TECHNISCHE UNIVERSITÄT WIEN
Vienna | Austria

From Professional Training to Academic Discipline

The Role of International Cooperation in the Development of Landscape Architecture at Higher Education Institutions in Europe

a dissertation submitted to

Univ.Prof. Richard Stiles MA Dip LD Dr. hc

Fakultät für Architektur und Raumplanung

Fachbereich Landschaftsplanung und Gartenkunst

Technische Universität Wien

Univ.-Prof. Dr. Diedrich Bruns

FB06 ASL Architektur - Stadtplanung - Landschaftsplanung

Fachgebiet Landschaftsplanung | Landnutzung

Universität Kassel

by ***Dipl. Ing. Barbara Birli***

Matrikel Nr. 9640090

Vienna September, 2016

ENGLISH ABSTRACT

Some 100 years ago there was no university education in Landscape Architecture in Europe. Landscape Architecture was an unregulated occupation undertaken by individuals, mainly active in their own country. Today it has developed into both an internationally recognised profession as well as an increasingly active and well-connected academic discipline with about 100 universities offering either full programmes or courses.

Not much was known about the actual development from “no university education” to the broad range of educational options that is available today in Europe. There are some descriptions of programme foundations and in particular, of the persons involved on national level. From these the foundations can be understood.

The provision of a European overview allows the understanding of the process as a whole the transformation of these single actions into a systematic approach at European level enables an appraisal of the influence on practice and academia.

This study investigates what role cooperation had on the establishment of higher education programmes in the European context.

Three themes can be identified as being important in this development:

Cooperation in Europe**:** European programmes and professional associations amongst others influenced landscape architecture academic cooperation. Through interviews with the founders and literature research the foundation of national and international associations are described. The foundation of the European Union and the implementation of programmes related to higher education are investigated. The foundation of a landscape architecture cooperation infrastructure is outlined.

Profession and Higher Education: Professional development shaped academic development and vice versa, both ensuring high quality and the outstanding body of knowledge.

The process of establishing academic programmes: Investigations on the actual driving factors and actors within the implementation of education facilities from the very first course to the about 100 education options today were done through a Europe wide survey as well as literature research. In the case studies the first 5 “pioneering” courses and professorships are described in detail. Further significant foundations from all over Europe up to today are outlined.

Acknowledgements

I would like to express my special appreciation and thanks to my advisor ***Prof. Richard Stiles*** for the continuous support of my dissertation, for his patience, motivation, comments and suggestions. As the coordinator of the *LE:NOTRE project*[1], he helped me to understand a European perspective and supported my research not only through tremendous academic support, but also by providing opportunities.

Besides my advisor, I would like to thank ***Prof. Diedrich Bruns*** for his comments and inspiration, but also for the questions he raised which encouraged me to widen my research from various perspectives.

My sincere thanks also go to ***Prof. Karsten Jörgensen, Prof. Meto Vroom, Prof. Olav Skage, Prof. Mike Downing*** and ***Prof. Helmuth Weckwerth*** who provided me with original documents and offered their time for interviews.

Last but not the least, I would like to thank my family: my parents ***Dr. Hans Tönies*** and ***Dr. Edith Tönies*** and my sisters ***Mag. Margit Beffa*** and ***Dr. Susanne Windischberger*** for supporting me spiritually throughout writing this thesis and my life in general. In particular, I would like to thank my husband ***Dipl. Ing. Joachim Birli*** for his patience and continuous support. Special thanks are due to my kids ***Sonja*** and ***Rafael*** for the joy they bring into my life.

[1] http://ln-institute.org/

Table of Contents

1 INTRODUCTION

Some 100 years ago there was no university education in Landscape Architecture in Europe. Landscape Architecture was an unregulated occupation undertaken by individuals, mainly active in their own country. Today it has developed into both an internationally recognised profession as well as an increasingly active and well-connected academic discipline with about 100 universities offering either full programmes or courses.

Not much was known about the actual development from "no university education" to the broad range of educational options that is available today in Europe. There are some descriptions of programme foundations and in particular, of the persons involved on national level. From these the foundations can be understood.

This study investigates the role cooperation had on the establishment of higher education programmes in the European context.

So the development that has been investigated, described and analysed in course of this study includes the following themes that are discussed in the sections to follow:

Profession and Higher Education. *Professional development and academic education – what is the relationship? Do education and profession depend on each other?*

Cooperation in Europe. *From cooperation in between individuals to groups of landscape architects meeting for the purpose of furthering the profession; the academic progress or personal career aims. – What was the role of cooperation in landscape architecture academic and professional development?*

Players and Driving Forces. *Who are the actors and driving forces involved in establishing higher education programmes? Which models for the interrelation in between these players and driving forces in programme implementations can be identified? Cases studies from the very first course up to today are investigated, comparable and divergent parameters in the implementation of new programmes are summarised in models.*

Case Studies. *The actual development of landscape architecture university degree programmes, from the very first professorship to the present day is elaborated in the case of a number of examples.*[2]

[2] including case studies from Norway, Portugal, The Netherlands, the United Kingdom, Germany, Belgium, Hungary, Denmark, former Yugoslavia, France, Turkey, Spain, Italy, Austria, Czech Republic, Latvia, Poland, Slovakia and Slovenia.

The main focus of this study is on Europe. Landscape architecture at the European level provides a particularly interesting example of professional development as:

- The process of founding new landscape architecture programmes is still ongoing and thus can still be observed at different stages of development;
- These varying stages are embodied by different European countries, with the level of landscape architecture higher education considerably more advanced in some than in others.
- In Europe there are many languages spoken, and there are different political systems throughout the 20th century
- The different historical and cultural traditions to be found in different parts of Europe add further depth to the study
- The moves towards European integration and the free movement of goods and in particular professional services, together with the development of a European Higher Education Area are a unique background worldwide.

The provision of a European overview allows the understanding of the process as a whole - the transformation of single actions into a systematic approach at European level enables an appraisal of drivers and actors in landscape architecture programme foundation.

1.1.1 PROFESSION AND HIGHER EDUCATION

SQ1: What was the actual chronological process of establishing Landscape Architecture academic programmes in Europe?

University education is according to *Mieg* (2005) regarded as one of the milestones in professionalisation.

Not anyone can call themselves a landscape architect and work as such. In countries where the profession is protected, in order to become a landscape architect (as in the case of medicine or law) it is necessary to first gain the relevant academic qualifications and then a minimum of practical experience before passing professional examinations. However, this was not always so.

While the education at the apprentice level, in various forms of gardening and horticulture, is known and documented[3] the development of landscape architecture higher education is documented only fragmentally. As outlined above, the chronological description of the higher education options is one of the sub-research questions. Related to this is the question of how actually landscape architecture higher education – in its widest sense - started? Which structures for education were available?

This in turn raises a number of further sub questions:

Which universities in which countries were early in setting up courses and professorships and what were the reasons for the very first landscape architecture programme in Europe? Which individuals were involved in founding these very first programmes and what was the impact of this for the profession as such? Education requires institutions, and these require resources. What were the reasons to receive funding for the establishment of a landscape architecture higher education programme?

Research produces knowledge, and this is conventionally codified in the relevant specialist literature. How did this process get initiated in the case of landscape architecture when there were no qualified professionals nor practitioners? Who wrote the first specialist textbooks on landscape architecture, and what forms of education were available at the beginning of the professionalisation process..?

[3] https://archive.org/details/encyclopaediaofg00loudrich

SQ2: What is the relationship in between the professional and the educational system?

Education plays a vital role in the establishment of all professions. The process by which a profession arises from a trade or occupation – professionalisation – has been described by Wilensky (1967), Abbott (1991) and Mieg (2005) as a development in seven steps (order may vary):

(1) A job becomes a full-time occupation;

(2) A training school is established;

(3) A university program is founded;

(4) A local professional association is incorporated;

(5) A national professional association is founded;

(6) State licenses are issued;

(7) A code of Ethics is structured and followed;

To what extent did landscape architecture reflect these steps of professionalisation?

Chapter 2 will outline and discuss these questions with a focus on the relationship in between a recognised profession and a formal (university) education.

1.1.2 COOPERATION

SQ6: What was the role of cooperation in landscape architecture academic and professional development?

The chapter on cooperation focuses on the development of "institutional structures" for landscape architecture academics and landscape architecture professionals to cooperate. Although the aims and approaches of professionals and academics are different to some extent, with the professionals focused on the market and on selling their knowledge (and goods) and the academics focused on teaching and research, many of these actions of building up a "cooperation infrastructure", were done jointly. For example, IFLA, the International Federation of Landscape Architects, has been founded by a group of professional landscape architects and the landscape architecture academia together with landscape architects employed in the public sector. (compare 3.1)

In particular at the beginning of the 20th century at the start of the professionalisation story those landscape architects that had either founded offices or were employed in the public sector also were the persons teaching at the universities, giving courses in landscape architecture in programmes of other disciplines.

At national level the actual number of landscape architects and in particular of landscape architecture teaching staff was small keeping the actual number of interactions low. To

overcome the lack of exchange and the lack of input to professional knowledge on national level they met at international conferences and fairs. The discussions and the exchange there supported cooperative actions of mutual support in building up teaching facilities. Details are outlined in chapter 3 and in the case studies.

Further to these needs coming from within the profession, European history contributed significantly to an improvement of international exchange. The professional development at EU level towards a single European market accelerated the establishment of academic and professional organisations. In the 1980s the European Council of Landscape Architecture schools (ECLAS) and the European Federation of Landscape Architects (EFLA) were founded which offered an audience to discuss and handle professional issues on European level. Although some actors, were active in both of these foundations, a decision to keep these organisations separate meant a separation of professionally oriented activities on European level (for example concerning the European single market) and academic oriented international activities (furthering the research infrastructure).

These organisations had different approaches, but they both were founded with the principal aims of ensuring quality within the discipline and establishing the subject area in the market, at universities and in society in general. The existence of these organisations provided regular communication platforms for cooperation and exchange in the form of annual meetings, fairs and conferences.

From the mid-1980s on EU programmes, such as the ERASMUS programme that funded students and teacher exchange and further the European context in higher education were of relevance in this context. Which actions were taken within the ERASMUS programme relevant for landscape architecture academia? What was the role of the single European market in the education sector?

The first international treaty to be exclusively concerned with all dimensions of the European landscape is the European Landscape Convention (ELC) that had been ratified in 2000. It promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues. Amongst others it demands an education of specialists concerned with the landscape. How did it actually contribute to landscape architecture academic and professional development?

Besides the cooperative aspects, also competition occurred. Competition can have both beneficial and detrimental effects. Did competition in between universities, (competing for students) have positive or negative impacts on the foundation of landscape architecture programmes? Was the demand side growing in step with supply of places?

Chapter 3 highlights these developments and the relevance of cooperative actions on landscape architecture development.

1.1.3 ACTORS AND DRIVING FORCES

SQ3: Which driving forces in establishing higher education programmes can be identified?

SQ4: Who were the main personalities involved in establishing higher education programmes?

A useful approach to investigating the phenomenon of landscape architecture education growth in the wider European context is to consider it in terms of the actors and driving forces involved. Driving Forces can be seen as "clusters of trends" influencing the formation of the profession of landscape architecture. Among them, “general” driving forces valid for a society as a whole can be identified, as well as subject specific driving forces valid for the discipline of landscape architecture in particular. (Compare 4.1)

The small group of "pioneers of landscape architecture education" can retrospectively be thought of as the first key actors, although that is probably not how they saw themselves at the time. Many more actors were involved in due course, such as the state, the university and professional organisations.

SQ5: Which models for the interrelation in between these actors and driving forces in programme implementations can be identified?

Through the discussion of these actors, their relations to each other and driving forces influencing them, it is possible to define models. This discussion is in particular interesting as it sets out the kind of actions taken in between the players that finally lead to a full university programme in landscape architecture. These interactions will include formal, political, institutional and loose relations in between the acting parties.

Chapter 4 will focus on these players, driving forces affecting them and the relationships between them.

1.1.4 CASE STUDIES.

SQ1: What was the actual chronological process of establishing Landscape Architecture academic programmes in Europe?

Despite different languages and recent historical differences (during the 20th century), most European countries have a common heritage due to a common development concerning e.g. the role of education, the importance of the environment etc. What they all had in common was the fact that there was no education in landscape architecture at the start of the 20th century whereas nowadays there is an education in almost all countries of Europe.

The political process of the formation of the European Union is a unique development and decisive for cooperation within Europe. The situation in Europe differs thus significantly from

the other main regions such as the United States of America or Australia in which landscape architecture developed.

In each country in respect of their landscape context or potential educational infrastructure similar questions arise concerning the main socio-economic driving forces behind the start of an academic education in landscape architecture and the persons and initiatives involved in a programme implementation.

Chapter 5 offers a wide range of summaries of programme implementation in different European countries. The individuals, initiatives and backgrounds from politics and society that eventually led to the implementation of a landscape architecture study programme at a European University are outlined.

The five very first programmes – each in separate countries (Norway, Germany, The United Kingdom, The Netherlands and Portugal) - are described in more detail, while further case studies cover the way in which landscape architecture education developed in other countries. The period of time covered ranges from 1919, when the first landscape architecture higher education programme in Europe was established, up to the year 2015. The locations described are from all over Europe thus the case studies are presented in a certain order based on the structure provided by the models.

1.2 RESEARCH DESIGN

The following table outlines the structure of research questions, sub questions and methods to find answers.

Research Question	Sub Questions (SQ)	Methods
What role did cooperation have on the development of landscape architecture higher education in the European context?	*SQ1: What was the actual chronological process of establishing Landscape Architecture academic programmes in Europe?*	Europe-wide survey among all universities offering a degree programme or an education in landscape architecture Verification of data using other sources (literature) Analysis of data submitted in survey contributions, literature and web entries in terms of time Sorting of data in time periods
	SQ2: What is the relationship in between the professional and the educational system?	Literature research Application of existing literature by Wilensky (1967), Abbott (1991) and Mieg (2005)
	SQ3: Which driving forces in establishing higher education programmes can be identified?	Analysis of data submitted in survey contributions, literature and web entries in terms of driving forces
	SQ4: Who were the main personalities involved in establishing higher education programmes?	Analysis of data submitted in survey contributions, literature and web entries in terms of actors
	SQ5: Which models for the interrelation in between these actors and driving forces in programme implementations can be identified?	Development of models based on driving forces and actors involved in programme foundations
	SQ6: What was the role of cooperation in landscape architecture academic and professional development?	Compilation of development of cooperative actions in landscape architecture academia including: international professional organisations, international academic organisations, international reunions and conferences, internet based options for cooperative landscape architecture related actions

1.3 APPROACH AND METHODS

The research question of the dissertation is *"What role did cooperation have on the development of landscape architecture higher education in the European context?"*

This following set of sub research questions have been defined in chapters 1.1.1 to 1.1.4

SQ1: What was the actual chronological process of establishing Landscape Architecture academic programmes in Europe?

SQ2: What is the relationship in between the professional and the educational system?

SQ3: Which driving forces in establishing higher education programmes can be identified?

SQ4: Who were the main personalities involved in establishing higher education programmes?

SQ5: Which models for the interrelation in between these actors and driving forces in programme implementations can be identified?

SQ6: What was the role of cooperation in landscape architecture academic and professional development?

In this section, the methods used to find answers to these research questions will be outlined:

Methods SQ1: What was the actual chronological process of establishing Landscape Architecture academic programmes in Europe?

To investigate the *founding dates, the names of first professors, the names of persons founding the course or initiating the foundation* an excel sheet has been compiled that included all the universities with a landscape architecture degree programme and universities offering single courses in landscape architecture. These lists were available from the *LE:NOTRE project* (compare 3.6.1.1), an EU co-funded project that was established in 2002 with the aim of furthering cooperation and involving the wider landscape architecture academic community in Europe and beyond. This network included (as full members or associated members) all the universities offering higher landscape architecture education in Europe. The completeness of this list has been verified using the internet, searching for further landscape architecture programmes and courses.

Through this excel list the addressees of the then to follow survey were defined. It included 101 universities from Europe (see appendix 7.3, 7.2).

A questionnaire, a sub web site on the LE:NOTRE web site and literature research had the aim to add data concerning *founding dates, the names of first professors, the names of persons founding the course or initiating the foundation* to this excel file. So the excel file was the tool where all data was collected to be then analysed.

The questionnaire consisted of two parts.

In the first part the recipients were asked to conduct an interview with the course pioneer or other persons qualified to describe the establishment of the landscape architecture programme. The outcome of the first part was a story describing the development step by step; from first initiatives, first lectures to the legal establishment of the study programme and beyond describing all persons and associations involved.

The second part asked for the following data:

Date of approval of first professorship in Landscape Architecture
Name of first professor
Date of launch of first department of Landscape Architecture
Date of legal establishment of full programme
Subject area of first lectures
Books and Journals used for early teaching
Kind of university where the programme was established
Date the university became a member in an international association concerned with landscape architecture (EFLA, ECLAS, IFLA,…)

The survey has been conducted in the period from summer 2006 to autumn 2009. In August 2006, the questionnaire (see Appendix) was sent to the academic staff (992 persons were contacted) at the 101 universities together with the request to fill it in with regard to the development of the programme at their institution.

A sub website on the web site of the LE:NOTRE project, called *Pioneers of Landscape Architecture Education* was set up where the questionnaire described above and an explanatory description were made available to the members of the LE:NOTRE network, along with instructions about how to participate. The members of the network- academics all over Europe - were contacted using the network newsletter mailing system and asked to put texts online (the web site provided the technical means to do so). Three reminders were sent in 2008 and 2009 the total number of institutions reached rose from 101 to 116 due to a rise in members of the network.

The sub web site had been changed in 2009 to an 'encyclopaedia' – an online tool similar to Wikipedia - where articles could be written and published. A section on *Pioneers of Landscape Education* led to even more contributions, but only texts were entered not the questionnaire *Part 2* as described above, that asked for raw data.

43 completed questionnaires were received and 57 interview texts on the website/ encyclopaedia submitted. Further data on founding dates and first professors from literature research describing 75 of the approximately 116 education institutions was found. Some institutions sent questionnaire forms and contributed to the encyclopedia, so there were double responses.

Table 1 Overview contacted and responding institutions "pioneers survey"

Number of institutions contacted	116
Number of persons at these institutions contacted by e-mail	962
Questionnaire forms received	43
Texts on encyclopedia received	57
Double responses questionnaires and web entries	25

To cross check data of part 2 the various editions of the *Red Book* of the IFLA – International Federation of Landscape Architects[4], which provides a list of landscape architecture higher education worldwide from the years of publication onwards was used.

Some colleagues responded that they did not have any information concerning their foundation and that the relevant persons could not be reached any more. In such cases the founding date was investigated using IFLA material and included in the overall statistic in the Excel sheet, but were not added as case studies.

Literature research included sources with a landscape architecture orientation as well as an orientation towards the theory of professions and was done using the following methods:

Handsearching key journals and conference proceedings
Searching relevant Internet resources
Citation searching
Searching electronic databases
Visually scanning reference lists from relevant studies
Reading and writing letters to programme founders that were named by colleagues

Papers and research publications (landscape review, landscape design, The Journal of Landscape Architecture, proceedings of ECLAS conferences) were important sources.

Professional journals, periodicals of national professional associations and publications by the internationally oriented professional organisations such as IFLA or ECLAS as well as anniversary publications of universities with a landscape degree programme were a further fruitful source of information to extract data for the Excel file.

[4] Yearbooks- Red edition, IFLA – International Federation of Landscape Architects, Brussels,

CVs and obituaries of influential teachers provided a further basis for investigating the actual history of the establishment of landscape architecture degree courses at European Universities.

Also magazines (including Garden History, das Gartenamt, Garten und Landschaft, Topos) and grey literature (University publications, interviews in journals or university periodicals, documentations of research projects) provided useful information and resulted in a higher number of dates, names and descriptions of foundations.

Methods SQ2: What is the relationship in between the professional and the educational system?

The investigation of the relationship between profession and higher education was based on approaches provided by Mieg (2005) and Abbott (1991) - a theory of professional development, which is applicable to landscape architecture also. The characteristics of professions were outlined using various sources.

A discussion on the extent to which landscape architecture did conform to these steps of professionalisation is based on the knowledge provided through the literature research and the survey results.

Methods SQ3: Which driving forces in establishing higher education programmes can be identified? SQ4: Who were the main personalities involved in establishing higher education programmes?

To enable a pattern of comparable and divergent developments, an analysis was undertaken taking into account the many people, reasons and parameters involved in the processes of programme foundations.

The landscape architecture education growth (the expansion of higher education programmes all over Europe) was analysed with particular regard to the roles actors and driving forces had on the actual foundation. Basis for this analysis were the submitted questionnaire forms and literature sources.

Driving Forces:

The text parts of the survey outlined reasons for programme foundations. These reasons were highlighted in texts and specified in a list.

A first set of driving forces was compiled listing the reasons given by the respondents that marked the start of the development concerned and/or the start of activities that led to a programme (or set of courses) foundation.

The first rough list consisted of double or repetitive entries, so in a second step these were refined, combining similar answers which led to an edited *list of driving forces*. (compare 4.1.1) A further review of this list enabled the compilation of the final set of driving forces.

Actors:

In a first step all persons/organisations and institutions having a role in the processed of programme implementation were extracted. In a second step similarities were merged.

These sources on drivers and actors made it possible to describe 20 countries[5]covering the period of time from 1919 to 2015 in relation to the relevant driving forces.

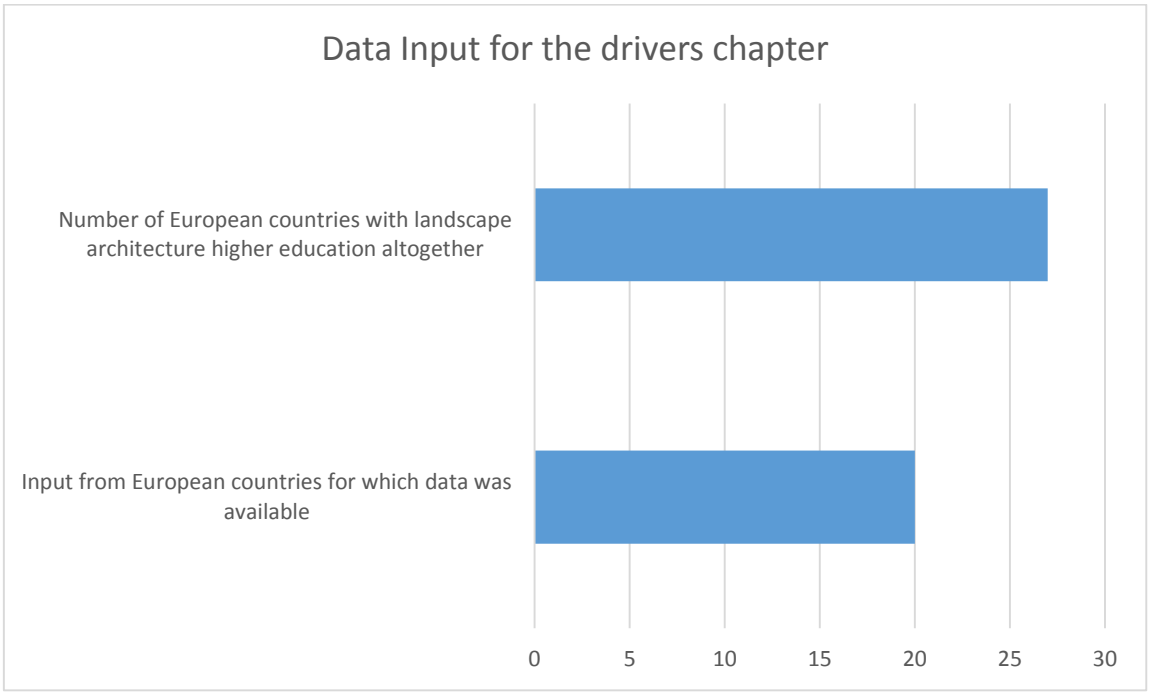


Figure 1: Data input for the drivers chapter

Methods: SQ5 Which models for the interrelation in between these actors and driving forces in programme implementations can be identified?

The pattern of actors and driving forces were used to put forward a number of generic models describing the establishment of landscape architecture degree programmes. These models enabled a further sorting of case studies additional to chronological order taking European countries and different periods of times into account.

Developing such models is useful as they provide a simple and reduced view of the real world system and can thus help to understand how the processes operate and how their component parts interact.

This analysis leads further to the definition of a series of simple models which serve to describe typical patterns of landscape architecture course foundations. In addition to a chronological order, the analysis of the case studies on the basis of the proposed models

[5]Norway, Portugal, The Netherlands, the United Kingdom, Germany, Belgium, Hungary, Denmark, former Yugoslavia, France, Turkey, Spain, Italy, Austria, Czech Republic, Latvia, Poland, Slovakia and Slovenia.

enables the recognition of patterns through comparable and divergent parameters, variables and relations and the definition of models of "the development of landscape architecture programme implementation

Further, they help to understand the various forms of cooperation that occurred in this process -at and between - the European universities in question. With their help, the many individuals, organisations and driving forces that played a role in the various processes can be seen to have – despite their different background and personalities - comparable roles.

The most informative text contributions of part 1 of the survey were added to by literature sources. Case studies were selected for each of these models. These case studies provide various interpretations of what happened in practical terms in the past when higher education programmes were founded.

Methods SQ6: What was the role of cooperation in landscape architecture academic and professional development?

For the discussion and analysis on cooperation the survey provided information on joint work and exchange.

A further method to investigate the role of cooperation and in particular to investigate deeper the beginnings of institutional cooperation was archival investigation. The René Pechère Library in Brussels holds all the IFLA's original documents, including material about early international joint work[6]. These texts(minutes of meetings and letters) provided dates, descriptions of meetings, names of persons involved and descriptions of internationally oriented activities of the IFLA committee. Further to this, descriptions of conference preparations and the IFLA representatives' working methods from the organisation's early days on helped to understand how IFLA representatives worked, which "tools" they used, what their intentions, obstacles and solutions were.

Cooperative actions were analysed on national and international level and on a personal and institutional level.

To gain a clearer picture of the actual international meetings and on the exchange involved for research and teaching, a survey among international conferences from 1900 on was undertaken.

Personal communications in the form of letters from several of the key actors involved were a useful source of information to describe the development of the European and international professional organisations. These letters were received in particular from emeritus professors who were active in particular in the foundation of the professional organisations. Personal interviews were undertaken with Ralph Gälzer (2005), Mike Downing

[6] During a visit on 1/2February 2010 the original minutes of the IFLA committee, the attendance lists and in particular letters were studied.

(2006), Olav Skage (2006 and 2015 by Karsten Jörgensen), Dusan Ogrin (2006) and Karsten Jörgensen (2006). Dusan Ogrin, Mike Downing responded with letters after the interview, Helmuth Weckwerth provided letters and copies from his own personal correspondence in 2015.

1.4 DISCUSSION OF METHODS

Generally the methods described above worked well.

The LE:NOTRE network (compare 3.6.1.1) web site provided an ideal platform to get more responses. At the annual meetings of this network(which took place between 2002 – 2013) persons from those universities that had not responded were asked to do so. Also personal interviews and informal discussions were enabled that had the aim to raise the total number of data entries to the Excel file by simply reminding the persons concerned on a personal level. Only through these personal contacts the many high quality responses with interviews with the respective founders and “pioneers” were enabled. So cooperation helped to conduct this study.

University staff provided the data in the questionnaire form Part 2 to their best knowledge. Some colleagues had a well elaborated history of their study programme at hand, others did not have any data and submitted a questionnaire form with the interview only.

The interviews with persons involved in the foundation of a landscape architecture programme were undertaken by the university staff members either at the department or at home and while some were elaborate and extensive others were short with only few lines written and unfortunately little time had been invested in them.

Story texts for part 1 of the questionnaire form had a different structure depending on whether they were primary or secondary sources. Those that were done especially for the survey had a clear focus on the founder and the many activities this person took in order to implement the study programme. Those that were taken from official history publications often were more elaborate and detailed concerning the actual founding dates and numbers, but provided only little insight into the elaborate and many, sometimes frustrating work which the pioneers undertook. So the contributions consisting of a real interview had a more personal information than the others.

While the number of replies from universities with landscape architecture courses established in the recent past, as well as from those involved in the early days of landscape architecture higher education, was high, the completed questionnaires included few contributions relating to programmes established in the 1960s and 70s. Also reminders did not improve this and no clear explanation can be given for that.

The text contributions (part 1 of the survey) that were selected for the case studies section are mainly based on personal reports, and thus told from the perspective of the founder, or

the persons involved in the implementation and thus cannot be all entirely objective. Critical reflection on these stories is necessary as it is not known to which extent these stories are the result of personal interest and focus. As outlined in the methodology,(compare 1.3) obituaries were a good source for case studies as they usually include data and facts on the main achievements of the person concerned, and the implementation of a new study course is definitely among these main achievements. But the actual intention of the writer is usually not so much to document the foundation but to praise the recently passed away person and thus the text is not likely to focus on problems and obstacles in the process of implementation, but rather on the results. However, as only few of these foundations have been subject to research or any proper documentation, the stories provide valuable data, which cannot be ignored for this research.

But the lack of documentation is not the only obstacle. A general trend is also that those foundations that were neither the first nor the second study course of a country are poorly documented. The persons concerned are usually “still alive”, the study programme is one among many of a country and only if there is a person with personal interest in documentation there are any sources about these developments. And if there was a documentation, it probably is available only in the mother tongue and not well published nor easily available on the internet.

When compiling the survey, the interviews were seen as the main solution to overcome this obstacles. Through setting a task for the universities to make an interview with the person concerned in setting up the new programme comparable data were available.

The “ideal case” turned out to consist of good and reliable literature sources supplemented by a consistently filled in questionnaire form. However even the investigation of programme foundations turned out to be a demanding task, the investigation of details such as teaching modes and methods over time were hard to be investigated at the European level.

So teaching units, curricula composition at the various universities and the change over time was not subject to this study. Not only is the identification of all these teaching units over time a major challenge, the conclusions drawn from this may result in a judgement on national accreditation and this is not the intention of this study. The change over time of teaching content would have been an interesting further study field but requires a new specific questionnaire and was not intended to be elevated.

The maturity of landscape architecture as a ‘science’ in the sense of Kuhn is another interesting research task, but is not a research question within this study.

2 CONCEPTUALIZATION OF PROFESSION AND HIGHER EDUCATION

2.1 THE DEFINING CHARACTERISTICS OF A PROFESSION

2.1.1 SPECIALISED KNOWLEDGE AND EDUCATION

The terms profession and professionalisation are closely linked to a formalised (university) education. This includes rules for defining a curriculum and conditions for gaining a university degree to prove that specialised knowledge and proficiency have been achieved. A member of a profession not only has the theoretical knowledge but also the skills to apply this knowledge in practice. This technical, specialised and highly skilled work is often referred to as 'professional expertise'. [7][8] Training in this professional expertise involves obtaining (academic) degrees and professional qualifications without which entry to the profession is barred. Maintaining these skills also requires regular updating of knowledge. A subject area being taught at a university leads to influence from the academic world on the subject area and vice versa. This includes not only the education of future members of a profession but also university research to be performed, which leads to the development of the professional knowledge into new fields of practice and theory.

2.1.2 REGULATION

As R. Perk sets out, regulation enforced by statute distinguishes a profession from other occupations represented by trade groups who aspire to establish professional status for their members.(Perks, R.W.1993, p.2)[9] In all countries, professions have their regulatory or professional bodies whose function is to define, promote, oversee, support and regulate the affairs of its members. As a further means of self-regulation the professional organisations themselves participate in international associations to exchange on an international level. The international standards that are set by these organisations regulate also the national level and provide a basis for mutual recognition.

2.1.3 AUTONOMY

"Professionals are autonomous insofar as they can make independent judgements about their work."[10] This usually means "the freedom to exercise their professional judgement".[11]

---

[7]http://www.ingentaconnect.com/content/rsm/hsmr/2004/00000017/00000002/art00004 P C S Lian & A W Laing, The role of professional expertise in the purchasing of health services, Health Services Management Research, 17.2, 1 May 2004 , pp.110-120

[8]http://www.teachingexpertise.com/articles/recognising-professional-expertise-in-science-education-1579 Derek Bell, Recognising professional expertise in science education, accessed June 2008

[9]http://en.wikipedia.org/wiki/Profession - ref-5Perks, R.W.(1993): Accounting and Society. Chapman & Hall (London);ISBN 0412473305. p.2

[10] Bayles, Michael D. Professional Ethics.Belmont, California: Wadsworth, 1981

[11] http://www.wma.net/e/policy/a21.htm The World Medical Association Declaration of Madrid on Professional Autonomy and Self-Regulation, 1987, accessed June 2008

However, as it may have other meanings as well: "Professional autonomy is often described as a claim of professionals that has to serve primarily their own interests...this professional autonomy can only be maintained if members of the profession allow their activities and decisions to undergo a critical evaluation by other members of the profession".[12] The concept of autonomy can therefore be seen to embrace not only judgement, but also self-interest and a continuous process of critical evaluation of ethics and procedures from within the profession itself. While industry and trade are audited by the state, a profession regulates approval through setting standards by members of the profession, mainly through competition.

2.1.4 PRESTIGE

Professions enjoy a high social status, regard and esteem [13][14] conferred upon them by society. This high esteem arises primarily from the higher social function of their work, which is regarded as vital to society as a whole, but professional work also usually enjoys a higher remuneration than other less prestigious occupational activities.

2.1.5 INFLUENCE

All professions have power.[15] This power is used to control its own members as well as its area of expertise and the market. A profession tends to dominate, police and protect its area of expertise and the conduct of its members, and exercises a dominating influence over its entire field, which means that professions can act monopolistically,[16] rebuffing competition from ancillary trades and occupations, as well as subordinating and controlling related trades.[17] According to S Swaffield's paper *Social Change and the Profession of Landscape Architecture in the 21st Century*, from the 1960s onwards professions have been subject to social and economic critique concerning the way they control knowledge and its application as to be inefficient and expensive. As a result, legislation has been implemented in various countries that forces professional work into competition in order to lower prices and improve quality.

---

[12] http://en.wikipedia.org/wiki/Profession - ref-9 http://www.ingentaconnect.com/content/klu/meta/2000/00000021/00000005/00274496 Hoogland J. & Jochemsen H., Professional Autonomy and the Normative Structure of Medical Practice, Theoretical Medicine, 21.5, September 2000 , pp.457-475 accessed June 2008

[13] http://64.233.183.104/search?q=cache:3bUoc0ranJ0J:www.usca.edu/essays/vol62003/tinsley.pdf+professional+esteem&hl=en&ct=clnk&cd=9&gl=uk Ron Tinsley & James C Hardy, Faculty Pressures and Professional Self-Esteem: Life in Texas Teacher Education. accessed June 2008

[14] http://www.rcpath.org/index.asp?PageID=28 Royal College of Pathologists, The role of the College and benefits of membership, accessed 16 Dec 2005

[15] Terence Johnson, Professions and Power,London: Heinemann, 1972

[16] Gerald Larkin, Occupational Monopoly and Modern Medicine, London: Tavistock, 1983

[17] Peter E S Freund, & Meredith B McGuire, Health Illness and the Social Body A Critical Sociology, New Jersey, USA: Prentice Hall, 1995, p.211

2.1.6 ETHICS

Most members of professions accept the professions codes of conduct These are agreed upon on level of professional organisations with the aim to prevent exploitation of the client and to preserve the integrity of the profession. These standards ensure the public trust in the profession as individual practitioners will not be undermined commercially by those who meet lower ethical standards.

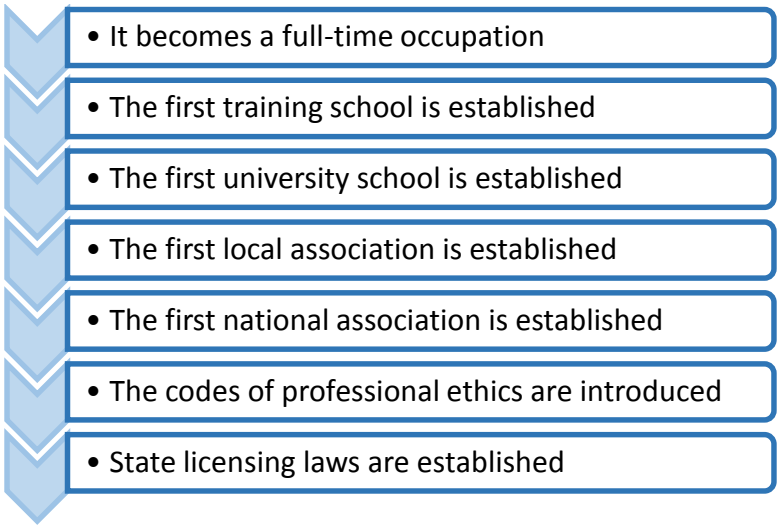
Additionally to these professional ethics, personal characteristics such as Honesty, Integrity, Obedience to the law and Objectivity ensure the high standards of professional work.

2.1.7 MILESTONES OF PROFESSIONALISATION

The nature of professions is described not only through their defining characteristics but also through their evolution, the professionalisation.

Professionalisation is, according to H Mieg (Mieg, H 2005), the process of the development of a qualified group in the direction of a profession. In the 1920s, the sociology of professionalism developed in the United States, a milestone being Carr-Saunders and Wilson's (1933) work, which drew conclusions from the so-called 'leading' professions, medicine and law. Amongst others, Freidson's work, published in 2001, led to a paradigm shift and a new approach in which professionalism is seen as a third organisational logic of labour parallel to the logic of work and the logic of hierarchical administration. So today, the focus is less on professions than on professionalism as a specific mode of work. Professionalism is, according to this, defined through self-organisation and self-regulation of the professional group itself, as opposed to regulation by the state.[18]

[18] Mieg, H. A. Professionalisierung. In F. Rauner (Hrsg.), Handbuch der Berufsbildungsforschung (S. 342-349). Bielefeld: Bertelsmann 2005



[19]

Figure 2: The milestones of professionalisation according to Wilensky and Mieg

The defining characteristics of a profession and these processes of professionalisation go hand in hand with the theory of professionalisation describing the order of implementation with the formation of a *full time occupation* as a starting point.

