments

The Berlin ministerial summit in 2003 called for the European Credit Transfer System (ECTS) to be used as a transfer and accumulation system across Europe. Ongoing discussions are taking place in the Bologna Follow-Up Group working group on qualifications frameworks and in other decision-making forums over whether a framework of qualifications for Europe should incorporate credit and how credit should be allocated to periods of study.

##### Further information

Report of the 'Measuring and Recording Student Achievement Scoping Group': [bookshop.universitiesuk.ac.uk/downloads/measuringachievement.pdf](http://bookshop.universitiesuk.ac.uk/downloads/measuringachievement.pdf)

European Commission ECTS Users' Guide:

[www.europa.eu.int/socra/education/programmes/socrates/usersg\\_en.html](http://www.europa.eu.int/socra/education/programmes/socrates/usersg_en.html)

UK National Academic Recognition Information Centre (UK NARIC) –

[www.naric.org.uk](http://www.naric.org.uk)

ENIC-NARIC networks: [www.enic-naric.net](http://www.enic-naric.net)

Scottish Credit and Qualifications Framework (SCQF): [www.scqf.org.uk](http://www.scqf.org.uk)

Credit and Qualifications Framework for Wales (CQFW):

[www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612](http://www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612)

Framework for Higher Education Qualifications in England:

[www.qaa.ac.uk/public/heguide/guide.htm#22](http://www.qaa.ac.uk/public/heguide/guide.htm#22)  
UK Bologna Promoters and the ECTS Label: [www.erasmus.ac.uk](http://www.erasmus.ac.uk)

#### ***Action Line 4*** ***Promotion of mobility***

##### Introduction

The "promotion of mobility by overcoming obstacles to the effective exercise of free movement" was one of the founding objectives of the Bologna Process featuring in the 1999 Bologna Declaration. Ministers at the Berlin ministerial summit in 2003 identified mobility of students, academics and administrative staff as "the basis for establishing the EHEA". Bologna Process reforms, such as greater use of credit, the development of qualifications frameworks and European quality assurance all facilitate mobility in Europe by creating a higher education area built on trust and high quality HE.

##### Recent developments

The European Union administers a series of mobility programmes to encourage students and scholars from all over Europe to spend time in the higher education institutions of other EU countries and beyond. The European Commission has recently published proposals for a new Integrated Action Programme for Lifelong Learning. The programme will run from 2007-2013 replacing the current EU Socrates programme. The proposal includes targets for substantial increases in teacher and student mobility with the goal of reaching three million participants by 2010.

The Bologna Process is also considering funding of mobile students, notably at a Bologna seminar in Nordwijk on 'Designing Policies for Mobile Students' in October 2004. It is likely that work in this area will continue following the 2005 ministerial summit in Bergen.

##### Further information

The European Union's Lisbon strategy:

[www.europa.eu.int/comm/lisbon\\_strategy/index\\_en.html](http://www.europa.eu.int/comm/lisbon_strategy/index_en.html)

European Commission proposals for the new generation of education and training programmes:

[www.europa.eu.int/comm/education/doc/official/keydoc/2004/newprog\\_en.pdf](http://www.europa.eu.int/comm/education/doc/official/keydoc/2004/newprog_en.pdf)

Europe Note number E/04/15 on the 'New generation of European Commission education and training programmes': [www.europeunit.ac.uk](http://www.europeunit.ac.uk)

UK Socrates Erasmus Council (UKSEC): [www.erasmus.ac.uk](http://www.erasmus.ac.uk)

Bologna seminar on 'Designing Policies for Mobile Students', October 2004:

[http://www.bologna-bergen2005.no/EN/Bol\\_sem/Seminars/041010-12Noordwijk-Nederlands.HTM](http://www.bologna-bergen2005.no/EN/Bol_sem/Seminars/041010-12Noordwijk-Nederlands.HTM)

#### ***Action Line 5*** ***Promotion of European cooperation in quality assurance***

##### Introduction

Quality assurance plays a central role in achieving the Bologna objective to enhance the international competitiveness of European higher education.



European cooperation in quality assurance will make it easier to compare qualifications across Europe and will facilitate mobility. All Bologna ministerial communiqués have made reference to quality assurance.

#### Recent developments

Quality assurance was made a priority at the Berlin ministerial summit in 2003. Ministers stressed that primary responsibility for quality assurance lies with each higher education institution. They set down requirements for national quality assurance systems which are broadly compatible with arrangements across the UK.

