

Landscape facets
Reflections and proposals for the implementation
of the European Landscape Convention



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French version

Facettes du paysage – Réflexions et propositions pour la mise en oeuvre de la Convention européenne du paysage

ISBN 978-92-871-7079-8

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Cover design: Graphic Design Unit, Council of Europe © Photo: Cathy Bernot

Council of Europe Publishing F-67075 Strasbourg Cedex http://book.coe.int

ISBN 978-92-871-7080-4 © Council of Europe, January 2012 Printed at the Council of Europe

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Preface

The Council of Europe European Landscape Convention (ETS No. 176) is a ground-breaking international treaty adopting an approach to spatial development that takes account of the landscape, in other words the quality of the environmental life of individuals and societies, in keeping with the Council of Europe's concerns with regard to human rights and democracy. It does this by recommending that member states involve the public in all stages of landscape policies.

Since the European Landscape Convention was adopted by the Committee of Ministers of the Council of Europe in Strasbourg and opened for signature in Florence in 2000, the Council of Europe has examined and illustrated some of the themes relating to the convention, in other words certain facets of the landscape:¹

- landscape, towns and suburban and peri-urban areas;
- landscape and transport infrastructures: roads;
- road infrastructures: tree-lined avenues in the landscape;
- European local landscape circle studies;
- landscape and education of children;
- training of landscape architects;
- landscapes and ethics.

This publication is a collection of the relevant reports drawn up by Council of Europe experts in the light of the conclusions of the meetings of the workshops for the implementation of the European Landscape Convention.² These reports were also presented at the Council of Europe conferences on the European Landscape Convention, held at the Palais de l'Europe in Strasbourg on 22 and 23 March 2007,

^{1.} See the previous publication, *Landscape and sustainable development: challenges of the European Landscape Convention*, Council of Europe Publishing, Strasbourg, 2006, ISBN 972-92-871-5988-5.

^{2.} The proceedings of the meetings of the Council of Europe workshops for the implementation of the European Landscape Convention have been published by Council of Europe Publishing in the collection European spatial planning and landscape, and these are available on the European Landscape Convention Internet site: http://www.coe.int/Europeanlandscapeconvention.

and 30 and 31 March 2009. The representatives of governments and of international governmental and non-governmental organisations that attended these conferences had the opportunity to discuss the relevant issues and to take the first steps towards optimum implementation of the convention.³

Following the order in which these reports were presented, we would like to express our gratitude to the experts for the high quality of their work and for their important contributions: Mr Diedrich Bruns, Mr Ignacio Español Echániz, Ms Chantal Pradines, Mr Terry O'Regan, Ms Benedetta Castiglione, Ms Ingrid Sarlöv-Herlin, Ms Marina Kuleshova and Ms Tamara Semenova.

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^{3.} Conference reports: Documents T-FLOR (2007) 14 and CEP-CDPATEP (2009) 19.

VI. Training of landscape architects

Ingrid Sarlöv-Herlin, Council of Europe expert
With the collaboration of the European Council of Landscape
Architecture Schools (ECLAS)



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Summary

The aim of this report is to provide an assessment of the current state of education and training of landscape architects in Council of Europe member states and to provide broad recommendations on curricula and educational structures, with reference to Article 6.B of the European Landscape Convention. This report has been produced with the collaboration of the members of the Executive Committee of the European Council of Landscape Architecture Schools (ECLAS). Situated at the meeting point between natural sciences, social sciences and humanities, combined with skills in planning and design of landscapes, European landscape architecture education is closely related to the aims and ideas of the European Landscape Convention. Landscape architects can facilitate an interdisciplinary perspective and a bridging between sectors. For decades, landscape architecture education in Europe has provided multidisciplinary education in landscape protection, management and planning. Landscape architects are specialised to act as generalists and to propose spatial solutions that involve integrated landscape thinking. Landscape architect education encompasses all types of landscapes, just like the European Landscape Convention, from urban through suburban to natural and rural.