2.2 SUMMARY CONCEPTUALIZATION OF PROFESSION AND HIGHER EDUCATION

A formalised university education within a professional context is one of the principal steps towards establishing a subject area as a profession. This formalised education ensures that only those who have invested in a number of years of learning and training, and, in so doing, gained the relevant professional knowledge and expertise, are allowed to call themselves a landscape architect.

A formalised education guarantees that the work of landscape architects cannot be undertaken by other professions as their unique field of operation and is a professional guarantee for potential clients. Further aspects to the professional knowledge are gained when in addition to teaching; further thinking and research take place.

Specialist knowledge is ensured through the training schools/university degrees to be established and run. *Regulation* is organised through the establishment of national and international associations. *Autonomy* is a result of these efforts, as these education and regulation facilities are specific to the profession in question. *Ethics* are required to ensure the proper running of the professional work without disturbance from within the same profession and supports the full realisation of the professional knowledge in highest possible quality. *Prestige* and *Influence* finally are the results of the successful professional work (full time occupation) of the professionals.

[19]Wilensky, H. L. 1964: The professionalization of everyone? The American Journal of Sociology, 70, 2,137-158

It is a prerequisite for the establishment of a university level education for the field of a profession, that the field can be recognised by the university as an academic discipline. The discipline is defined in the *Oxford English Dictionary* as "a branch of learning or scholarly instruction". [20] An academic discipline, or field of knowledge and expertise, is a branch of knowledge taught or researched at college or university level. Academic disciplines tend to be distinguished from one another by the subject matter which they deal with and the methods which they use. They are traditionally classified into the main categories of relevant disciplines: humanities, social sciences, natural sciences and arts.

In medieval Europe universities tend to run four faculties: theology, medicine, jurisprudence and arts. Philosophy was included as subject area in all the curricula. In the mid-to-late-19th century non-classical languages and literature, science and technology disciplines such as physics, chemistry, biology and engineering were offered. Today, new fields of study are often created through extending the ideas, theories and methods of more traditional disciplines.

Fields of study usually have several sub-disciplines or branches, and the distinguishing lines between these are not always straight. The development of a new sub-discipline is visible through the foundation of bodies concerned with the new branch and thus a growing research infrastructure, leading to a rise in the number of publications related to the new field of study, the existence of specific literature being a marker in the development of a new sub-discipline.

Academic disciplines are characterised by a set of theories and methodologies specific to the field. Lists of academic disciplines are used at national administration level to sort all disciplines. The existence of a field of study on such a list is the result of the subject area being a recognised element in society and is a basis for its legal existence. It takes a certain level of maturity for a discipline to be on such lists, although this is, in fact, often subject to successful negotiations by professional organisations.

[20] http://education.stateuniversity.com/pages/1723/Academic-Disciplines.html, accessed 22. November 2009

2.3 TEACHING LANDSCAPE ARCHITECTURE PRIOR TO UNIVERSITY PROGRAMMES

To understand the application of profession and higher education to landscape architecture the development of landscape architecture higher education facilities has been researched. In section 6.6 a detailed analysis of the development on teaching, research, cooperation and academic development takes place.

From the theory of professionalisation two steps are of particular interest in context of this study: “the foundation of the first training school” and the “foundation of the first university”. The development of these foundations are described in the following sections.

2.3.1 EUROPES FIRST EDUCATION INSTITUTIONS

On 20. August 1823 Friedrich Wilhelms III. approved the foundation of the Gardener Academy in Schöneberg and Potsdam which was opened on 1st march 1824. Here for the first time schooling in garden architecture was taught in a scientific manner. Requirements for entry were having passed 2 years apprenticeship. In year 1 a basic instruction for all students was given in Schönerberg/Berlin at the accompanied botanical garden, which was led by Christoph Friedrich Otto. Lecture sessions 2 to 4 were given in *Wildpark bei Potsdam* and the accompanied woodlands of *Pirschhaide*, where Peter Josef Lenne was heading the institution. Gardeners for trade "Handelsgärtner" were thought in Lecture session 2 only, while art gardeners "Kunstgärtner" were thought in Lecture sessions 2 and 3 and garden artists "Gartenkünstler" were thought in Lecture sessions 2 to 4.[21]

The aspired kind of education had to be specified on entry of the school, persons planning to become garden artist had to offer the following:

- A beautiful and comprehensive script
- Basic knowledge in Latin and mathematics, comparable to the third school year
- Comprehensive knowledge in calculating
- Ability in drawing

Peter Josef Lenné [22] an educated gardener, headed this new institution. He had gained his professional knowledge from his education as a gardener and his personal interest. Study trips took him to Southern Germany, to France, and to Switzerland. In 1811, he completed a long internship in Paris with *Gabriel Thouin*. He started to work at *the gardens of Sanssouci* in 1816.

This formalised education was in regard to the *milestones of professionalisation* essential in the professionalisation of landscape architecture however few training institutions were available in Europe and none were on higher education level. On the other hand the growth of cities, with their increasing hygienic and social problems, led to the creation of more jobs

[21] Institut für Landschaftsarchitektur und Umweltplanung - Technische Universität Berlin (Hg.), 2006, Perspektive Landschaft, Wissenschaftlicher Verlag Berlin, Berlin

[22] Clemens Alexander Wimmer: Aus dem Leben Peter Joseph Lennés. In: Mitteilungen d. Vereins f. d. Geschichte Berlins 85, p. 210-223, Berlin, 1989)

in city administrations in order to design and maintain public green spaces.[23]For example landscape architect *Gustav Meyer* was the first head of the newly established municipal parks department in Berlin from 1870 until his death in 1877.

Parallel to the development of school foundations professional literature had been released. At about this time in 1822 *J. D Loudon* published his "*Encyclopaedia of Gardening*", a major publication of about 1400 pages. In this publication he described the ideal landscape architecture education not only as an education of the professional knowledge, but also including an intellectual education, moral and religion and physical development, he was even concerned with the economic education of young landscape architects.[24].

In April 1849, on the initiative of *Minister Charles Rogier*, two horticultural secondary schools were set up in *Vilvorde* and *Gentbrugge* in Belgium. Spread across the rural districts of *Vilvorde, Houtem* and *Elewijt*, was Laurent de Bavay's 30-hectare market garden, known as the *Pépinière Royale de Vilvorde*, where the *Middelbare Praktische Tuinbouwschool van de Staat* (Secondary Practical Horticultural School of the State) was established. Classes were compulsory for three years and the curriculum was expanded to encompass architecture and drawing classes in 1860, which were given by German landscape architect Louis Fuchs, a student/assistant of the landscape architect Maximilian Friedrich Weyhe in Düsseldorf.

In 1853, another higher education institute was set up in Budapest, by Ferenc Entz, offering an education in garden design and the garden arts. It was soon taken over by the state and became the Institution for Horticulture Education in 1894, with Karoly Räde as head gardener in charge of floriculture and ornamental gardening and Istvan Revesz as teacher of geodesy and landscaping.[25] In the German states, further education institutes were established in *Proskau* in 1868 and *Gelsenheim* in 1872, both of which were criticised for educating people only to be employed by the state or the nobility as their education had the focus on maintenance of large private parks/estates.[26]

The "early" landscape architects had to expand their professional knowledge further from gardening/maintaining private estates to maintaining city green and became thus increasingly concerned with changes in society stemming from industrialisation and a progressive view on how to deal with landscaping activities. The professional knowledge included new approaches to aesthetics, nature and original landscape form. In this process of a changing professional expertise exchanging with others was essential, travelling proved to be useful to gain new approaches.

---

[23] D. Hennebo, Gartenkünstler – Gartenarchitekt – Landschaftsarchitekt, in BDLA – das Berufsbild des Garten und Landschaftsarchitekten, München, 1973

[24] http://www.apl.ncl.ac.uk/coursework/IThompson/19th_century1.htm

[25] M. Möcsenyi, The OrmosSchool, in Ormos Imre, p64, Budapest, 2003

[26] D. Hennebo, Gartenkünstler – Gartenarchitekt – Landschaftsarchitekt, in BDLA – das Berufsbild des Garten und Landschaftsarchitekten, p 11, München, 1973

As the demand for “gardeners” with a broader education grew, the universities extended their curricula accordingly. In Denmark when in 1863, the forestry and horticulture programme was introduced at the *Royal Veterinary and Agricultural University, Fredericksberg* the focus was on flower, fruit and vegetable growing, and garden nursery production. In order to provide specific knowledge that cannot be obtained “in the field” courses in landscape architecture and graphic design were offered as well as part of this education.

Comparable to Denmark also in the German states curricula expanded beyond the basic gardening subjects. In 1850, garden art, as a subject area of fine art, was called for by Professor Eggers at Berlin University. In 1909, with the support of the *Deutsche Gesellschaft für Gartenkunst*, garden art classes were started at the *Kunstgewerbeschule* (Applied art school) in Düsseldorf. The German landscape architect Gustav Meyer (1816-77) published his “*Lehrbuch der schönen Gartenkunst”* (Manual of Beautiful Garden Art) in 1860, (Giseke, U. 2006) [27] which was a much-used book in many of the early landscape architecture university courses, not only in Germany but also in the Scandinavian countries.

The earliest initiatives for teaching garden design in Norway started when a horticultural programme was established in 1887 and was reorganised in 1900. Hans M Misvaer gave 25 hours of lectures in garden design per course and about 100 hours of studio training, mainly based on Meyer’s “*Lehrbuch der Schönen Gartenkunst”*. Five of Misvaer's graduates chose the landscape profession as their career and most of them received specialised training with professional landscape practices in Germany and Denmark before establishing landscape practices in Norway. The first to do so was Marius Rohne, who began working as a landscape architect in Oslo in 1914 and later became parks director of the City of Oslo.[28]

The Versailles school of horticulture, *L'Ecole Nationale d'Horticulture de Versailles*, was founded, as a result of the efforts of agronomic engineer P. Joigneaux, in order to train people capable of developing the horticultural sciences, with mainly lecturers of horticulture. *Edouard André* was professor of architecture and garden art (*architecture et de l'art des jardins*) there until 1892.[29][30]

[27]Giseke, Undine, Perspektive Landschaft / Institut für Landschaftsarchitektur und Umweltplanung, Technische Universität Berlin (Hg.) p.64, Berlin 2006

[28] K. Jörgensen, Two Centuries of International Influence on Norwegian Landscape Architecture, in Byggekunst, the Norwegian Review of Architecture, p42, 43, Oslo, 2005

[29]Edouard André -- Letters to C.S. Sargent, 1886 – 1905, http://oasis.lib.harvard.edu/oasis/deliver/findingAidDisplay?_collection=oasis&inoid=2083&histno=0&targ=12

[30]http://www.1851.fr/hommes/joigneaux/devarennes/sommaire.htm July 2008

2.3.2 PROFESSIONAL DEVELOPMENT OF LANDSCAPE ARCHITECTURE

Who were the people opening up their own landscape architecture practice? What were their strategies for reaching their clients and how did they get educated?

One example of an early practitioner in landscape architecture was Franz Heinrich Siesmayer (1817-1900), who was among the first graduates of *Lenné's Gartenbaulehranstalt* in Potsdam and later opened a practice, with his brother Nikolaus, in the Bockenheimer Schloßstraße of Frankfurt-Bockenheim, advertising his practice in publications such as the journal *Die Gartenkunst* in 1899[31] (Vogt, B. 1999).

One of the biggest nurseries in Europe at that time was situated in Hamburg. It was founded and headed by Jacob Ochs with the assistance of *Leberecht Migge*, both of whom were active members of the *Deutscher Werkbund* and worked in close cooperation with architects. Another large German nursery called *Späth* was situated in Berlin.[32]

One of the first to call himself a landscape architect was Patrick Geddes, biologist and botanist by education, having studied at the *Royal College of Mines* in London, developed ideas on planning and design in the late 19th and early 20th centuries and was calling himself a landscape architect as early as 1904. His letterhead of that time reads: "Patrick Geddes & Colleagues – Landscape Architects, Park and Garden Designers, Museum Planners, etc. City Plans and Improvements, Parks and Gardens, Garden Villages, Museums, Educational Appliances, School Gardens."[33]

One indication of the growth of the profession in Europe was the increasing number of competitions for the design of (public) parks, such as *Schillerpark* in Germany in 1909 with 105 submissions,[34] the work of *Hermann Jansen, von Eberstadt, Möhring, Petersen, Brix* and *Genzmer* being awarded and presented to the public in 1910.[35] However, in Germany publications or contributions to competitions mainly came from landscape architects working for either the aristocracy or the state. From 1905 onwards, self-employed landscape architects began to appear slowly but surely and small companies were even founded that employed landscape architects, leading to the establishment of associations to speak on their behalf. In 1907, the *Deutscher Werkbund*, an association of artists, architects, designers and industrialists was founded in Munich, followed by the *Bund Deutscher Landschaftsarchitekten* (Association of German Landscape Architects, BDLA) in Frankfurt in 1913. Further national associations were set up in the Netherlands with the foundation of

[31] Barbara Vogt: *Franz Heinrich Siesmayer (1817–1900)* Biographien europäischer Gartenkünstler, in: *Stadt und Grün', 48 (1999), Nr. 2, S. 105–111*

[32] http://www.archive.org/search.php?query=subject:%22Landscape%20gardening%22, accessed June 2008

[33] LE:NOTRE encyclopaedia entry by Simon Bell; http://www.le-notre.org/encyclopedia/encyclopedia_show_details.php?encyclopedia_id=38, accessed August 2009

[34] http://www.kunsttexte.de/download/denk/grunert.pdf accessed July 2008

[35] http://www.stadtentwicklung.berlin.de/umwelt/stadtgruen/geschichte/de/stadtgruen/1870_1920/teil_3.shtml accessed July 2008

Nederlandse Vereniging voor Tuin-en Landschapsarchitektuur (NVTL) in 1922, and in Norway with the launch of the *Norske Landskaparkitekters Forening* (NLF) in 1929.[36] This marks a further crucial step in the development of the professionalisation of the subject area, as the foundation of national organisations is one of the principal milestones in that process.

[36] http://www.efla.org/base/frames/centre.asp?LG=uk accessed July 2008

2.3.3 THE FIRST UNIVERSITY DEGREE COURSE WORLDWIDE AND THE DEVELOPMENT TO THE FIRST DEGREE COURSE IN EUROPE

On January 4th, 1899, eleven landscape architects founded the *American Society of Landscape Architects*,[37] with Frederick Law Olmsted Jr. as head. The reasons for the foundation of the ASLA were similar to those in Europe, the recognition of the profession in North America was an aim as well as the development of educational studies in landscape architecture. The group in the US was very active and so in 1900 a university course in landscape architecture was started at Harvard University, further courses were established in the USA at Cornell in 1904 and at the department of forestry at Berkeley in 1913. (Simo, M.L.,p.11, 2003)[38]. The educational background in the US was also similar to Europe with the existing professional course in landscape architecture since 1893 which then was changed into a full landscape architecture programme in 1900.

In Europe, the outbreak of the First World War delayed the development of the profession. The US were faster in setting up independent teaching and learning facilities for landscape architecture at universities than Europe, where the subject area mainly was thought as "additions" to courses in horticulture and architecture or art. Reasons for this fast development might be the stronger financial background on national level and the building of national identity through the setting up and maintenance and design of the landscape, independently from royal estates.

In 1911, a university course in landscape architecture, called garden architecture, was introduced at the *Technische Hochschule* (technical college) at Aachen in Germany as a two-year curriculum with no formalised degree. (Die Gartenkunst, 1912)[39]

In 1909 *Thomas Mawson* had started the first formal lecture series in the department of civic design at the University of Liverpool for students of architecture. (Woudstra, 2010) *Mawson* was a noted practitioner in planning and landscape architecture but the course did not survive beyond the early years of the First World War.[40]

In Germany, *Willhelm II* requested the foundation of a committee consisting of artists and landscape architects charged with establishing war cemeteries. The German landscape architect *R. Hoemann* from Düsseldorf was part of this committee. (Die Gartenkunst, 1918)[41]

As early as 1919, lectures in landscape construction were offered at the *Royal Veterinary and Agricultural University in Copenhagen*. In 1921, *Georg Georgson* was employed as a lecturer

---

[37] http://www.asla.org/FAQAnswer.aspx?CategoryTitle=+About+the+American+Society+of+Landscape+Architects&Category=3146 accessed July 2014

[38] Forest and Garden von Melanie Louise Simo,2003, Virginia, p. 11

[39] Die Gartenkunst, Januarheft, 1912 p. 9, 1912

[40] Jan Woudstra, The 'Sheffield method' and the first department of landscape architecture in Great Britain, Garden History 38/2 (2010), p242-266, Sheffield

[41] Die Gartenkunst, 31, 1918, p. 149

in landscape construction and the history of garden art, while in the same year *Gudmund Nyeland* Brandt became lecturer in garden art at another Danish university, the *Royal Danish Academy of Fine Arts* - School of Architecture.(J. Abel, 1989, p.59)[42,43]

In the same year, 1919, the Norwegian parliament approved the first degree course in landscape architecture in Europe at the *Agricultural University of Norway, Aas*. There, as in other Scandinavian countries in the early 20th century, a burgeoning social awareness was demanding facilities for children's welfare, improved outdoor environment in housing areas and functional sports and recreation areas. A striking example is the City of Oslo Playground Plan of 1920, introduced by Marius Rohne. Such projects required the qualified work of landscape architects –stressing the need for an adequate training programme.

Initially, teaching of landscape design was only covered on a part-time basis but in 1921 Olav L. Moen was appointed professor of landscape architecture having completed additional studies abroad, mainly in Germany and England.[44]

Through the development in Norway Landscape architecture has passed one of the steps of professionalisation outlined in section 2.1.7 as it became an academic discipline. The weight and relevance of this “step” is further discussed in chapter 6.

[42] J. Abel, K. Attwell, EFLA - Teaching Landscape Architecture in Europe,1989, p59

[43]Karen Attwell, Ugeskrift for Jordbrug, Selected Research reviews, 1986, p67-74

[44] LE:NOTRE Rare Knowledge Interview, NO, Aas by Karsten Jörgensen

3 THE PROFESSIONALISATION OF LANDSCAPE ARCHITECTURE THROUGH COOPERATION

Cooperation has the purpose of reaching aims, which cannot be achieved by individuals alone. This common purpose or benefit can be called the cause for cooperation. This chapter will focus on how cooperation in landscape architecture higher education developed.

Groups of internationally active landscape architecture professionals and teaching staff formed themselves in a process which may be named “building structures for cooperation”. Starting with single activities of dedicated and enthusiastic professionals in a non-formalised environment structures were built up, leading to a more formalised cooperation environment. The following sections are concerned with the establishment of institutions for cooperation and the establishment of a “landscape architecture cooperation infrastructure”.

3.1 INSTITUTIONALISING INTERNATIONAL COOPERATION IN LANDSCAPE ARCHITECTURE – THE FOUNDATION OF THE IFLA

On national level landscape architects collaborated in various forms (meetings, letters/national reunions,…) and also in national professional bodies as formalised institutions with statutes and an elected managing board. The formation of IFLA as international organisation concerned with landscape architecture took place in 1948, at a period of time when the profession moved further in the direction of serving the everyday needs of citizens concerning planning. This had influence on both - the public and the profession itself – when, for example, the 1946 *British New Towns Act* led to the commission of a significant number of British landscape architects to work on new town plans.

The professional shift to move away from maintaining the estates of the Wealthy to serving the society in general was also visible in the names of international conferences and exhibitions such as the 1948 international congress which took place from 9 to 11 August in London and was entitled *The Work of The Landscape Architect in Relation to Society***.** A parallel exhibition called *The Landscape of Work and Leisure,* curated by H F Clark, Maria Theresa Shepard and Geoffrey Jellicoe took place from 10 to 21 August Landscape architecture projects from 13 countries providing were exhibited.

The idea that Britain should host an international conference was promoted by the UK *Institute of Landscape Architects (ILA)*, founded in 1929, and the conference location opposite the Houses of Parliament was supposed to outline its importance.[45]The main topics of the conference were housing, industry, leisure, education and landscape practice and its

[45] Anagnostopoulos et al. IFLA – Past Present, Future, Versailles, 2000

relationship to economics, which were addressed in lectures by members of professional organisations.[46]

The conference was followed by a post-conference tour of landscape sites, during which the *Institute of Landscape Architects* organised a meeting, to take place in Cambridge, aimed at taking the first concrete steps towards setting up an international body concerned with landscape architecture. During the meeting, which took place on August 14th, 1948, letters were circulated by the secretary of the ILA suggesting that an organisation of that type might be financially supported by UNESCO.

Twenty people from 14 countries (see table below) were present. They all responded positively to the chair's first question as to whether they wished to form an international federation. They also agreed on a structure of biennial conferences and that English and French should be the working languages, although there was some concern that things should be kept cheap and simple. The first president to be elected was *Geoffrey Jellicoe*, from the UK.

Among these founding personalities were persons having founded garden design offices, being employed by city administrations and teaching at universities. They were educated at higher level or graduates of higher schools in architecture, gardening and urbanism.

The following table provides an overview of educational background and professional background of the persons having founded IFLA.

[46]Imbert D. Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948, Jola 1/2007,

Table 2 Professional and educational background of the persons having founded IFLA

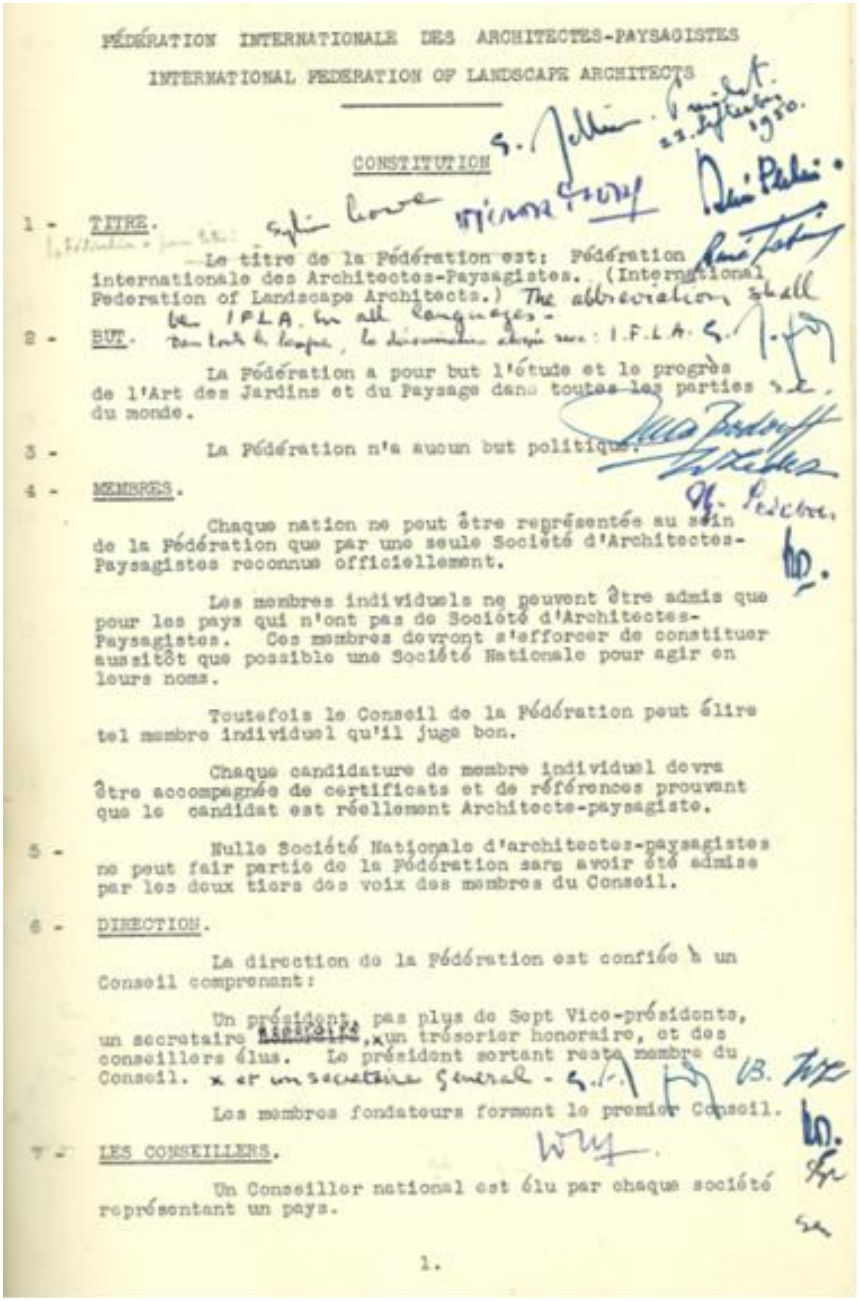
Name[47]	Origin	Educational Background	(main) Work Experience
Holger Blom	Sweden;	Degree from the Royal Institute of Technology in Stockholm and the University of Stockholm and at the Academy of Fine Arts (Urban Planning)	Director of Parks at Stockholm City
Loutrel Briggs	The USA;	Degree in Rural Art from Cornell University	Department of landscape architecture at the New York School of Fine and Applied Art.
Elise Sorsdal	Norway	Graduate from the National Gardening School Vea Garden Art' at the Norwegian Agricultural University	Lecturer at Department of Garden Art, later head of Parks Administration Kristiansand
Alina Scholtzowna	Poland;	Degree from Faculty of Horticulture SGGW in Warsaw	Teacher at the Department of Landscape Architecture and Parkoznastwa later Office of Spatial Planning Warsaw Biurze Odbudowy Stolicy
Pietro Porcinai	Italy;	Studied horticulture at the Regia Scuola Agraria Media agricultural college	Landscape designer , Office owner in Florence (with the architects Nello Baroni and Maurizio Tempestini) author Domus magazine
Catharina Polak-Daniels	The Netherlands	Initially trained as a cooking teacher, Degree from Art Academy and the Higher Agricultural School in Groningen	From 1935 on landscape architecture office
Paul Olsson	Finland	Master degree from Köstritz general Garden Institute in Germany	Head of Helsinki City gardener's office, owner of a garden architecture office in Helsinki
René Pechère	Belgium;	Degree in Horticulture	Head of Brussels city gardens
Walter Leder	Switzerland	Degree from Gartenbautechnikum Köstritz	Landscape architect and garden designer
Sven Hansen	Denmark;	Degree as Gardener from the Royal. Vet.- and Landbohøjsk	Employed as city gardener in Aarhus, Own practice since 1945
Luis Riudor Caro	Spain	Degree in Architecture	Professor at the School of Architecture, Barcelona
Brenda Colvin,	UK	Training in garden design from Madeline Agar at Swanley College	Office owner (garden design) since 1922
Sylvia Crowe	UK	Training in garden design from Madeline Agar at Swanley College, Training in horticulture, apprenticeship with Edward White at Milner,	Working as a landscape and garden designer for the nurserymen and garden contractors William Cutbush
Geoffrey Jellicoe	UK	Degree from Architectural Association in London	Architect, town planner, landscape architect and garden designer, landscape theorist
Ferdinand Duprat	Belgium	Degree in gardening in Kew Gardens/ London,	Landscape architect, author, teacher
Victor Dors	Spain	Degree in Architecture	Architect and urbanist, professor and director of the Superior Technical School of Architecture of Madrid

[47] Anagnostopoulos et al. IFLA – Past Present, Future, Versailles, 2000

Maurice Thionnaire	France;	n/a	n/a
Carlos Cariola	Chile	n/a	n/a
René Latinne	Belgium;	Degree in Horticulture (Gent, Vilvoorde)	Own design office in Antwerp
Edwin Kay	Canada	n/a	n/a

(sources see 7.12.1)

In the minutes[48]of the founding meeting, the words “simple” and “brief” were often mentioned by Jellicoe himself, suggesting that he was the person requesting that things be kept uncomplicated. There was, however, some discussion about the actual location of the IFLA’s future headquarters. On behalf of the *Association Belge des Architects de Jardins*, René Pechère offered to host the office in Brussels from 1950 onwards (Anagnostopoulos et al, 2000).



FÉDÉRATION INTERNATIONALE DES ARCHITECTES-PAYSAGISTES

INTERNATIONAL FEDERATION OF LANDSCAPE ARCHITECTS

CONSTITUTION

1 - TITRE.

Le titre de la Fédération est: Fédération internationale des Architectes-Paysagistes. (International Federation of Landscape Architects.) The abbreviation shall be I.F.L.A. in all languages.

2 - BUT.

La Fédération a pour but l'étude et le progrès de l'Art des Jardins et du Paysage dans toutes les parties du monde.

3 - La Fédération n'a aucun but politique.

4 - MEMBRES.

Chaque nation ne peut être représentée au sein de la Fédération que par une seule Société d'Architectes-Paysagistes reconnue officiellement.

Les membres individuels ne peuvent être admis que pour les pays qui n'ont pas de Société d'Architectes-Paysagistes. Ces membres devront s'efforcer de constituer aussitôt que possible une Société Nationale pour agir en leurs noms.

Toutefois le Conseil de la Fédération peut élire tel membre individuel qu'il juge bon.

Chaque candidature de membre individuel devra être accompagnée de certificats et de références prouvant que le candidat est réellement Architecte-paysagiste.

5 - Nulle Société Nationale d'architectes-paysagistes ne peut fair partie de la Fédération sans avoir été admise par les deux tiers des voix des membres du Conseil.

6 - DIRECTION.

La direction de la Fédération est confiée à un Conseil comprenant:

Un président, pas plus de Sept Vice-présidents, un secrétaire ~~historien~~, un trésorier honoraire, et des conseillers élus. Le président sortant reste membre du Conseil. et un secrétaire Général - S.J.

Les membres fondateurs forment le premier Conseil.

7 - LES CONSEILLERS.

Un Conseiller national est élu par chaque société représentant un pays.

1.

Image 1: IFLA Constitution Text with Signatures

[48] Source: IFLA minutes of Committee meetings, collected in I.F.L.A, 1948-1968, taken from the IFLA achieve at Rene Pechere Library Brussels, accessed February 2010;

3.2 THE FURTHER DEVELOPMENT OF IFLA AND INTERNATIONAL PROFESSIONAL COOPERATION

The minutes of the meetings of the executive committee of IFLA describe the growth of the international organisation, its path from a newly created body to a still loose but formally established organisation, with a permanent office and projects on a long term basis.

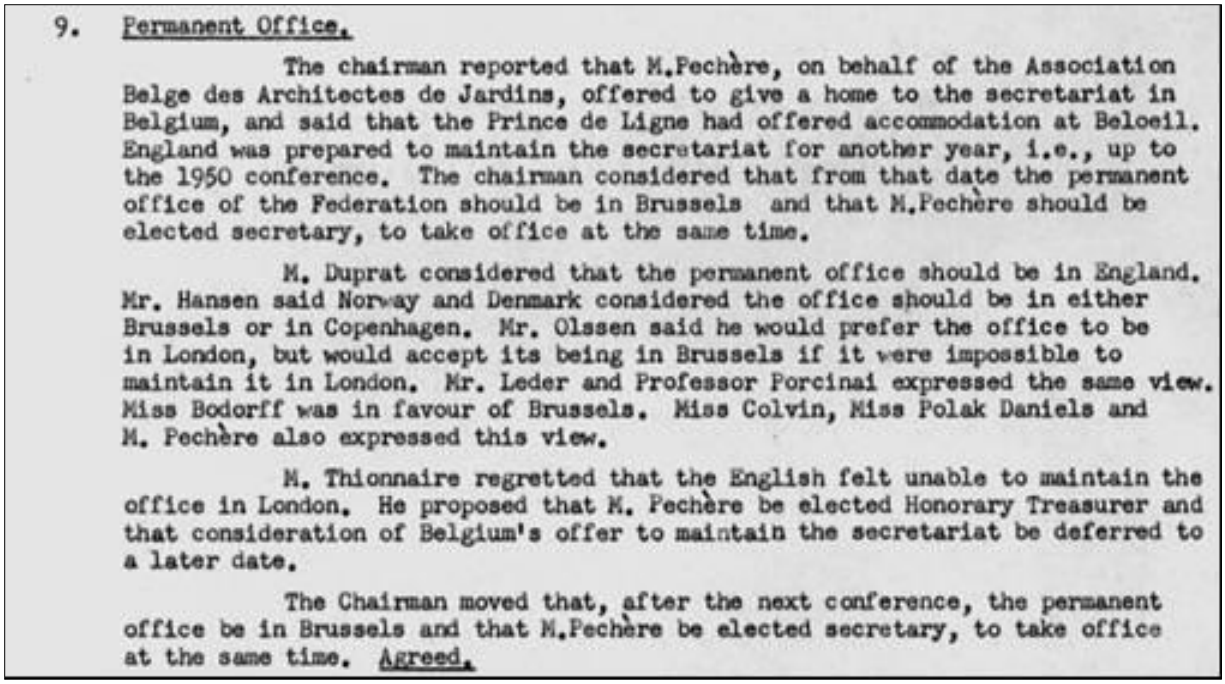
As a clear sign of this development, at the 1952 meeting not only had the constitution documents been presented framed and mounted, also an emblem had been designed and by-laws were agreed upon.

Early projects of the Federation apart from the conferences which took place every second year, were a travelling exhibition and publications - a yearbook and a planned technical journal. While the year book was planned to be published annually, the technical journal should be edited quarterly. The latter was reported as more important; it was seen as *the* tool to implement the actual aim of IFLA to "link landscape architects of all countries for exchange of information".[49]

Basic issues of the organisation were discussed and brought forward in the very first years of its existence. The permanent office had first been situated in London and was later moved to Brussels. Accounting was a complicated issue as the Belgian law did not allow the organisation to open an account, after an account was discussed to be opened in Switzerland finally subscriptions had to be paid to *Rene Pechere* privately.

The organisation lived off its subscriptions; membership consisted of national professional organisations and grew further within the first years. Membership admission in that period of time had a pattern of associations predominating but individuals being accepted where no recognised association existed. Additionally to the founding members membership grew. Spain, Germany, Austria, Israel, USA, Japan, Finland, Portugal, Poland and Hungary joined IFLA by1960. Some of these countries started their institutional membership after some years of individual membership of influential professionals, so obviously lobbying on national level and prove that this new institution "worked" were necessary.

[49] Source: IFLA minutes of Committee meetings, collected in I.F.L.A, 1948-1968, taken from the IFLA achieve at Rene Pechere Library Brussels, accessed February 2010;



9. Permanent Office.

The chairman reported that M.Pechère, on behalf of the Association Belge des Architectes de Jardins, offered to give a home to the secretariat in Belgium, and said that the Prince de Ligne had offered accommodation at Beloeil. England was prepared to maintain the secretariat for another year, i.e., up to the 1950 conference. The chairman considered that from that date the permanent office of the Federation should be in Brussels and that M.Pechère should be elected secretary, to take office at the same time.

M. Duprat considered that the permanent office should be in England. Mr. Hansen said Norway and Denmark considered the office should be in either Brussels or in Copenhagen. Mr. Olssen said he would prefer the office to be in London, but would accept its being in Brussels if it were impossible to maintain it in London. Mr. Leder and Professor Porcinai expressed the same view. Miss Bodorff was in favour of Brussels. Miss Colvin, Miss Polak Daniels and M. Pechère also expressed this view.

M. Thionnaire regretted that the English felt unable to maintain the office in London. He proposed that M. Pechère be elected Honorary Treasurer and that consideration of Belgium's offer to maintain the secretariat be deferred to a later date.

The Chairman moved that, after the next conference, the permanent office be in Brussels and that M.Pechère be elected secretary, to take office at the same time. Agreed.

Image 2: Excerpt from minutes of the IFLA committee meeting held in Paris, 18. June 1949

The office costs were paid by national organisations (the Brussels office was made available by *Association Belge des architects de Jardins*). A self-supporting office was desired and funds were proposed to be asked from the UNESCO, but this also felt potentially to prejudice the independence of the organisation.

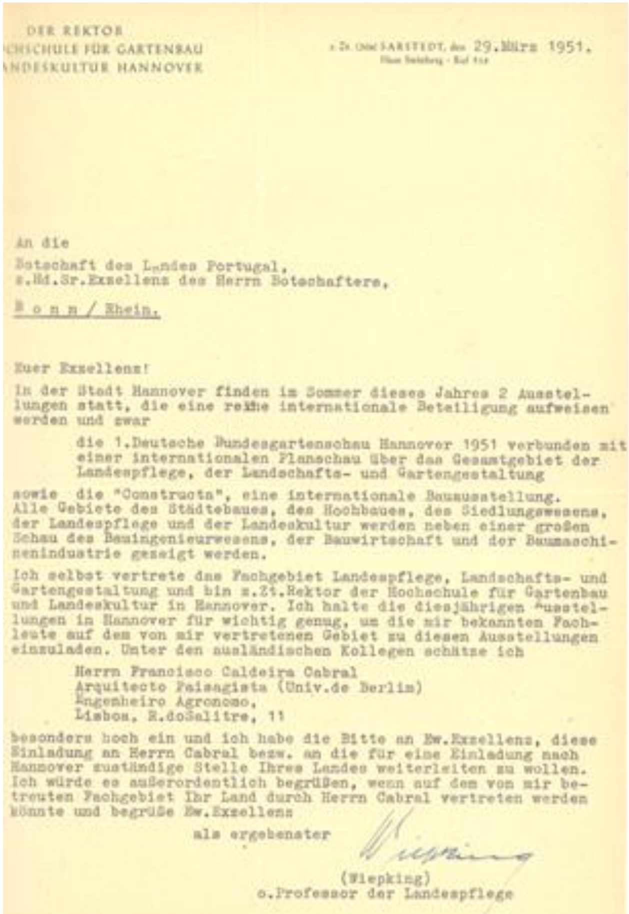
Education was a bullet point in the meeting minutes and among the main first aims was the improvement of the training situation in Europe in order to move towards a full academic education comparable to that offered in the USA. In 1954 a committee was set up in Vienna to collect information concerning landscape architecture education in all IFLA member states. A questionnaire form was circulated, which faced the usual problems in getting the completed forms returned. In 1959 the education committee was launched and started its work on mapping the training institutions and working on standards for education to be binding for membership in IFLA.[50]

Exhibitions concerned with professional matters were another main consideration within the landscape architecture community. In addition to promoting exhibitions, IFLA compiled a travelling exhibition, and Rene Pechere himself took care of organising an IFLA exhibition using elements from previous professional events and passing them on to other countries all over the world. At the committee meetings, issues such as the size, form and content were discussed. Also problems were reported: in 1952 the exhibition got lost on its way from Hamburg to Canada.