Also in Berlin, Ministers gave a mandate to the European Network for Quality Assurance in Higher Education (ENQA), now an association for exchange of practice in quality assurance. The UK's Quality Assurance Agency (QAA) is represented on the Board of ENQA and plays an active role in European debates on quality assurance. ENQA was asked 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."

In doing this, ENQA was asked to cooperate with European representatives of higher education institutions and students: European University Association (EUA); European Association of Institutions in Higher Education (EURASHE); and the National Unions of Students in Europe (ESIB). ENQA will report back findings to Ministers at the next ministerial summit in Bergen in May 2005. For up-to-date information on the ENQA discussions, please contact: [comms@qaa.ac.uk](mailto:comms@qaa.ac.uk).

The European Commission participates in debates on quality assurance and in October 2004 it published a 'Proposal for a Recommendation' on further cooperation in EU HE quality assurance. Following an earlier proposal in 1998, the Recommendation sets out five steps to achieve mutual recognition of quality assurance systems in Europe: a requirement for internal quality assurance mechanisms; a common set of standards, procedures and guidelines; a European register of quality assurance and accreditation agencies; freedom for higher education institutions to choose their quality assurance or accreditation agencies with a requirement for EU member states to accept the judgements of any agency on the register for purposes of licensing or funding. The European Commission's Recommendation will contribute to Bologna Process debates on quality assurance.

There have also been developments in the area of professional accreditation. In some continental countries the licence to practise is included in the award of the HE qualification. The European Commission has recently pledged funding for a project to develop a pan-European accreditation process for engineering. The European Consortium for Accreditation (ECA) is an association of twelve countries willing to accredit professional qualifications often leading to both the award of the degree and licence to practise professionally. The objective of ECA is the achievement of mutual recognition of accreditation decisions among its member countries.

The European Commission-funded project, Tuning Educational Structures in Europe, is contributing to the Bologna Process by identifying generic and subject specific competences. The various phases of the Tuning project include participants from around 130 HEIs across Europe and play an important role in developing mutual trust and understanding of qualifications across Europe.

Further information

European Commission's Proposal for a Recommendation on quality assurance:  
[europa.eu.int/eur-lex/pri/en/lip/latest/doc/2004/com2004\\_0642en01.doc](http://europa.eu.int/eur-lex/pri/en/lip/latest/doc/2004/com2004_0642en01.doc).

European Network for Quality Assurance in Higher Education (ENQA):  
[www.enqa.net](http://www.enqa.net)

EUA Quality Culture Project: [www.eua.be/eua/en/projects\\_quality.jsp](http://www.eua.be/eua/en/projects_quality.jsp)

Europe Note E/04/04 on the 'Berlin ministerial summit on the Bologna Process':  
[www.europeunit.ac.uk](http://www.europeunit.ac.uk)

Joint Quality Initiative (JQI): [www.jointquality.org](http://www.jointquality.org)

Quality Assurance Agency: [www.qaa.ac.uk](http://www.qaa.ac.uk)

Tuning Educational Structures in Europe Project:  
[www.relint.deusto.es/TUNINGProject/index\\_phase2.htm](http://www.relint.deusto.es/TUNINGProject/index_phase2.htm)

### ***Action Line 6***

#### ***Promotion of the European dimension in higher education***

Introduction

Since its launch in 1999 the Bologna Process has called for curriculum development, inter-institutional cooperation, mobility schemes and integrated programmes of study, training and research to add a European dimension to higher education in signatory countries.

Recent developments

At the Berlin summit in 2003, Ministers agreed at national level to "remove obstacles to the establishment and recognition of such degrees (joint degrees), and to support the development and adequate quality assurance of integrated curricula leading to joint degrees".

The Council of Europe and UNESCO have recently approved a Recommendation on the Recognition of Joint Degrees as an amendment to the Lisbon Recognition Convention. The Recommendation was discussed at the 2004 Bologna seminar on Joint Degrees in Stockholm and is likely to be endorsed by Ministers at the forthcoming summit in Bergen in 2005.

The European University Association (EUA) 'Joint Masters Project' explored the operation of joint degree programmes. The more recent EUA 'Doctoral Programmes Project' is promoting cooperation and mutual learning in the development of joint doctoral programmes at European level.