Some of the recommendations brought up in this report are:

- accredited and professionally recognised higher education programmes in landscape architecture should be established by all contracting states (Article 6.B.c). In countries where it may not be possible to establish a full degree programme, arrangements should be made with existing accredited degree programmes in other countries; landscape architecture programmes should conform to the recommendations set out in the Tuning project report, "Tuning landscape architecture education in Europe", prepared by ECLAS, and to the recommendations on landscape architecture education published by the International Federation of Landscape Architects (IFLA);
- in contracting states to the convention where landscape architecture degree programmes already exist, it is important that their content is regularly reviewed to ensure that it meets the needs of the convention. This will involve:
 - a good understanding of the legal status of landscapes (Article 5.a);
 - being familiar with the role and importance of landscape policies for protection, management and planning (Article 5.b);

- understanding of the role and application of public participation in the landscape planning, design and management process (Article 5.c);
- knowledge of how landscape legislation and policies relate to relevant neighbouring fields and disciplines (Article 5.d);
- good theoretical knowledge and practical skills in landscape analysis and assessment (Article 6.C.a and b);
- understanding processes of landscape change and how to monitor them (Article 6).
- the accreditation process for degree programmes should have an appropriate international dimension (Article 8). A formal part of the statutory accreditation process of landscape architecture degree programmes should be concerned with the degree to which the programme meets the needs of the convention;
- there should be a formalised relationship between the professional body in a country and the education programme in order to ensure that degree programmes continue to meet the needs of practice with regard to the competences of graduates relating to the implementation of the convention;
- landscape architecture programmes should develop and offer in-service training programmes to officials involved in both policy making and the day-to-day implementation of national legislation and policies relating to the convention;
- there is a need to develop a European approach to upgrading and improving pedagogic strategies, advanced teaching skills and research capabilities within the context of existing landscape architecture programmes. A European-level institution for advanced studies in landscape architecture should be established.

Introduction

The aim of this report is to provide an assessment of the current situation of the education and training of landscape architects in Council of Europe member states and to provide recommendations on curricula and educational structures, with reference to Article 6.B of the convention. Article 6.B states that each party to the convention undertakes to promote "multidisciplinary training programmes in landscape policy, protection, management and planning, for professionals in the private and public sectors and for associations concerned". The education of landscape architects in Europe is an example of a field of education with a strong interdisciplinary focus looking at all aspects of these topics. This report has been produced with the collaboration of the members of the Executive Committee of the European nongovernmental organisation ECLAS (European Council of Landscape Architecture Schools). The goals of ECLAS are to: "foster and develop scholarship in landscape architecture throughout Europe by strengthening contacts and enriching the dialogue between members of Europe's landscape academic community, representing these interests within the wider European social and institutional context and furthering the discussion of landscape architectural issues at the European level" (ECLAS Statutes).

ECLAS is also the initiating organisation behind LE:NOTRE (Landscape Education: New Opportunities for Teaching and Research in Europe), a European Union funded Thematic Network in Landscape Architecture. Since the start of the project in October 2002 the number of European member universities in LE:NOTRE has increased from 72 to more than 100. A wide range of professional and other stakeholder organisations are also part of the LE:NOTRE network.

Furthering international co-operation on landscape issues is one of the central goals of the European Landscape Convention, and ECLAS is an international organisation which has supporting co-operation between European academics as its core objective. It is important to note that the work undertaken by ECLAS within the context of the LE:NOTRE Thematic Network Project on the development of an interactive website (www.le-notre.org) has resulted in the creation of an effective and innovative platform for communication and the exchange of information between academics across Europe. By means of this initiative, the rather diffuse goal of promoting international co-operation has been operationalised in a way that facilitates exchange between European landscape architecture academics on a day-to-day basis. The recommendations presented in this report are based on the work carried out by ECLAS members within the LE:NOTRE network over the past seven years.

1. What is landscape architecture?

Landscape architecture as a field of professional activity and an academic discipline is concerned with the conscious shaping of the outdoor space at various levels. It

involves planning, design and management of the landscape to create, maintain, protect and enhance places so as to be functional, beautiful and sustainable and appropriate to diverse human and ecological needs.

The multifaceted nature of the landscape and mankind's interaction with it means that the subject area is one of unusual breadth, drawing on and integrating concepts and approaches, not just from the two sides of the traditional divide between the creative arts and the natural sciences, but incorporating many aspects of the humanities and technology as well. This complexity is closely reflected by the diversity of approaches to the discipline which have developed throughout Europe. In some countries, for example, contemporary landscape architecture can trace its roots back to horticulture, while in others it has grown out of architecture, planning or environmental science, and elsewhere out of agriculture, forestry or ecology and nature conservation.