[50]Source: IFLA minutes of Committee meetings, collected in I.F.L.A, 1948-1968, taken from the IFLA achieve at Rene Pechere Library Brussels, accessed February 2010;

Exhibition reports were published after the event describing participation and the exhibition parts in detail. Such reports were published for example in the German journal “Die Gartenkunst” and enabled other members of the profession to be informed about professional issues abroad.

Communication, that occurs so effortlessly today by email was elaborate. Invitations were sent as official letters; below an example from *Heinrich Wipking.* International communication and collaboration, in particular invitations to events, were undertaken using the existing networks of embassies. This was not only a safe way to get a message through but ensured also the national support for travel expenses.



DER REKTOR
[illegible]CHSCHULE FÜR GARTENBAU
[illegible]NDESKULTUR HANNOVER

29.März 1951.

An die
Botschaft des Landes Portugal,
z.Hd.Sr.Exzellenz des Herrn Botschafters,

Bonn / Rhein.

Euer Exzellenz!

In der Stadt Hannover finden im Sommer dieses Jahres 2 Ausstellungen statt, die eine reiche internationale Beteiligung aufweisen werden und zwar

die 1.Deutsche Bundesgartenschau Hannover 1951 verbunden mit einer internationalen Planschau über das Gesamtgebiet der Landespflege, der Landschafts- und Gartengestaltung

sowie die "Constructa", eine internationale Bauausstellung. Alle Gebiete des Städtebaues, des Hochbaues, des Siedlungswesens, der Landespflege und der Landeskultur werden neben einer großen Schau des Bauingenieurwesens, der Bauwirtschaft und der Baumaschinenindustrie gezeigt werden.

Ich selbst vertrete das Fachgebiet Landespflege, Landschafts- und Gartengestaltung und bin z.Zt.Rektor der Hochschule für Gartenbau und Landeskultur in Hannover. Ich halte die diesjährigen Ausstellungen in Hannover für wichtig genug, um die mir bekannten Fachleute auf dem von mir vertretenen Gebiet zu diesen Ausstellungen einzuladen. Unter den ausländischen Kollegen schätze ich

Herrn Francisco Caldeira Cabral
Arquitecto Paisagista (Univ.de Berlim)
Engenheiro Agronomo,
Lisboa, R.doSalitre, 11

besonders hoch ein und ich habe die Bitte an Ew.Exzellenz, diese Einladung an Herrn Cabral bezw. an die für eine Einladung nach Hannover zuständige Stelle Ihres Landes weiterleiten zu wollen. Ich würde es außerordentlich begrüßen, wenn auf dem von mir betreuten Fachgebiet Ihr Land durch Herrn Cabral vertreten werden könnte und begrüße Ew.Exzellenz

als ergebenster

(Wiepking)
o.Professor der Landespflege

Dear Excellence, this summer in Hannover two exhibitions will take place, with regard to international contributions: the first German Gardens fair, Hannover 1951, combined with an international overview of the landscape and horticulture profession; the second the “Constructa”, an international construction fair. All subject areas of urban planning, engineering, landscape architecture and landscape culture will be presented in a fair of the building trade and the building machinery industry.

I speak for the subject area landscape planning and management, being the rector of the higher school for landscape and gardening and land improvement in Hannover. These exhibitions are in my view of such specific importance that all experts of the subject areas should be invited. Among these in particular Caldeira Cabral, Lisbon, is of particular importance which is why I ask for your support to pass on this invitation through your countries officers. We would be honoured if your country was represented by Mr. Cabral, Prof. Wipking

Image 3: Letter from Heinrich Wiepking to the councillor of Portugal announcing the 1st German Gardens Exhibition in Hannover as well as the Constructa Exhibition

Apart from events such as fairs and exhibitions, the IFLA committee members undertook efforts to map the status of the profession internationally.

In 1975 The IFLA Committee asked the members of the Grand Council (its governing body) to briefly (on 2 pages) summarise the status of the profession in their home countries. Reports were received from Norway, Germany, Poland, Australia, South Africa, The United Kingdom, Australia and the United States. These reports outline the working fields of landscape architects, briefly summarised the education options, some describe the professional status of recognition in the countries concerned.

The Norwegian report describes landscape architects to be employed mainly in the public sector, private offices were rare. *Magne Bruun*, who compiled the report, outlines the problems landscape architects faced with the recognition of their professional status, as "having no other protection than the quality of their work, neither license requirements nor legal authorisation by other means" (Bruun, 1975)

As in the case of the report from the UK and Poland, he calls for a higher number of landscape architects stating the number of landscape architects with 175.

The report from Poland compared the situation in Poland with the USA, stating the latter to have one landscape architect for 20.000 people, while in Poland there is just one landscape architect for 100.000 inhabitants. *Alina Scholtzowna* described the involvement of landscape architects in planning projects as dependant on scale and kind of theme. At regional planning level, they were hardly involved, while in town planning they were members in teams. Design was done by landscape architecture offices, which were small in number and mainly worked for municipalities. Landscape architects in Poland in the 1970s were authorised for professional work through their university degree. (Scholtzowna, 1975)

Brenda Colvin [51]compiled the report for the UK. She described a situation of over-demand for trained landscape architects, with the training institutions being unable to cope with the high demand. "*This demand for qualified landscape architects comes from government departments, local authorities, industry, from educational and health authorities, river boards and water authorities and from private individuals, landowners and developers*."(Colvin, 1975)

She outlined that "*the landscape architects skills are needed to help preserve the health and beauty of the area"*

The report from Germany described the training situation and the professional situation of landscape architects. The profession was protected by special laws in several states. Landscape architects were employed in public services, in garden administration, as experts in civil engineering, for road construction, land consolidation and the protection of the nature.

"*The profession of landscape architecture is fully recognized as an independent one and is protected in the several states of the Federal Republic of Germany by special laws. Most of*

[51]Brenda Colvin, 28. February 1975, IFLA Report, UK

the landscape architects are working in public services, for example as chief of garden and park administration, as experts in connection with civil engineering, for road construction land consolidation, nature conservation etc." (Weckwerth, 1975)

JB/280/75 Lisbon, August 6, 75

Mr. E.Lovelace
Vice President Western Region
165 N.Meramec Ave.
St.Louis, Mo.63105

Dear Mr. Lovelace,

Thank you for your letters of July 29th andenclosures therein.

Questionnaire on the status of the profession has been filled out by the following :

United States of America - ASLA	-	Venezuela
South Africa	-	Norway
Australia	-	Japan
France	-	Mexico
New Zealand	-	Poland
Denmark	-	Netherlands
United Kingdom	-	Canada
West Germany	-	Finland
Sweden	-	Belgium

Write-up of the profession was sent by :

ASLA	-	Norway
Australia	-	New Zealand
Poland	-	South Africa
United Kingdom	-	West Germany

Copies of all these papers were sent to our President. As stated in the report of the Secretary General to the Grand Council, the Secretariat is now preparing a comparative map of the elements taken out of the questionnaire. I shall send a reminder to the associations who have not yet sent the requested papers, and will let you know in due course,as they come in. As to the write-ups, I understood they were intended to go into a publication, but there has never been any discussion on the financial aspects of this. Perhaps the matter should be referred to Prof. D.Ogrin, chairman of EDITORIAL COMMITTEE ? Please kindly let me know your ideas on this.

Publication of proceedings of Technical Conference I shall be pleased to help you with this job, and to make the french translation of your papers. As you know, the Secretariat has a great deal of work right now, especially with the preparation of the Turkish congress, but one always finds time when one really wants to ! To permit you to calculate the costs, I would indicate that the local rate for translation,here,is Escudos 5,- per type-written line. The report by Mr. Stoddart has already been translated and circulated in French.
Always at your disposal, yours sincerely,

Image 4 Report on Status of the profession, Survey prepared in the 1970s

3.3 COOPERATION FOR PROFESSIONALS - THE FOUNDATION OF EFLA

The formation of IFLA subsequently served as a model for other associations concerned with landscape architecture. In Europe associations were founded specific for the European members and specific for their work content:

On 4 April 1989 the foundation of the *European Federation of Landscape Architects - EFLA* took place in response to the preparation for the coming into force of the single European market. In particular, the free choice with regard to the country of work called for mutual recognition of educational qualifications. The first attempt to enact this by the European Union was based on agreements for the individual professions, in particular for the architects. This was followed by a general political agreement to recognize higher education qualifications resulting from all courses of longer than three years duration, including landscape qualifications. The national professional bodies agreed that the free movement required a joint organisation to represent the professional interests of landscape architects at European rather than national level.

EFLA was founded as such an international association. Membership was based on the then EU states[52]which sent delegates to a General Assembly. It had two main committees, one concerned with professional practice, one focusing on education. These were accompanied by a number of working groups. The first president was Michael Oldham from the UK - and the EFLA was to some degree modelled on the structures of the UK Landscape Institute.

In personal correspondence in between Barbara Birli and Mike Downing from the UK, who was involved in the foundation, described the development as follows:

"In 1988, as the head of the postgraduate school at Newcastle I was serving my turn as the Chair of the Landscape Institute's Education Committee and was invited to attend a meeting at Thames Polytechnic (now Greenwich University). This was to meet a Belgian gentleman who had some ideas he wanted to discus. This was Jef De Grys. He had been the Secretary of the European Area of the International Federation (IFLA). He recognised that the political complexities of the European Union caused, and would continue to cause, particular problems, and of course opportunities, which could not be tackled by IFLA, but would need a uniform 'European' response. It was following this small meeting that in the following year a meeting in a suburb of Brussels took place, when after a couple of days of detailed discussion between representatives of a number of countries, an agreement was signed by the official representatives of some fourteen countries. This created the European Foundation for Landscape Architecture which represented and continues to represent the profession in relation to the EU.[53]"

[52]The original twelve EFLA member national associations were: BE, DK, FR, DE, IT, LUX, NL, PT, ES, UK plus IR and GR

[53] Mike Downing, about the origins of ECLAS, letter to Barbara Birli, July 2008

In the declaration that was signed, representatives not only agreed to form EFLA and to adopt aims and objectives they agreed upon but to give reciprocal recognition to the academic qualifications awarded by the courses and countries and to adopt the model structures for undergraduate and master's, graduate and postgraduate courses as being representative of the minimum education requirements for the training of landscape architects. EFLA thus set standards for the recognition of degrees between the member states. So students who finished their studies in landscape architecture and then moved to another EFLA (then EU) member state would receive recognition of their landscape architecture degree.

Only one national association was accepted from any one country as an EFLA member. EFLA was only for EU member states – only much later did they expand their membership to COE member countries (V.Korff, 1990).[54]

The establishment of the European based association for the professional landscape architects represents further professionalisation of the subject area and ensured not only the comparability and recognition of national university degrees in other European countries but also a body to work on the development *of codes of professional ethics*, a further step on the development of professionalisation.

3.4 COOPERATION OF THE TRAINING INSTITUTIONS - THE FOUNDATION OF THE EUROPEAN COUNCIL OF LANDSCAPE ARCHITECTURE SCHOOLS - ECLAS

The late 80s were a time of major change in European politics. The fall of the Iron Curtain and the collapse of the Soviet Empire in 1989 dominated the politics of that time as they came so unexpectedly. In society, the peace development and the nature conservation development were on a new raise after its beginnings in the 70s and started to establish itself in institutions. First Ministries for Nature Conservation were set up within European governments, for example in 1986 in Germany the ministry was founded with two agencies to advise the ministry: *Umweltbundesamt* and *Bundesamt für Naturschutz.* This development was accompanied by a growing role of the European Union not only in economic but also in environmental matters. A further aspect to this is, that through this higher hierarchical level – the EU level – decisions were to be made on EU level. So the profession and the universities were in need for a body to support thinking on the European level.

For Landscape Architecture Higher Education in Europe, the 80s were marked by a growing number of international conferences after the boom in establishing new degree courses in the 60s and the 70s all over Europe. IFLA *Central Region Symposia* started additionally to the *IFLA conferences,* which from 1978 onwards were held every year instead of every second year as previously.

[54]V.Korff, J. Ausbildung und Berufspraxis in der EG, 1990, in Garten und Landschaft2/90, S19ff.

International collaboration and conservation were issues presented at IFLA conferences of that time, "*International Perspectives, Collaboration and Communication*" was the conference title of the 25. IFLA Congress in Boston, USA in 1988; while the IFLA - *Central Region Symposium in Moscow and Leningrad* in August 1989 was concerned with "*Protection and Restoration of Historic Monuments and Landscape Ensembles*." (Anagnostopoulos et al, 2000)[55]

The foundation of EFLA was of importance for international exchange, but also in particular the large European exchange programmes such as ERASMUS (European Community Action Scheme for the Mobility of University Students)[56] programme had an important impact on the higher education area within the subject area of landscape architecture. The restricted access to membership in EFLA as a result of it being restricted to EU member states, was a further argument for the foundation of another international organisation, which is primarily focused on the education.

Mike Downing, involved in both the foundation of EFLA as well as ECLAS remembered the experience as follows:

"The initiatives of the European Union provided backing for this and also for student exchanges. It was against this background that the connections we are now able to enjoy were brought about' Of course it is one of those examples of an apparently 'small' idea which brought about massive changes and improvements. One has to admit that if it hadn't happen this way and at the time it could well have happened in a different way and at a different time, but such speculation is idle! **[57]**

ELEE (*European Landscape Education Exchanges*), a network concerned with the exchange of landscape architecture students and teaching staff had been established in 1986. It was founded by several European universities with the support of a European Commission within the frame of the ERASMUS programme coordinated by *Roger Seijo* at Thames Polytechnic/UK. Formally it was based on a Memorandum between the Rectors and Directors of the participating universities and colleges and approved by and in conjunction with professional bodies including the European Foundation for Landscape Architecture (EFLA).[58]

The aim of ELEE was to promote exchange and joint work in between students and teachers of the member schools with the aim to form working groups with members from different countries and different approaches. It mainly made use of the European Union funding programme for 'Intensive Programmes' within ERASMUS. Personal exchange and joint teaching and learning enabled exchange of different methods and approaches within the

[55] Anagnostopoulos et al. IFLA – Past Present, Future, Versailles, 2000

[56] http://en.wikipedia.org/wiki/Erasmus_Programme, accessed 12.09.2014

[57] Mike Downing, about the origins of ECLAS, personal communication with Barbara Birli, July 2008

[58] http://elasa.org/archive/archive1/YB94/YB94-24.html, accessed March 2015

subject area landscape architecture. Since 1986 the network had steadily expanded its membership, which was thus European based. [59]

The first meeting of and for *European Landscape Architecture Academics* was convened by Berlin Technical University on 28. and 29. September 1989 under the title "*Erste Europäische Hochschulkonferenz Landschaft*". The conference had been held to celebrate the 200th anniversary of the birth of the landscape architect Peter Josef Lenne.

The model for this was the so called *German Hochschulkonferenz Landschaft,* a cooperation of the German education institutions and professional organizations founded in 1979. A previous international design workshop organised by Berlin Technical University on the subject of the "*Spreebogen*" area was another forerunner of the first meeting of and for European Landscape Architecture Academics. Further to this, a conference held from 25.-27-August 1988 in Ljubljana at the Biotechnical Faculty of Ljubljana University with a strong international audience provided yet another basis.

Among the about 60 participants at the 1989 *Hochschulkonferenz Landschaft* were representatives of German associations such as the "*Bund Deutscher Landschaftsarchitekten*" (represented by President Prof. Haag), "*Deutsche Gesellschaft für Gartenkunst und Landschaftspflege*" (represented by President *Mahner*) as well as university staff from all over Europe. One important activity within the meeting was to inform each other about the content of the university education in landscape architecture. It was possible at this meeting to provide detailed information about the teaching content and some basic data concerning the study courses in Belgium, Bulgaria, Denmark, Germany (East and West), UK, France, The Netherlands, Austria, Switzerland and Turkey.

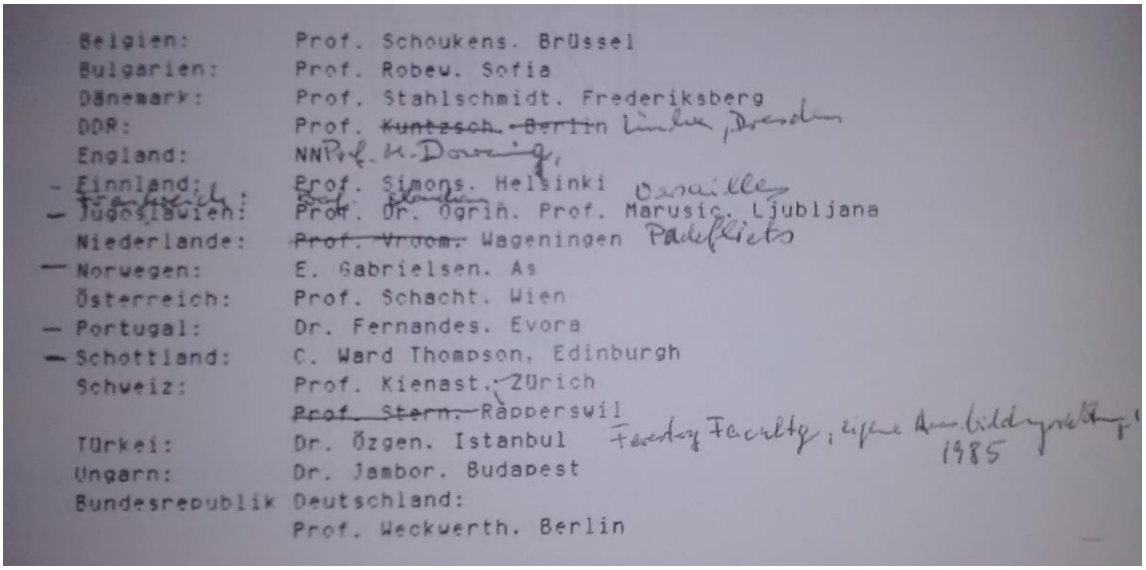

Belgien: Prof. Schoukens. Brüssel
Bulgarien: Prof. Robev. Sofia
Dänemark: Prof. Stahlschmidt. Frederiksberg
DDR: Prof. ~~Kuntzsch. Berlin~~ Linke, Dresden
England: NN Prof. K. Downing
Finnland: Prof. Simons. Helsinki
~~Frankreich:~~ ~~Prof. Berlin~~ Orsille
Jugoslawien: Prof. Dr. Ogrin. Prof. Marusic. Ljubljana
Niederlande: ~~Prof. Vroom.~~ Wageningen Paklieto
Norwegen: E. Gabrielsen. As
Österreich: Prof. Schacht. Wien
Portugal: Dr. Fernandes. Evora
Schottland: C. Ward Thompson. Edinburgh
Schweiz: Prof. Kienast. Zürich
~~Prof. Stern.~~ Rapperswil
TÜrkei: Dr. Özgen. Istanbul Faculty, eine Ausbildungsstätte 1985
Ungarn: Dr. Jambor. Budapest
Bundesrepublik Deutschland:
Prof. Weckwerth. Berlin

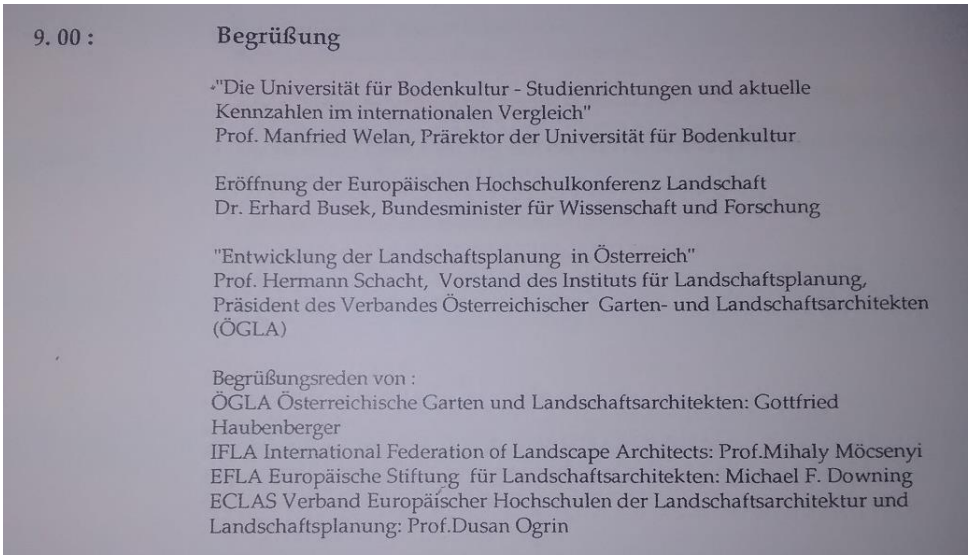
Figure 3: Excerpt from the Berlin participants list, additions made by Helmuth Weckwerth

[59] ELEE – European Landscape Education Exchanges in Garten und Landschaft, 10/90, 1990

This was followed by a second meeting in Vienna from 26. to 29 September 1990, organised by the *University of Applied Sciences*, Vienna/*Universität für Bodenkultur* called: "Zweite Europäische Hochschulkonferenz Landschaft/*Second European Universities Conference Landscape – Vienna*".

The 1990 conference focused on how to combine design studies with ecology and looked at how this was achieved in the course curricula of European landscape architecture courses in the form of plenary sessions and small workshops. 71 participants from all over Europe registered to take part. The conference was associated with national attempts to establish a fully recognized educational programme in Vienna. There was no full landscape architecture programme at that time in Austria, but a trial curriculum the further continuation of which was under discussion. (Breiling M. 1991)[60]

The conference was well attended with participants from Belgium, Bulgaria, Germany, UK, Italy, Yugoslavia, The Netherlands, Poland, Romania, Spain and Czechoslovakia as well as many representatives from professional organisations. An article in the professional journal "*Garten and Landschaft*" outlines Michael Downing (EFLA), *Dusan Ogrin* (ECLAS) and *Mihaly Möscenyi* (IFLA) as well as Austrian organisations such as ÖGLA, represented by *Gottfried Haubenberger*, as well as the universities represented by *Friedrich Wöss* and *Manfried Welan*. The article that had been published in November 1990 refers to ECLAS as an already established organisation with *Dusan Ogrin* as the representative.


9. 00 :

Begrüßung

"Die Universität für Bodenkultur - Studienrichtungen und aktuelle Kennzahlen im internationalen Vergleich"
Prof. Manfried Welan, Prärektor der Universität für Bodenkultur

Eröffnung der Europäischen Hochschulkonferenz Landschaft
Dr. Erhard Busek, Bundesminister für Wissenschaft und Forschung

"Entwicklung der Landschaftsplanung in Österreich"
Prof. Hermann Schacht, Vorstand des Instituts für Landschaftsplanung, Präsident des Verbandes Österreichischer Garten- und Landschaftsarchitekten (ÖGLA)

Begrüßungsreden von :
ÖGLA Österreichische Garten und Landschaftsarchitekten: Gottfried Haubenberger
IFLA International Federation of Landscape Architects: Prof.Mihaly Möcsenyi
EFLA Europäische Stiftung für Landschaftsarchitekten: Michael F. Downing
ECLAS Verband Europäischer Hochschulen der Landschaftsarchitektur und Landschaftsplanung: Prof.Dusan Ogrin

Figure 4: Excerpt from the conference agenda

[60] Breiling M. (1991). The professional situation of landscape planning in Austria in the European Context, Institut für Landschaftsgestaltung, Universität für Bodenkultur, Wien. 26 pp.

Dusan Ogrin writes about this meeting the following:

"To the certain degree the gathering called Landschaft-Konferenz could be considered a forerunner of ECLAS. However, it was not designed as an all European association. Such a conference was organised in Vienna - at the Universität für Bodenkultur. During that meeting I have made a proposal to establish an acting body of European landscape architecture schools under the name ECLAS. At that time I was teaching at Harvard and had several opportunities to get familiar with the activity of CELA (Council of Educators in Landscape Architecture) which had a remarkable impact on the academia in the US universities. On the other hand, I was less impressed by the fact that it was more individually oriented.

The philosophy behind my suggestion for ECLAS was to develop a profile of the association that would be school (not academics)-oriented and primarily focused on promotion of landscape architecture education with two principal objectives:

- *Improvement of education quality (in the first place)*

- *Fostering the development of new contemporary programmes"*[61]

A workshop session at the last day of the conference was dedicated to "Communication and Exchange Programmes between European Universities" with *Annalisa Calcagno Maniglio*/IT representing EFLA, *Ingeborg Dirmhirn* from the exchange programmes at *the University of Applied Sciences* (Boku) Austria and Roger Seijo/UK from the *European Landscape Education Exchanges (ELEE) programme* as speakers.

Mike Downing described this session as follows:

"At the final session (of the Vienna meeting) the possibilities of future meetings were discussed with considerable enthusiasm and Meto Vroom undertook to organise a meeting at Wageningen the following year and I, who had been asked to chair the final meeting agreed to act, as I said, as a kind of 'postmaster' ensuring the circulation of information. This role seemed to slip into the chairmanship of the body by now developing as the "European Conference of Landscape Architecture Schools – ECLAS"[62]

The *European Conference of Landscape Architecture Schools* – E.C.L.A.S. was, thus, formed as a result of the Berlin and Vienna meetings and met first under its new name officially in Wageningen in the Netherlands in 1991 under the conference title "EUCL conference *Landscape Education*".(Downing, 1991)[63][64]

[61] Dusan Ogrin, personal communication with Barbara Birli, June 2008

[62] Mike Downing, personal communication withBarbara Birli, July 2008

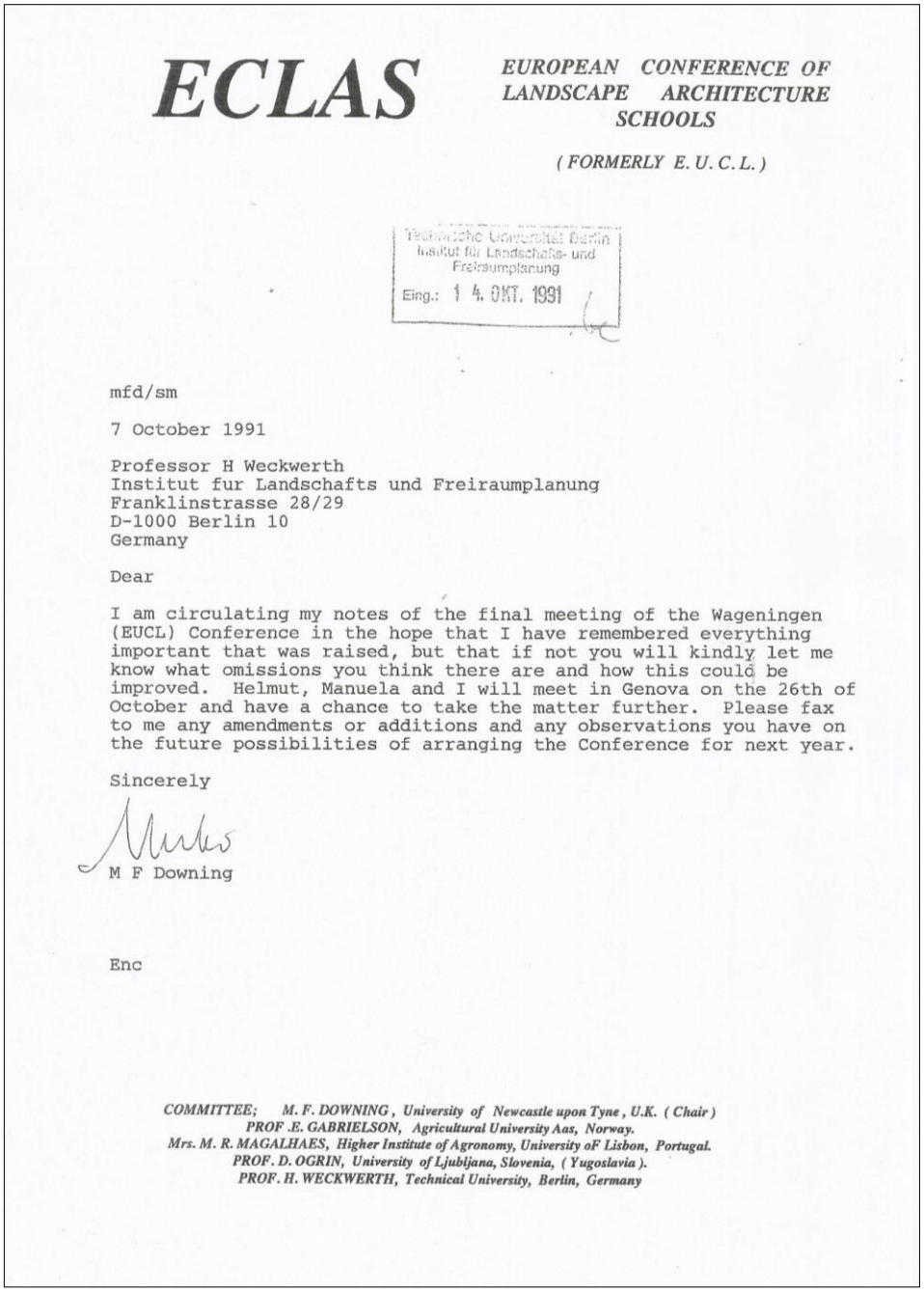
[63] Downing, M. "European universities Landscape Conference" in Landscape Design, 12/1990_01/1991, , 1991

[64] Correspondence with Karsten Jörgensen

At this conference in Wageningen (5-8. September 1991) discussions on the nature of the organisation continued. In personal correspondence, an interview with *Olav Skage*/NO conducted in spring 2015 by *Karsten Jörgensen Olaf Skage* described the situation as follows:

"The dominant element in Wageningen was represented by *Meto Vroom* and an Italian woman (*Annalisa Calcagno Maniglio)* who advocated fiercely for an EU organization. Against this were *Dusan Ogrin* and *Egil Gabrielsen* and more, they argued that too many countries would fall off. So no decision."

The core team of persons involved in the foundation of ECLAS included: *Egil Gabrielsen* from *Norway*, *Mike Downing* from the UK, *Helmuth Weckwerth* from DE and *Dusan Ogrin* from Slovenia. *Meto Vroom* from The Netherlands as conference host had been added as a coopted member.



ECLAS

EUROPEAN CONFERENCE OF LANDSCAPE ARCHITECTURE SCHOOLS

(FORMERLY E. U. C. L.)

Technische Universität Berlin
Institut für Landschafts- und
Freiraumplanung
Eing.: 14. OKT. 1991

mfd/sm

7 October 1991

Professor H Weckwerth
Institut fur Landschafts und Freiraumplanung
Franklinstrasse 28/29
D-1000 Berlin 10
Germany

Dear

I am circulating my notes of the final meeting of the Wageningen (EUCL) Conference in the hope that I have remembered everything important that was raised, but that if not you will kindly let me know what omissions you think there are and how this could be improved. Helmut, Manuela and I will meet in Genova on the 26th of October and have a chance to take the matter further. Please fax to me any amendments or additions and any observations you have on the future possibilities of arranging the Conference for next year.

Sincerely

M F Downing

Enc

COMMITTEE; M. F. DOWNING, University of Newcastle upon Tyne, U.K. (Chair)
PROF .E. GABRIELSON, Agricultural University Aas, Norway.
Mrs. M. R. MAGALHAES, Higher Institute of Agronomy, University oF Lisbon, Portugal.
PROF. D. OGRIN, University of Ljubljana, Slovenia, (Yugoslavia).
PROF. H. WECKWERTH, Technical University, Berlin, Germany

Figure 5: Letter signed by M. Downing stating the Committee Members

The meeting in *Wageningen* was followed by regular annual conferences. The aim of an ECLAS Conference is to provide opportunity for landscape architecture academics and members of the organisation to meet, to present papers and to discuss issues of mutual academic and scholarly interest.

At these conferences, also, meetings of the Executive Committee took place and a General Assembly had been held with all members attending. Membership in ECLAS was loosely organised in the early years, with no membership fees and thus no budget until the year 2000, when a low membership fee had been introduced (75/150€ per year, dependant on full programme or not) under the presidency of Richard Stiles.

The first conferences all had particular teaching themes:

Table 3: ECLAS Conferences, 1989-2000, themes and venues

Year	City	Conference Theme
1989	Berlin	
1990	Vienna	
1991	Wageningen	Landscape Education
1992	Ljubljana	Concepts in Landscape Architecture - theory of the profession and its reflection in education.
1993	Alnarp/Tjärö	The teaching of design and planning in the landscape educational programme.
1994	Edinburgh	The local context in landscape teaching and research
1995	Barcelona	Teaching from experience
1996	Brussels	No theme
1997	Haifa	Multicultural aspects of landscape education
1998	Vienna	Urban landscapes and city regions - the European city as a resource for landscape teaching and research
1999	Berlin	No theme
2000	Dubrovnik	Landscape of the Future - The Future of Landscape Architecture Education

One of the first activities which took place in the context of the new organisation was a survey in 1990 among the institutions that provided landscape architecture degree courses. A majority of such courses had been offered at Technical Universities, few at Art Schools. Curricula consisted of 36% “Nature”, 30% “Planning” and 18% “Engineering” and 8% Art content. Further 8% were indicated as “Other content”.

The development of ECLAS further consolidated the profession; it was on the one hand a sign of growing maturity, and also a tool to promote landscape architecture on the international academic level. However the organisation was weak as far as their infrastructure and funding was concerned, much was based on personal commitment and the willingness of individual’s schools to support their activity. The members of the Executive Committee were aware of the long “to do list” to work on the academic profile. Tools and “infrastructure” for full academic work of landscape architects were missing, or too weak and small in number and size. Landscape architecture researchers lacked opportunities to publish and thus to further their academic career. Research methods seemed poorly defined in comparison with well-established subject areas. The university degrees as such had several titles, even in regions using the same language. Not only the academic staff also the students faced this need to cooperate on the European level and founded a student’s organisation.

3.5 COOPERATION OF STUDENTS – THE FOUNDATION OF ELASA

At around the same time, in the early 1990 a European students association was formed after meetings in Portugal in March 1990 and Hungary in April 1991.

> *We, students of Landscape Architecture from Europe have decided to form an Association of European Landscape Architecture students.*
>
> *Name: European Landscape Architecture Students*
>
> *Association - ELASA*
>
> *Goal: Increasing the possibilities for collaboration and exchange of students of Landscape Architecture throughout Europe, by means of improving the circulation of information and ideas.*[65]

Since the first meetings in the 1990s, ELASA members meet twice every year: at the annual meeting in summer, and at the *Minimeeting* in spring. Each meeting is held in a different country, and is organized voluntarily by a team of Landscape Architecture students from the local university.

Apart from exchanging Landscape Architecture related information in between students ELASA represents landscape architecture students in meeting of the European and global professional and educational landscape architecture organisations.

ELASA is an open association without a board or defined membership. Meetings are based on the enthusiasm and spontaneity of landscape architecture students and find continuity via a self-regulating system.

[65] Taken from the constitution text ELASA, 1991

3.6 COOPERATION AND EUROPEAN INSTITUTIONS

1989 was a decisive year for Europe's history; the fall of the iron curtain changed the political landscape of Europe. Amongst other things, this had impact on the training situation for landscape architects, it led to a rise in the number in programmes in the newly founded countries, it changed international cooperation and it gave the programmes of the European Union a new meaning.

The European Union has passed a number of directives and has set up a number of programmes that influenced landscape architecture higher education; some of them focus on matters concerning the fields of work of landscape architects, others focus on education.

The directives listed in 7.7 of the appendix illustrate the great variety of directives concerning issues from water management to spatial planning, nature protection and IT. In line with the wider goals of the European Union, the aim is to further certain developments in all member states and to ensure common standards.

Graduates of landscape architecture must expect to work in any of the fields listed in the table. For the profession these directives are also of importance, as they define the possible working field of landscape architecture graduates, in particular environmental assessment, water and flood management became important working fields for landscape architecture offices, in addition to their design work.

3.6.1.1 THE ERASMUS PROGRAMME AND THE BOLOGNA PROCESS

Among the new European programmes was the ERASMUS programme. The aim of ERASMUS is to further the academic mobility of higher education students and teachers within the European Union, the European Economic Area countries of Iceland, Liechtenstein and Norway as well as EU candidate countries by lowering existing barriers to free movement.

The European Commission had been supporting pilot student exchange for six years before the original ERASMUS Programme was started in early 1986.