The European Commission's Erasmus Mundus mobility programme offers students and scholars from third countries scholarships to study Masters courses offered by consortia of universities in three or more different European countries.

Further information

Recommendations from Bologna seminar on Joint Degrees in Stockholm:  
[www.bologna-berlin2003.de/pdf/Stockholm\\_results.pdf](http://www.bologna-berlin2003.de/pdf/Stockholm_results.pdf)

Recommendation on the Recognition of Joint Degrees:

[www.bologna-bergen2005.no/EN/Other/Lisbon\\_Recdoc/040609\\_Recommendation\\_joint\\_degrees.pdf](http://www.bologna-bergen2005.no/EN/Other/Lisbon_Recdoc/040609_Recommendation_joint_degrees.pdf)

Erasmus Mundus programme:

[europa.eu.int/comm/education/programmes/mundus/index\\_en.html](http://europa.eu.int/comm/education/programmes/mundus/index_en.html)

EUA Joint Master's Project: [www.eua.be/eua/en/projects\\_joint.jsp](http://www.eua.be/eua/en/projects_joint.jsp)

EUA Doctoral Programmes Project:

[www.eua.be/eua/en/Doctoral\\_Programmes.jsp](http://www.eua.be/eua/en/Doctoral_Programmes.jsp)

QAA Code of Practice for Collaborative Provision:

[www.qaa.ac.uk/public/COP/cprovis/contents.htm](http://www.qaa.ac.uk/public/COP/cprovis/contents.htm)

### ***Action Line 7***

#### ***Lifelong learning***

##### Introduction

The Bologna Process has identified lifelong learning as an essential element of the European Higher Education Area and its expansion has become one of the guiding principles for the development of all education and training policy in Europe. It affects all aspects of European higher education - mobility programmes, eLearning, research, vocational education, recognition of qualifications – and is a fundamental objective of the Bruges-Copenhagen Process (see below). It has been identified by the European Union (EU) as having a central role to play in achieving the EU's goal of the Lisbon Strategy “to make the EU the world's most competitive and dynamic knowledge economy in the world”.

##### Recent developments

At the 2003 Berlin summit Ministers called for qualifications frameworks to “encompass the wide range of flexible learning paths, opportunities and techniques” and to make appropriate use of the ECTS credits.

The European Commission's so-called Bruges-Copenhagen Process is working on enhanced European cooperation in vocational education and training (VET). The Bruges-Copenhagen Process is aiming to establish a credit system for VET and common reference levels. The European Union's proposals for education and training programmes to replace the current Socrates programme include plans for an integrated framework geared towards lifelong learning.

##### Further information:

The Bruges-Copenhagen Process:

[www.europa.eu.int/comm/education/copenhagen/index\\_en.html](http://www.europa.eu.int/comm/education/copenhagen/index_en.html)

Scottish Credit and Qualifications Framework (SCQF): [www.scqf.org.uk](http://www.scqf.org.uk)

Credit and Qualifications Framework for Wales (CQFW):

[www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612](http://www.elwa.ac.uk/elwaweb/elwa.aspx?pageid=1612)

The Burgess report:

[www.bookshop.universitiesuk.ac.uk/downloads/measuringachievement.pdf](http://www.bookshop.universitiesuk.ac.uk/downloads/measuringachievement.pdf)

### ***Action Line 8***

## ***Higher education institutions and students***

### Introduction

Higher education institutions and students have a vital role to play in the Bologna Process and Ministers have called upon them to become involved in forming a diverse and adaptable European Higher Education Area. The European HE umbrella bodies: the European University Association (EUA) and the European Association of Institutions in Higher Education (EURASHE) provide a presence for institutions in the Bologna Process. The National Union of Students in Europe (ESIB) represents students in Europe and plays an active role in Bologna Process debates. These umbrella organisations are consultative Members of the Bologna Follow-Up Group and Board.

### Recent Developments

The Berlin ministerial summit in 2003, building on the Prague Communiqué, recognised that it is “the active participation of all partners in the Process that will ensure its long-term success”. And the Bologna Process has acknowledged the necessity for institutions “to be empowered to take decisions on their internal organisation and administration”.

The Berlin summit also noted that students are full partners in higher education governance and stressed the need for “appropriate studying and living conditions for the students”.