From a historical perspective landscape architecture has unusually far-reaching European roots. Its post-mediaeval history can be said to have started with the Renaissance gardens of Italian villas; during the 17th century the great Baroque gardens of André Le Nôtre came to dominate European taste, while in the 18th century the English landscape garden became the focus of interest across the continent. With the Industrial Revolution and the rise of towns and cities, the provision of parks and green spaces for the urban population came to be viewed as a municipal responsibility, with some of the first parks departments being established in cities in northern European countries.

Twentieth-century modernism saw the development of a more consistent international approach across much of northern Europe. During the 1920s and 1930s the focus of concern was on the provision of green spaces for physical recreation, sport and leisure activities. In the 1950s and early 1960s, landscape architecture became centrally involved in the post-war rebuilding programme and in the planning of new towns and residential areas. Over recent decades, the discipline has expanded to encompass wider environmental concerns, by combining approaches from the natural sciences and the planning disciplines, developing strategies, methods and techniques for the assessment and amelioration of environmental impacts and also for the treatment of issues associated with sustainability and the conservation of the cultural landscape heritage.

In landscape design, recent trends have involved a concentration on the formal design of urban spaces, on ways in which the historic layers of the landscape can be woven into contemporary proposals for creating new places and on the symbolic importance of landscapes and open spaces in people's lives.

Contemporary landscape architecture can range from carrying out large-scale landscape planning or design projects, such as developing landscape proposals for the future of whole regions or integrating significant infrastructure projects into the landscape and ameliorating their impacts on the environment, through the formulation of strategies for the provision of green space structures and urban nature conservation, to the detailed design of new housing or commercial areas, individual parks, urban public spaces and gardens. Equally, landscape architects may be involved in the development of concepts for the long-term management of historic gardens and landscapes, recreation areas in the urban fringe or of national parks and protected landscapes.

In all cases, the focus of the professional activity is the development and formulation of planning and design solutions for spatial problems of landscape conservation and development, involving the integration of specialist knowledge from a wide range of disciplines and the interests of society as a whole, as well as a large number of sectoral and institutional actors. This frequently takes place in interdisciplinary teams involving other environmental professions, such as architecture, urban and regional planning, and civil engineering.

2. Why is landscape architecture education important for the European Landscape Convention?

According to Article 3, the convention aims: "to promote landscape protection, management and planning, and to organise European co-operation on landscape issues." The convention defines the activities of landscape protection, management and planning respectively in terms of "action", "actions" and "strong forward-looking action".

While many academic disciplines have an interest in the study of a wide range of different aspects of landscapes, as is clear from the above outline of the nature of the discipline, the central focus of landscape architecture is on active intervention in the landscape through means of planning, design and management. The goals of intervention can be located anywhere on a scale starting with the protection or conservation of landscape resources and their associated meanings and values, through to creating entirely new landscapes through development projects.

Landscape architects are thus educated to undertake the planning, design and management of projects concerned with spatial and temporal interventions in the landscape as their central or core competence. Such interventions may be on a larger territorial scale (landscape planning), on a smaller scale on a site of limited size (landscape design) or involving variable timescales (landscape management).

Landscape architecture students are educated to conceive and implement planning, design and management interventions which follow on from a detailed investigation of the characteristics of the planning area or design site, both in terms of its ecological and social conditions as well as its functional needs and cultural meanings and values. To be successful, planning and design processes always need to reflect the interests and respond to the concerns of those affected by the projects concerned, such as members of a community or other stakeholders. Because landscape architects cannot be experts in all of the specialist disciplines which are necessary to understand the landscape in all its facets, they are taught to work with colleagues from related disciplines and professions in preparing their plans and to synthesise complex information from a wide range of sources. These include the natural and social sciences as well as the arts and humanities, and also how to involve local people and other interest groups in the planning and design process.