The Erasmus Programme intended to institutionalise and simplify the organisation of exchanges of both students and teachers between European universities and to guarantee for students, that the period spent abroad, usually a period of at least 3 months to an academic year, is recognised by the home university when they return. Additionally, students do not pay extra tuition fees to the university they visit, another way in which barriers to movement have been lowered. Students can also apply for an ERASMUS grant to help cover the additional expense of living abroad, so the programme intends to take away all obstacles that might prevent students to study at another European country, and to support exchange.[66]

[66]http://www.lebenslanges-lernen.at/erasmus-at accessed 01.10.2014

The programme not only supports students, but also professors and teaching staff who want to teach abroad, as well as helping university staff to receive training, ERASMUS also funds co-operation between higher education institutions across Europe through various sub programmes such as intensive programmes, academic and structural networks and multilateral projects.

The *Bologna Process* influenced landscape architecture higher education (such as all other subject areas) during the past decade. It led to the revision of curricula all over Europe and contributed to internationalisation of the study courses through the promotion international exchange, which even affected students who did not themselves travel abroad, though the presence of incoming foreign students in their programmes.

The overarching aim of the *Bologna Process* is to create the *European Higher Education Area* by making academic degree standards and quality assurance standards more comparable and compatible throughout Europe. Through the *Bologna Process* the three higher education degree cycles (Bachelor-Master-PhD) were implemented across Europe, largely harmonising the formerly diverse higher education structures in Europe and bringing them in line with international standards.

Access to the second cycle (Master) usually requires successful completion of first cycle studies (Bachelor), lasting a minimum of three years. EU member countries are defining learning outcomes for qualifications in each of the three cycles, using the Framework for Qualifications in the *European Higher Education Area* as a common reference point. Work to define learning outcomes is also a significant component in the broader move towards student-centred learning and teaching. Doctoral education – generally corresponding to a workload of 3–4 years full time – was introduced to the Bologna Process as the third cycle by Ministers in 2003.In 2005, Ministers adopted an overarching *Framework for Qualifications in the European Higher Education Area* comprising the three cycles and they agreed to develop national qualifications frameworks that are compatible with this overarching framework.[67]

The purpose of common recognition is to make it possible for academics to have their qualifications accepted in another EU education system or country. The main international legal text that aims to further the fair recognition of qualifications is the Council of Europe/UNESCO Convention on the *Recognition of Qualifications concerning Higher Education in the European Region* (Lisbon Recognition Convention) adopted in Lisbon, 8 - 11 April 1997. Landscape Architecture is not in this list as a single qualification to date.[68]

Tools that facilitate the recognition of qualifications are the *European Credit Transfer and Accumulation System* (ECTS) and the Diploma Supplement. The number of ECTS define

[67]http://www.bologna-bergen2005.no/Docs/00-Main_doc/050218_QF_EHEA.pdf accesed June 2010

[68]http://www.coe.int/t/dg4/highereducation/recognition/lrc_EN.asp accesed June 2010

workload, the Diploma Supplement describes the qualification, relating it to the higher education system in which it was earned and to the overarching qualifications framework.

The Bologna process with its structured degree scheme brings with it a comparability within the subject area. The common basis allows free movement of graduates within Europe, although the accreditation of degrees within Europe and in particular the allowance to offer a firm are still based on national law and on the professional accreditation of a course by EFLA. (the courses are not accredited as a university degree, but accredited whether the graduate is fit to work as landscape architect). While Bologna is criticised for its top down approach – all European universities had to undergo a restructure of all curricula to make them fit in the Bachelor – Master - PhD scheme, other ERASMUS funded programmes tried to support universities within this process using the bottom up approach. Amongst these programmes were Thematic Networks and the Tuning project. The latter aimed to provide a practical framework to implement the Bologna Process. The name was chosen for the project to reflect the idea that universities would be interested in having points of reference, convergence and common understanding for developing their degree programmes; they would not look fora kind of harmonisation that leads to making unified, prescriptive or definitive European curricula. All activities were based on the 5 Tuning Lines:

1.Generic competences of transferable skills,

2.Subject-specific competences,

3.The role of ECTS as an accumulation system

4.Approaches to learning, teaching and assessment

5.The role of quality enhancement in the educational process.

Tuning asked for sets of competences both generic and subject specific competences of a graduate of a subject area taking into account the conditions set out in the *Dublin Descriptors Document*. Landscape Architecture did define its competences through the Thematic Network LE:NOTRE[69]. (The LE:NOTRE project was a network of universities with a landscape architecture programme or courses. Compare 1.3). At its annual meeting, representatives of the European universities offering a higher education in landscape architecture were asked to define generic and subject specific competences of the subject area. Later these sets were edited and a Europe wide election took place where competences were ranked by the universities. The then compiled “Tuning Report” finally was again subject to a vote by all European Universities in order to be used as a document that serves for accreditation of a landscape architecture university course. All these activities

[69] The LE:NOTRE Thematic Network was founded by ECLAS in 2002 and is a network of universities offering landscape architecture (degree) courses

were possible only through international and joint action of the educators in Europe, coordinated by the ECLAS Steering Committee, supported by EU funds.[70]

After the adopting of the document by voting, ECLAS was in a position to advise accreditation bodies, and administrators, who are designing and considering the development of new programmes, the review of existing programmes, and the resources allocated to them making use of it. It is a valuable resource for the implementation of new study courses and the revision of existing curricula.

Not only through the ERASMUS programme cooperation is furthered, e.g. the main research funding programmes of the EU (framework programme) require teams of researchers from more than one country in their applications for funding.

3.6.2 COOPERATION AMONG LANDSCAPE ARCHITECTURE (YOUNG) RESEARCHERS

As a relatively young discipline landscape architecture is still developing its theory basis, and it is about to secure its identity as a research field through the development of a specific body of knowledge and theory specific to landscape architecture. In particular for doctoral students it is a challenge to establish a sound research background and methodology. This is not the only reason for them to cooperate, for the low number of PhD students at some European universities exchange provides broader insights to professional issues.

In context of the LE:NOTRE project[71] the particular situation of PhD students has been subject to research for the "Tuning, validation and accreditation" report (Bruns et al 2008)[72] as well as the report on European PhD in Landscape Architecture (Clewing & Jörgensen 2006) [73]followed by further editions (Bell et al. 2010) as well as results of an online survey done by *Ellen Fetzer* on the situation of landscape architecture PhD students (Fetzer 2011). *Clewing* and *Jörgensens* report provides recommendations for PhD-studies in landscape architecture. These recommendations are based on a number of different sources, particularly on results from a questionnaire that was distributed to schools and staff members/PhD-students. *Diedrich Bruns* report sets out that the field itself includes a wide array of subjects and this makes it even more difficult for researchers to assemble significant numbers around subject areas that are of specific interest to a singular group.

[70]Tuning Landscape Architecture Education in Europe, 2010, LE:NOTRE and ECLAS report,http://www.unideusto.org/tuningeu/images/stories/Summary_of_outcomes_TN/ECLAS_Guidance_on_Landscape_Architecture_Education.pdf accessed May 2015

[71]www.le-notre.org

[72] de Vries, J. Bruns D. LE:NOTRE TWO Output 1: Tuning, validation and accreditation - Transform 'Tuning' from a product into an ongoing process, 2008

[73] Corinna Clewing, Karsten Jørgensen (Norwegian University of Life Sciences), 2006, European PhD in Landscape Architecture. LE:NOTRE Outputs. Year 3.

European PhD in Landscape Architecture

Jörgensens and Clewings work focuses not only on the actual PhD programmes offered in landscape architecture, but also on the role of cooperation for PhD students. The report has been compiled in 2006 and then,29 of the about 100 schools contacted did have some kind of cooperation at PhD level. This was mostly cooperation with other disciplines such as Architecture, Planning, Biology, Economics, Fine Arts, Industrial Design, Visual Communication, Media, Cinema, Landscape Ecology, Farm and Forestry Design, Hydro engineering, Environmental Psychology. Besides cooperation with neighbouring disciplines, 24% of all schools with doctoral training cooperate with other European schools of Landscape Architecture and 18% state to have international cooperation partners on the doctoral level. Clewing and Jörgensen further elaborated that there is strong interest in European cooperation and the idea of a European approach for the doctoral level, but that reservations due to e.g. financial issues or concern of too much harmonisation prevent these.

So European PhD students nowadays are a core group of persons who benefit directly from cooperation.

European universities had to take efforts to improve the level of exchange through the implementation of the Bologna Process. In particular, for master students scholarships and accreditation of courses taken abroad were introduced and took away obstacles for students' exchange.

A further example of cooperation of and for young researchers is the "ECLAS young academics" group.The network has the aim to promote research and to connect doctoral students and other interested colleagues based on The "ECLAS Doctoral Colloquium" that takes place during or before the annual ECLAS conferences. Based on a sequence of short presentations, doctoral students have the chance to discuss their methodical approach with senior staff members and fellow doctoral candidates from all over Europe.

3.6.2.1 THE EUROPEAN LANDSCAPE CONVENTION – ALSO A CALL FOR COOPERATION

The European Landscape Convention - also known as the Florence Convention, - promotes the protection, management and planning of European landscapes and organises European co-operation on landscape issues. The convention was adopted on 20 October 2000 in Florence and came into force on 1 March 2004.

The mandate of the *Council of Europe* is in promoting democracy, human rights and the rule of law, and in seeking common solutions to the main problems of the European society today. The organisation is active in promoting sustainable development in line with the Recommendation Rec (2002)1 of the *Committee of Ministers of the Council of Europe* to

Member States on the *Guiding Principles* for sustainable spatial development of the European continent which are :

- to bring the economic and social requirements to be met by the territory into harmony with its ecological and cultural functions

- to contribute to long-term, large-scale and balanced spatial development

- to protect European' quality of life and well-being taking into account landscape, cultural and natural values.

In the *Landscape Convention* itself in chapter I, article 3 the organisation of co-operation on landscape issues is explicitly mentioned as an aim of the convention. A full chapter is dedicated to European Co-operation:

In CHAPTER III – EUROPEAN CO-OPERATION the ELC calls in particular for the following items:

Article 7 – International policies and programmes: Parties undertake to co-operate in the consideration of the landscape dimension of international policies and programmes, and to recommend, where relevant, the inclusion in them of landscape considerations.

Article 8 – Mutual assistance and exchange of information: The Parties undertake to co-operate in order to enhance the effectiveness of measures taken under other articles of this Convention, and in particular:

a to render each other technical and scientific assistance in landscape matters through the pooling and exchange of experience, and the results of research projects;

b to promote the exchange of landscape specialists in particular for training and information purposes;

c to exchange information on all matters covered by the provisions of the Convention.

Article 7 puts the landscape dimension in the foreground compared to national borders when decisions are made, while article 8 is concerned mainly with the exchange of knowledge.

As the text of the convention does not allow any explanations and interpretations, the Explanatory Report has been compiled, which elaborates certain aspects of the convention further such as in the following text as explanation of Article 7:

"The Convention should allow international bodies and programmes to take more account of landscape. To that end the parties most aware of the landscape problem should play an active part by co-ordinating their ideas and proposals in the competent Committees of Experts, mentioned in Article 10 of the Convention. In addition, the Council of Europe should engage in particular landscape co-operation with other governmental international

organisations, in particular Unesco, the European Union and IUCN, as well as with other non-governmental organisations."

The Explanatory Report gives the following statement concerning Article 8[74]

"Recent years have seen a burgeoning of political, professional and academic interest in the subject of landscapes, and thus the development of a growing body of experience and expertise on which member States, local and regional authorities and others can draw as they seek to implement the convention. At the same time, the growth of electronic communication and the arrival of the Internet have provided radically improved tools for exchanging ideas and, indeed, for the technical study of landscapes. These developments create a much wider basis for the exchange of ideas and mutual support than was possible even a decade ago, allowing local actors throughout Europe to take part and thus creating a true "landscape democracy"."

Today the definition of "landscape" and the call for persons skilled in landscape matters is used and quoted frequently by the landscape architecture academia and has been accepted as the current definition of landscape. However, the texts of the landscape convention were compiled without any landscape architect being involved.

The advantages of the ELC are seen in the ILC dealing with issues of expertise and public aspirations, with conservation and design, protection and the creation of new landscapes. On the other hand the ELC has not been signed by all EU members' states and is thus not valid all over the EU. Further to this landscape competencies are compartmentalized, with lots of departments having responsibility for little bits of it. It is found in spatial and social planning, agriculture, economics, transport, engineering, culture and environment. In so far, the actual execution of the convention in all member states of the Council of Europe is a challenge.

[74] http://conventions.coe.int/Treaty/en/Reports/Html/176.htm

3.6.3 TOOLS FOR COOPERATION AND THE "COOPERATION INFRASTRUCTURE"

"Call them 'weapons of mass collaboration'. New low-cost collaborative infrastructures – from free Internet telephony to open source software to global outsourcing platforms – allow thousands upon thousands of individuals and small producers to co-create products, access markets and delight consumers in ways that only large corporations could manage in the past. This is giving rise to new collaborative capabilities and business models that will empower the prepared firm and destroy those that fail to adjust." (Tapscott, 2006) [75]

There has been a change over time in the tools available for international cooperation with a significant role for the internet and new technologies such as interactive web sites and virtual meeting rooms. In particular since the 1990s the internet has a growing impact on the society. While "early" cooperation was based on letters, on telephone calls and later, immediately before the boom of the internet, in the late 1980s and 1990s on using FAX machines, the internet brought with it various tools for exchange and sharing of material and knowledge. International conferences provided opportunities to meet in person and to get to know members of a community, today additionally to face to face meetings internet platforms offer various opportunities to meet persons of the same background and interest. While the internet was in the beginning mainly limited to readable web sites and e-mail exchange, new interactive web sites (Web 2.0) offer sharing and publishing of own texts, pictures and media data. These platforms are used not only for private communication, but also by and for the scientific community of landscape architecture.

Members of the same community do not need to "share an office". Communication between members is established by disseminating research work and hypotheses through articles in peer reviewed journals, or by attending conferences where new research is presented and ideas exchanged and discussed.[76]

Today, new means of communication support sharing and interaction within the academic community. These include subject specific networks in the internet, including mailing lists and options to present a CV and publications. Examples for internet based networks for landscape architects are the *Thematic Network in Landscape Architecture LE:NOTRE*, and the so called *land8lounge*. An example for a network from a neighbouring profession is the *HEREIN European Heritage Network* concerned with the cultural heritage. (www.le-notre.org, http://www.land8lounge.com, http://www.european-heritage.net/sdx/herein)

[75] Tapscott, D. & A. D. Williams, 2006, Wikinomics – How Mass Collaboration Changes Everything, Portfolio, New York

[76] http://en.wikipedia.org/wiki/Scientific_community (accessed march 2008)

These three examples were taken as they cover different aspects of networking, have different objectives and different levels of resources available to them. While the *LE:NOTRE* project had been established by ECLAS as a means of strengthening the landscape architecture academic community in Europe and needed a web site as tool to do so, *Land8lounge* is an example of a more "social media driven" network site. It is comparable to sites such as *LinkedIn* or *Xing*, where persons are able to present themselves with a CV and to exchange on a personal level (alumni etc.). *HEREIN* is an information tool for the European Heritage Network and is focused on providing information in a top down manner and has the resources of official government monument conservation authorities at its disposal. *Land8Loung* is mainly a platform to allow its members to present themselves by entering information, while *LE:NOTRE* aims mainly to provide a common platform for sharing information and creating joint resources for teaching and research purposes.

3.6.3.1 LE:NOTRE

The *LE:NOTRE* web site is one of the products developed in context of an EU funded Thematic Network Project - a programme established under the ERASMUS programme as part of the Bologna Process. It consist of a two level database driven web site, focused on the landscape architecture academia, the external part gives information about the project in general, the internal part provides the user with various database sources concerning landscape architecture higher education.

The internal part is password protected with access provided via one of the member universities' contact persons, so it is closed in so far, as you have to be attached in any way to a university to enter it.

Full membership is possible only for partners that were part of the application to the EU, although amendments of the partnership are possible. Additional associate membership is open to all institutions interested to join and concerned with landscape architecture on an international level.

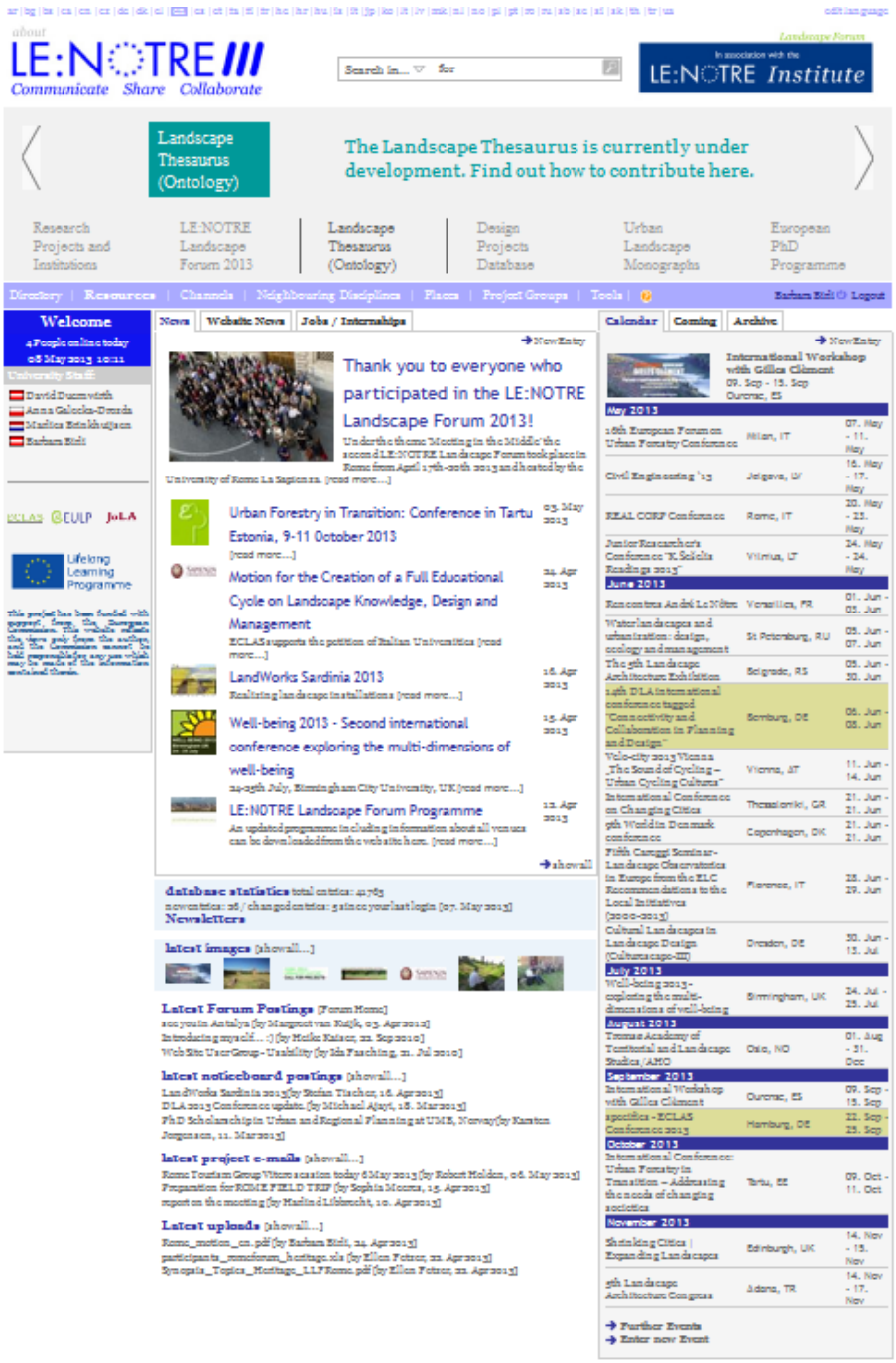


Image 5 ***LE:NOTRE log-in start page in 2013***

LE:NOTRE offered various databases/functions [77] In particular the resource databases represented the long term core of the web site. They were the place where shared information can be stored, edited, searched and displayed by any member of the Network. Databases on the *LE:NOTRE* web site had the general aim of building a flexible, common resource of a sort which can be used by its members for teaching and research purposes, and which can be edited and contributed to by all network members. As well as developing gradually into a central communal resource for the use of all registered users, they can also

[77] www.le-notre.org accessed 06.May 2013

be used as a way of storing and managing personal information resources which were always available for use from any computer connected to the internet. Similarly it was possible to make use of the images which had been uploaded to the web site to create collections for use in lectures or presentations. Keywords from a common list were assigned to each database entry so that searches on selected topics were possible to be made throughout all the databases on the web site. In the same way all database entries were associated with pre-defined working groups and project groups.

Working Groups

LE:NOTRE Working Groups reflected the main sub-disciplines of landscape architecture and provided a focus for the exchange of experience between academics across Europe with similar teaching responsibilities and/or research interests. As it was possible to associate most database entries to one or more of the Working Groups, they also provided a way of collecting all the relevant information for a particular working group. The Working Group pages in this area of the web site formed a series of 'thematic portals' through which the information in the web site can be collected together and viewed. In addition the possibility to register as a member of a working group identified the user as a member of a community of common interest, and helped to find colleagues with similar interests in other universities.[78]

To ensure communication a number of tools were available for members such as a mail system and mailbox, Up/Download Area, forum and calendar

3.6.3.2 LAND8LOUNGE

Land8Lounge was created as a private initiative to provide a central gathering place for landscape architects all over the world. It was founded to provide a place that landscape architects could go online that would provide a simple platform for sharing work and ideas about landscape architecture.[79]

[78]http://www.le-notre.org/working_groups/working_groups_overview.php accessed 08. May 2013

[79]http://www.land8lounge.com/notes/About_Us accessed 06.Feb 2009

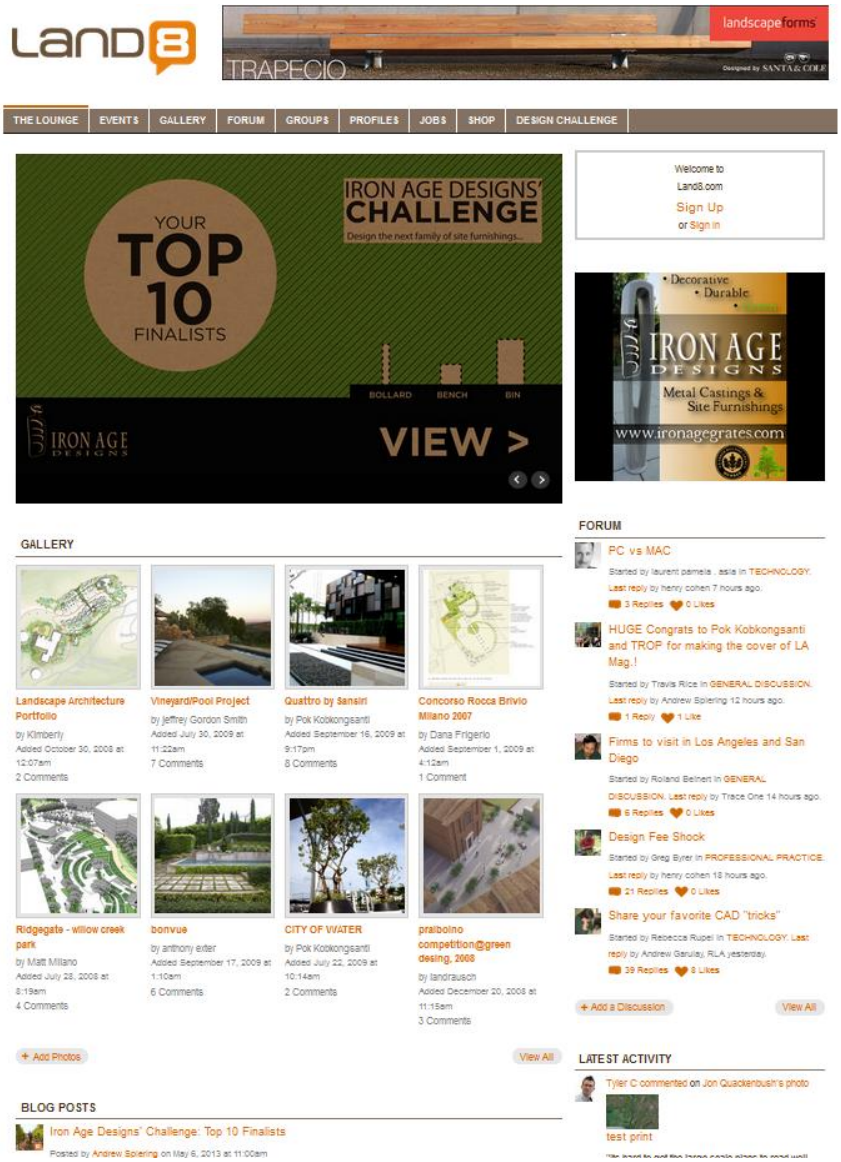


Image 6 ***Land8Lounge Public Site 2013***

To get access to the internal part a form has to be filled in, which can be done by the person wishing to enter him/herself. No invitation or contact person is required to become a member in *land8lounge*. The membership is free of charge.

Image 7 ***Land8Lounge example of a personal Site***

Data to be presented on a personal site is all entered by the person concerned. It appears in an appealing format and so offers for the person a professional public web presentation of his/her work and CV.

Networking facilities are given by opening up groups and getting in contact with other persons entered.

The web site offers tools for Social Networking like a customisable portfolio, work, personal information, interesting facts, and to keep a blog, photo and video sharing as well as a discussion forum

3.6.3.3 THE EUROPEAN HERITAGE NETWORK

The European Heritage Network is a permanent information system gathering governmental services in charge of heritage protection within the *Council of Europe*. It is concerned with monitoring and supporting the implementation of Council of Europe conventions and as such, it is able to draw on the resources of the respective government bodies in Council of Europe member countries. The European Heritage Network focus is on cultural heritage,

particularly on architectural and on archaeological heritage in the context of the activities under

* The European Cultural Convention (1954)

* The Convention for the Protection of the Architectural Heritage of Europe (1985)

* The European Convention on the Protection of the Archaeological Heritage (1992)

* The European Landscape Convention (2000)

* The Council of Europe Framework Convention on the Value of Cultural Heritage for Society (2005)

Widely accessible (to conservation professionals, heritage mediators, research workers, members of associations, young people, etc.), the network exists to encourage and facilitate the starting of projects and partnerships. It was founded as a tool for dialogue and exchange which facilitates cooperation between ministries and institutions in charge of European heritage management. It further developed into an international catalyst for initiatives and an ideal “meeting place” for the heritage family.80

Figure 6: HEREIN web site

[80]http://www.european-heritage.net/sdx/herein/european_heritage_program/showcontent.xsp?id=2accessed 06.Feb 2009

The multilingual thesaurus attached to the *HEREIN* project intends to offer a terminological standard for national policies dealing with architectural and archaeological heritage, as defined in the Convention of Granada (October 1985) and Valletta (January 1992)[81]

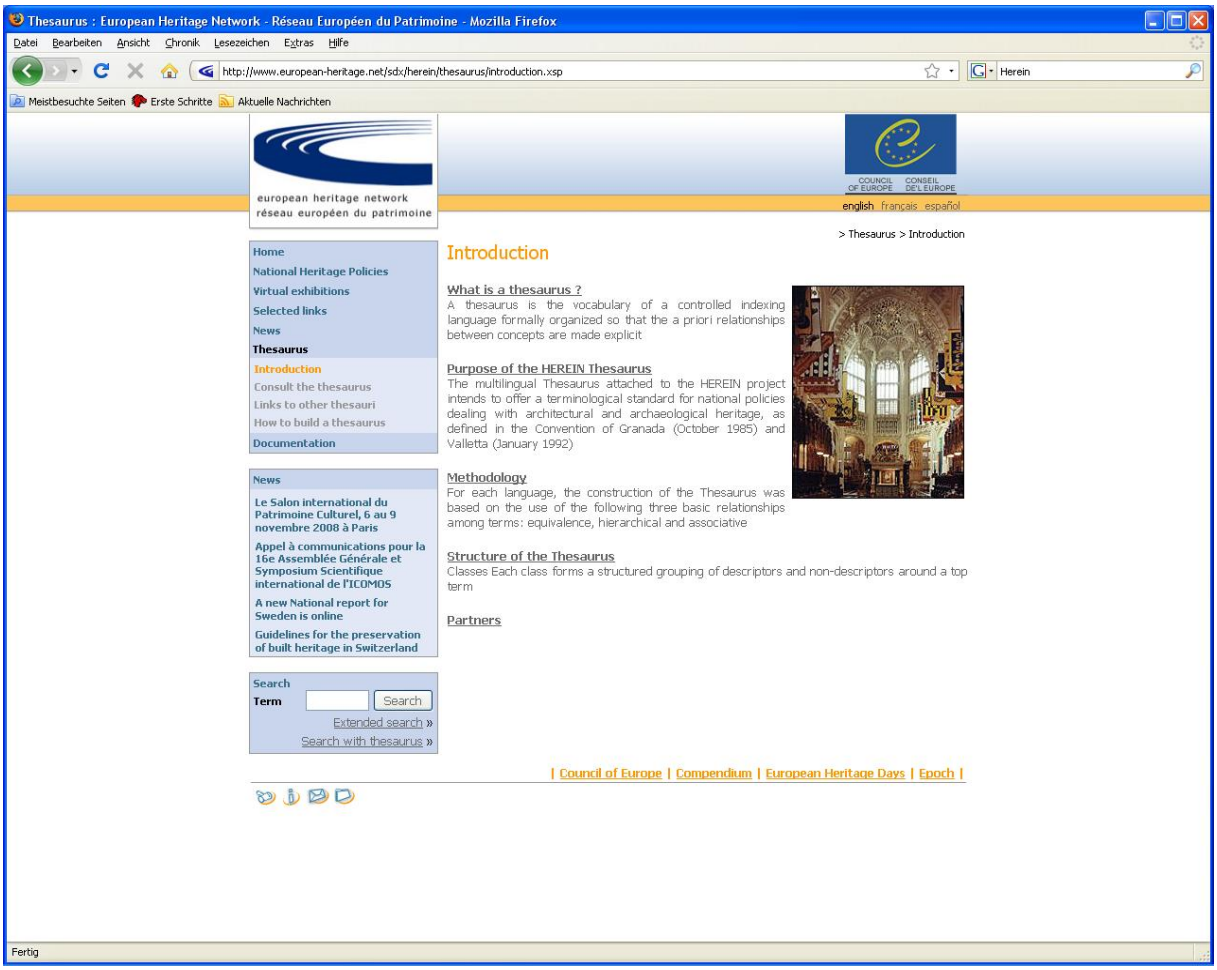


Figure 7: HEREIN Thesaurus

3.6.3.4 CONCLUSIONS WEB BASED COOPERATION:

All presented networks have an information part for third parties, offering information of relevance about the profession and the projects concerned. *LE:NOTRE* and *land8lounge* offer members' areas, which are actually the more comprehensive part of the sites.

Web based cooperation within a subject area requires an open access policy to a certain degree, although password protected areas make sense to form a community and to exclude spam and any kind of misuse of the data submitted.

A certain factor lies also within the quality of the platform in terms of usability. Not all persons with the relevant knowledge are familiar with using new technologies in an active way. Easy access, good tutorials and a clear structure of the platforms concerned lower the risk of excluding persons/groups that are not used to using the internet in an active way.

[81]http://www.european-heritage.net/sdx/herein/thesaurus/introduction.xspaccessed 06.Feb 2009

Ideally, access should either be free of charge or dependant on a modest fee affordable for all potential users. Of course this is possible only when there are national funds available.

HEREIN is an example for a web site that is maintained by a web team/ web editor that compiles the texts/data available, land8lounge and *LE:NOTRE* are based on providing mainly a frame for the members to put in data.

While the top down approach ensures quality check before data is shown online, the bottom up approach ensures stimulation of activity of each single member and a democratic approach to spreading information.

Both approaches offer possibilities of misuse, top down by spreading information only a small group agrees upon, bottom up by spreading information that is not the subject of independent review.

Solutions are available for both approaches to enable digital discussions in forums about the data presented as well as personalised data entries to enable contacting the person editing data.

3.7 COOPERATION AND LANDSCAPE ARCHITECTURE – CAUSE AND EFFECT

Reaching out for a required critical mass is *the* reason for cooperation in landscape architecture. A small profession with often just one higher training institution per country benefits from international cooperation for quality improvement. Exchange brings new insights and offers new dimensions. Entrepreneurs cooperate all over the world to look out for likely minded to share thoughts to have discussions concerning new aspects of the subject area.

There are various examples of cooperation in between universities offering landscape architecture higher education at different levels of maturity. A well-staffed university might support a young institution with few staff and short history of teaching and research few literature and low actual teaching experience. This cooperation might take place in between universities in the same country or in between different countries where also language barriers are issues of concern. Since the SOCRATES programme of the EU exists such activities are supported by EU grants.

Example Latvia

When the course in landscape architecture started in 1993 there were about 3 teachers from Latvia giving lectures Silvija Rubene, Ilze Janele and Gundega Linãre. Knowledge and material was passed on from European universities, in particular the Norwegian University of Life Sciences.

The Norwegian professors Magne Bruun and Karsten Jorgensen visited the faculty and gave lectures. In particular Karsten Jorgensen formed the curriculum and advised on the form of a study course. Teaching contents and lectures were provided also by other colleagues, e.g. from the Swedish Agriculture University, Olaf Skage visited the department several times to give lectures. On the other hand, the staff of the department exchanged with and visited universities such as the Swedish Agriculture University, Norwegian Agriculture University, Copenhagen Royal Agriculture University, Braunschweig Technical University, Hannover Technical University, Wroclav Technical University, and many more.[82]

Cooperation among the landscape architecture academia can take place at both an institutional and a personal level.

Among institutions there can by a symmetric models where there might be one “giving party” and one or more “receiving parties”, so the provider of knowledge strengthen its own status as an expert institution, the other is able, for example, to build up e.g. a new course. This model can be found in the implementation of a new study programme.

Other reasons to cooperate might be that each institution’s teaching and research facilities are small or specialised, while the cooperating group of institutions has a broader offer. Within this cooperating group each institutions can bring in their particular expertise within a common (teaching/research) project and thus ensure that all relevant aspects are covered. Such cooperation might take place within the same country or internationally and is quite common in research projects.

Personal cooperation is based on exchange with no institutional background. The early pioneers cooperated in order to convince their own institution of the value and need for a landscape architecture education. But cooperation on personal basis might also be focused on one’s own career opportunities or because certain aspects of one’s own work can only be discussed and furthered with persons, knowledge and experience from abroad.

[82] Interview with Kristine Vugule, Jelgava University and Karsten Jörgensen, UMB University

While both institutional and personal cooperation actually focus on certain limited aims, their activities as a whole have a wider effect on their profession and their academic discipline. This effect of the many joint, cooperative activities which involve actions within organisations, institutions and the internet are:

Cooperation in establishing a profession (landscape architecture)

Cooperation in establishing a discipline (landscape architecture)

Cooperation in developing and evolving a discipline (landscape architecture)

Cooperation in establishing a profession (landscape architecture)

Generally, cooperation in establishing a profession can be said to involve all joint actions and activities that contribute to the professional foundation. In the case of landscape architecture this has involved in particular the foundation of national and international professional organisations, the foundation of teaching and learning facilities and the implementation of the subject area in the national register of professions and national acts. All of these activities required exchange of knowledge and joint efforts of influential persons.

There was strong mutual influence between the rise of education facilities and the foundation of professional bodies. Some of the professional bodies were active in furthering and calling for higher education in landscape architecture in their countries, such as in The Netherlands and the UK, other organisations were founded only after the education had been set up, with the first graduates playing an active role in their foundation, such as in Norway. Members of these professional organisations were keen to meet other landscape architecture professionals and teachers. Their activities led to the foundation of international professional organisations concerned either with teaching or the practice of landscape architecture. Independent from their national positions and influence the international professional organisation offered a further platform for exchange and mutual assistance as well as for wielding power. Together, members of these organisations were larger and louder than in the individual national context, and could probably be more successful in promoting their profession as well as developing and adapting it according to new challenges.

Cooperation in establishing a discipline (landscape architecture)

The establishment of landscape architecture as an academic discipline is a result of the demand by the society, and the need to find answers and new strategies to cope with problems related to planning and the environment. The establishment was initiated through specialisation within existing disciplines such as horticulture and architecture and evolved through discussions and research from a vague field of interest to a firm (but flexible) discipline with a body of knowledge and clear classification of contents.

This academic related cooperation with the aim to found a high quality discipline is focused around academic conferences and publications. In establishing landscape architecture as an academic discipline the foundation of the first international conferences went hand in hand with the formation of professional bodies and higher teaching and learning facilities, with eventually even the same actors involved.

Cooperation in developing and evolving a discipline (landscape architecture)

The joint activities in this context involve all actions related to content and knowledge, the joint effort to build a common body of knowledge and to develop accepted methods and paradigms specific for the discipline of landscape architecture. National and international exchange within the scientific community supported this development. Changes in techniques and in society lead to professional changes, academic maturity through research and changes in the demands of the society and the environment lead to scientific revolutions and paradigm shifts.

For the development of the academic discipline, the foundation of publication facilities was essential, in order to allow members of landscape architecture academia to publish in academic journals of their own profession rather than being dependent on publishing in the diverse journals of other disciplines. This is essential, not just because such general journals provide a lower chance of publication, but they also fail to result in the development of a discourse within the discipline and the audiences addressed are frequently not the ones which the authors are trying to reach. Furthermore, other parameters of evaluation which might not fit the methodology of landscape architecture (e.g. research by design) may not be considered.

4 IMPLEMENTATION OF LANDSCAPE ARCHITECTURE PROGRAMMES, COURSES AND PROFESSORSHIPS AT EUROPEAN UNIVERSITIES

This chapter documents the spread of landscape programmes to universities all over Europe resulting in the number of landscape architecture programmes available today. (Compare list in appendix 7.3)

The chapter contains empirically generated information that is based on own data collection and data sampling (compare 1.3).