### Further information

European University Association: [www.eua.be](http://www.eua.be)

European Association of Institutions in Higher Education (EURASHE):  
[www.eurashe.be](http://www.eurashe.be)

National Union of Students in Europe (ESIB): [www.esib.org](http://www.esib.org)

UK High Level Policy Forum and European Coordinating Group:  
[www.europeunit.ac.uk/about\\_us/index.cfm](http://www.europeunit.ac.uk/about_us/index.cfm)

## ***Action Line 9***

### ***Promoting the attractiveness of the European Higher Education Area***

#### Introduction

One of the founding objectives of the Bologna Process was to enhance the competitiveness of European higher education in a global market. The aim is that the creation of a coherent and transparent European Higher Education Area with compatible and high quality HE systems will make European HE more attractive to the rest of the world.

#### Recent developments

The European Union’s ‘Erasmus Mundus’ mobility programme was launched in 2004 to strengthen links between EU member States and non-EU countries through the creation of 250 new inter-university Masters courses. It also provides EU-funded scholarships for third country nationals studying in the EU, and for EU nationals studying in non-EU countries.

The Prague ministerial summit opened Bologna Process seminars and conferences to representatives from around the world. And as the Bologna

Process expands to 43 Members at the Bergen summit, the European Higher Education Area will be almost double the size of the European Union.

Further information

Erasmus Mundus programme:

[www.europa.eu.int/comm/education/programmes/mundus/index\\_en.html](http://www.europa.eu.int/comm/education/programmes/mundus/index_en.html)

Education UK: [www.educationuk.org](http://www.educationuk.org)

Wales International Consortium: [www.walesinternationalconsortium.com](http://www.walesinternationalconsortium.com)

### ***Action Line 10***

#### ***Doctoral studies and the synergy between the European Higher Education Area (EHEA) and the European Research Area (ERA)***

Introduction

The Bologna Process sees research as an integral part of European higher education. Meeting in Berlin in 2003, higher education Ministers considered it necessary to include the doctoral level as the third cycle in the Bologna Process. In doing so, the link between the Bologna Process to create the European Higher Education Area and the European Union's Lisbon objective to develop a European Research Area (ERA) was strengthened.

Recent Developments

In 2003 the European Commission published a Communication on 'Universities in the Europe of Knowledge' on the role of universities in achieving the EU's Lisbon goal to become "the most competitive and dynamic knowledge-based economy in the world by 2010". In a further Communication the Commission also considered the importance of professional career development for researchers in Europe. The European University Association (EUA) has recently launched a Doctoral Programmes Project to examine the development of existing doctoral courses. Several UK institutions are involved in the project, which aims to identify essential conditions in the development of such programmes in Europe and to promote cooperation. It identifies good practice and compares standards. The project findings will be presented at a Bologna Process seminar in Salzburg in February 2005 when recommendations will be made for the ministerial summit in May 2005.

Further information

European Commission Communication on 'Universities in the Europe of Knowledge', 2003:

[www.europa.eu.int/eur-lex/en/com/cnc/2003/com2003\\_0058en01.pdf](http://www.europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0058en01.pdf)

European Research Area: [www.europa.eu.int/comm/research/era/index\\_en.html](http://www.europa.eu.int/comm/research/era/index_en.html)

European Commission Conference on 'The Europe of Knowledge 2020' in Liège, 2004:

[www.europa.eu.int/comm/research/conferences2004/univ/background\\_en.html](http://www.europa.eu.int/comm/research/conferences2004/univ/background_en.html)



## **Appendix II: SUMMARY – THE BOYER REPORT**

The Boyer Report is a landmark US study of architectural education completed in 1996, and only now finding its way into implementation in many schools in the USA and elsewhere. The report noted existing shortcomings in architectural curricula and the need for a more socially responsible curriculum.

<http://academics.triton.edu/faculty/fheitzman/boyer.html>

Building Community: A New Future for Architecture Education and Practice -- commonly called "The Boyer Report" in honor of Ernest Boyer, a leading educational thinker who authored much of the text. The Boyer Report was commissioned by the collateral architecture organizations AIA, AIAS, NCARB, NAAB, and ACSI as an independent study into the profession of architecture. Carnegie Senior Fellow Lee Mitgang co-authored the document with Boyer and presented it to the profession. The final document was formally released at the 1996 AIA Convention in Minneapolis and is structured around the following seven essential goals.