Landscape architecture as a discipline is situated at the meeting point between natural sciences, social sciences and humanities. This also contributes to a strong link to the European Landscape Convention. Landscape architecture schools and universities in Europe have many years of experience in interdisciplinary education focusing on landscape protection, management and planning, and hence a key role for the implementation of the European Landscape Convention. Landscape architecture education mirrors the concerns of the convention in its scope, which also ranges from urban to rural landscapes and from everyday landscapes to outstanding landscapes. It also embodies the aims and ideas of the European Landscape Convention about the necessity of a dynamic, forward-looking, human-oriented, action-oriented, integrated, inter- and transdisciplinary approach to landscapes.

Taught courses offered within European landscape architecture programmes relate closely to both the general and specific measures that are defined by the European Landscape Convention. The term "landscape design" is not specifically mentioned in the convention even though the definition of landscape planning as "strong forward-looking action to enhance, restore or create landscapes" is certainly also appropriate to landscape design too. The term "landscape architecture" is used as a generic term covering the discipline and profession as a whole, which is often broken down into the sub-fields of "landscape design", "landscape planning" and "landscape management", although of course different national and linguistic traditions may result in variations of this terminology. The action-oriented and forward-looking approach of the European Landscape Convention is welcomed by landscape architecture schools as an important counterbalance to the preservation-focused and static ideas about landscape conservation and protection that were earlier often predominant in international and national landscape policies.

Other fields of teaching which have developed more recently are connected to the requirement of the European Landscape Convention "to establish procedures for the participation of the general public and other parties with an interest in the definition and implementation of landscape policies". The professional role of landscape architects requires a high level of skill in communication, both with the general public and other stakeholders. This development is expected to be reinforced by the increasing number of countries ratifying the European Landscape Convention. Several universities in Europe have also developed new teaching areas focusing specifically on landscape analysis and landscape assessment, and this number is also expected to increase as more countries ratify the convention, in order more closely to fulfil its specific requirement for the "identification and assessment" of landscapes.

Further examples are provided by course units in landscape architecture dealing with the design of outdoor space in urban and suburban areas, the design of playgrounds and environments for children, courses with an environmental psychology approach dealing with landscape's restorative effects for human health, well-being and rehabilitation, and courses dealing with the conservation and management of cultural landscapes, historical landscapes, gardens and parks and designated areas. Landscape architecture education hence encompasses teaching dealing with landscapes from the urban and suburban; from everyday landscapes to outstanding landscape of high-preservation values; from derelict suburbs to World Heritage sites.

3. Evolution of landscape architecture education in Europe

Landscape architecture as an academic discipline is relatively new in comparison to many other fields. Although a school for landscape gardeners was established by the German landscape architect Peter Joseph Lenné near Berlin in 1824, it was not until nearly a century later that the first European university degree programme was set up, in the, then, relatively young country of Norway in 1919. In this respect the "New World" was in advance of Europe, with the first American landscape architecture degree programme being established at Harvard University in 1899.

Until the early 20th century, the education of professionals working in the field of landscape architecture had been a varied affair. Either they trained as gardener's apprentices or in gardeners/horticulture higher schools. Alternatively, architects or engineers, who had obtained some knowledge about growing plants by working with gardeners, developed the field in practice. In some European countries, lectures in design and maintenance of gardens, parks and landscapes, with an emphasis on plants, were offered at universities within various other disciplines, in particular horticulture or forestry, but also in architecture schools. The growing scale and complexity and perceived social importance of the planning and design of green space and landscapes in the late 19th and early 20th centuries, together

with their increasing loss to expanding urbanisation, industrialisation and changes in agricultural and forestry practices, led to growing pressures to establish formal programmes of education in landscape architecture.

Four main stages can be identified in the development of landscape architecture education in Europe:

- 1. There was a pioneering phase from 1919 to 1949. In this period the first courses were set up in a number of northern European countries. However, in Hungary, already in 1908 a course in garden design had been set up in the framework of horticultural education.
- 2. A period of significant growth in new degree programmes took place from 1950 until the early 1970s, driven by the social needs of post-war reconstruction, together with a growing environmental concern. Here, a clear gradient in the establishment of landscape architecture programmes was visible between the north-west of Europe, where the discipline developed strongly, and the east and particularly the south of Europe, where the discipline was, and still is, far less developed.
- 3. This was followed by a phase of consolidation during which interest in the discipline increased significantly and student numbers grew on the courses established during the post-war expansion of the discipline, as did the scope and scale of the landscape issues which they dealt with, although there was little further growth in the number of degree programmes.
- 4. The fall of the Iron Curtain in 1989, and the resulting (re)establishment of several independent nation states during the following decade, led to a further phase of founding new degree programmes. While most of these were located in east and South-East European countries, including the Baltic states, former Yugoslavia and Poland, some western European countries also set up programmes for the first time, including in Austria, Italy, Spain and Iceland.
- 5. The development of a growing profession and an expanding number of students and professionals in Europe has been accompanied by an increasing amount of landscape research and a large and increasing number of academic, professional and technical publications. This has been complemented by a growing number of conferences and international exchange opportunities at the professional level.

The period in the run-up to the establishment of the Single European Market in 1993 also saw the setting up of European organisations representing both the profession (EFLA – the European Foundation for Landscape Architecture in 1989) and the academic discipline of landscape architecture (ECLAS – the European Council of Landscape Architecture Schools in 1991).

While the developments outlined above describe the evolution of landscape architecture education across most of Europe during the past 90 years, there is one region where this development has not taken place to anything like the same degree, namely in the Mediterranean countries, in particular Greece, Italy and Spain, and to a lesser extent France. Interestingly, it was from some of these countries that the first initiative for the establishment of the European Landscape Convention came.

4. Current state of education in landscape architecture in Europe

In 2008 there were approximately 95 university departments offering either bachelor, or master (or both) programmes in landscape architecture (including programmes in landscape planning, design and management) in European countries and over 25 university departments which offer courses in the discipline as part of other degree programmes. Universities in the following Council of Europe member states are offering one or more programmes in landscape architecture: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Council of Europe member countries in which no full degree programmes currently exist are: Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Cyprus, Georgia, Liechtenstein, Luxembourg, Malta, Moldova, Monaco, Montenegro, San Marino, "the former Yugoslav Republic of Macedonia" and Ukraine. The scope of this report does not make it possible to go into more detail about the exact situation in each of the different countries. Furthermore, the situation is complicated by the changes set in motion as a result of the higher education reform process, which is currently taking place across the continent under the umbrella title of the Bologna Process.

The diversity of intellectual provenance outlined above is also clearly illustrated by the range of different types of higher education institutions across the continent in which landscape architecture teaching and research has become established. These range from universities specialising in the fine arts to those dedicated to agriculture and forestry, and encompass technical universities as well as the more broadly-based "general" universities.

Not surprisingly, the geographical distribution of landscape architecture degree programmes broadly reflects the geography of the continent, although there are important exceptions to this which will be referred to below. Generally, though, the largest countries in terms of population tend also to have the largest number of programmes and the greatest diversity, while in smaller countries there is often only one programme. Thus, there are a high number of programmes in large countries such as Germany (some 16 programmes) and Turkey (some 18 programmes), while only one currently exists in smaller nations, such as Latvia or Slovenia. Also, not surprisingly, in those countries which have a longer history of landscape architecture education as well as a larger number of programmes, the discipline has tended to develop further and diversify more internally. In most cases, however, these differences tend to be exhibited in the shape of a wider range of opportunities for students to specialise within a particular degree programme, and in a correspondingly wider range of job opportunities within a more mature market. They tend not to be reflected in the development of separate degree programmes each having their own particular specialisation.

While the types of university in which landscape architecture programmes are located and the conditions of their historical development do differ considerably, despite some local variations, the broad approaches to landscape architecture education are perhaps less different than this varied intellectual provenance might suggest. Most universities therefore aim to offer a broad education in landscape architecture which addresses landscape intervention at different scales of time and space, and thus the requirement to undertake courses in both large-scale planning and smaller scale design issues.

A consistent and defining characteristic of all landscape architecture programmes is their central focus on studio teaching focused around planning and design projects, in which students, in some cases individually and in others in teams, are required to develop planning and design proposals to respond to a wide range of possible landscape conservation and development scenarios. The project-based studio forms the main teaching method in landscape architecture programmes, and it is normally expected that such projects will account for at least 50% of student time during the course of their studies.