These foundations of new programmes were not isolated, independent events, but they were results of Europe wide developments, coming from within the society and from the general movements towards a better educated society. The sections on driving forces and actors outlines in detail the most relevant drivers and the characteristics of players involved in this processes.

Chapter 4 will therefor discuss not only the people and groups involved in the process of implementing landscape architecture as a subject area of university education in Europe but also the wider patterns reflected in these developments. Of particular interest is the role of cooperation in between the various parties.

4.1 DRIVING FORCES

Driving Forces may be defined as clusters of trends, which contribute to exert pressure in a particular direction, so they are less subject to the short term shifts that trends might take and are less specific than trends would be. Driving forces within society generally include the economy, political and social trends, population shifts, resources and the environment, science and technology and work and workplace. These driving forces are further influenced by human rights and values and are themselves subject to change.(Calwell, 2009)[83]

In addition to the driving forces influencing society as a whole, there were also particular forces working on the profession, such as specific legislation and trends in society. These subject specific driving forces behind landscape architecture were of particular interest and one of the reasons for undertaking the research leading to this dissertation. In the following sections, the nature of these driving forces on the profession will be outlined and described in more detail.

The methods used for investigating driving forces out of a questionnaire form are outline in the methods section: compare 1.3).

[83] Caldwell R.L., A New Framework for Anticipating the Future, 2009,

Examples of quotes concerning the "reasons" for landscape architecture programme foundations

Island (Borganes):*"During the last decades of the 20th century a number of laws on regional and local planning came into effect and thereby manifesting the need of landscape architects"* (Sveinsdottir, 2007)

Germany (Nürtingen):*"At the end of the 1960's, many agricultural programmes had developed in Germany and the demand was saturated. Therefore, Nürtingen was forced to develop new specifications on this competing market*

The new environmental protection act was under development (enacted in 1973). With this enactment landscape planning got a legal foundation in Germany which caused a strong demand for specialists particularly in the public sector. Although this enactment was not yet in force at the time when the first students started, there was already a general awareness of this developing field. (Fetzer, 2007)

France (Blois): "*In January 1992, Jack Lang, Cultural Affairs Minister, then National Education Minister and Mayor of Blois asked Jean-Paul Pigeat to create the" Chaumont sur Loire International Garden Festival ". He also asked J-F de Boiscuillé, then studio professor at the Camondo School of Union Centrale Des Arts Décoratifs in Paris and former director of Paris' Ecole Spéciale d'Architecture, to submit proposals for the foundation of a new school that would train the landscape architects of the future."* (McNally, 2008)

Norway (Aas) "*The knowledge basis and inspiration source for the development of the landscape curriculum in Norway is found in the works of 19th century pioneers such as Fr. L. Olmsted in the US, W. Robinson and R. Blomfield in England, but first and foremost with the new generation of professional landscape architects -"Gartenarchitekten" -in Germany in the beginning of the 20th century.*

At the Agricultural College of Norway the earliest initiatives to teach garden design were taken when a horticultural program was established in 1887. Professsor Hans M. Misvaer who was made responsible for the program after the re-organisation of the College in 1900, gave 25 hours of lectures in garden design per student class and about 100 hours of studio training, mainly based on Meyer: "Lehrbuch der schönen Gartenkunst". (Jörgensen, 2008)

Portugal (Tras os Montes) "*The University is very important in the region, to the local economy and helping to balance the regional differences that existed. There was an evident need, from the start, for projects and research in the different fields of Landscape Architecture to be done: urban and rural planning, creation of urban parks, studies on the environmental impact of mines, quarries and stone pit exploitation, new highways, re-building of historical gardens associated to tourism and lodging in the region, and landscape management. These solicitations were coming from public institutions such as Regional and Local Technical Offices, or Municipalities, or even the private sector.*" (Meireles, 2008)

Spain(Barcelona): "*There was no supporting background in society until 1978, when Landscape became a new discipline for Architects*. (Ribas Piera, 2008)

The Netherlands: (Wageningen): "*The need for an academic curriculum in landscape architecture in the Netherlands became evident during the second decade of the 20th century, when both city planners and leaders in the nature conservation movement publicly stated the need for an active and creative approach to planning problems such as the layout of new urban quarters, the urban expansion in rural areas, the layout of newly reclaimed polders and the conservation of heritage landscapes and nature areas.*" (Vries, 2007)

United Kingdom: (Reading, and others) "*The 20th century, particularly following the 1914 - 1918 war revealed the need for care in the design of towns and cities and the elements that made them up. In the nineteenth century the population increase was almost fourfold, from just over 10,000,000 in 1800 to just under 40,000,000 in 1900 and the need for rational treatment of the environment for economic, social, and aesthetic reasons, became increasingly important. The twentieth century was to see a great change in the numbers of people who could undertake the necessary work to provide an environment for thee increased population and their requirements*." (Downing, 2008)

A first set of driving forces was compiled listing the reasons given by the respondents that marked the start of the development concerned and/or the start of activities that led to a programme (or set of courses) foundation.

The first rough list consisted of double or repetitive entries, so in a second step these were refined, combining similar answers which led to the edited *list of driving forces*.

Edited List: Driving Forces for the implementation of a landscape architecture programme?

The following list provides an overview of the main driving forces which were found to have influenced the process of programme development in different European countries:

- Influential individuals bringing in knowledge from abroad- through personal involvement

Personal experience and knowledge has been applied somewhere else/at home

- Experts were needed for the implementation of new legislation

This was the case when a government of a European country passed a new law and needed experts to implement it

- The establishment of landscape architecture professional at the national level leads to demand for better education

The formalisation of the profession at national level led to a demand for a formalised education of more education facilities

- Demands on the part of society/ growing social awareness for planning issues and the environment, as well as the general trend to a better educated society

Examples here are demonstrations or citizens' movement for/against particular planning projects or the efforts of particular pressure groups

- Demand on the part of students

Examples took the form of a growing number of students demanding changes in their curricula, for example in Vienna, where an increasing number of students called for a specific curriculum based on landscape architecture curricula from other European countries

- Large public housing developments/shrinking regions/village renovation processes create demand for persons educated in planning and design

Demographic changes leading to urbanisation processes that lead to large development activities and/or local restructuring called for integrated planning

- Changes in the landscape itself challenge national authorities and create a demand for people educated in planning, design and the environment

Examples here are the effects of climate change or local natural disasters

- Competition puts universities under pressure to offer new opportunities

Inter university competition and the result of a declining number of students led to a need to attract students through new offers and thus new study programmes

- The Bologna process or other EU regulations came into force

A new directive or act initiated by EU or other international institutions leads to changes in the educational system on national level

Some forces were typical for the early 20th century, such as the knowledge import through individual landscape architects, others had their influence against the background of a general rise of the total number of universities in Europe in the 60s and 70s.

Legislation concerned with the protection of the environment and with a defined and structured planning process provided a basis for some of these driving forces. This started in the late 70s and early 80s and is still ongoing.

The efforts of the EU to provide a basis for the European Single Market and the free movement for citizens in the 1990s, had influence on the professions in general and the need for comparable degrees all over Europe.

4.1.1 ANALYSING THE DRIVING FORCES

The set of driving forces above lists both short term and long term causes for the implementation of a degree programme. Direct as well as indirect reasons are considered. So one can see in the long term a general movement in society concerning the treatment of the environment and the contributions of coordinated planning processes, providing the background for direct actions and causes to follow. The overall movement towards a more educated society with a higher share of people with a university education is a further indirect driving force providing the basis for programme implementations.

These individual driving forces were sorted into groups on the basis of similarity

- *Reasons derived from pioneering individuals*
- *Reasons derived from planning challenges of a country or region*
- *Reasons derived from university development*
- *Reasons derived from society/EU institution*

Reasons derived from pioneering individuals – Personal commitment
Among the best documented examples here is Caldeira Cabral who had been sent to Germany with the main aim of importing knowledge to Portugal in order to be able to set up a course in landscape architecture, (Andresen, T, 2003) but he was not the only person to pass on knowledge from one part of Europe to another (see “case studies”).

Reasons derived from planning challenges of a country or region – Resources and the environment

One example here is the development in Germany. The new German Federal nature protection act was under development (enacted in 1977[84]). With this enactment landscape planning got a legal foundation in Germany which caused a strong demand for specialists particularly in the public sector.

Reasons derived from university development - Science and Technology/Education Policy
This group summarises all reasons that come from within the university system, for example the need to attract students better due to a shortage of new students. One example is Germany in the 70s, when a sufficient number of agricultural programmes had been developed and competition in between the universities for students was evident. Nürtingen, located close to the Agricultural University of *Hohenheim/Stuttgart*, a regional leader in agricultural sciences, implemented a new landscape architecture course to avoid competition and to attract students

[84] http://www.bfn.de/fileadmin/MDB/documents/themen/recht/BGBl.%20I%20S.%203574.pdf

Reasons derived from society/EU institutions - Political and Social Trends
This group includes the change in the society that provides backing for the foundation of landscape architecture courses. There are many examples, even the first foundation in Aas/NO was based on a general movement in Norwegian society of the time, involving a growing awareness for the protection and active planning of the environment.

Figure 8: Set of Driving Forces

Figure nine above, summarizes the main driving forces which were instrumental in influencing the establishment of landscape architecture programmes in Europe.

In the blue box, all answers related to environment protection and site specific planning were grouped under the heading of "*Resources and the Environment*". This category was named most often in the survey.

The yellow box drivers that are concerned with the university system are grouped under the heating: "*Science and Technology /Education Policy*". This includes cases of university foundations or general university restructuring that lead to the foundation of new degree programmes. There are also cases when students that gained professional experience elsewhere called for a full landscape architecture education back at home. This driver was named more often in interviews and questionnaire forms that referred to the developments in the 1970s.

A special case among the first two is the case that is based on personal commitment of a single individual. This factor applies in particular to the very first programme foundations,

when implementation and cooperation took place for the first time in the country concerned, the driver is referred to as: "*Personal Commitment*". This driver could be recognised in the interviews and stories related to the first five programme foundations in Europe, but was also named in later examples, when landscape architecture programmes were founded as first ones in the country concerned.

Finally "*Political and Social trends*" were taken down including all those case studies when either EU regulation influenced the development, or cases of social disturbance (for example demonstrations for the protection of the environment or, more often: against certain infrastructure projects) influenced the call for specialists in planning. A further aspect is the growing number of persons gaining a higher education nowadays compared to the first half of the 20th century leading to more students and more study programmes. Political and social trends were found to be drivers from the first programme foundation up until recent examples, so there is no typical period of time for these reasons.

All of these drivers interrelate and influence each other. The activities and relations however are based on players that are involved.

4.2 PATTERNS OF LANDSCAPE ARCHITECTURE EDUCATION GROWTH

4.2.1 THE GROWTH IN CONTEXT OF THE EUROPEAN HISTORY

The first analytical approach towards the case studies was to look at the programmes from a time perspective and to sort them in *periods of time*, because it is to be expected that the development of landscape architecture education is also a reflection of the wider socio-political context in which it took place.

The case studies relate to foundations in the early 20th century up until 2015. The case studies are divided up into three time periods:

1919-1948: Seen from the point of view of the development of landscape architecture education, the years from 1919 to 1948 have been chosen as the first period of time to study. In 1919 the first European university course in landscape architecture was approved and legally established, marking a crucial step towards professionalisation of landscape architecture. 1948 is the year of the foundation of IFLA – The International Federation of Landscape Architects at St Jesus College, Cambridge

From the wider perspective of European history, this period of time corresponds more or less to the 'inter-War' years. These were characterised by political upheavals and an economic crisis. In society a change concerning the role of the aristocracy and the development of a society driven by capitalism and industry in the western countries and communism in the eastern countries.

1949-1989: The second period of time, 1949-1989, has been chosen, as it is a boom phase. Europe saw prolonged economic growth beginning in the early 1950s until the 1970s with the 1973 oil crisis, and the 1973 stock market crash. Society recovered from WWI and II and education became of higher importance leading to a significant rise in the number of education facilities. The development of a middle class, marked the period concerned.

The growing knowledge about natural systems started to influence the profession of landscape architecture and provided new methodologies for planning and design. Further to this IT tools, like GIS and ArcInfo, were developed and enabled the professionals to develop digital maps and plans.[85].[86]

1989 has been chosen as it was such a decisive year for Europe in particular concerning cooperation.

1990-2015: The changes on the European map, with new countries emerging, finally influenced the last period of time 1989-2015. Some of these political changes directly influenced the landscape architecture education as the newly emerged countries were

[85] https://en.wikipedia.org/?title=History_of_Europe#cite_note-google2-110

[86]Motloch J. Introduction to Landscape Design, 2000, p.41-43

without education in landscape architecture. The development of the EU and the integration of the east European states in the EU framework influenced the profession in various ways. In particular the development of the single European market had direct impact on the requirements for universities to edit comparable degrees as well as in the facilities open to university staff and students through the ERSAMUS programme. (Compare 3.6.1.1)

A new and broad consciousness in society for the environment provided a sympathetic context for to professional developments, for example sustainable design became more and more important. IT technologies play a significant role in the design process but also in the mapping of environmental data. The humanities also began to play an increasingly important part in design with the aim to link the history of a site to its design.

4.2.2 DEVELOPMENT OF PATTERNS THROUGH MODELS

Assigning the foundation of landscape architecture programmes to an historical period can only be the first phase in the analytical process as it fails to take account of many other factors.

So it makes more sense for a second level of analysis to take the players and driving forces into account rather than European history, not without also taking into consideration the time periods. (Compare approach and methods 1.3)

According to the New Fontanta Dictionary on Modern Thought (Bullock 1999) a model can be characterised by the following:

> *Variables* are to be used for characterisation and understanding of the process
>
> The forms of *relationships* connecting these variables must be specified
>
> *Ignorance and simplicity* ensure that all relationships other than identities are subject to *error* – these errors have to be outlined
>
> The *parameters* of the model must be estimated and the extent of its *identification* ascertained
>
> The model has to be kept *up to date*

So additional to a chronological order the analysis of the case studies enables the development of patterns through comparable and divergent parameters, variables and relations and the definition of models of “the development of landscape architecture programme implementation”

4.3 STAKEHOLDERS AND ACTORS

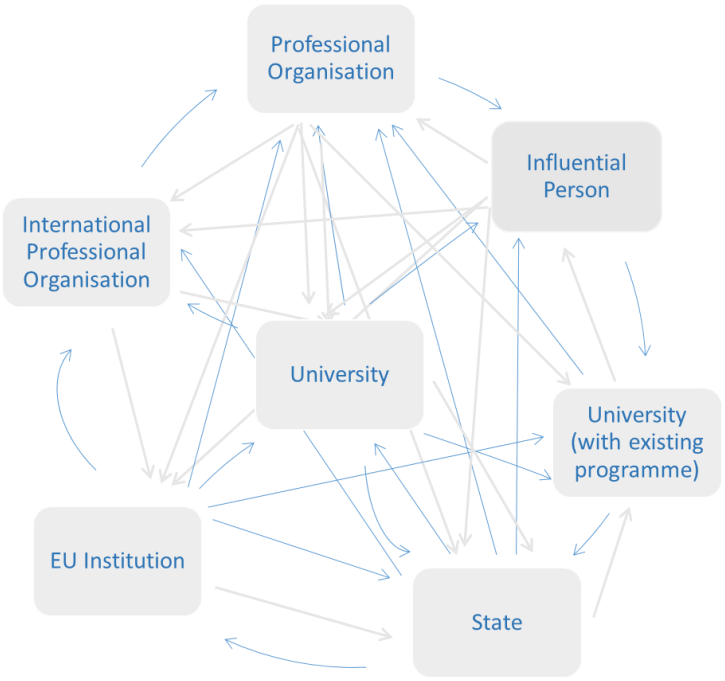


Figure 9: Actors in the Foundation of Landscape Architecture Higher Education

This section considers the stakeholders and actors as the key players and their roles and relationships in the process of establishing higher education programmes in landscape architecture in Europe. Here cooperation begins to play an important role.

In order to investigate the roles of the players in the implementation of a study programme and their cooperation, the interviews done in context of the survey were analysed and the persons and institutions substantially acting in the overall process extracted. (compare 1.3)

The stakeholders who have a role in the process of a programme foundation are:

- The university to set up the programme/ a university (from the same or another country) with an existing programme
- The State/ States
- Influential Individuals from the field of landscape architecture (possibly educated abroad or in another profession)
- (International) Professional Organisation
- EU Institution(s)

In the text concerning models all stakeholders and actors are named “players”.

4.3.1 UNIVERSITIES

As the places where teaching and research mainly take place, universities provide the necessary infrastructure for the courses and are the employers of teaching and research staff (in most but not all cases). They may have different academic specialisations. Among the institutions referred to under the term “University” in the list of players are *Universities of Applied Sciences*, *Agricultural Universities, Colleges of Art, Technical Universities* and general, broadly-based universities. Landscape architecture programmes can be found at each of these types of university. Each type of higher education institution may indirectly exert and influence the specific research methods, approaches, paradigms and teaching methods of the disciplines. So landscape architecture taught at a technical university may be expected to have other specialisations than landscape architecture taught at an art university.

Universities in context of the modelling process might be universities with an existing programme in landscape architecture or a university in the process of founding a programme.

4.3.2 THE STATE

The overall responsibility for higher education of their citizens lies within the tasks of a state. As such states are the direct or indirect suppliers of money and facilities. The amount of influence which they directly exert over universities and the subjects they teach can vary considerably.

Increasingly, however, they set the standards for education through educational laws and standardsand carry responsibility for a well-educated society. Depending on the constitution, educational or environmental laws may be enacted at the national or provincial level. A state reacts in the form of the government of the day to prolonged pressure by society done through lobbying by political parties, interest groups or in extreme cases even demonstrations (compare environmental movement in the 1970s and 1980s all over Europe). It is within the responsibility of the state to handle potential natural threats.

According to the national constitution, education is either the responsibility of the state or the province. The French education system for example is characterised by strong state presence in the organisation and funding of Education. The State defines the details of curricula at all education levels; it organises the teachers' admissions procedure, defines content and recruits teachers. In the Federal Republic of Germany responsibility for the education system is divided between the Federation and the countries (Länder).[87] Provinces often have highest interest in providing higher education in order to attract young people to stay in this particular region and in order to offer employment.

[87]https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Countries accessed October 2015

Some special cases occur when states *per se* undergo processes of transformation, such as those which took place following the Fall of the Iron Curtain (e.g. Czech and Slovak Republic, Yugoslavia).The lack of an education in landscape architecture of the new state frequently led to new programme implementations.

The state is also a stakeholder that needs landscape architects for its own environmental administration. States or Provinces also require well educated professionals for planning and maintenance of the landscape and a well-protected environment.

4.3.3 INFLUENTIAL INDIVIDUALS [OF LANDSCAPE ARCHITECTURE (EDUCATED ABROAD)]

"Pioneering" landscape architects are holders of specific knowledge in both: theory and applied knowledge, who bring this knowledge to a country or to an institution where it does not yet exist. In this context this person (or group of persons) is the entrepreneur, guiding the whole process with particular endurance in demanding the implementation. Usually these persons do not have any power or facilities for the implementation, their asset is their specific knowledge and the experience they gained abroad. They need the assistance of the other players or they are commissioned by others to provide this knowledge. They might be part of a professional organisation (if in existence yet).

Not only the experts with much experience and the relevant educational qualifications were such influential individuals, also (prospective) students of a university calling for a full landscape education fit into this category. One example is the course foundation in Vienna at the University of Natural Sciences, were students that had a clear idea of what they felt to be an ideal landscape architecture curriculum applied for single acceptance of this curriculum as a "special" and "specific" study programme within the university called *Studium irregulare*. They had brought the knowledge about this curriculum from abroad mainly Germany and the Northern countries as well as The Netherlands.

4.3.4 (INTERNATIONAL) PROFESSIONAL ORGANISATIONS

Professional organisations represent the interest of the profession and have a role in setting standards and sometimes regulating access to the profession. They are the bodies that lobby for professional interests and indirectly aim to ensure that their profession is well placed in society. As far as education is concerned the main interest is that graduates of educational programmes fit the demands of the job market. International professional organisations have additional roles such as international networking including exchange of knowledge and experience. Both types of organisations set standards for quality control through their work. Among the other players they often have the role of lobbying rather than execution.

4.3.5 EU AND OTHER INTERGOVERNMENTAL ORGANISATIONS

The European Union (EU) is a unified body consisting currently of 28 member countries, all of whom are independent fiscal and political entitiesis. It is governed by seven institutions which influence landscape architecture education in a number of ways either through their influence on education or on landscape architecture related topics.[88].

Through its goal of a barrier-free trade zone and the aim to enhance economic wealth by creating more efficiency within its marketplace it influences society significantly in a number of different ways.

The Player “EU Institution” in this context takes the form of a body of the EU administration that acts according to EU law. This law affects national legislation. In particular legislation concerned with the environment is successfully established at EU level as the landscapes and biotopes which this aims to protect exist independently from national borders.

Education is also subject to EU law, driven by the intention to create a single European market with a right for free movement. The Bologna process arose independently having been established by just four nations. The Bologna process also encompasses non-EU states. To enable the recognition of university degrees within Europe amongst others the Bologna process proved to be useful and had been incorporated into European law.

The relation to the other players is also significant as the EU is not only providing the legislative basis but is also supplier of funding and through its efforts to establish the barrier free trade zone it enabled and supported exchange of students and teachers at higher education level significantly.(see also 3.6.1.1)

The interrelation in between drivers and actors is the next step in analysing the patterns of the landscape architecture education growth. The actors were influenced by the driving forces as outlined in 4.1

[88]Article 13 of the Treaty on European Union lists them in the following order: the European Parliament, the European Council, the Council of the European Union (simply called "Council"), the European Commission, the Court of Justice of the European Union, the European Central Bank and the Court of Auditors.

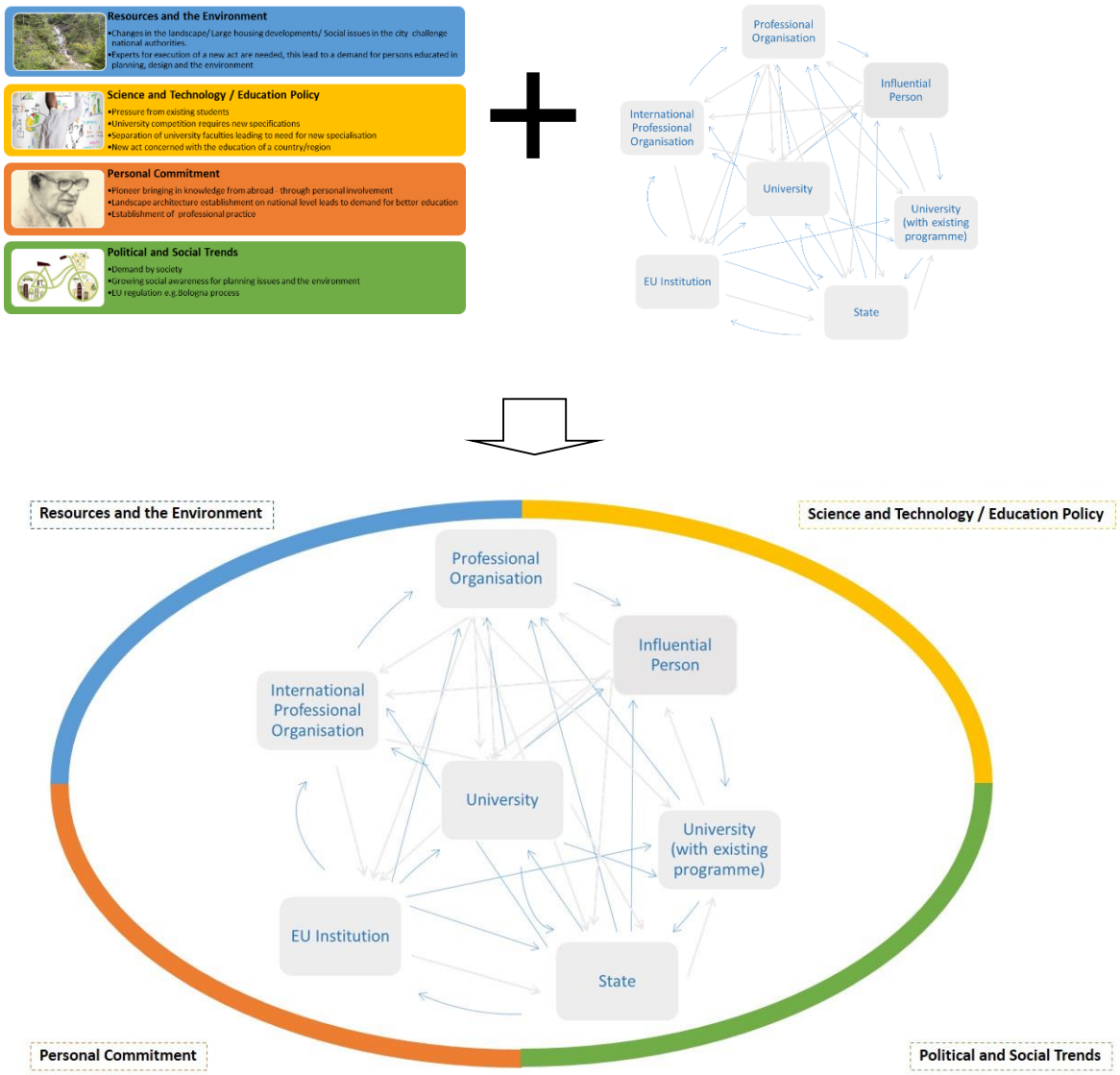


Figure 10: The development of the "Interrelation in between drivers and actors"

All these players interrelate, details on the nature of their relations will follow in the following sections.

4.4 RELATIONS

As outlined in section 4.2.2 variables, relations and parameters need to be defined in order to create models, through which patterns in the development of landscape architecture education growth can be understood. Parameters of the models have been defined in the previous section on stakeholders and actors, variables are the parts that change, ("that are variable in the process of developing models).

Of particular interest are the various relations of the stakeholders and actors each with different roles. The characteristics of these players have been identified in chapter 4.3.

Figure 11 below outlines the most relevant relations by giving examples from the case studies in chapter 5.

Central to all these relations is the university where the programme is in the process of being set up. Within this organisation, the persuasion of the existing staff and the council of the benefits of investing to establish a new programme is required and that existing study programmes will not be “thinned out”. The other players are characterised through “giving” and “demanding” activities towards the programme founding university but there are also relations among each other.

There are various kinds of relations in between the players

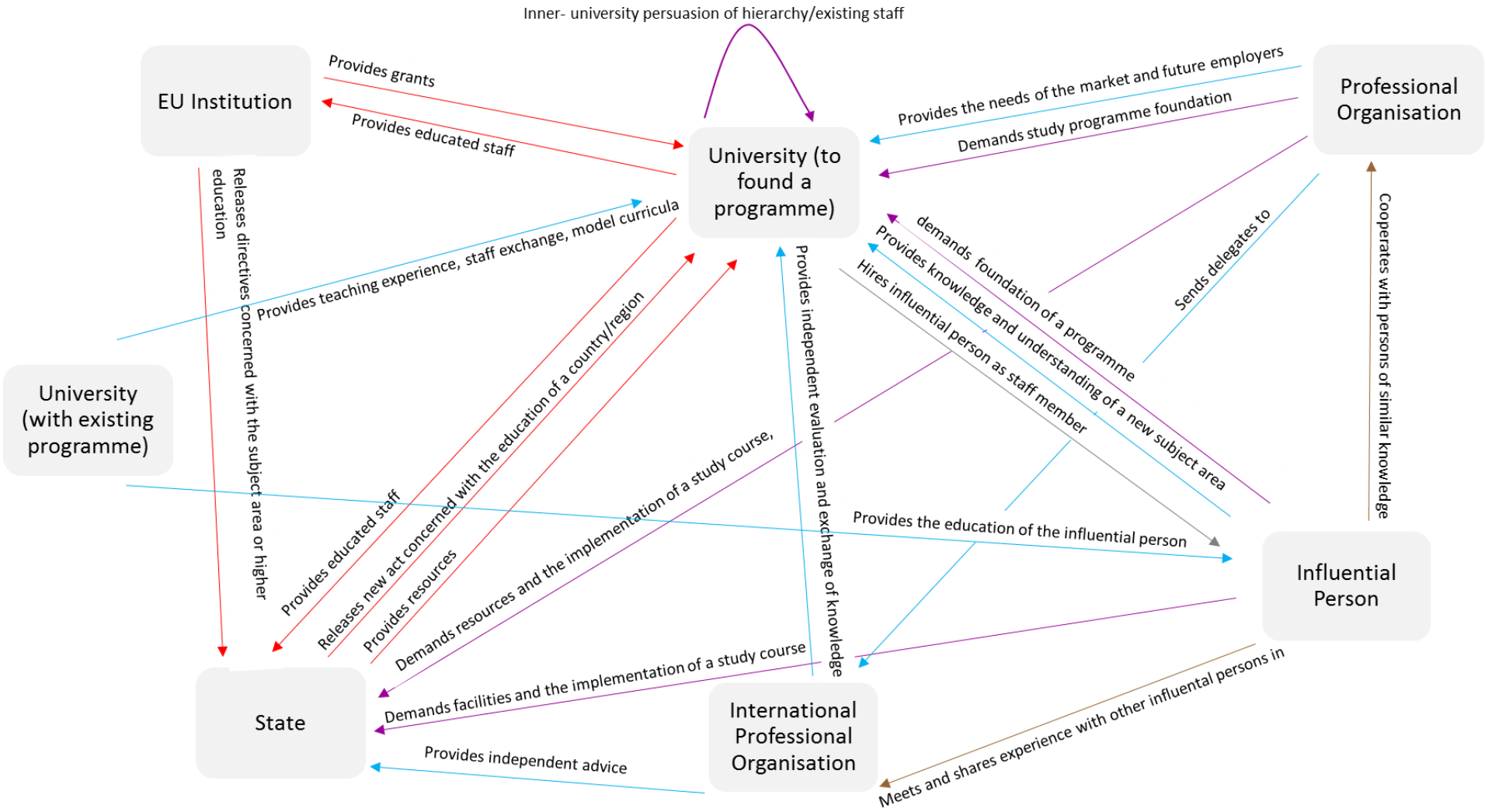


Figure 11: Interrelations in between the Players in Landscape Architecture Programme Implementation

In Figure 11 "*Interrelations in between the Players in Landscape Architecture Programme Implementation*" the many relations in context of landscape architecture programme implementation are illustrated:

The "Professional Organisation" lobbies for a study programme (as a political action of lobbyism) from the university and the state and provides the needs of the market and of future employers. It sends delegates into an international organisation where exchange of knowledge and understanding takes place. Similar actions are taken by the "Influential Person" (that might even compensate the activities of the professional organisation - where not yet in existence - compare Model 1 in the following sections)

The "State" has the main role of passing the relevant legislation and of providing the necessary resources. It is in direct relation with EU institutions (where yet in existence) and directly influenced by them. Some actions of the "State" and "EU Institutions" are similar in so far as their central action is providing resources and legislation. State and EU institutions receive - once the implementation is done - educated staff from the university.

The "University with an existing programme" is in direct relation with the university and with the "influential person" as provider of knowledge as well as provider of organisational practicalities and teaching methods.

The "University with an existing programme" and "the influential person" take similar actions in some cases, in particular when no or only a small number of programmes were in existence, and the influential person provided the knowledge and experience, that he/she gained through work and experience abroad.

Figure 12 not only provides a scheme of all these relations but also presents an analysis of the different kinds of relations: *Formal Relations, Political (demanding) Relations, Institutional (cooperative) Relations* and *Loose Relations*. The colour of the arrows in this figure corresponds to the kind of relation as outlined below.

Formal Relations: These include actions that are based on different kinds of laws, directives and guidelines. Implementation of these is compulsory and the relation between the players is dominated by them- obeying the formalities. (a university implements a new law concerning education, a state ratifies an EU directive) So here is not much space for personal interpretations or personal commitment.

Political relations include all actions in between pro-active parties and institutions with power for implementation. Lobbying, the publication of petitions or letters signed by many or influential persons fall under this category as well as complaints and demands towards institutions. The aims of the players are different and convincing and persuading is the main characteristic of the relationships. Conferences or congresses concerned with landscape architecture education leading to a collective call of all the participants might also fall under this category. (E.g. a group of entrepreneurs organizes a conference on higher education in landscape architecture and establishes a petition for the foundation of a master course)

Institutional relations include actions in between parties that have formally defined aims and principles and cooperate for a shared aim. For example a professional organization that advises a university concerning curricula composition or two universities that share knowledge on teaching methods. Here the players are on the same or on a comparable hierarchical level.

Loose relations include all actions in between single persons, for example in between "pioneers/influential persons" from different states or other single persons that do not speak for their institutions but a private persons. Loose relations might develop into political relations when many players intend to unite for the shared aim of a programme implementation.

The players and their interrelations are themselves influenced by the driving forces "Resources and the Environment", "Science and Technology / Education Policy" "Personal Commitment" and "Political and Social Trends" as outlined in chapter 4.1.

These driving forces derived from activities of pioneering individuals, from planning challenges of a country or region, from inner-university changes or development and there were reasons derived from the demands of our society and social changes.

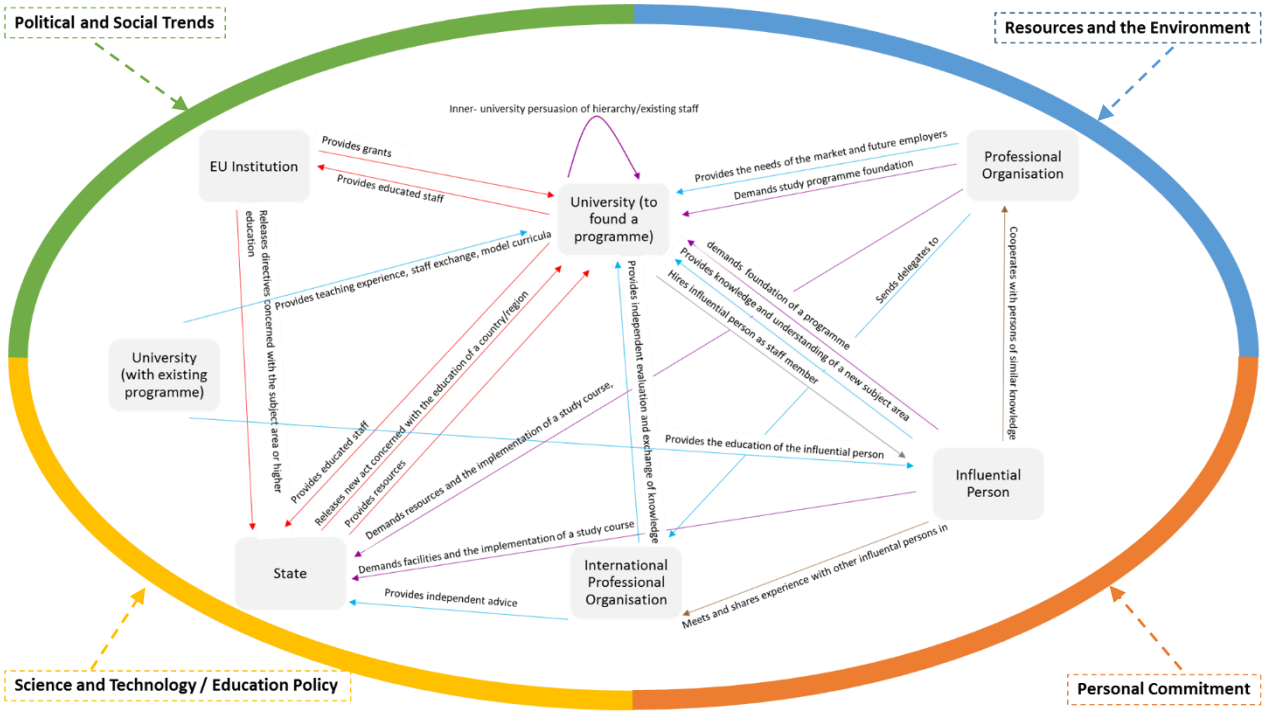


Figure 12: Interrelations of Drivers and Players in the Foundation of Landscape Architecture Higher Education

All these four driving forces directly influence the actions and relations of the players. Not all players or all driving forces are relevant in all cases. The development of the model is based on whether certain particular driving forces were more relevant than others. These variations of relevance led accordingly to the following three models.

4.5 MODEL 1 – PIONEERS' WORK

Model 1 describes the implementation of a first course in a country concerned. These activities are driven by an influential person or a group of persons (that is in some cases “not yet” a professional organisation) rather than the state.

So the main aspects here are the activities based on personal commitment, the absence of a significant role of the state or the EU and the low level of existing resources, which lead to the description “pioneers work”

The “pioneer” (group) had the main responsibility for the professional knowledge and content and the person(s) educated abroad where the first professors usually. Their education and professional development took place by education abroad, through work experience and personal commitment. These influential persons undertook lobbying in their home city/country in order to enable the establishment of a higher landscape architecture education.