### 1. An Enriched Mission:

"We recommend that schools of architecture should embrace, as their primary objectives, the education of future practitioners trained and dedicated to promoting the value of beauty in our society; the rebirth and preservation of our cities; the need to build for human needs and happiness; and the creation of a healthier, more environmentally sustainable architecture that respects precious resources."

"...[W]e urge schools of architecture to prepare future practitioners capable not only of creating beauty, but also able to communicate, clearly and convincingly, its value to the public."

"The curricula and design sequences at architecture schools should...[include] more frequent contact with clients and communities by placing more emphasis on 'environment-behavior' studies."

"...[A]rchitecture schools should prepare graduates to apply their design knowledge to preservation and renovation as much as the creation of 'newness'."

"The profession, schools, and students should expand their knowledge, for example, of energy, the use of renewable resources, the recycling process, the use of carcinogenic materials, and the safe disposal of waste."

### 2. Diversity With Dignity.

"We imagine a landscape of architecture programs in which the multiple missions of schools are celebrated, and the varied talents of architecture faculty are supported and rewarded in a

scholarly climate that encourages excellence in research, teaching, the application of knowledge, and the integration of learning."

"...[T]he diversity of philosophy and content of the nation's schools of architecture is a strength that ought to be preserved."

"Based on our classroom observations, we concluded that many faculty, both beginners and veterans, could use help with teaching skills."

"...[T]he national architecture groups and their affiliates (should) promote conferences that improve the dialogue and understanding among practicing architects, teachers, and university administrators about the special goals and strengths of architecture education."

### 3. Standards Without Standardization.

"Such standards would affirm the rich diversity among architecture programs, establish a more coherent set of expectations at all schools that would support professional preparation, and bring into closer harmony the scholarly activities of students and faculty."

"...[M]any programs lack integration and leave inadequate time for electives or liberal studies."

"Writing skills were cited as a weakness by majorities of administrators, faculty and alumni, and a majority of faculty, students, administrators and alumni disagreed that their schools were effectively preparing students for opportunities involving non-Western and developing nations."

"...[W]e recommend that the written products of the accreditation process be more broadly and publicly distributed. In particular, the accrediting board should make available, in compact booklet form, a list of the fifty-three criteria for distribution to every student during freshman orientation at all schools of architecture."

### 4. A Connected Curriculum.

"A connected curriculum would encourage the integration, application and discovery of knowledge within and outside the architecture discipline, while effectively making the connections between architectural knowledge and the changing needs of the profession, clients, communities and society as a whole."

"The need for a liberal architecture curriculum is particularly urgent for students who begin their professional programs directly from high school."

"Making the connections, both within the architecture curriculum and between architecture and other disciplines on campus, is, we believe, the single most important challenge confronting architectural programs."



"There must always be occasions, especially at the beginning of the professional program, when students can simply discover and dwell on the art of architecture, freed from the constraints of budgets, codes, or clients."

...[A]ll graduates should be required to pull together, in a single piece of design work, what they have learned in the professional degree program and express their design concepts clearly--orally, in writing, and in two- and three-dimensional representations."

## 5. Climate for Learning.

"Each school of architecture should actively seek to establish a supportive climate for learning--where faculty, administrators, and students understand and share common learning goals in a school environment that is open, just communicative and caring."

"We recommend that alternative approaches to evaluation of design projects be more vigorously explored."

"...[W]e are concerned that life for many architecture students is socially isolated and exhausting, and leaves little time for any but the most determined students to explore the connections between architecture and other fields of study."

"Students repeatedly complained to us about inadequate career support and academic counseling. Fewer than 15 percent of students 'strongly agreed' that they could get good counseling at their school...."

## 6. A Unified Profession.

"The priorities for sustained action between the academy and the profession should include strengthening the educational experience of students during school, creating a more satisfying system of internship after graduation, and extending learning throughout professional life."

"We propose that [practicing architects] be made an even greater part of classroom and studio life, and in discussions about the priorities of the curriculum itself."

"...[W]e recommend that firms regularly invite faculty and administrators to spend time in offices to exchange ideas and to help educators and practitioners keep abreast of the realities of practice and academic life."

"We recommend...that schools, practitioners, and local and national architectural organizations collaborate to increase the availability, information and incentives for students to gain work experience during school. And we urge that the monitoring of those internships for their educational value be improved."