In particular in the more advanced years of degree programmes – during the last year of the first cycle and for the whole of the second cycle – efforts are made to ensure that student projects have as high a degree of reality as possible. This is frequently achieved by working together with local or regional planning authorities or other "live" client organisations. As a part of such projects, students are expected to interact with "clients" and other "stakeholders", as far as the conditions of an educational project operating on a limited timescale will allow. They are also increasingly required to present their proposals in a public context as their studies progress. While the detailed subject areas of such projects may vary in response to the social and cultural context of practice in any country, the approaches taught to addressing the spatial, environmental and social challenges involved tend to be largely similar.

More traditional forms of teaching, including lectures and seminars, generally have the main purpose of providing the necessary knowledge and understanding to ensure that the physical, ecological, sociological and institutional setting of the landscape context of planning and design projects can be appropriately analysed and evaluated to ensure that proposals are both technically and ecologically feasible as well as being socially compatible. Practical exercises and workshops are often used to mediate between lecture and seminar teaching and large-scale projects, in order to learn and practise particular skills and techniques, such as applying various aspects of information technology, or carrying out social or ecological surveys.

The multidisciplinary nature of landscape architecture means that subject matter from a large number of neighbouring disciplines has to be integrated into degree programmes, both to provide basic understanding in fields such as ecology and soil science, urban design and regional planning, sociology and environmental psychology and the fine arts, but also to be sure that graduates are in a position to be able to work together with specialists from these disciplines in their future professional life.

Depending on the nature of the degree programme on which a student is studying and their own particular interests and aptitudes, there may be an opportunity for them to focus on different aspects of the discipline. Some universities offer the opportunity, for example, for students to focus more on the ecological aspects of planning on a larger scale, while others choose to direct their attention more closely to the design of smaller open spaces, but in almost all cases students will be educated in both planning and design scales as well as in understanding the long-term issues of landscape maintenance and management during the scope of the degree programme as a whole.

Although it is possible to paint the relatively clear picture of landscape architecture degree programmes which is outlined above, their form and content is also subject to a process of continual change and updating in response to the changing social, political, cultural, economic and institutional context within which both universities and professional practice operates. The nature of these changes is both general, but also very specific. General social and cultural developments over recent years have, for example, begun to shift the balance between environmental sciences based approaches, which were very characteristic of the 1970s and 1980s, towards an increasing role for social sciences and humanities-based approaches, although the environmental sciences retain an important role.

Driving forces at the level of European higher education and environment policy have also had an important role to play over recent years, in particular the so-called Bologna Process, which has sought to further more compatibility and comparability between higher education systems within Europe, as well as new environmental

legislation and international conventions, including the European Landscape Convention. Another example of policy developments affecting landscape architecture education over the past decade is the renewed interest in and growing awareness of the public health benefits of parks and green spaces in urban areas.

There are two main mechanisms whereby the changing social context of landscape architecture education has its impact on degree programmes: one is endogenous and takes the form of the process of continuous internal review of programme content undertaken by staff and students, while the second is an exogenous one involving the input of the profession into education.

Some countries where no landscape architecture education is offered are too small to develop full programmes. This is the case in Andorra, Cyprus, Liechtenstein, Luxembourg, Malta and Monaco. In these cases, collaboration with schools in other countries is advisable and in some cases already taking place.

5. Analysis and discussion

The main structural changes currently being brought about within degree programmes are the result of the Bologna Process. In most countries, these have resulted in the restructuring of degree programmes to create integrated landscape architecture degree programmes with a duration of five or six years, taking the form of two separate cycles. The first of these (mostly bachelor programmes) is of 180 or occasionally 240 ECTS units in length. ¹⁹ In most cases, the second cycle programmes have a length of 120 ECTS units, while very few have only 60 ECTS units, as a result of specific national conditions. These mostly follow on from 240 ECTS bachelor programmes to give the same overall length of the whole degree programme. Only a few institutions have preserved an integrated master programme of 300 or 360 ECTS.

The Bologna Process is, however, also acting as a stimulus to influence programme content in an indirect manner. The reason for this is that in the process of restructuring courses, the opportunity has been used in many cases to reconsider content too with the aim of increasing the correspondence with other European programmes. One mechanism for this has been the work undertaken on "Tuning" landscape architecture education within the context of the LE:NOTRE Thematic Network Project.