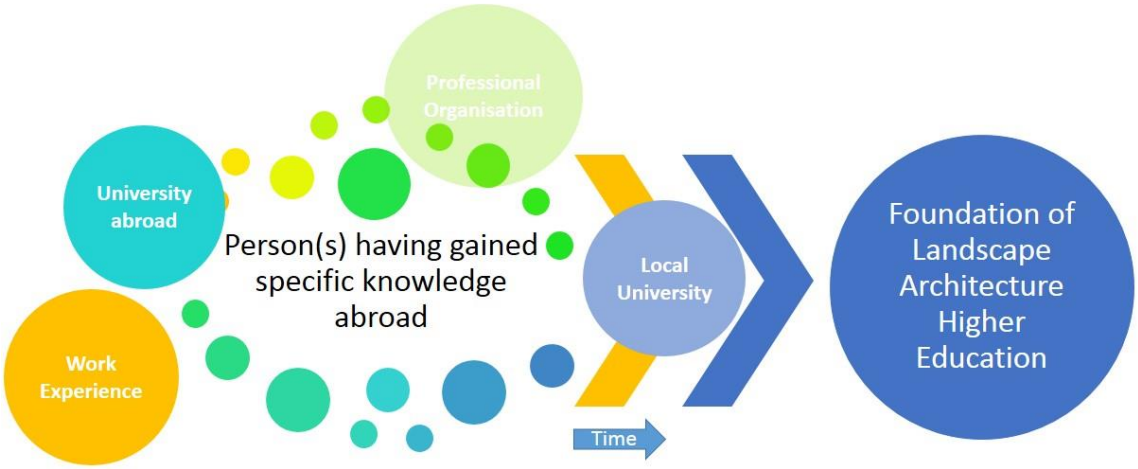


Figure 13: Scheme “Pioneers Work”

Programme founders had little literature, methods and structures available on which to base their activities. Some of these pioneers had support from a professional organisation, others did not as there was no professional organisation yet in existence but were founded later, often by the first graduates of the new programme. Some of these influential persons were personally involved in founding and maintaining international professional organisations or may have asked for professional advice and exchange of experiences there.

The professional knowledge was under development and details probably had to be adapted to fit the local landscape and institutions of the country concerned by the founders of a programme.

The player predominant in Model 1 is the person having gained specific knowledge abroad. While there is also a newly developed, but not yet mature societal trend towards a greater awareness of environmental issues and a higher importance for planning subjects in society as a whole, education policy and the formalised, enacted protection of natural resources play a minor role.

Apart from the player "university" as the place where the implementation takes place the "university with an existing programme" is also significant, as it usually provided the education of the pioneer/influential person or the basic professional knowledge necessary. In the modelling phase this other university had been included within the player "influential person", as this person has obtained a degree from the other university and carried the knowledge. This education does not have to be an education in landscape architecture, but can be in a related field (e.g. horticulture, architecture, city planning,…).

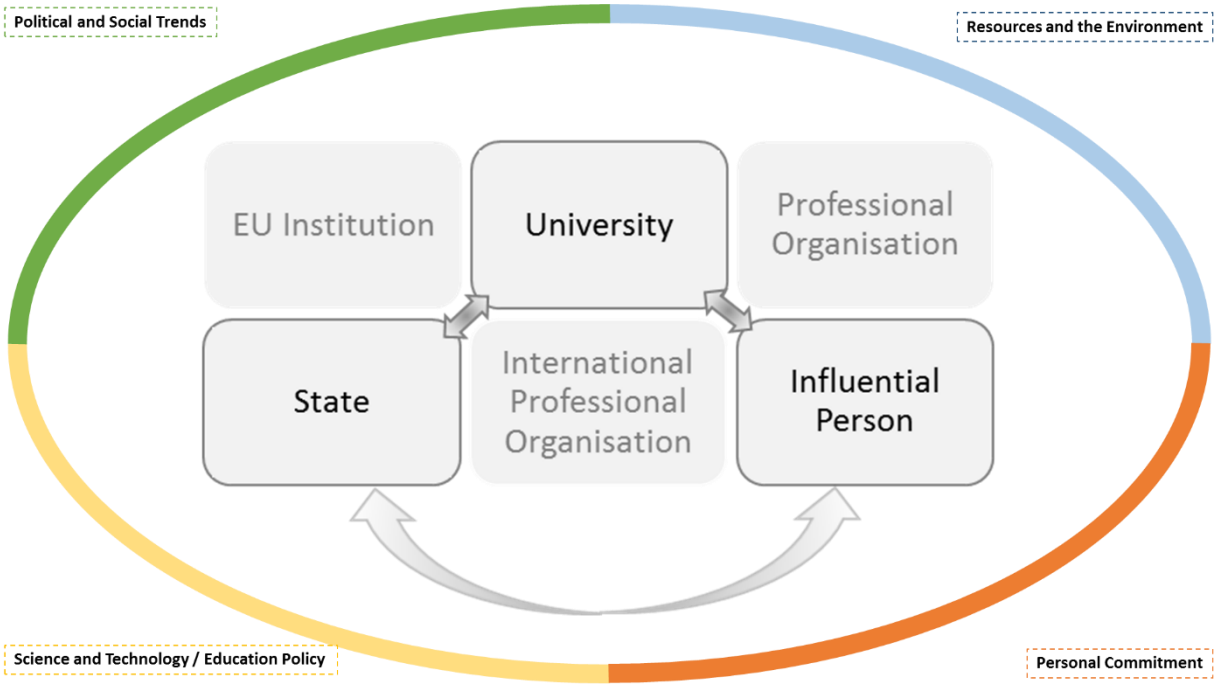


Figure 14: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 1

Knowledge transfer is a significant issue in all models. In model 1 it is carried out either through the influential person or through inter university cooperation or support from one state to another. However the term "university" includes the involvement of all universities concerned.

EU institutions and (international) professional organisations do not play a significant role as they mostly were not in existence yet. In Germany and in the UK professional organisations had been founded already during this period.

Only the case studies listed in model 1 can be said to be based on the efforts and the outstanding knowledge of persons that have brought landscape architecture to a university

to found a new study programme. The pioneer work of the actors within model 1 distinguishes it from the other models.

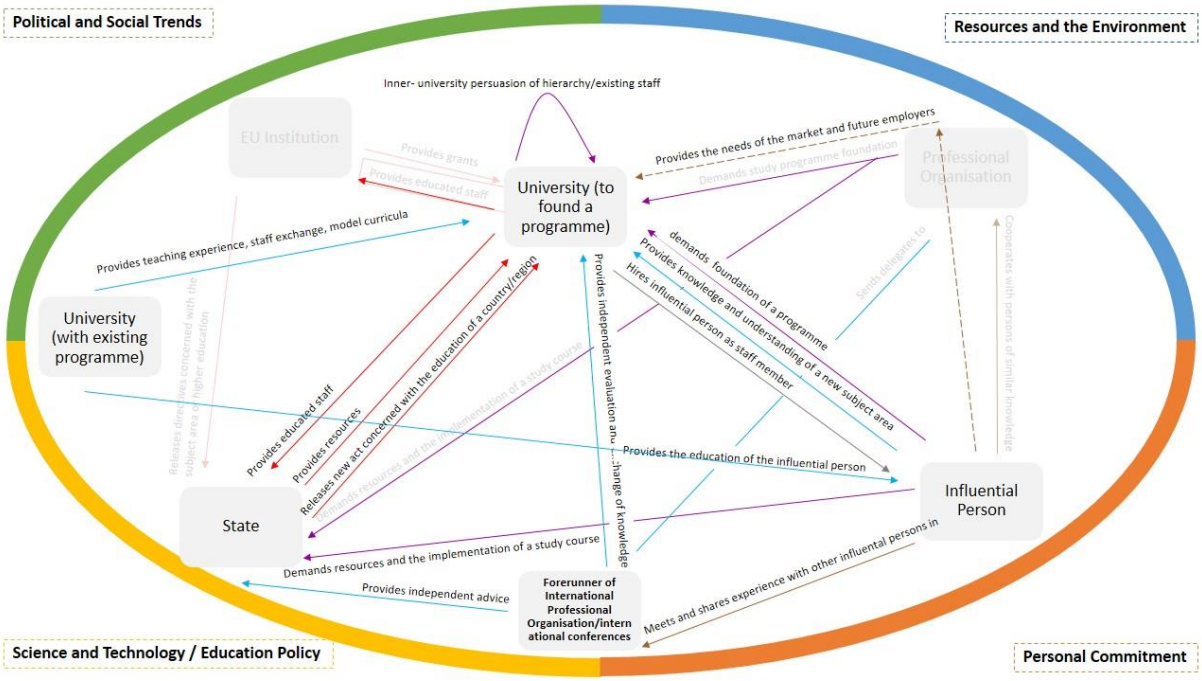


Figure 15: Interrelations of Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 1

In the overview of interrelations the low influence of the EU and the professional organisations is visible. In the absence of a professional organization, some of the activities typically done by professional organisations, are undertaken by the influential persons instead. (Lobbying, link to the needs of the market).

4.6 MODEL 2 – LOCAL CHALLENGES

Local challenges, for example large urban development projects, nature disasters or societal problems in the public open space, were often stated to be *the* reason for the foundation of a landscape architecture programme. In this context there are direct and indirect inducements as well as long term and short term occasions. One example is a local or state administration, challenged by environmental and social issues in the landscape. Often this process is accompanied by new legislation concerned with the protection of the environment or regulations concerned with city development to be edited and executed. Examples stated in the survey were for example large public housing developments with or without public participation, the call to establish national parks, shrinking/expanding regions or village renovation processes.

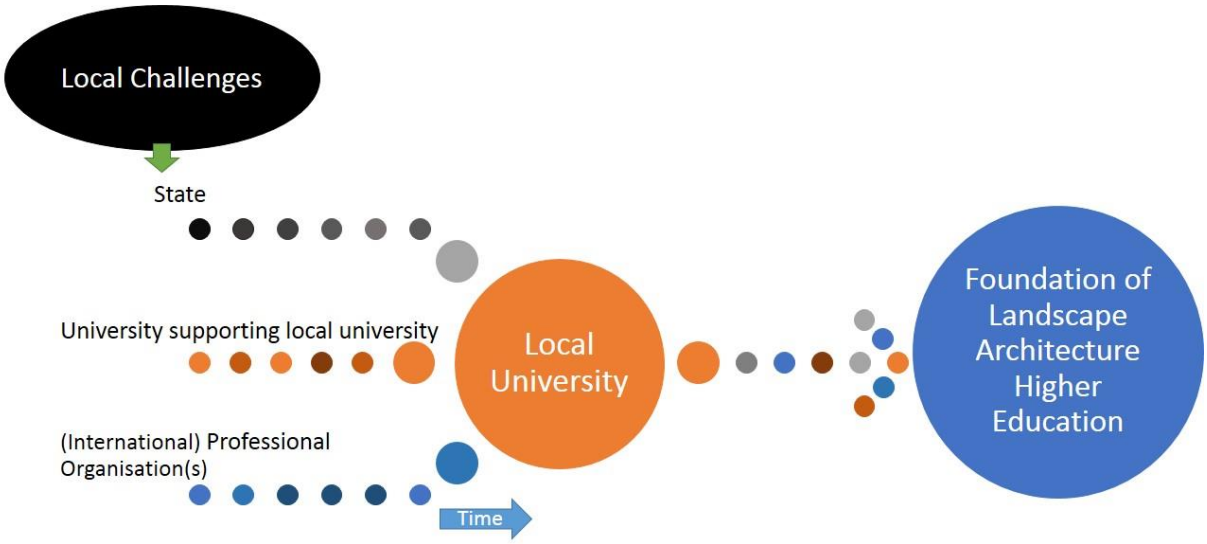


Figure 16: Scheme "Local Challenges"

The actors in the process of implementation include persons educated usually at a university abroad, who provide the professional knowledge, but not always the mature academic profile. Cooperation with partner universities, who have a programme running and can advise on curricula composition and teaching methods took place frequently. Exchange of staff ensures best teaching and research methods. Partner universities might be from the same or another country.

Cooperation with professional organisations ensures national and international contacts and support. European Union institutions might pay for the foundation and/or exchange of staff for the implementation and the first years through specific educational programmes. In the period of time before the foundation of these EU programmes even another state might support this development.

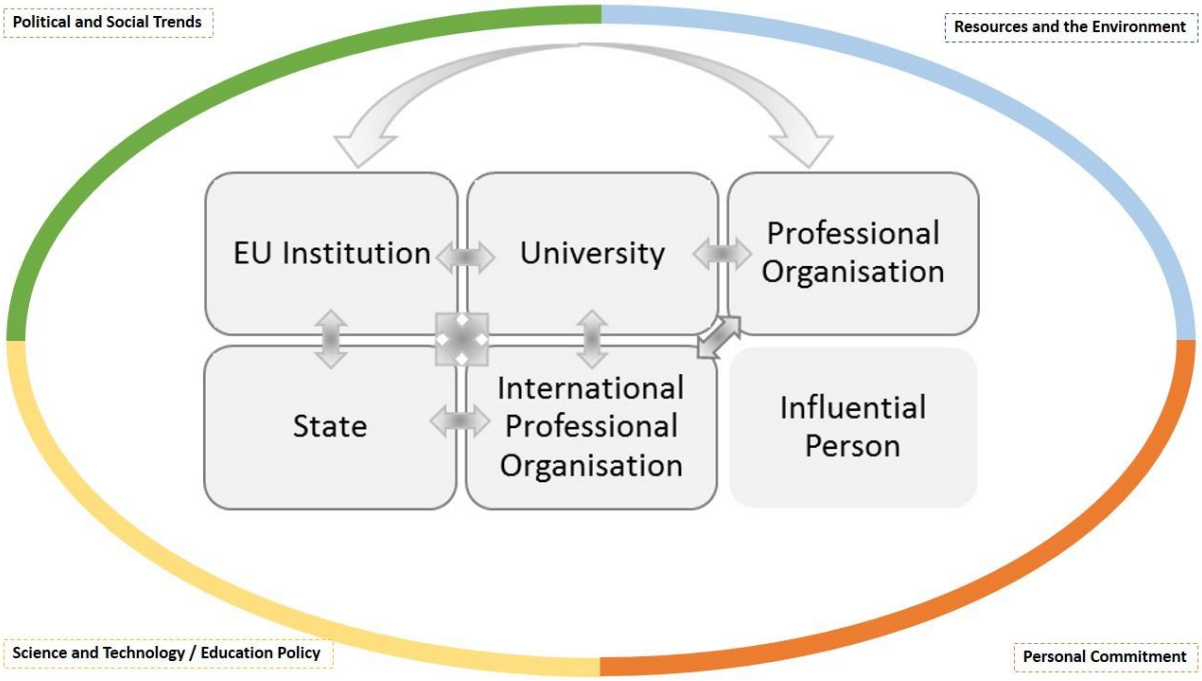


Figure 17: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 2

Model 2 is characterised by a major influence from political and societal trends that have changed and moved in the direction of the professionalisation and institutionalisation of environmental and/or planning issues. The awareness within society that natural resources are finite and that the protection of the environment is of importance influences the foundation of the relevant institutions in the country concerned (environmental ministries, environmental and planning departments on local/regional level). Those (state) institutions need well educated staff and that is instrumental for the foundation of the relevant education facilities.

Almost all players have significant roles in this process, with the “influential person” as the least important in this case, although in many of these foundations there was often an outstanding person behind the development pushing forward the whole process. The difference compared to model 1 is that these “pro-active individuals” had a higher number of other universities and programmes at hand on which to base curricula and (teaching) methods.

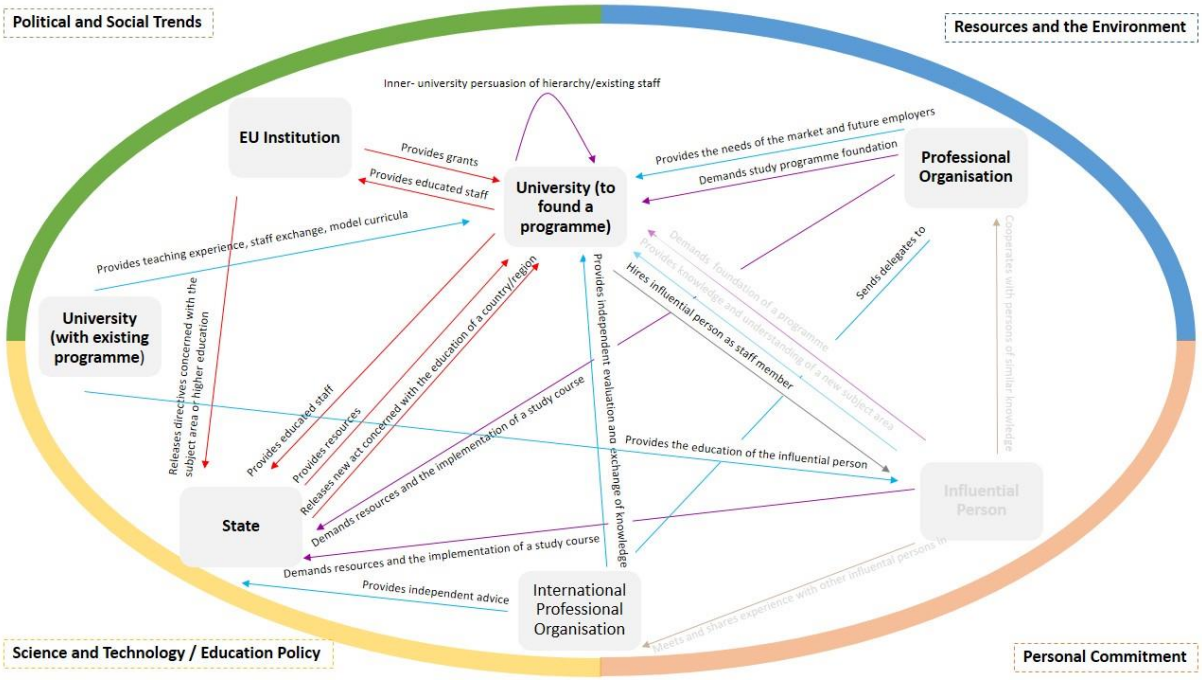


Figure 18: Interrelations of Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 2

"The university" where the education in landscape architecture is implemented, is itself a major player, usually supported by "a university with an existing programme" that provided the education of the teaching staff (in either a related subject area or landscape architecture) and professional knowledge, teaching methods, research results and literature.

The state is also an important player in this model, as it not only provides money but also initiates the process of implementation - usually through the need for qualified graduates.

EU Institutions play a more important role in Model 2 than in Model 1. They have roles as players that initiates activities indirectly through the edition of directives concerned with the body of knowledge of landscape architecture graduates and thus generating a market for these graduates. On the other hand EU Institutions influence the structure of degree programmes and they provide grants for the activities related to foundations of programmes.

4.7 MODEL 3 – STRENGTHENING THE UNIVERSITY PROFILE

The university is not only the place for teaching but also an organisation in its own right which exists in an increasingly competitive environment acting as an employer and it is an instrument in the education strategy of a state. So implementations were reported to have taken place mainly driven by new educational laws or a reorganisation of universities. The actual decision for the landscape architecture programme might have reasons such as in model 2, but the option to implement it at that particular university at that particular time was driven by inner university development.

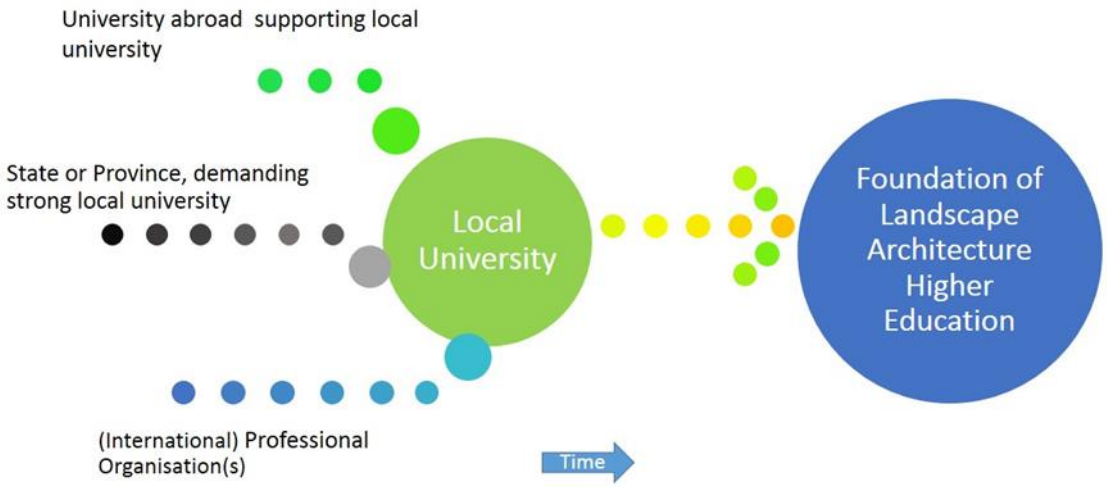


Figure 19: Scheme "University Profile" Model 3

The university always has to take major efforts to implement a new course. Resources are required, staff have to be hired, existing staff have to be convinced and persuaded that the implementation of a landscape architecture course is the right thing to do. The actors in this model are the (staff of the) university concerned and other universities (staff) supporting the implementation through mutual efforts, both in persuasion and in providing teaching and research experience. In comparison with models 1 and 2 the professional organisations act as link to the needs of professional practice and the market.

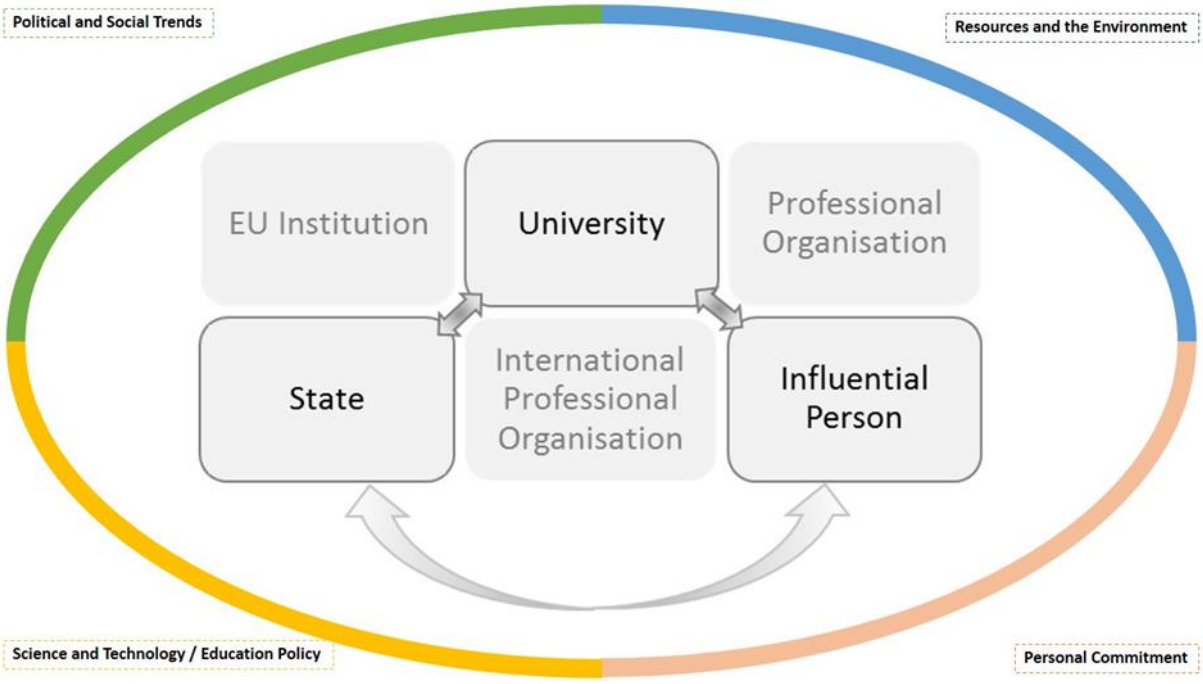


Figure 20: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 3

Compared to Model 2 the role of individual influential persons is minimal. The foundation of the programme is an issue for the institutions mainly, with an important role of the university and a university with an existing programme to provide knowledge and support. The socio-economic background is closely related to Model 2, with a lack of people educated in landscape architecture to carry out (new) planning and environmental tasks. Compared to Model 2 there is a higher emphasis on the university as an organisation, an employer and an institution in competition with other universities, so also on issues of regional development.

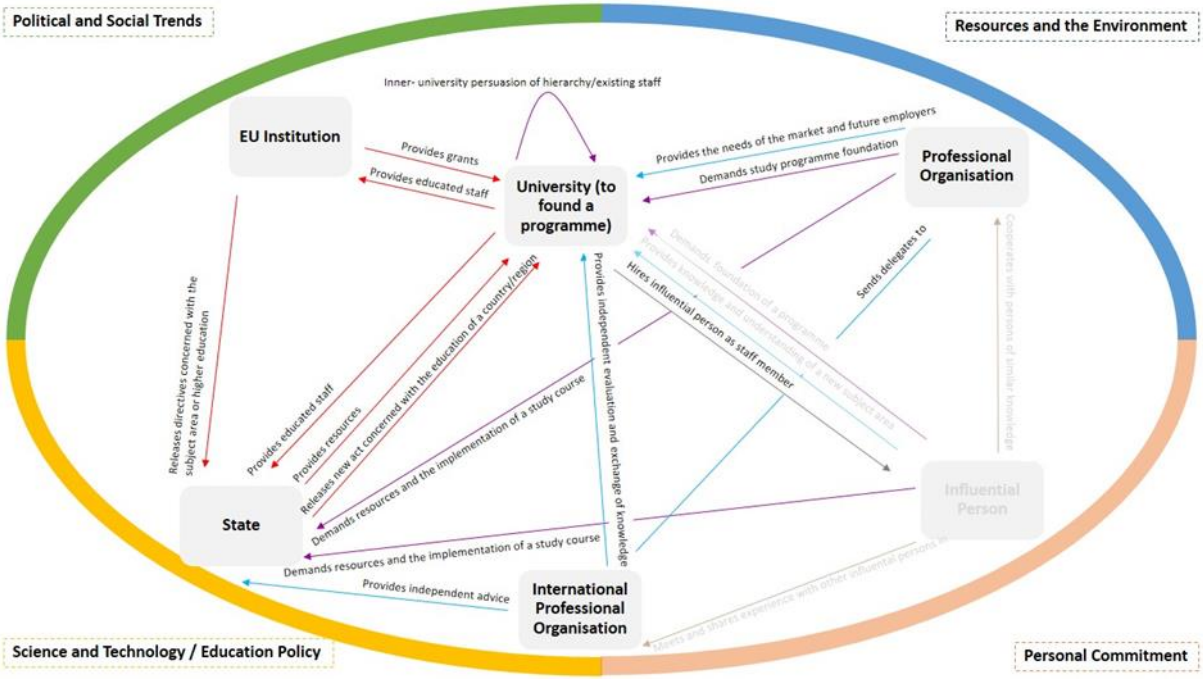


Figure 21: Interrelations of Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 3

The difference in between Model 2 and Model 3 lies within the start of all actions. In model 2 these are based on local challenges while in Model 3 inner university changes started the actions.

5 CASE STUDIES

This chapter focuses on a series of case studies of course implementations in Europe and is thus a “history of landscape architecture education diffusion” all over Europe.

These case studies relate to foundations in the early 20th century up until 2015 and are structured by three periods of times which have been chosen based on the European history and the history of landscape architecture academic development. (Compare 4.2.1)

The case studies are further to this assigned to either model 1, model 2 or model 3. These allocations are based on the role of the players, the actual reason for the foundation, the political processes taking place and the roles of professional organisations, single, influential persons or EU institutions.

So for each of the 3 periods of time, case studies of each model are presented in an own sub-chapter.

5.1 CASE STUDIES MODEL 1 -1919 - 1948

Case studies of the first group are not only examples for foundations and cooperation, but also tell the story of the development of landscape architecture higher education in the period of time from 1919 to 1948 in Europe, providing case studies from pioneering universities in Norway, Poland, Germany, the Netherlands, France, Portugal and the United Kingdom.[89]

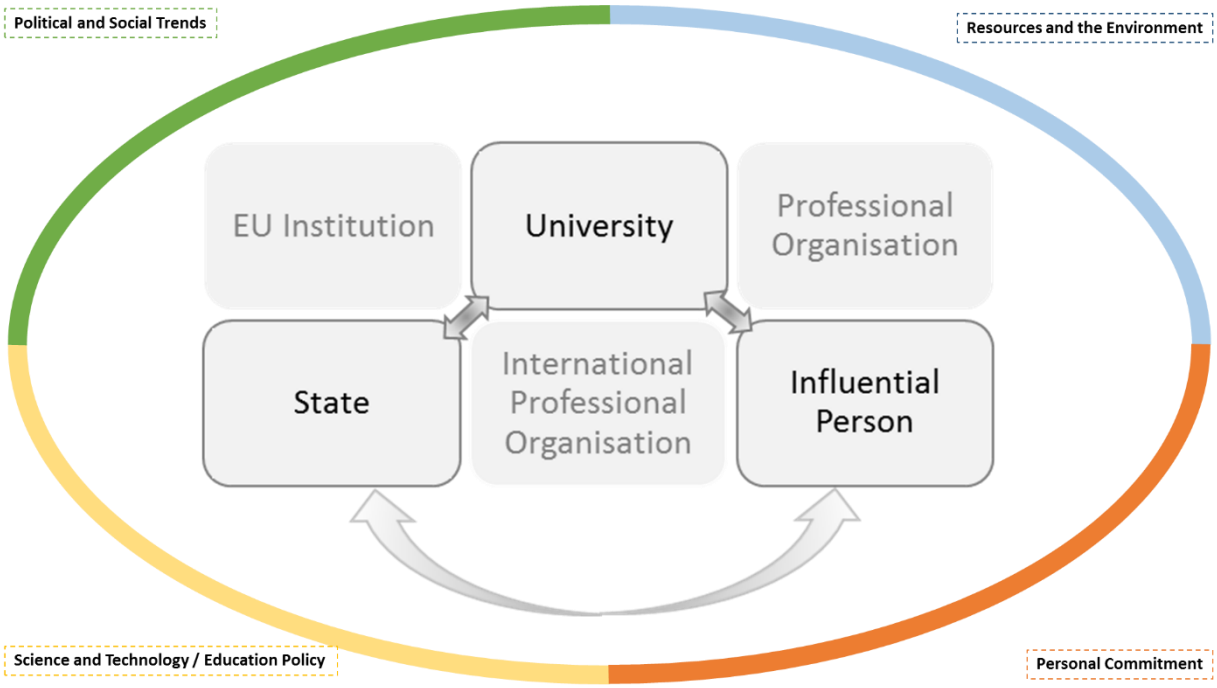


Figure 22: Variables, Relations, Parameters: Model 1 compare 4.5

[89]See for example: Editor: U. Giseke, K.Wieck, Perspektiven, 2006, Berlin, P54,55

5.1.1 THE PIONEERING UNIVERSITIES –- - NORWAY

In Norway, the first full programme at the *Agricultural University of Norway, Aas*, was approved by parliament in 1919, with *Olav L Moen* as its first professor. *Moen* had studied horticulture at the agricultural college in Aas, having previously attended an agronomy school in *Hylla* in the northern *Trondelag.* As well as his academic knowledge in design, had also gained professional expertise on several study trips to Germany and England.

Admission to the three-year programme required students to have completed three years of practical experience and an 18-month course at an accredited horticultural school, in addition to passing an approved university entrance examination. In the first year, the curriculum consisted of basic subjects such as *botany, chemistry, geology* and *land surveying*, plus 100 hours of *perspective and freehand drawing*. *Horticulture, plant material* and 120 hours of *basic landscape design*, along with the *history of architecture, garden art and garden design studios*, made up the second. The third year was devoted mainly to lectures and studio work about parks and urban open spaces, cemeteries and technical specifications, totalling up to 150 hours.

The establishment of the course was achieved in several steps. In 1911, the proposal for the structure of the course was submitted to parliament, which included requirements for admission, such as a three-year apprenticeship, and an extension of the study programme, including further specialisation. Due to the *First World War*, parliament did not pass the act for several years and, in 1915, another proposal was submitted to the university board of the *Agricultural University of Norway, Aas* to set up a specialisation for *garden architecture* within the horticulture programme. In 1917, the board finally decided to split the programme into three parts and to offer courses in *horticulture, vegetable production* and *fruit production*. But it took another two years to get the approval of parliament and the implementation of the course. (Geelmuyden, 1999)[90]

With the use of*, Marie-Luise Gotheins „Geschichte der Gartenkunst*“, *Willy Lange and Otto Stahns*: „*Gartengestaltung der Neuzeit”* and „Die *Friedhofbiebel*” books and other sources of academic literature were mainly German in the initial phase of the course. One important book in the Norwegian language, by the art historian *Carl W Schnitler*, covered the history of Norwegian gardens. Despite the fact that resources were strictly limited and that *Moen* had to cope with his teaching duties alone –covering all aspects of landscape design as well as basic artistic skills such as drawing, perspective, colour, light and tone, etc. – he also carried

[90] Om etableringen av landskapsarkitektutdanningen i Norge og Sverige" in Eggen, Mette, Anne Katrine Geelmuyden, Karsten Jørgensen (ed): Landskapet vi lever i, Norsk arkitekturforlag, Oslo 1999

on with his professional work and even designed the campus park at *Aas* (considered his major work), as well as residential areas, school grounds and athletic parks all over Norway.

The establishment of a course and the first group of graduates led to the establishment of the *Norwegian Society of Landscape Architects* in 1929, the 15 or so members having graduated mostly from Professor *Moen's* programme. The existence of a professional association in the country represented important support for the teaching programme, even though it was a small society with little influence during its early years.[91]

[91]LE:NOTRE Rare Knowledge Interview, NO Aas and e-mail correspondence with Karsten Jörgensen,

5.1.2 THE PIONEERING UNIVERSITIES –- - POLAND

Higher education in landscape architecture in Poland began when the *Szkoła Główna Gospodarstwa Wiejskiego (the Warsaw Agricultural University, SGGW)* established the D*epartment of Landscape Architecture and Parks Science* in 1930. The first head of department was *Franciszek Krzywda-Polkowski* who had obtained the title of architect at the *Strogonov Higher School of Painting, Sculpture and Architecture* in Moscow in 1913. After attending a one-year course in urban planning in London and receiving urban planning commissions, *Franciszek Krzywda-Polkowski* became a professor at the *Academy of Fine Arts in Cracow*. Further study courses in Boston and New York complemented his professional knowledge and expertise and in 1930/31 the council of the Faculty of Gardening of the *Warsaw Agricultural University* entrusted him with establishing and managing the *Landscape Architecture and Parks Department* at Skierniewice, the first institution of its kind in Poland (Wolski 2009)[92].

Earlier, in 1923, the *Warsaw Agricultural University* faculty of horticulture had established an O*rnamental Studies* course with a syllabus that included teaching *garden science*, *establishing and cultivating ornamental gardens, municipal gardening, garden architecture*, as well as *drawing plans*, including *panoramic views, and painting*. So, from that time on, landscape architects received a higher education in Poland, although there is no conclusive evidence that a degree in *landscape architecture* was awarded at the *Warsaw Agricultural University* (Wolski 2009)[93].

[92] http://kak.sggw.pl/pl/historia, accessed June 2009

[93] https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf

http://kak.sggw.pl/pl/historia, accessed June 2009

5.1.3 THE PIONEERING UNIVERSITIES –- GERMANY

In Germany, the establishment of a higher education in landscape architecture had long been called for by Erwin Barth, Karl Kempkes and others in professional publications. (*Das Gartenamt*, *Gartenkunst* and *Die Gartenwelt).* Education institutions providing the subject area did already exist and were of a high standard, but landscape architects criticised, for example, the *Higher School of Horticulture in Dahlem* as not being modern enough to meet the requirements of landscape architects. *Forestry, city planning* and *art*, among others, had been requested as additional subject areas, but a higher education programme in its own right had also been called for to prepare self-employed landscape architects for their future activities. It was also needed in order to provide for the higher-ranking civil servants employed in city administrations who had to be at the same educational level and enjoy a similar status as the engineers and architects also employed by the city administration. (Milchert, 1980; Wenzl J. 2006)[94]

The original attempts to set up an academic course in garden art at the *Technical University in Dresden* failed to be implemented in 1921. However, at the educational centre of the *Museum of Arts and Crafts* in Berlin, a postgraduate course for garden architects was set up that same year and was offered from 1924 at the *School of Arts and Crafts in Charlottenburg*. The main focus of the course was the design of a garden from the perspective of an architect, but this was seen as competition to, rather than as support of, the programme in Dahlem. (Giseke, 2006)[95]

Also in Berlin in 1921, *Erwin Barth* was employed as a lecturer to give lessons in garden art in the architecture department of the *Technical University of Charlottenburg* in order to teach students *social aspects of garden culture and garden design*. The lessons and excursions were also open to students of the higher school in Dahlem.

On 12 December 1928, the "*Deutsche Volkspartei" (German Conservative Party)* proposed the establishment of a higher horticulture school. In the application, financial considerations led to the recommendation that this be implemented at a university and not at an independent, dedicated school. The new programme was implemented at the *Berlin Agricultural University*, its first professor had previously been *Erwin Barth*, who had been city gardener of the *city of Lübeck* as well as head of the *gardeners' department of Charlottenburg* and later Berlin. His design style was characterised by a great sensitivity for the original shape and structure of the landscape.(Giseke, 2006)[96]

Erwin Barth committed suicide in 1933 under the Nazi regime which lead to a delay in the composition of the syllabus. *Heinrich Wiepking_Jürgensmann* took over his position until 1945. The content of the programme in Berlin is well documented in reports that had been

[94] Milchert, J.: *200 Jahre städtische Grünflächenpolitik*. In: Garten u. Landschaft 9/1980, S. 703–796

[95]Gieseke U., Perspektive Landschaft, 2006, Berlin

[96]Gieseke U., Perspektive Landschaft, 2006, Berlin

written by Francisco Cabral in the early 1930s. He had been sent from Portugal to Berlin to acquire the knowledge for a new programme to be founded in Lisbon and these reports were compulsory for him. He outlines in these reports *nature conservation, forestation, treatment of trees in cities* and *allotment gardens* as issues of his studies. (Andresen 2001)[97].