"...[W]e are not proposing that all schools require work experience for graduation."

## 7. Service to the Nation.

"To realize this last goal for renewal, schools should help increase the storehouse of new knowledge to build spaces that enrich communities, prepare architects to communicate more effectively the value of their knowledge and their craft to society, and practice their profession at all times with the highest ethical standards."

"Students and faculty alike should regard civic activism as an essential part of scholarship."

"For students to recognize the professional and ethical importance of civic engagement in their own lives, such behavior ought to govern the day-to-day conduct of each faculty member and the school as a whole."

"Schools...must place far greater priority in preparing graduates to be effective and empathetic communicators, able to advocate with clarity for the beauty, utility, and ecological soundness of the built environment."

## Appendix III: SUMMARY – THE WINDSOR FORUM

Windsor Forum on Design Education

STEPHANIE BOTHWELL + ANDRÉS DUANY + PETER HETZEL + STEVEN HURTT +  
DHIRU THADANI

*“While minor reforms have filtered through certain schools, the general trend has continued to be a self-referential intellectual isolation and a general distancing from the needs of society and the natural environment. There has certainly not been anything like a reform proposal at the level of a curriculum entire.”*

There is an obvious crisis in the discipline of architecture. Although subject to the general crisis in the practice, architectural education is nevertheless complicit in its cause. This manifestation and the reasons behind it have been discussed for years, to very little avail. The Boyer Report and Gutman’s analysis have been received, praised... and largely ignored. While minor reforms have filtered through certain schools, the general trend has continued to be a self-referential intellectual isolation and a general distancing from the needs of society and the natural environment. There has certainly not been anything like a reform proposal at the level of a curriculum entire. It seems that those in a position to effect change, and who would wish to do so, have been bound by institutional inertia, faculty territoriality, and accreditation criteria. With this in mind, and encouraged by the possibility that real reform might occur in at least one place of special opportunity, a few educators called for the creation of an ideal yet real curriculum – one that would better address the needs of society, the natural environment, and places of historic value. To this end, Bothwell, Duany, Hetzel, Hurtt, and Thadani gathered an array of sympathetic and concerned architecture faculty and practitioners, along with sociologists, theologians, philosophers, landscape architects, and regular folk. During a long weekend at Windsor, Florida, in April 2002, we reviewed the underlying philosophies and structures of some wellknown past and present models of architectural education, and speculated on new ones. This publication collects the presentations, discussions, and proposals. The document is put forth to spawn dialogue between the various schools of architecture and those of the collateral disciplines, principal among which is planning and environmental sciences.

CONTRIBUTORS:

MATTHEW BELL  
PHILIP BESS  
PHYLLIS BLEIWEIS  
STEPHANIE BOTHWELL  
DAVID BRAIN  
PETER BROWN  
SONIA CHAO  
JOHN F. "JACK" CROWLEY  
ORESTES DEL CASTILLO  
MICHAEL DENNIS  
VICTOR DEUPI  
RICHARD JOHN  
DOUG KELBAUGH  
KATE KRAFT  
JOANNA LOMBARD  
MICHAEL LYKLOUDIS  
PETER MAGYAR  
JOHN MASSENGALE  
DAVID MOHNEY  
PAUL MURRAIN  
CONN NUGENT  
TRACY ORLEANS  
JULIO CÉSAR PEREZ  
ANDRÉS DUANY  
ELLEN DUNHAM-JONES  
BETH DUNLOP  
RAFAEL FORNES  
CHRISTINE FRANCK  
RAUL GARCIA  
GARY HACK  
DENNIS HECTOR  
DEBRA HEMPEL  
PETER HETZEL  
STEVEN HURTT  
GEORGY JOHN  
SHELLEY POTICHA  
ELIZABETH PLATER-ZYBERK  
WITOLD RYBCZYNSKI  
ROBERTO SEGRE  
LUCIEN STEIL  
ROB STEUTEVILLE  
EMILY TALEN  
DHIRU THADANI  
LUIS TRELLES  
JORGE TRELLES  
TEOFILO VICTORIA  
C. WILLIAM WESTFALL

# **Appendix IV: THE VISEU DECLARATION ON ARCHITECTURAL EDUCATION IN THE 21<sup>st</sup> CENTURY**

## **Preamble**

We believe that it is the primary task of architects and urbanists to improve quality of life by creating an enduring legacy of beautiful, functional, equitable and healthy environments. To that end, we must prepare students to engage the complex challenges of the 21st century, and to:

- Consolidate and regenerate existing cultural and natural resources;
- Identify the knowledge and skills that constitute the diverse heritage of humanity;
- Build enduring and sustainable cities, towns, villages and countryside, contributing to continuity and coherence of place;
- Facilitate civic engagement, social diversity and economic vitality while protecting local identity and ecosystems;
- Assess and learn from past successes, failures and unintended consequences.