^{19.} Credits referring to the European Credit Transfer and Accumulation System (ECTS). 60 ECTS are equivalent to one academic year of full-time studies.

Universities which are organised within ECLAS have also been participating in a European Union funded thematic network project, the LE:NOTRE project (Landscape Education: New Opportunities for Teaching and Research in Europe). Within this they are one of the disciplines taking part in the European Union's Tuning project (http://tuning.unideusto.org/tuningeu/), which aims to co-ordinate the contents of higher education by defining competences for graduates in terms of the necessary knowledge, skills and understanding which they should acquire as a result of their studies.

The outcome of this project, which is intended to evolve into an ongoing process of reviewing course structure and content, is likely to involve a greater convergence between the content of degree programmes, even though this is not its expressed aim. The intention of the project is merely to seek agreement on the competences of graduates rather than to in any way harmonise the structure and means of teaching within the degree programmes. The approach taken aims at increased transparency and clarity regarding the nature and the differences between programmes rather than trying to force them into the same mould.

A further factor leading to convergence are the education recommendations published by the European Foundation for Landscape Architecture (EFLA, www.efla.org.) This European professional organisation is the European wing of the International Federation of Landscape Architects (IFLA). Both these organisations are involved in making recommendations with regard to landscape architecture education, and EFLA has developed a system for the recognition of degree programmes. The role of EFLA, which is also mirrored in many European countries by systems of academic accreditation and professional recognition, ensures that there is a mechanism for feedback from the profession into the education system. This formal system is usually reinforced by the fact that in most degree programmes a number of further links to practice take the form of visiting lecturers and studio teachers as well as the involvement of practitioners in the membership of accreditation boards. It is important to note that it is generally accepted that a full qualification in landscape architecture, which will allow graduates to enter the profession, can only be acquired on completion of programmes which are part of the second Bologna cycle.

Therefore, while the philosophy of encouraging European diversity fostered by the Tuning project is very much to be welcomed, and is seen as providing a means of safeguarding regional differences and academic freedom, it must be set against the recommendations that are behind the EFLA recognition process, which are likely to have the opposite effect. But it is highly likely that even the simple process of comparison of different approaches, which lies behind the Tuning project, will itself tend to result in the emulation of good practice and thereby a de facto convergence between degree programmes, even though this is not the main intention.

This process of convergence, which is likely to be the inevitable outcome of the Tuning project, will also be furthered by the very existence of the European Landscape Convention, as this becomes an increasing focus of teaching.

Where differences between programmes exist, these tend to reflect:

- the roots of the institution, such as a horticultural school, a university for agriculture and forestry, a school of fine arts and architecture or a technical university;
- the background of the academic staff giving a specific focus to the subjects taught and research programmes;
- the development of related disciplines (for example, landscape ecology, vegetation science, cultural history, environmental psychology, water management); and, finally
- the demands and development of professional practice within the countries concerned.

There are therefore distinct differences in landscape architecture programmes between European countries and regions, but as a result of the driving forces outlined above, these tend to be differences in emphasis or of maturity and differentiation rather than of fundamental approach. There is, however, one major exception, which is to be found in the Mediterranean countries of Greece, Italy and Spain. Here, the processes of the establishment of landscape architecture degree programmes, which have taken place throughout the rest of Europe, are being challenged to varying degrees by the architecture profession.

The extent to which this is happening is clearly illustrated by a simple comparison between the situation of landscape architecture education in Spain and its much smaller neighbour Portugal, where the discipline was established much earlier and which has more programmes, or between Italy and its neighbour Slovenia where the former has proportionately far fewer programmes. Greece, too, has only a single programme at master level but none at undergraduate level.

This state of affairs means that in the south of Europe there is a shortage of suitably trained professionals able to take an integrated approach to the planning, design and management of landscapes to protect and enhance them. While a number of disciplines exist in these countries which are able to deal with individual aspects of landscape protection, management and planning, none has the unique combination of ecological and sociological knowledge together with the necessary planning and design skills to develop appropriate solutions to complex landscape challenges that are provided by landscape architecture programmes.