"The first thing we study is the landscape in all its aspects. We study its characteristic elements, botanical elements, spontaneous and cultivated flora, agronomic and silvicultural elements, architectural elements rural and urban construction forms etc." (Cabral 1937).

He further describes projects in city gardens and how he learned free hand drawing at the Pergamon museum. In a letter to *Andre Navarro* sent in 1937 he reports on excursions in the city of Berlin and even an excursion planned to Italy.

In a letter written in 1941 by Heinrich Wiepking to the *Institute of Higher Culture*, Portugal, he outlines the "complete" training both from the artistic and from the natural sciences point of view. (Andresen 2001)

[97] T. Andresen, Franciso Caldeira Cabral, LDT monographs, Surrey, 2001, p23 - 60

5.1.4 THE PIONEERING UNIVERSITIES – UNITED KINGDOM

In 1932, the *University of Reading* implemented a diploma course in landscape architecture at undergraduate level. This was a three-year programme mainly based in the department of horticulture but with some lectures held at the *Faculty of Architecture* and the *Faculty of Letters*, and several courses held at the school of fine art. Students were offered *art* (which included studio work) in all three years, along with *physics* and *chemistry, botany, horticulture, surveying and levelling, building construction* and *bookkeeping*. This cross-faculty approach was the reason that the course was not considered of a suitable level to rank as a university degree (Downing, 1992)[98].

The course literature available included Agar's *Garden Design in Theory and Practice* (1911), *Richard Sudell's Landscape Gardening* (1933), Percy Cane's *Garden Design of Today* (1934) and his quarterly *Garden Design*, and the ILA journal. (Jacques, 2009)[99]

No practicing landscape designers were involved until *Prentice Mawson* who was a British garden designer, landscape architect, and town planner educated at Windermere Grammar School, the Architectural Association School of Architecture in London and the École des Beaux-Arts in Paris was hired in 1933. *Arthur J Cobb*, the senior lecturer in charge of horticulture on the course, had been hired as well. In 1936 *Arthur J. Cobb* edited *Modern Garden Craft* a compilation of teaching material for the course in three volumes with contributions by the teachers and lecturers of the early years. *Geoffrey Jellicoe* became the fine art lecturer two days a week from 1934 to 1937, after which *Russell Page* took over.

The United Kingdom had an active professional organisation before the first formal education had been established. (Downing 1992)[100]. Founded in 1929 as *The Institute of Landscape Architects (ILA)* although initially the idea was to establish a *British Association of Garden Architects* with *Thomas Mawson* (father of *Prentice Mawson*) as first president. Anticipating the coming change from private patronage (of garden design) to public patronage (of town planning, urban design and the creation of other places with public access) Mawson recommended the change of emphasis from garden design to landscape architecture. (*Mawson* had worked with *Patrick Geddes* and had undertaken work in North America, as had *Thomas Adams)*. [101]

[98]M. Downing in EFLA - Teaching Landscape Architecture in Europe, p72 (1992)

[99]D. Jacques,Landscape Modernism Renounced: The Career of Christopher Tunnard, p.5 (2009),

[100]Mike Downing, former president of EFLA and ECLAS, interview

[101]http://www.gardenvisit.com/landscape_architecture/careers_jobs/landscape_institute_li_uk

5.1.5 THE PIONEERING UNIVERSITIES – THE NETHERLANDS

The need for an academic curriculum in landscape architecture in The Netherlands became evident during the second decade of the 20th century when city planners and the leading lights in the environmental conservation movement publicly called for a university degree course. It took 20 years of discussions, interrupted by the *Second World War*, before a full course in landscape architecture at university level was finally established there. (Vroom 2007)

The person behind the implementation of landscape architecture higher education in the Netherlands was *Jan Bijhouwer*, who studied horticulture at the *Agricultural University of Wageningen* in the 1920s and began calling himself garden and landscape architect by 1929. He acquired his PhD in vegetation studies in 1932, became involved in a number of urban projects and was one of the first landscape architects to undertake large-scale rural projects, thereby expanding the field of operation from park and garden design to landscape planning and design. He pioneered a type of planning based on the potential of site conditions such as topography, soils, vegetation, water and cultural history.

The decision to found a full programme in garden and landscape architecture in Wageningen (and not in Delft where courses in landscape architecture were offered in the 1920s) was based on the availability there of expertise in fields such as horticulture, soil science, plant materials and vegetation studies. Wageningen was a choice strongly supported by the *Dutch Association of Garden Architects (BNT).* Since 1919, renowned garden architects, such as *Leonard Springer* and *Hartogh Heys van Zouteveen*, had been teaching garden art in Wageningen as an elective subject for students of horticulture. In 1939, *Bijhouwer* was appointed associate professor in *garden design* and his lectures covered a wide range of subjects, such as: the history of Dutch landscapes; the analysis of examples of park design and of areas for outdoor recreation; literature surveys; the history of garden design; the use of decorative plant materials; and construction techniques. Among the books recommended for reading in the early years were *Kenneth Clark's* 1949 publication *Landscape into Art* and *Le Corbusier's Propos d'urbanisme*. (Vroom 2007)[102]

[102]LE:NOTRE Rare Knowledge Interview followed by a letter, NL, Wageningen by Meto Vroom,

5.1.6 THE PIONEERING UNIVERSITIES – PORTUGAL

In Lisbon, after an experimental start, a five-year programme, which included subject areas such as *forestry* and *agronomy,* as well as specific courses in *landscape architecture*, was established in 1942. The man behind this was *Francisco Caldeira Cabral* who had studied at the *Technical University in Berlin* (Magalhaes, 1992)[103]. *Caldeira Cabral* had received a scholarship from the *municipality of Lisbon* in 1935 that was devoted to training a person who would later head the department of forestry and gardening in the city**.** Up until then, gardening in Portugal was mainly carried out by gardeners who had learned their craft through apprenticeships. Having read an article in the *Encyclopaedia Britannica* about the profession of landscape architecture, *Caldeira Cabral* proposed that he should be trained in landscape architecture instead of gardening. He was able to choose between the courses in Berlin and Reading but opted for Berlin as he was not only familiar with the German language –having lived in Berlin for several years– but was also persuaded by the German curriculum, which also offered a formal degree at the end of the three-year training period (Andresen 2001)[104].

In October 1940, *Caldeira Cabral* managed to establish an experimental programme in landscape architecture at the *Higher Institute of Agronomy* in Lisbon. It was planned that the course would last for four years and start in the second year of the general course for training agronomists and silviculturalists. A final thesis was to be submitted by the end of the course and two major exams taken at the end of the second and fourth years requiring students to be familiar with, as *Caldeira Cabral* wrote, "*practical knowledge of gardening acquired at Ajuda Tapada or the botanical garden or nurseries*" – an innovation within the higher education area in Portugal. Caldeira Cabral's curriculum included *garden construction*, *freehand drawing* and *water colouring*, as well as *descriptive geometry and perspective* as subjects to be taught in year one, followed by *garden plants, civil construction and architecture* in year two. *Landscape architecture* and *history of art* were taught in year three and *landscape architecture*, *history of art II* and *urban planning* in the fourth year. [105]

[103] M.R. Magalhaes et al. Landscape Architecture Course at the Institute of Agronomy, Lisbon, ECLAS 1992 proceedings p 33.

[104] T. Andresen, Franciso Caldeira Cabral, LDT monographs, Surrey, 2001, p23 - 60

[105] T. Andresen, Franciso Caldeira Cabral, LDT monographs, Surrey, 2001, p103 - 107

5.1.7 COUNTRIES WITH COURSES BUT NO FULL PROGRAMME 1919 – 1948 BELGIUM, DENMARK, GERMANY, FRANCE

Despite approaching war in Europe**,** further steps towards a full academic landscape architecture education in Belgium were taken in 1939 when an education and training commission for architecture contractors and inspectors was set up in the *Belgian Association of Landscape Architects*. At the request of the *minister of public education*'s secretary, the *Belgian Association of Landscape Architects* was commissioned to compile a curriculum for obtaining a landscape architecture diploma. (Roggemans, 2004) [106]

In Denmark in 1941, *C Th. Sörensen* succeeded *G N. Brandt* as lecturer at the *Royal Danish Academy of Fine Arts - School of Architecture*. He introduced evening classes in 1944 that continued until 1949 and were mainly attended by graduates in horticulture of the *Royal Veterinary and Agricultural University in Copenhagen,* who had chosen landscape gardening as a career and worked in landscape architecture practices after finishing their studies. Other evening class participants had studied architecture or completed an education in gardening (Abel, 1992) [107].

In Berlin, the establishment of a second university course was called for by professionals and university staff of the *Agricultural University*. At a conference of the *German Horticultural Society in Berlin* on 15/16 November 1940, *Heinrich Wiepking*, head of the Department for Landscape Architecture at the Agricultural University, argued in favour of a second higher education research institution catering for landscape architecture as there were already too many students (approximately 100) on the existing course, with numbers expected to rise once the war was over. The role of research was also discussed in detail as it was considered to be a substantial component of the study programme, as well as vital in ensuring that the profession was not dependent on the research of other subject areas, and for developing researchers to be employed as future university lecturers (Mappes, 1940)[108].

In the UK, the expansion of professional landscape architecture was driven by government legislation such as the *New Towns Act of 1946*, which required landscape master plans to be prepared. The most fundamental requirement of this legislation was that planning permission was required for land development: ownership alone no longer conferred the right to develop the land. To control this, the Act reorganised the planning system from the

[106] Les racines de la licence en architecture du paysage, J.Roggemans, Conversations paysagères 2004

[107] J. Abel, K. Attwell, EFLA - Teaching Landscape Architecture in Europe, p59

[108]M Mappes, „Bericht über die Tagung der Beiräte und Landesgruppenleiter der Dt Gesellschaft für Gartenkunst, 15/16 Nov. 1040, published in „Die Gartenkunst, 1940, p23-33

1,400 existing planning authorities to 145 (formed from county and borough councils) and required them all to prepare a comprehensive development plan.[109] [110]

In December 1945, *General de Gaulle* signed the decree for the foundation of a section called "L*andscape et art des jardins"* at *L'Ecole Nationale d'Horticulture de Versailles* in answer to the longstanding demand of environmental art professionals. The preamble of the decree apparently mentions the training of "elements to enter teams which will have the mission of establishing the future urban centres, the green spaces, the sites..." As well as "constituting the framework of public buildings, stadiums and of whole cities, to transform the natural environment in order to constitute a not only beautiful but also useful framework of greenery in the question of hygiene, to build metropolitan municipalities…and participate in reconstruction work of the magnitude required by the incalculable damage caused by the war." (Blanchon, 1998)[111]

5.1.8 COOPERATION IN THE PIONEERS PHASE - DEVELOPMENT OF FURTHER NATIONAL PROFESSIONAL ASSOCIATIONS

Despite the fact that many pioneers of landscape architecture education were often occupied with numerous other activities, some of them were also involved in setting up professional bodies. In cases such as the Netherlands, Germany or the UK, the professional bodies were already in existence before the first higher education in the subject was available.

The developing education of landscape architects in different parts of Europe, and the development of the profession, led to the foundation of further national professional bodies and eventually to international professional bodies. Development before the *International Federation of Landscape Architects (IFLA)* was founded in 1948 was not only characterised by a growing number of higher education institutions in Europe but, even more so, by growing international exchange within the subject area, mainly in the context of international congresses or fairs (compare 5.1.9). The evolution of the profession from being predominantly concerned with private estates to being concerned with public places was also visible in the projects presented to the public at these international meetings.

The Vereniging voor Tuin en Landschapskunst, Bond van Nederlandse Tuinarchitecten (Netherlands Association of Landscape Architecture, NVTL) was founded in Utrecht on 16 May 1922 by a number of landscape architects under the chairmanship of *Hugo A C*

[109] http://en.wikipedia.org/wiki/Town_and_Country_Planning_Act_1947 accessed July 2008

[110] http://en.wikipedia.org/wiki/Landscape_Institute accessed July 2008

[111] Blanchon Bernadette , Pratiques paysagères en France de 1945 à 1975, Programme Cités projets, Plan Construction et Architecture, ministère de l'Equipement, sept. 1998

Poortman. The association devoted itself to the interests of independent landscape architects in the Netherlands.

The *British Association of Garden Architects* was founded in 1929 and renamed to the *Institute of Landscape Architects* a year later. In 1933, it published a document of educational requirements demanding further development of the apprenticeship system into a formal education with its own examination syllabus. This publication was of great importance within the association and its content represented the philosophy behind the Institute's education policy for a number of years. Among the founding members of the Institute of Landscape Architects was *Geoffrey Jellicoe*, who would become its president from 1939-49. He had studied at the *Architectural Association in London* and was one of the first to appreciate the shortcomings of a modernist design approach, later becoming probably the first postmodern landscape and garden designer[112].

Thomas Mawson was the first president of the *Institute of Landscape Architects* and was also one of the first professionals in the UK (with *Patrick Geddes*) to use landscape architect as a job title. He left school at an early age and trained as a garden designer after having left his family business. He won competitions but eventually moved more into landscape planning, where he had successfully combined planting and architecture, to develop town planning.[113]

In 1930, *L'Association Belge des Architects de Jardins (the Belgian Association of Garden Architects, ABAJ)* was founded in Antwerp by *Jules Buyssens*. The organisation was internationally active from its inception and so its early development was closely linked to the 1935 Brussels Exposition Universelle et Internationale[114]. Jules Buyssens headed the landscape section, *René Pechère* and *Jules Janlet*, together with *Jean Caneel-Claes*, contributed to both the fair and the congress. Main issues raised by the *ABAJ* were: the teaching of garden architecture; the relationship between garden architect and garden contractor; the relationship between garden architect and architect; and the relationship between garden architect and urbanist. [115]

In spite of this active group of landscape architects, which contributed significantly to the foundation of the IFLA in 1948, a formalised university education was not offered in Belgium up to the 1950s. In the UK it took several years after the foundation of the Institute of Landscape Architects until a higher education in the discipline was established.

[112]http://www.gardenvisit.com/landscape_architecture/careers_jobs/landscape_institute_li_uk accessed 01.10.2014

[113]http://www.thomasmawson.co.uk/, accessed 01.10.2014

[114]Early members were: Georges Wachtelaar, Hector Mathieu, Paul Dewitt, Victor Bottemanne, Jules Janlet, René Pechère and René Latienne.

[115]http://www.bvrp.net/en-us/community/patronageanddonors/buyssens.aspx accessed 01.10.2014

5.1.9 HISTORY OF INTERNATIONAL EXCHANGE AND COOPERATION– THE FIRST CONGRESSES AND FAIRS FOR LANDSCAPE ARCHITECTS

As outlined above after the first higher education programme in landscape architecture was founded in Aas in Norway in 1919, further programmes followed in Germany (1929), in Berlin and in Wageningen in The Netherlands (1948). This establishment of landscape architecture higher education in Europe led to a group of people who had been educated at university level in the subject. The extent to which this group regarded themselves to be "one group" is unknown, but several of these pioneers met regularly (compare 5.1.9), not only to exchange ideas but also to discuss the profession and its future activities and orientation, which, of course, had a direct impact on teaching. Questions about what should students be taught, about how to overcome the close relation to those subject areas from which landscape architecture courses had often developed (horticulture for example), and about whether or not this close relation was even to be desired, were among the other questions discussed at such meetings.

These proponents of landscape architecture higher education with both comparable and contrasting ideas about the profession needed a platform on which to discuss contemporary issues and to create an identity for landscape architecture teaching and research.

While international congresses and fairs concerned with horticulture or gardening had been held earlier, in June 1937 the *First International Congress of Garden Architects* took place in Paris. It was a four-day event running in the context of the *Exposition Internationale des Arts et Techniques dans la Vie Moderne*, curated by chief architect *Jaques Greber*. The main topics addressed there were issues of public health, outdoor living, sports, maintenance, automobile traffic and industry, which tackled two rather different aspects of professional work: on the one hand, the tradition of aesthetics and luxury; on the other, the design of small functional gardens and public landscapes.

Various representatives of national professional associations, such as the ABAJ, the ILA, the SFAJ, the *Deutsche Gesellschaft für Gartenkunst* (DDG), the *Dansk Havearkitektforening*, the *Norsk Hagearkitektforening*, the *Föreningen Svenska Trädgårdsarkitekter* (FST), the *Bond van Nederlandse Tuinarchitecten* (BNT) and the *Bund Schweizerischer Gartengestalter* (BSG), were present. And among these participants were many representatives from the landscape architecture world of the time. These included: *Ferdinand* Duprat, Achille *Duchêne*, *Jacques-Henri-Auguste Gréber*, *André Vera*, and *Albert Audias* from France; *Sven Hermelin* and Ulla *Bodorff* from Sweden; C *Th* Sørensen from Denmark; *Pietro Porcinai* and *Maria Teresa Parpagliolo* from Italy; *Christopher Tunnard* and *H.F. Clark* from England; *Buyssens*, *Pechère*, and *Caneel-Claes* from Belgium; *Walter Mertens*, and *Gustav Ammann* from Switzerland; *Alwin Seifert*, *Otto Valentien* and *Hermann Mattern* from Germany (Imbert, D. 2007)[116].

[116] Imbert D. Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948, Jola 1/2007,

As *Christopher Tunnard* set out in his article *Landscape Design at the Paris International Congress: What the Others are Doing*, published in 1937, the education of a landscape architect was also an issue that was subject to discussion among the delegates at the fair (Tunnard, C. 1937) [117]. Especially *Caneel-Claes* who, being commissioned by Le Corbusier and collaborating with other modernist architects of the time, felt that such activities demanded an adequate form of preparation. However, other delegates, such as *René Pechère*, still saw landscape architecture education as being closely related to horticulture. As an entrepreneur in his subject area, *Caneel-Claes* was in need of international collaborators and came across people such as *Tunnard* with whom to further develop his ideas.

Since the overall perception was that the issues tackled needed further consideration, *Alwin Seifert's* team agreed to organise a second such meeting to take place the following year in Berlin. *Alwin Seifert*, a German Landscape architect with his own office, and being in favour of the Nazi regime, was responsible for the design of the plants next to the German railways.

Like its predecessor, also the Berlin meeting coincided with a fair, the *XII Internationaler Gartenbaukongress* (*12th International Horticulture Congress*). Despite the activities of the Nazi regime a number of international participants attended the second International Congress, where the following names were recorded: *René Pechère*, *Canneel-Claes* and *Victor Bottemanne* from Belgium; *Porcinai*, *Duchêne*, *Prentice Mawson* and *J. Richardson* from the UK; *A. S. Peck* from the United States; *Ellef Grobstok* from Norway; *Lauri Saarela* from Finland; *Maria* Theresa *Parpagliolo* from Italy; *Ulla Bodorff* from Sweden; *C Th Sörensen* from Denmark; *Otto Valentien*, *Walter Mertens* and *Hermann Mattern*, among other German delegates.

Lectures at the Berlin meeting outlined issues such as maintenance in cities and the role of public parks and gardens for the health of its citizens, the architecture of parks and gardens, motorways in Germany, and praised both the Third Reich and the beauty of the German landscape – an obviously sensible, if not obligatory, course of action at the time (Imbert, D. 2007)[118]. [119]

[117]C Tunnard,*Landscape Design at the Paris International Congress: What the Others are Doing*, 1937

[118] Imbert D. Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948, Jola 1/2007,

[119] Indeed, in the literature there are several examples of landscape architects being threatened by the Nazi regime. Many of those who had tried to maintain democracy and modern art as features of their working life had to give up practice and leave Germany. Probably the best known among landscape architects is *Erwin Barth* (1880-1933) who committed suicide in 1933 after less than four years in his post because he felt threatened by National Socialist student activities and could find no support for his position among his colleagues[119]. Others were *Hanns Thierolf* (1887-1933), head of the communal parks department in Worms, who also committed suicide, and Ludwig Lesser (1869-1957) who had to leave Germany after having been president of the *Deutsche Gartenbau-Gesellschaft* from 1923 to 1933, or *Georg Belà Pniower* (1896-1960) who was no

5.1.10 HISTORY OF INTERNATIONAL EXCHANGE AND COOPERATION– WAR TIME

The period from the First World War to shortly after the end of the Second World War was marked by political change and economic crisis. European society was characterised by the decline of the aristocracy, and the poverty of the post war years. In the aftermath of the two world wars, the issue of international cooperation aimed at furthering professional development, was undoubtedly a relief to those involved in the conflicts, and something of an antidote to the nationalist tendencies prevalent at the time.

Among others, the need for an active and creative approach to planning problems – such as the layout of new urban districts, urban expansion in rural areas, the layout of newly reclaimed polders and the conservation of heritage and natural landscapes – backed up the long-standing calls by associations and individuals involved in landscape architecture for a higher education in the subject.

It was at about this time that the *rational planning model*, a process of understanding a problem, establishing and evaluating planning criteria, producing alternatives and monitoring progress of alternatives has been established and widely used. (Banfield 1959) It consist of the following steps:

1. Ends reduction and elaboration
2. Design of courses of action
3. Comparative evaluation of consequences
4. Choice among alternatives
5. Implementation of the chosen alternative

The existence of a theory for planning and designing neighbourhoods, cities, and regions contributed significantly to the maturity of the subject area. The rational planning model has been central in the development of modern urban planning and transportation planning.

The *Third International Congress of Garden Architects* international landscape architecture congress took place from 31 July to 3 August 1939 in Zürich Landi in Switzerland, again in the context of an international fair, in this case the *Schweizerische Landesausstellung (Swiss National Fair)* , which was concerned with defending the country and its national identity in the face of Nazism. The fair was a great success with over ten million visitors attending on the eve of war and mass destruction in Europe. It offered special attractions such as gondolas and small boats in which the visitors could move through the site. *Gustav Ammann* headed the landscape architecture section and coordinated the integration of new designs into the existing systems of parks and gardens in Zürich Landi. The relation between house

longer allowed to work as a professional. Even Professor *Moen*, professor of Europe's first landscape architecture course in Aas, was imprisoned by the Nazi authorities for some 12 months during the occupation of Norway.

and garden was the subject of the first lecture by *J E Schweitzer*, who called for a closer relation between architect, master builder and landscape architect. An issue that was taken up again by *Gustav Ammann* in his lecture on *Problems of Design in Garden and Landscape*, as well as by architect *P Meyer* who talked about *Architecture, Landscape and Garden*.[120]

Shortly afterwards, war in Europe interrupted further international landscape architecture collaboration but, despite the ensuing poverty and the challenge of reconstruction, these activities were resumed in the years following the conflict.

[120] ”Bei unseren Kollegen in der Schweiz” in Die Gartenkunst 1939,

5.2 CASE STUDIES MODEL 1 1949-2015

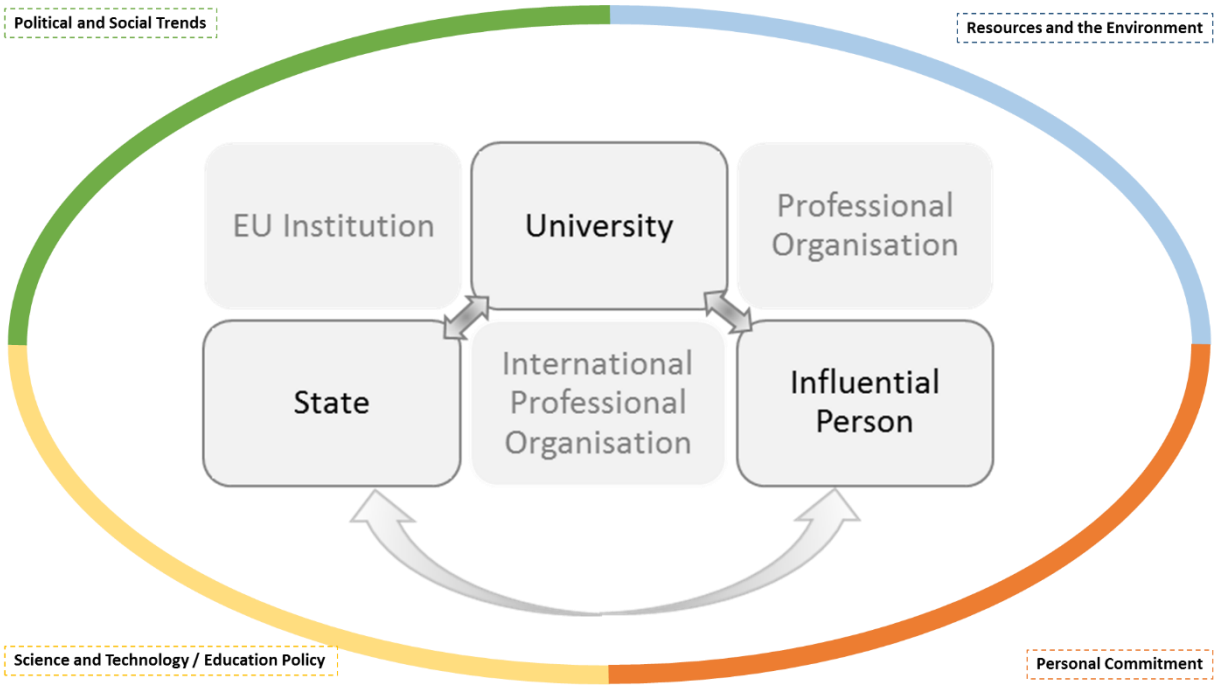


Figure 23: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 1

5.2.1 SINGLE LECTURES – SHARED EDUCATION – FULL PROGRAMME

Denmark

The *Royal Veterinary and Agricultural University in Copenhagen* offered first lectures in *landscape planning* and evening classes for practitioners from 1907 on, the actual legal establishment took place in 1960, when landscape architecture was established as a separate programme within the horticulture department. As early as 1946, it was proposed to divide the horticulture higher education where lectures in *landscape architecture* were offered, in two separate programmes, *horticulture* and *landscape architecture*. A step towards an independent higher education was taken when a two-year programme in landscape architecture was officially opened in 1951. However, those persons that planned to become landscape architects had to spend the majority of their time with studying horticulture, a situation that ended in 1960 with the approval of the new course.

The first curriculum offered the basic sciences – *chemistry, mathematics, physics, botany* – as well as courses in *landscape planning, construction, history of landscape architecture and plant material, administration,* and *town planning*. (Attwel K., 1986)[121]

[121] Attwell K., The Department of Landscape architecture – a presentation, p67 – 74, Ugeskripft for Jordbrug, Selected Research Reviews, 1986

Bulgaria

As in Denmark, also in Bulgaria students interested in landscape first had to undergo an education other than landscape architecture. Here they had to enrol in the architecture programme at the *University of Architecture, Civil Engineering and Geodesy in Sofia* and then to compile their specialisation by choosing specific lectures.

The Architecture Faculty yearbook and exam protocols of the department of *urban planning* state that landscape architecture was part of the architectural curriculum since the early days, when the first 47 students enrolled in the architecture programme of 1943. Teaching landscape architecture was part of the responsibilities of *the Department of Urban Planning*, established in 1945 by *Luben Tonev*, an urbanist and graduate of the Sorbonne in Paris.

Landscape architecture lecture courses and studios were offered from 1949. Among the first lecturers was *Delcho Sugarev* who had studied *Ancient and Byzantine architecture* in the *Louvre*, Paris (1933) and graduated from the *Sorbonne* in Paris as an urbanist (1935) and his colleague *Luiben Stoychev*, first lecturer at the landscape architecture programme with a habilitation and head of the Department from 1956 on.

A full landscape architecture course was introduced as a five year course of studies at a different university in Sofia, the *Faculty of Forestry* at the *Agricultural Academy, Sofia. "Green urban construction"* in 1951.

The curriculum comprised lectures in history of parks and gardens from ancient to modern times, and theory of landscape design - the basic elements of landscape architecture. A practical part of the course of studies aimed at creating knowledge and skills for the implementation of landscape design. (Troeva, 2006)[122]

5.2.2 NATIONAL AND INTERNATIONAL COOPERATION TO SUPPORT THE ESTABLISHMENT OF THE NATIONAL HIGHER EDUCATION

The following case studies are characterised by the efforts of individuals who contributed personally to the development of landscape architecture education. The case studies outline the national atmosphere in which they were acting and their efforts to overcome obstacles through cooperative actions.

Italy

In Italy the *Associazione Italiana degli architetti del giardino e del paesaggio* was founded in 1950 by *Pietro Porcinai*, one of the founding members of IFLA in 1948. From the Thirties on he argued for the need of a specific education in landscape architecture, but Italian

[122] LE :NOTRE encyclopedia entry by Vesselina Troeva, http://www.le-notre.org/encyclopedia/encyclopedia_show_details.php?encyclopedia_id=21

architects and urban planners argued that they already have the competencies in the field of landscape architecture and landscape planning.

During the 1950's the attempts to modernise the country led to a transformation of the landscape, a change that was not subject to professional attention. *Porcinai* argued that the implementation of an independent programme in landscape architecture could avoid the destruction of natural and cultural resources and the cultural identity of the regions.

In his opinion the main problems of the country were the low number of green areas and green systems in the cities, the fast transformation of the rural areas, the sealing of soil and the destruction of natural and cultural resources. He unsuccessfully tried to found a school of landscape architecture at *Villa Rondinelli, Firenze*. (Mazzino, 2006)[123]

In Genova, the main aim, given the lack of a full programme in landscape architecture, was to adapt the foreign models to Italy. The development there was driven by *Annalisa Calcagno Maniglio*.

Annalisa Calcagno Maniglio graduated in Architecture in 1961. In 1975 she was confirmed as professor of *Genova Faculty of Architecture* after having worked in municipal offices in Sicily and in universities in Italy. The first step in introducing landscape architecture was to form a group of professors interested in the interdisciplinary approach to the landscape studies, to give to the graduates in architecture the basic knowledge of the physical and biotic elements of the natural and human systems to fill the gap in the natural sciences most students had as a result of their previous education in architecture. The course structure was based on studios in landscape design and planning. Seminars or short courses were offered in: *historic gardens and parks restoration, planning of urban green systems, design of urban parks, landscape rehabilitation* and *landscape planning*.

She exchanged information on study programmes in landscape architecture with various universities such as *Harvard University, State University of New York* and *Georgia University (School of Environmental Design)* and *Syracuse University, N.Y. (College of Environmental Science and Forestry, School of Landscape Architecture).*

International networking was the supporting basis for many steps in implementing the education in Genova, she got through it political support and also advice in pedagogy. Professors from *Syracuse University* (*Palmer* and *Fellemann)* often visited the *Genova Faculty of Architecture* and she got advice from *G. Jellicoe* and *J. Dixon Hunt* for the foundation of a post-graduate school.

In 1987 *Annalisa Calcagno Maniglio* contributed to the establishment of *EFLA the European Foundation for Landscape Architecture*. Her election as EFLA Vice President for Education was an important opportunity for the consolidation of teaching of landscape architecture in Italy, she organised with the *Education Committee* a survey among schools offering an

[123] LE:NOTRE Rare Knowledge Questionnaire Genova, by Francesca Mazzino

education in landscape architecture including all those universities with non-legally established full courses but lessons only as well. This survey resulted in the publication "*Teaching Landscape Architecture*" (also called *EFLA Blue Book*). Her many contributions to international work finally gave the backing for the full legal establishment of the full course in Genova in 2000. (Mazzino, 2006)[124]

Poland

Among the relatively small number of female promoters of landscape architecture was Alina Scholtzova. In 1948 she was a member and a founder of the *International Federation of Landscape Architecture (IFLA)* and for many years continued to be the Polish delegate. Alina Scholtzova pioneered not only as internationally active landscape architecture but was instrumental in bringing professional knowledge to Poland. (Anagnostopoulos et al, 2000)[125]

The Polish teacher of landscape architecture *Gerard Ciolek,* on the other hand, was active in spreading professional knowledge in Poland. As a senior lecturer at the Department of *Polish Architecture, Technical University of Warsaw*, he began his scholarly activity in 1937 and despite his work in the army and in ministries he continued giving lectures at the *Faculty of Architecture, Technical University of Warsaw* (1945). In 1948 he was entrusted with the position of deputy professor and head of the Chair of *Initial Planning, Faculty of Architecture, AGH University of Science and Technology*. At the same time he was a lecturer at the *Technical University of Warsaw* and *Warsaw Agricultural University*. This unique position allowed him to spread landscape architecture knowledge all over the Polish academic society. In 1954, he became head of the *Department of Urban Planning* in Kraków. Since 1963, he headed the *Chair of Landscape and Green Area Planning* at the *Cracow University of Technology*.

Longin Majdecki combined teaching and the professional work as a graduate of *landscape architecture, history of art*, as well as *spatial planning* he combined his work in design offices with teaching activities at the *Faculties of Architecture of Technical University of Warsaw* and *Technical University of Gdansk.* He also taught landscape architecture at the *Faculty of Gardening, Warsaw Agricultural University*. (Wolski 2009)[126]

Belgium

In Belgium *René Latinne* worked as a landscape architect and was involved in IFLA even long before a formal education in landscape architecture was available. As early as 1937 he became an active member of the *Belgian Association of Landscape Architects* and was

[124] LE:NOTRE Rare Knowledge Questionnaire Genova, by Francesca Mazzino

[125] Anagnostopoulos et al. IFLA – Past Present, Future, Versailles, 2000

[126] https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf

http://kak.sggw.pl/pl/historia, accessed June 2009

involved in setting up IFLA in 1949 together with his Belgian colleague *René Pechère* (Anagnostopoulos et al, 2000)[127].

The school in Vilvoorde grew under *Ch. Laurent* as headmaster from 1950 to 1965 developing from a secondary horticultural school to a higher school for horticulture. This was done by offering modern laboratories for *chemistry, botany* and *microbiology*, and by linking the school to the *IRSIA station for scientific research*. Due to this expansion, foreign students were attracted and enrolled in growing numbers, contributing to an international atmosphere in *Vilvoorde*.

In September 1954, a department for *Horticulture and Urbanism* was established, which offered a one year education for graduates. In 1956 this course was converted into a higher graduate school for *horticultural and landscape architecture*, consisting of three years – two years of schooling and one year of practice – as well as a preparatory year. In 1957 *René Latinne* was appointed professor in *horticulture and landscape architecture*. (Baccaert, 1970) [128]

UK/Scotland

In particular in the UK, probably due to the common language, tight cooperation with universities from the United States was set up. However, also other European countries established strong collaborations with staff from US universities. Many of these were on a personal basis in between single, influential persons.

Ian McHarg, a Scot who made his international reputation with the publication of the seminal book "*Design with Nature*" gave lectures on landscape architecture at both *Edinburgh College of Art* and *Glasgow's Art School*. Back to the USA, he established a Masters course in landscape architecture at the *University of Pennsylvania* in 1954 that attracted a number of students from Britain. Among these was *David Neave Skinner*, initially trained as an architect at *Liverpool University*, who worked in *Ian McHarg's* practice in Philadelphia before returning to Edinburgh to establish his own practice and to teach landscape architecture at *Edinburgh College of Art.*

Under Architecture Head of School *Ralph Cowan* at *Edinburgh College of Art*, there was growing interest in *David Skinner's* teaching of landscape architecture. The discipline was offered as an option for 4th year architecture students, from study year 1965/66 on, but with opportunities for the students to extend this into their 5th year studies and thesis. Eventually this developed into a fully-fledged course in its own right and, in 1974, *Skinner* established Scotland's first undergraduate course in Landscape Architecture at *Edinburgh College of Art.*

[127] Anagnostopoulos et al. IFLA – Past Present, Future, Versailles, 2000

[128] Het Hoger Rijksinstituut voor Tuinbouw te Vilvoorde, 1970, E.Clerckx, Vlaamse Toeristenbond vzw
125 jaar Tuinbouwonderwijs te Vilvoorde 1848-1973, F. Baccaert, HRIT Vilvoorde
Groenblad Campus Vilvoorde, 150 jaar Horteco, 1998, KTA Horteco, EhB Departement Horteco
Les racines de la licence en architecture du paysage, J.Roggemans, Haute École Charlemagne, Gembloux
De Bavay - 1849 & 1860 - Fuchs, Katrien Hebbelinck

Colin McKerchar and a number of often part-time lecturers and tutors were responsible for teaching, including *Stuart Mellor, Marion Paynter, Leonard Lynch, Gordon Haynes* and *Bill Tucker*. (Bell, S. 2009)[129]

5.2.3 THE DEVELOPMENT IN FORMER YUGOSLAVIA

Two influential persons in landscape architecture higher education in Slovenia were *Ciril Jeglič*, and *Dušan Ogrin* who both were educated abroad and gave lectures to agricultural students in the 50s and 60s.

The origins of landscape architecture higher education in former Yugoslavia, are closely linked to *Ciril Jeglič*, who was educated in garden architecture and horticulture abroad, and returned to Ljubljana where he started as the chair for *Gardening and Landscape Dendrology* in 1951. He held lectures in green space design for six years. After a short break *Dušan Ogrin* continued his work in 1960 offering courses in Public Green Space Design and Landscape Design to agricultural students.

Dušan Ogrin managed to establish a master course in Landscape Architecture in 1972. The first generation of landscape architecture students was enrolled and the new curriculum was introduced by an international symposium on Landscape Planning. The course was offered by the *Agricultural Department* at the *Biotechnical Faculty at University of Ljubljana*.

While *Dusan Ogrin* was heading the department and teaching basic courses in landscape design as well as theory and especially landscape design studios, one of his first master students *Janez Marušič* joined the team in 1970 to start and further develop landscape and environmental planning courses. Through the years that followed, *Dusan Ogrin* kept focus in design and *Janez Marušič* on planning[130].