We reject the fragmentation of specialised education in architecture and urbanism, and we support a more integrated approach that includes:

- The need for leadership by educated generalists as well as trained specialists, in recognition of the inseparable link between architecture and urbanism;
- An ecological understanding of the built and natural environments, with attention to the full range from small- to large-scale patterns;
- An explicit incorporation of processes, including collaborations with other disciplines and with citizens;
- An open discourse between theory and practice;
- The cultivation of practices and habits of life-long learning.

## **Section I: Goals**

We agree that our architectural education will:

- Engage the larger context of human aspirations and needs, and the rich knowledge of other disciplines;
- Teach and learn from history and experience;
- Learn to engage and harness the means of production, from craft to mass production;
- Build and share a body of professional knowledge and data;
- Recognise the unique role of urbanists and architects as form-givers: not as individual artists acting in isolation, but as professionals engaged with citizens in creating forms that satisfy human aspirations and needs.

## **Section II: Methods**

We therefore agree that architectural education should:

- Create regular opportunities for engagement with other professions, disciplines, organisations and individuals; and gather knowledge and educational resources through conferences, charrettes, publications, and collaborative research;
- Include case studies, apprenticeship and practical work, and the study of historical precedent;
- Facilitate scholarly exchange, research, demonstration projects and experimental investigations;
- Gather and distribute a coherent body of curricular materials, definitive texts, protocols, model codes and on-line resources;
- Encourage the generation of form in rigorous design processes that include research, analysis, drawing, modelling and computer simulations.

### **Section III: Curriculum**

We agree to develop architectural education in a supportive environment with a rich studio culture, and grounded in these subject areas:

- Arts and Sciences: humanities, natural and social sciences;
- History and Theory: world architectural and urban history, precedents, principles, processes, travel and field studies;
- Technology: engineering, construction, materials and building crafts;
- Skills: analysis, research, feasibility, construction management, drawing and sketching, writing and rhetoric, collaboration, digital and physical modelling;
- Design: composition, proportion, scale, buildings, interiors, details, urban form.

### **Section IV: Implementation**

We will establish a global network to implement these educational objectives by:

- Gathering existing curricular models, practices and materials;
- Identifying new models, practices and materials;
- Developing means of distribution, through journals, the Internet and conferences, both within architecture and with other disciplines;
- Fostering collaboration within architecture and with other disciplines, through joint research, student and faculty exchange, lectures and symposia, and travel programmes.
- Promoting interdisciplinary understanding, conviviality and international goodwill.

Signed this 8th day of May, 2004

## **Appendix V: SELECTED RESEARCH MATERIALS (ON CD)**

Directory of the CD Contents:

ESUA Foundational Documents

*Bologna Process \* Boyer Report \* Viseu Declaration \* The Windsor Forum \* The Egan Review of Skills for Sustainable Communities \* The Prince's Foundation Education Programme \* et al.*

ESUA Memos – Correspondence and Notes

*Euro-urb Dialogue \* Memos from advisors \* Notes from meetings \* et al.*

ESUA Research – Additional Resources

*Accreditation Requirements \* Curriculum Theory \* Reading Lists*

ESUA Research – Comparable Course Curricula and Syllabus

*Viseu, Portugal \* TU Dresden \* Harvard University \* New York University \* Edinborough University \* Yale University \* Parsons New School for Design \* Notre Dame \* University of Illinois \* et al.*

ESUA Research – Curriculum Papers on Innovative Topics

*Collaboration \* Professional Education \* e-learning research \* Sustainability and Green Design \* Biophilia \* Evidence-based Design \* et al.*

ESUA Research – Partner Curricula

*KTH \* TU Berlin \* University of Miami \* Michael Stojan \* et al.*

ESUA Research – Reading Lists

*Reading list recommendations from advisors \* Reading list of UC Berkeley \* Draft master reading list*