Conclusions and recommendations

Establishing new landscape architecture programmes (recommendation to universities and governmental bodies responsible for higher education):

- The key role which the discipline of landscape architecture should play in the implementation of the convention makes it important that corresponding accredited and professionally recognised higher education programmes are established by all contracting states (Article 6.B.c).
- In those countries where it may not be feasible to establish a full degree programme, due to the size of the country, arrangements should be made with existing accredited degree programmes in other countries to provide the necessary specialist inputs to existing related degree programmes (professional or academic).
- 3. Landscape architecture programmes should conform to the recommendations set out in the Tuning project report "Tuning landscape architecture education in Europe", prepared by ECLAS, and to the recommendations on landscape architecture education published by the International Federation of Landscape Architects. This means that there needs to be a good balance between theoretical knowledge and understanding of factors affecting landscapes and their perception, as well as practical skills in project development and implementation. It is important that landscape architecture education equips graduates to work across a wide range of scales and to understand the interaction between local action at the site level and its implications for landscape character on a wider scale.

Adapting existing landscape architecture programmes (recommendation on existing programmes at universities):

- 4. In contracting states to the convention, where landscape architecture degree programmes already exist, it is important that their content is regularly reviewed to ensure that it is optimised with regard to the needs of the convention. In particular this will involve:
 - having a good understanding of the legal status of landscapes (Article 5.a);
 - being conversant with the role and importance of landscape policies for protection, management and planning (Article 5.b);
 - understanding of the role and application of public participation in the landscape planning, design and management process (Article 5.c);

- knowledge of how landscape legislation and policies relate to relevant neighbouring fields and disciplines (Article 5.d);
- good theoretical knowledge and practical skills in landscape analysis and assessment (Article 6.C.a and b);
- understanding processes of landscape change and how to monitor them (Article 6).

In reviewing the content and structure of existing degree programmes, it is important that the role and contribution of other disciplines is actively reviewed.

5. The accreditation process for degree programmes should have an appropriate international dimension (Article 8).

Accreditation of landscape architecture programmes (recommendation to accreditation agencies):

 A formal part of the statutory accreditation process of landscape architecture degree programmes should be concerned with the degree to which the programme meets the needs of the convention (see Recommendation 4 above).

Relationship between the profession and education:

7. There should be a formalised relationship between the professional body in a country and the education programme in order to ensure that degree programmes continue to meet the needs of practice with regard to the competences of graduates in terms of their knowledge, skills and understanding relating to the implementation of the convention.

Provision of specialist training programmes for professionals:

 Landscape architecture programmes should take the initiative in developing and offering in-service training programmes to officials involved in both policy making and the day-to-day implementation of national legislation and policies relating to the convention.

Continuing professional development:

9. The requirements concerning the implementation of the convention should be integrated into the required training programmes for professionals in practice.

Dialogues with neighbouring disciplines:

 Landscape architecture teaching in the degree programmes of neighbouring disciplines is needed to improve co-operation between landscape architecture and these disciplines.

Research-led teaching – the link between teaching and research:

11. Teaching needs to be linked to research, especially but not only, at the level of the second Bologna cycle.

Research training and advanced teaching to build capacity on landscape architecture programmes:

12. With the needs of the European Landscape Convention in mind, there is a need to develop a European approach to upgrading and improving pedagogic strategies, advanced teaching skills and research capabilities within the context of existing landscape architecture programmes. A European-level institution for advanced studies in landscape architecture should be established to pursue this goal.

Acknowledgements

ECLAS would like to thank the Council of Europe for providing the opportunity to produce this report. The editor would also like to thank the members of the executive committee of ECLAS (Richard Stiles, Jeroen de Vries, Simon Bell, Erich Buhmann, Barbara Birli, Alexandre Moisset, Francesca Mazzinio, Kinga Szilagyi, Arie Koster and Ellen Fetzer), who have contributed to this and earlier versions of the report through their participation in two writing workshops in Bordeaux and Genoa in 2008. Particular gratitude is due to Richard Stiles, who has provided a major contribution to the text. Further text input and comments have been provided by Simon Bell, Jeroen de Vries, Barbara Birli, Frederico Meireles Rodrigues, Davorin Gazvoda, Veli Ortacesme, Kinga Szilágyi, Prezmyslaw Wolski, Gloria Pungetti and Carl Steinitz.