Knowledge was brought to Ljubljana from abroad mainly Germany and the USA. International connections and cooperation played a crucial role in shaping the program in landscape architecture. To keep these good international contacts and to provide students with international knowledge the department held various international courses and symposia. The first such course took place in 1974, when *Carl Steinitz* and *Douglas Way* from *Harvard University* held the first international summer course. Later other colleagues joined them such as *Ervin Zube (University of Arizona), J. Lyle (Cal Poly Pomona University), R. Toth (U.S.U.), H. Kiemstadt (Hannover), P.G. Rowe (Harvard University)* and others. (Gazvoda D., 2008)[131]

[129]Bell.S. entry on UK in LE:NOTRE Encyclopedia, http://www.le-notre.org/encyclopedia/encyclopedia_show_details.php?encyclopedia_id=37accessed09. Feb 2009

[130]Among the literature used for teaching and research were: I. McHarg: Design with Nature, D. Lovejoy: Land Use and Landscape Planning, Krajinsko planiranje, Zbornik (Landscape Planning, Proceedings), Landschaftspflege und Naturschutz in der Praxis, P. Shepheard: Modern Gardens, D. Ogrin: Zelenje v našem okolju (1964)

[131] LE:NOTRE Rare Knowledge Questionnaire SI Ljubljana by Davorin Gazvoda, 2008

At the *Faculty of Forestry*, *University of Belgrade* professional courses started in 1960 as a mixed curriculum for both *Landscape Architecture and Amenity Horticulture*. Graduates were awarded the title "graduate engineer of landscape architecture and horticulture". In 1973, the d*epartment of landscape architecture* was established.

Landscape Architecture is also offered at Zagreb, where *Dragan Shojlevski* received his education at the Faculty of Agronomy at the University in 1952, collaborating with *Elza Polak.*

After a working period in Skopje, Republic of Macedonia where he was entrusted with the design of city parks for the *Institute for Town Planning and Housing in Skopje*, he was elected to give lectures at the *Faculty of Agriculture and Forestry in Skopje* on floriculture and garden design in 1961

He renewed the course on floriculture and landscape architecture in 1981 at the *Faculty of Agronomy* at the *University "St. Cyril and Methodius*" in Skopje. In his lectures, work and activities he tried to make landscape architecture more widely appreciated. *Shojlevskis* main research interest was the relation of man and nature, focusing on the traditional home gardens, and on the natural values of the Macedonian landscapes trying to fit new man made landscapes in the environment. His many activities were leading to three books on landscape architecture and more than 200 landscape projects. Not much later, in 1984 the *Association of Landscape Architects, Yugoslavia,*was founded.

5.2.4 (RE)EMERGENCE OF NEWLY INDEPENDENT COUNTRIES FOLLOWING THE COLLAPSE OF COMMUNISM AND THE SOVIET EMPIRE: LATVIA – SLOVAKIA - THE CZECH REPUBLIC

After the Fall of the *Iron Curtain* in 1989 and the re-establishment of a number of independent countries, some of these did not have a national education in landscape architecture (any more). This led to a second boom phase and the establishment of new courses in new or re-emerged countries in Europe:

Latvia

Landscape Architecture education in *Jelgava*, Latvia before 1989 had the form of a compulsory course in landscape architecture for students of architecture at *Riga Polytechnic Institute.*

The implementation of a full course in Latvia was established by the Dean of the *Faculty of Rural Engineering*, *Juris Skujāns*. The basis for such a course was the existing rural building programme at *Latvia Academy of Agriculture*.

The first step to an implementation was done by offering a specialization in Landscape architecture in 1989 at the *Department of Building*, later on the newly established department

of *Ecology and Landscape architecture*. Lectures were given by *Silvija Rubene, Ilze Janele* and *Gundega Linãre*.

First students for a full course in landscape architecture were admitted in 1993/94.

International cooperation played a crucial role in forming and establishing this new course, a contract was made with *The University of Life Sciences* (UMB) *Aas* and so the Norwegian professors *Magne Bruun* and *Karsten Jorgensen* visited the faculty to give lectures. *Karsten Jorgensen* contributed significantly to the establishment of the curriculum and gave advice and teaching aids.

A similar partnership was set up with the *Swedish Agriculture University, Olaf Skage* visited the department several times to give lectures.

On the other hand the staff of the department visited several European universities: for example *Swedish Agriculture University, Norwegian Agriculture University, Copenhagen Royal Agriculture University, Braunschweig Technical University, Hannover Technical University, Wroclav Technical University, Madrid, Barcelona, Larenstein University* and some other universities. (Vugule K., 2007)[132]

Slovakia and The Czech Republic

Legal foundation of a course in landscape architecture at *Technical University Bratislava*, *Faculty of Architecture* took place in 2003, although there was a long tradition of teaching and research in Slovakia and former Czechoslovakia. In 1945 the Department of *Town and Village Building* was established at *Slovak University of Technology* with *Emanuel Hruška* as first professor. (Pyšvejc B.,1946)[133] The courses were part of the architecture curriculum. In the 60s and 70s the department was shaped by *Milan Kodoň* – architect and town planner who established, apart from the existing lectures in landscape architecture also landscape architecture research with the help of *Peter Gál* (Kodon, M, 1965)[134]. In 1979 the first PhD was given to a landscape architecture topic, to *Daniela Gazova*, who later, in 1979 joined the department staff for teaching and research. (G*á*l, P. 1981)[135]

From the year 1989 on with its political change and the 2003 split of former *Czechoslovakia* to *Czech Republic* and *Slovak Republic*, landscape research was performed by *Peter Gál* and *Milan Kodoň*, while the courses were held by *Milan Kodoň* and *Daniela Gažová* at *Slovak University of Technology.*

[132] LE:NOTRE Rare Knowledge Questionnaire, Latvia by Kristine Vugule, 2007

[133] HRUŠKA, E.: Landscape and its Present Time Urban Development. Praha: B. Pyšvejc, 1946. 100 p.

HRUŠKA, E.: Some Problems of Present Time Town planning.Bratislava: SAV, 1966. 411 p

[134]KODOŇ, M.: Town building: Landscape and Technical Work in it. Bratislava: SVŠT v Bratislave, 1965. 99 p.

[135] GÁL, P. -- KODOŇ, M.: Landscape Design. Bratislava: SVŠT in Bratislava, 1981. 208 p.

Another option to gain a (non higher) education in landscape architecture before the *"Velvet Revolution"* was at the study course for *Garden Architectonical Creation* at the *Faculty of Horticulture* in *Lednice*. The institution was linked to *Mendel Agriculture and Forestry University in Brno*. (Czech Republic)

While after the political change a department at *Slovak University of Technology* was formed to offer a landscape education for architecture students, headed by *Peter Gál*, a first idea to establish a university study in landscape architecture at the Slovak Republic was formed in two Slovak universities, *Technical University in Zvolen* and *Slovak Agriculture University in Nitra.*

In 1991 at the *Faculty of Ecology and Environmental Science* at the *Technical University in Zvolen* a study course of applied ecology was formed as a study specialisation in *landscape design and landscape engineering*. The first professors in those specialisations were *Jan Supuka* as the person furthering the establishment and later *Ľubica Feriancová*.

The *Slovak Agriculture University in Nitra* started in 1993 to develop the *Garden and Landscape Architecture* study course at the *Faculty of Agronomy* as part of the course in Horticulture. As in many other such cases the roots of the landscape architecture course were with the horticulture curriculum, as a specialisation in G*arden and Park Design*. In 1993 the *Department of Planning and Landscape Design* was established.

In 1995 the accreditation commission of the Slovak republic approved the foundation of a new faculty as *Faculty of Horticulture and Landscape Engineering* at the *Slovak Agriculture University* offering courses in *Horticulture, Landscape engineering, Garden and Landscape architecture.* The first dean of this newly founded faculty was *Dušan Húska*. The founder of the Garden and landscape architecture study course was in 1995 *Pavol Vreštiak*, who was vice – dean of this faculty as well. (Ján Supuka, 2009)[136]

5.2.5 GERMANY – REFORM OF THE HIGHER EDUCATION ACT LEADING TO COURSE FOUNDATIONS

The 3rd Reform of Higher education in former east Germany GDR in the year 1968 influenced the establishment of an education in 1970 at *Technical University Dresden* with *Werner Bauch* as first professor. At the *University in Leipzig* courses in landscape architecture were offered by Prof. *Kummersdorf*, but no full degree was available there. This reform of the higher education had the aim to structure the curricula according those of the *Soviet Union* and lead to dispute among teachers and students concerning the importance of the so called

[136] Supuka Ján, LE:NOTRE Rare Knowledge Questionnaire Slovak Republic/Nitra (2009)

"communist subjects" leading further to some of them leaving the GDR. (Notthelfer, U. 2008) [137]

In (former east) Germany amongst the new courses founded after the *Fall of the Iron Curtain* was the one in *Neubrandenburg* founded in 1993. Basis for the new course was the existing curriculum in Osnabrück compiled by *Prof. Hartmann*. The reason for setting up this degree programme was the initial idea to set up a curriculum in agricultural economy, which failed as there were few students enrolling, so the programme was changed to landscape management "*Landespflege*" instead. All staff members were hired within a short period of time.

Heidrun Schniedewind initially from Osnabrück built up the landscape architecture programme in *Neubrandenburg*. The first professor was *Helmut Lührs*, who had obtained a degree in landscape planning in Kassel after him *Manfred Köhler* continued. *Helmut Lührs* emphasized on teaching landscape design, while *Manfred Köhlers* subject area was vegetation. (Lührs, H.2014)[138]

5.2.6 ROMANIA – LANDSCAPE EDUCATION, GROWING AFTER THE FALL OF THE IRON CURTAIN

The implementation of a full higher education in landscape architecture in Romania was done in two steps, as in *Bucharest University of Agronomical Sciences* landscape architecture had been taught as one of the curriculum subjects since the 1950's. This course had a duration of only one semester.

The first lecturers of this general course were *G. Constantinescu* and *E. Elefteriu*, who also taught floriculture and ornamental arboriculture and had a certain experience in garden projects.

In 1977 *Ana Felicia Iliescu*, former assistant at the department became new head and established professional relationships with landscape design offices and urban planning institutes in Bucharest, persons who were educated architects, horticulturalist and sylvicultural engineers. The high number of persons educated in other subject areas - to then become active in landscape matters - revealed the need for professionals to be educated in a full academic program of landscape architecture. During the communist regime, it was difficult to make changes in the educational system and no development in the direction of a full education was possible then.

From 1990 on and in particular after attending the *ECLAS conferences* in Wageningen, 1991 and in *Alnarp*, 1992 *Ana Felicia Iliescu* started working on a curriculum for a full course.

[137] Notthelfer U. Landschaftsarchitekturausbildung - zwischen Topos und topologischem Denken 2008, p 19, 2008, Tönning

[138] Interview and e-mail correspondence with Helmut Lührs, 04. June 2014

International support was provided by *Michael Downing*, former president of ECLAS and EFLA and by architect *Valentin Donose* and forestry engineer *Florin Teodosiu* in Romania.

After conceiving the curriculum, the team approached in 1992 the *Bucharest Faculty of Architecture* with a view of promoting and framing this new program. At that time and at this particular university the proposal was not successful. Finally *Ana Felicia Iliescu* obtained the agreement of the *University of Agronomical Sciences and Veterinary Medicine*, where she was teaching. This affiliation had the advantage of providing many of the facilities necessary for the new curriculum: laboratories, a botanical garden and the university park.

The approval of the university was followed by two years of work for improving the proposed curriculum, looking for the best teachers, convincing them to join the new program and elaborating adequate course programs[139], preparing all the documents of the dossier requested by the *Ministry of Education*. These activities were again coordinated by *Ana Felicia Iliescu* who was also concerned with fulfilling all necessary formalities.

In 1998, following the approval of the *National Commission for Accreditation*, the first school of landscape architecture in Romania was established by a government decision at the *Faculty of Horticulture - Bucharest University of Agronomical Sciences and Veterinary Medicine.*

Soon after in the same year, at the F*aculty of Horticulture, Timisoara* a similar school had been established, by offering the curriculum designed by the team from Bucharest. This model was later used by two more faculties at *Cluj* and *Iasi*.

International cooperation was of importance for the new course, the university joined ECLAS and later the *LE:NOTRE Project* and organised exchange of students and teachers in the frame of the *Erasmus program* with *Haute Ecole Charlemagne* (Belgium) (Iliescu, A. 2008)[140].

[139]Among the books and journals used for teaching were Charageat Marguerite – L'art des jardins. Vendôme, France, 1962, Iliescu, Ana-Felicia – Arboriculture. Ed. Ceres, Bucureşti, 1998, Gromort, G. – L'art des Jardins. Ed. Vincent, Fréal & Cie, Paris, 1934, Loxton, H. – The Garden. David Bateman Ltd., London, 1991, Magnilio Calcagno, Annalisa - Architettura del Paesagio. Evoluzione storica, Ed. Calderini, 1983, Neuray, G. – Architecture des Parcs et Jardins. Les Presses Agronomiques de Gembloux, 1973, Nourry, J.-P. – Art et technique des jardins. Ed. Baillière et Fils, Paris, 1971, Simonds J., O. – Landscape architecture. Ed. Tehnică, Bucureşti, 1967, Schaewen, von D., Valéry, Marie- Françoise - Gardens in France. Taschen Verlag, Köln, 1977, Soulier, L. – Espaces verts et urbanisme. Centre de recherche d'urbanisme, Paris, 1977, Tanguy, Fréderique et M. – La composition des espaces verts et le choix des végétaux. Ed. J.B. Baillière, Paris, 1981, Torsten, O.E., Schröer, C.F. – Architecture des Jardins en Europe. Taschen, Köln, 1990

[140]Iliescu, A, LE:NOTRE Rare Knowledge Questionnaire Romania (2008)

5.3 CASE STUDIES MODEL 2 1949 –2015

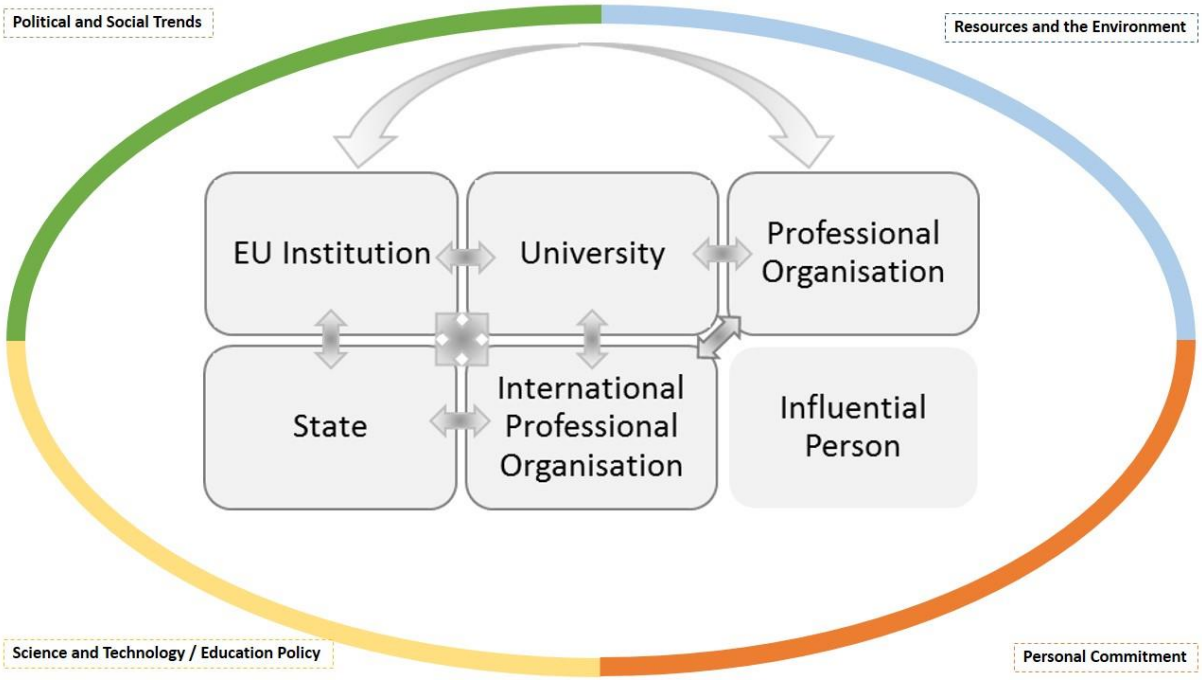


Figure 24: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 2

5.3.1 UNITED KINGDOM - THE 1947 TOWN AND COUNTRY PLANNING ACT AND A RENEWED LANDSCAPE ARCHITECTURE COURSE

Formal education in the UK can be recognised as being fundamentally influenced by the country's history dating back to its agricultural history and in particular to the enthusiasm of great landowners in the Eighteenth century for the embellishment of their large estates. The nineteenth century saw a massive rise of the population numbers coupled inevitably with a change from agriculture to industry. These times created much poverty, ill health and unhappiness that the Twentieth Century recognised a need for radical changes as exemplified by some of the model communities of the early twentieth century. This development gave rise to the creation of a number of programmes in higher education in the United Kingdom (Downing, M. 2009)[141]

One of these new programmes, the landscape architecture programme at the *University of Newcastle-upon-Tyne* was established by *Brian Hackett*. Having qualified as an architect and planner at the *Birmingham School of Architecture*, in 1945 *Brian Hackett* was a teacher in the *London School of Planning and Regional Redevelopment*.

Hackett soon left London for the North. *Joseph Stanley Allen* invited him to join the staff of the newly formed *Department of Town and Country Planning* in *King's College*, *Newcastle upon Tyne*, then part of *Durham University*, where an undergraduate course in planning had

[141]Downing M., LE:NOTRE Rare Knowledge QuestionnaireUnited Kingdom, (2008)

just been established. *J.S. Allen* was the sole member of a new department with a low number of students.[142]

King's College had previously included town planning in its curriculum as a part-time study directed to the needs of the planning legislation of the 1930s. The *1946 New Towns Planning Act*, the first planning act in the UK, was the main influencing document to establish a five-year full-time undergraduate course in town and country planning.

In 1950 *Brian Hackett* was successful in setting up a one-year programme for a postgraduate Diploma in Landscape Design. He was influenced in doing so by his visits to, and contacts in Scandinavia as well as his membership in the Landscape Institute from 1945 on. The one-year diploma course was run on a limited scale to 1965 when, to meet the increasing demands of the profession, it was replaced, first by a two-year diploma and then, in 1977, by a *Bachelor of Philosophy* degree.(Holden R. 2014) [143]

A new course in the UK was set up at the *University of Gloucestershire* in 1960 by *Bodfan Gruffydd*, a Welsh landscape architect and one of the post-war leaders of the *Landscape Insitute.*

A further course in Landscape and Design at *Leeds School of Architecture* started in 1966 as a four year undergraduate programme in Landscape Architecture at *Leeds College of Art*. In 1968 three departments of *Hammersmith College of Art and Building, Architecture, Landscape Architecture and Surveying* had amalgamated with *Woolwich Polytechnic,* and the institution became *Thames Polytechnic* in 1970. During the 1970s *Thames* concentrated on the teaching of a wide range of subjects at an advanced level, although unlike universities was unable to grant its own degrees. *The Department of Landscape Architecture*, previously part of *Hammersmith Polytechnic*, was moved to the Dartford campus in 1979[144]

Arnold Weddle established the landscape architecture programme at *Sheffield University* in October 1968. Teaching there started as a two-year postgraduate course in Landscape Design for candidates with a degree or approved professional qualification in Architecture, *Civil Engineering, Geography, Town Planning, Agriculture, Botany, Forestry,* or *Horticulture*. The course aimed to produce "*professionally qualified landscape architects to deal at urban and regional scales with a wide range of problems, including development of New Towns, recreation in towns and in Countryside and National Parks, and to tackle problems of dereliction and land reclamation*." (Woudstra, J. 2010)[145]

[142] http://www.independent.co.uk/news/obituaries/obituary-professor-brian-hackett-1161209.html

[143] Holden R. http://www.le-notre.org/encyclopedia/encyclopedia_edit.php?encyclopedia_id=34

[144] IDENTITY STATEMENT, Thames Polytechnic, July 2002

[145] Jan Woudstra, The 'Sheffield method' and the first department of landscape architecture in Great Britain, Garden History 38/2 (2010), 242-266, Sheffield

Arnold Weddle was an educated town planner and architect, who had qualified externally in landscape architecture, after which he taught landscape design at the Department of Civic Design in Liverpool.

From 1973 on the Sheffield Department of Landscape Architecture expanded with an undergraduate course.

Before being entrusted as the head of department, he had published a report on the Recruitment, Training and Employment of Landscape Architects[146] which formed the basis for his early teaching in Liverpool and the curriculum in Sheffield.

Liverpool and then Sheffield pioneered in systematic survey and evaluation of large-scale urban and regional planning problems, as well as the design and testing of development and redevelopment proposals, all based on research.

Another basis for the Sheffield education was Weddle's book "*Techniques of Landscape Architecture*"[147] where he outlined his view of landscape architects as practical people who understood various landscape techniques.

International cooperation was of importance for Weddle, he was active in the IFLA as chairman of the Education Committee from 1970 to 1976. He also was founding editor of *Elsevier's Landscape Planning*, (now *Landscape and Urban Planning*) an academic journal on landscape architecture begun in 1974.[148]

5.3.2 HUNGARY

Corvinus University in Budapest had a long tradition of teaching landscape architecture when the first course was finally legally established in 1962. First lectures had been offered in 1907 by the architect and educated gardener of Versailles *Bela Rerrich*. He set up a non-formalised curriculum comparable to the education of architects, but offered more courses in natural sciences. According to his theory landscape architecture and architecture functioned on the same principles of creating space, but used different materials for different tasks and aims. (Szilagy K. 1999)[149]

In the first syllabus the new subject of landscape amelioration was offered, which is to be regarded the predecessor of landscape planning. Its lecturer was Mihály Mőcsényi, who had been seeking to develop the education of landscape planning since he had joined the department. Besides the already-existing professional subjects there were some new

[146]London: ILA, 1961

[147] Techniques of Landscape Architecture, Weddle, A E London, William Heinemann, 1968

[148]http://www.shef.ac.uk/landscape/ 19 eahn newsletter №1/09, accessed August 2009

[149]Szilagy K. Traditions and development possibilities in Hungarian Landscape Architecture, p92, 1999, Cracow

subjects in the curricula for first-year students, including urban planning and regional planning, and, some years later, the very new subject of regional development.

The 1962 curriculum with duration of 9 semesters was closely linked to the existing curricula in the Soviet Union, which lead to a short cutting of art subjects as they were not part of the Soviet curricula. Due to political circumstances the so called *Marxist subjects* took over about one third of the student's courses. *Imre Ormos* who was the leading person behind the implementation of the programme offered courses in landscape architecture. International cooperation was an important issue from the beginning; it was furthered by *Imre Ormos* who had worked in Turkey, Austria, Poland and Germany before he was assigned as Professor at *Corvinus University*. He encouraged his students to participate in international design competitions and applied successfully for membership in IFLA which was accepted in 1960. (Ormos I. 2003)[150]

In 1968 the college achieved university status and by then became the *University of Horticulture*, the curriculum was extended to 5 years for all sections. The legislative background that accompanied this development lead to an increasing role of landscape architects within regional and urban development and nature protection projects. A new regulation set up in 1978 lead to the development of new land use systems and created the legal basis for environmental and recreation possibilities in housing estates. Within the university the two main directions, landscape planning and landscape design were separated into two different departments. Within landscape planning nature conservation and landscape protection grew parallel to the increasing number and growing differentiation of protected areas within Hungary. Categories and hierarchy of national parks, landscape protection areas, nature conservation areas were defined in close cooperation with this department. (Szilagy K. 1999)[151]

5.3.3 GERMANY – EFFECTS ON THE DUCATION THROUGH RESTRUCTURING OF THE EDUCATION SYSTEM AND THE ENVIRONMENTAL PROTECTION ACT

In Germany, the period of time from 1950 to 1960 was influenced by renewed growth of the economy. The profession was concerned with rather divergent tasks – one the one hand the private plots of citizens who were becoming wealthy again and on the other hand with the huge projects of social housing. Discussions at conferences tended to be non-political and concerned with issues of private gardens. There was little money available for design, leading to empty, unfurnished open spaces in between the many new houses. Traffic was an important issue of that time as the growing number of cars began to influence the landscape (Milchert J, 1987)[152].

[150] Baloghne Ormos Ilona (ed), Ormos Imre, p83, 2003, Budapest,

[151] Szilagy K. Traditions and development possibilities in Hungarian Landscape Architecture, p92, 1999, Cracow

[152] J. Milchert, "Vom Hausgarten zur autogerechten, gegliederten Stadt" in Garten+Landschaft1/87

One of the innovative projects of the time was the so-called "*Hansaviertel*" in Berlin which was built to serve as an example of good practice at the 1957 *International Building Fair*. It was designed by a team of architects and ten landscape architects to provide a synthesis of buildings and the landscape between them. The project was influenced by functionalism, "romantic planting compositions" were avoided and instead all the new plants were put next to the new streets, paths and parking lots.

The central person behind the establishment of a course of higher education in landscape architecture at an Art School in Germany[153] was *Hermann Mattern*, who established the course in Kassel. (Homann, K2006)[154]. In 1948, *Hermann Mattern* was called upon to support the re-establishment of the so-called „Werkakademie" in Kassel. He refused to head the institution but offered his advisory support; from 1949 to 1961 he provided the lectures in landscape architecture at the „*Werkakademie*".[155]In 1960, the „*Werkakademie*" was renamed „*Hochschule für bildende Künste*"(HbK). A full course was established in the 1970s.[156]

The change in public awareness of nature protection grew in Germany in the 1960ies and 70s. Despite a clear confession to the need to allow the economy to grow, the use of nuclear power (Wackersdorf), the changes in agricultural practices (monocultures) and soil acidification were issues of private and political discussions. In urban areas dys- functional spaces and the abandoned land were issues for city planners and they were aware that they needed new concepts and methods to approach them. [157] In particular, the expansive construction policy called for innovation in planning and the protection of the nature. All this leading to new legislation - the so called "*Bundesnaturschutzgesetz*".

In *Kassel*, at an Art School, the full higher education in landscape architects was established in 1973, following pioneering work of *Herman Mattern* and *Günter Grzimek* in the 1950s and 1960s.[158.159.]

Kassel was established on 25.06.1970 as a "*Gesamthochschule*", a school giving one title to all graduates.

[153] Further programme foundations in Hannover and Munich are described in the sections below

[154]Homann, K., Spitthöver, M. (2006): Bedeutung und Arbeitsfelder von Freiraum- und Landschaftsplanerinnen – Von der Professionalisierung seit der Jahrhundertwende bis 1970; Kassel

[155]Lebenslauf Hermann Mattern; in: Garten + Landschaft 08/1972, p. 350

[156]http://www.kunsthochschule-kassel.de/willkommen/?&sub=3,accessed June 2008

[157] Patricia Kuhr (2009) Rare Knowlede Questionnaire Kassel,

[158] Jerney, W.: Rasen betreten erlaubt; in: Garten + Landschaft 08/2003, p. 13-16

[159]Personal Communication with Jürgen von Reuß, mdl. 05.08.08

Grzimek made his students work on real sites and with real clients, in order to do so he founded an office (EGL Entwicklungsgruppe Landschaft) run by students under supervision of their professor. [160]

Classes were offered to architects and landscape architects, *Friedrich Wilhelm Dahmen* gave lectures in *Biology and Ecology*, *Joachim Schwarzenbarth* in *Garden Techniques*. Lectures were organised in small groups of about 20 persons, such as common in art education. Practical work was a basis part of the education, students were required to participate in competitions or to plan and implement projects on their own[161] [162].

Starting in autumn 1973, an integrated curriculum was offered for students of planning subjects (landscape architecture, architecture and town planning) which was unique within Germany. The main aims of such an integrated higher education was to educate students of architecture, town planning and landscape architecture together offering a high level of practical work and project work, with accompanying tests.[163] [164] [165]

In an interview conducted by Patricia Kuhr with *Thom Roelly*, one of *Matterns* and *Grzimeks* students, contents and methods in their courses were described. According to *Roelly* Sociology was of high importance at Kassel and courses in planning were centered on "the user" and "the use". Students were asked to define their planning principles by analysing the user needs.[166] Ecological agriculture and natural silviculture were issues in teaching but with particular regard to the user as the person to shape the landscape, (not the planner to do so). Rise in value of sites should be the results of use rather that of planning.[167]

The *Nürtingen* programme developed from a previously agricultural education. The "*Höhere Landbauschule Nürtingen (HLS)"* was founded in 1949 based on a strong demand for trained farmers after the 2nd Word War. The institution developed from this professional education to engineering education in 1965 *("Staatliche Ingenieurschule für Landbau Nürtingen"*). Such

---

[160] Sarah Pauli (2012) Günther Grzimek - Architekt des Demokratischen Grüns, p. 17

[161] Grzimek, Günther: Leitbild für das Studium am Lehrstuhl für Landschaftskultur an der Hochschule für bildende Künste, Kassel; in: Hochschule für bildende Künste Kassel, Lehrstuhl für Landschaftskultur, Sonderdruck aus Garten und Landschaft Heft 04/1968

[162] Läsker-Bauer, Ulrike: Gutachten zur Entwicklung eines Rahmencurriculums der Studienrichtung Freiraum-/Landschaftsplanung innerhalb des integrierten Studiengangsystems der Architekten-/ Planerausbildung an der Gesamthochschule Kassel; 1975; p. 9

[163]Arbeitsgruppe Modellversuch „Entwicklung von integrierten Studiengängen für Architekten/Planer": Studieninformation zum Studiengang Architektur, Stadt- und Landschaftsplanung WS 1975/1976; 2. überarbeitete Auflage, Februar 1976; p. 4 - 8

[164]Universität Kassel: Chronologie: http://cms.uni-kassel.de/index.php?id=510, accessed July.2008

[165]Gesamthochschule Kassel, Organisationseinheit 6 Architektur Stadtplanung Landschaftsplanung: Kommentiertes Lehrveranstaltungsverzeichnis WS 1977/1978, p. 50

[166] *Prof. Burckhardt* asked students to get in contact with user groups[166] an, *Prof. Dahmen* und *Prof. Poppinga* included the users of forests and agricultural sites directly in teaching.

[167] Patricia Kuhr (2009) Rare Knowlede Questionnaire Kassel,

as Kassel, due to the general movement towards educational standardisation in the 1970's the institution became a higher education school "*Fachhochschule*" in 1972.

At the end of the 1960's two driving forces supported the introduction of a landscape architecture programme:

At that time, many agricultural programmes had developed in Germany. Nürtingen was forced to develop new specifications on a competing "market". Nürtingen neighbours the *Agricultural University of Hohenheim/Stuttgart*, the regional leader in agricultural sciences – in a way landscape architecture was seen as a new field making Nürtingen different.

The new nature protection act was under development (enacted in 1973). With this enactment landscape planning got a legal foundation in Germany which caused a strong demand for specialists particularly in the public sector. Although this enactment was not yet in force at the time when the first students started, there was already a general awareness of this developing field.

Werner Volgmann – the founder of the programme - had the idea of a holistic approach to the subject building on the existing relationships to agriculture. However, this apparently provoked critique from the BDLA (the German professional association Bund Deutscher Landschaftsarchitekten) who argued for a more "professional" education. Consequently, more external lecturers coming from landscape architecture practice were appointed. But in general it can be said that the *Nürtingen* programme had an emphasis on landscape planning at the beginning. This changed subsequently to an emphasis on landscape design. In the early years the teaching methods applied where mainly lectures, exercises and excursions. Studio work, was introduced in the beginning of the 1990's. A compulsory internship existed from beginning on.

In 1969 nine students started to study agriculture with an emphasis on landscape management. This was still within the agriculture programme. They enrolled in a programme leading to the title "*Ingenieur für Landbau (grad.) mit Schwerpunkt Landespflege*". However, this was already changed one year later, so these students finally graduated with the title "*Ingenieur (grad.) der Fachrichtung Landespflege*".

In the early years there were practically no landscape architects involved in education. The foundation subjects were taught together with agriculture, which was an own programme at that time. This was extended for the landscape architecture students with the following subjects: *geology, climatology, soil science, plant nutrition, plant protection, business administration, economics* and *techniques*. It was difficult to find professors for these specific areas. Therefore, a major part of teaching was done by external lectures.

Rosemarie Pfeffer joined the programme in 1972 as the first fully educated landscape architect. Her subject area was planting design. She had received her education and PhD at the *Technical University of Berlin*.

Subjects were subsequently extended with the appointment of new professors from 1972 onwards:

1972: *Rosemarie Pfeffer:* Planting design and vegetation science

1973: *Joachim Veil* (architect): drawing techniques and construction

1974: *Helmut Kaiser*: landscape planning

1975 *Theo Müller*: vegetation as well as *Siegfried Weiss*: landscape construction. (Fetzer E. 2008)[168]

5.3.4 NATURE - MAN – FORM: THE LANDSCAPE ARCHITECTURE PROGRAMME IN ICELAND

In Iceland landscape architecture became established by landscape architects that had obtained their education and training abroad. Since 1978 the Icelandic landscape architects have their own association, *The Federation of Icelandic Landscape Architects (FILA*) and play an increasing role in garden and landscape design, planning and politics. The Federation (FILA) was founded in Reykjavik on 24. Februar 1978. First President was *Reynir Vilhjálmsson*.[169]

During the last decades of the 20th century, a number of laws on regional and local planning came into effect and thereby manifesting the need of landscape architects. It became evident that the need of well-educated landscape experts in private offices, by the planning authorities and in the local communities would increase.

With this background a discussion arose at the *Agricultural University* if an education in environmental planning, taking specific Icelandic conditions into account, would be needed. *The Agricultural University* had primary interests in this field. This was not without critic within the university and many felt that the natural sciences would be thinned out to below any minimum at the expense of design and social concerns. In the end, however, the interest in the subject was greater than the scepticism and it was felt that a part of the education should take place in Iceland so that the students would be acquainted with the local natural and social environment. The programme was compiled around the keywords nature-man-form. However, to get a master degree and become a landscape architect or equivalent the students would need to go abroad and thereby deepen their understanding and knowledge and obtain a broader view of the subject. The title of landscape architect is legally protected in Iceland

On this basis and because of the strong links to the other Nordic Countries the aims and curricula of landscape architecture, especially in Norway, Denmark and Sweden, were studied and used to develop the framework for the curriculum. At an early stage *Magne*

[168] LE:NOTRE Rare Knowledge Questionnaire DE, Nürtingen, by Ellen Fetzer

[169]Secretary: *Auður Sveinsdóttir*, Treasurer: *Einar E. Sæmundsen* http://fila.is/ *accessed July 2009*

Bruun from the *Agricultural University of Norway, Ås*, came to Iceland for consultation. *Magne Bruun* was one of the leading personalities in developing courses in landscape architecture in Norway and his advice and encouragement proofed to be of enormous value. The leading Icelandic landscape architect that took part in the discussion from the beginning and then finally developed the curricula together with other university staff was *Audur Sveinsdóttir*. She visited universities in Denmark and Norway and cooperated with staff from these universities to support the programme in Island. She first became a lecturer and later Associate Professor and has led the department almost from the beginning. The curriculum included from the beginning 8 to 10 ECTS courses in *environmental planning* from the first to the sixth semester.

Helena Guttormsdóttir, a biologist and artist, has been very active in the development of the curricula as well as in teaching. An important part in the initiation and early development of the programme was contributed by *Thorsteinn Gudmundsson* who also initiated the contact to the *LE:NOTRE project*.

The courses started in 2001 in one room situated on the loft of the cow shed with an overhead and a slide projector and 6 students. New were the large courses and the emphases on project and group work. The first students had little idea of what they were entering and in fact the staff were hardly prepared and improvisation was necessary. However with a due support from the rector and much goodwill things developed and already in the 2nd year a study trip was organised to Denmark and Germany.

The courses and literature used were Scandinavian orientated. Book, articles and original material was used, e.g. *M. Laurie (Landscape Architecture)*[170]. In the project work real questions were sought and contact e.g. with the local communities and the road constructions authorities established. (Gudmundsson T., 2008)[171]

5.3.5 MEDITERRANIAN LANDSCAPES–THE EDUCATION IN GREECE AND PORTUGAL

Greece

Landscape Architecture and Floriculture as a course, was first taught in1968 at the *School of Agriculture, Aristotle University of Thessaloniki*, by the florist and landscape architect *Nikolaos Kantartzis*. It was a four units credit course with extended studio work that took place at the *University Farm of Auth*. The curriculum was based and formed on the knowledge derived from the postgraduate studies of *Nikolaos Kantartzis* in the USA. Among the first lecture courses held were: *Landscape history, Preliminary landscape design concepts (scale factors, form, symmetry and harmony in design), Landscape Analysis, Landscape*

[170] Further literature used was: Geoffrey and Susan Jellycoe; The Landscape of Man and copies of articles from Iceland and the Nordic countries

[171] LE:NOTRE Rare Knowledge Questionnaire IS, Borganes, by Thorsteinn Gudmundsson based on an interview with Audur Sveinsdottir

design process, Plants in Landscape Architecture, Materials in Landscape architecture, Irrigation and *Lighting in Landscape Architecture*.

Reasons to set up an education in Greece were the particular Greek landscape and the necessity to enable educated persons to work in awareness raising and the protection of the Greek landscape.

The first landscape course to be set up in Greece was in 1995, at the *Technological Educational Institute (TEI) of Epirus in Arta*, providing a four-year undergraduate degree in floriculture and landscape architecture. Eight years later, the *Technological Educational Institute of Kavala*set up another four-year undergraduate course in landscape architecture. A national professional associations was in existence since 1982, the *Panhellenic Association of Landscape Architects PHALA*united Greek landscape architects.

In 2002, the *Athens Agricultural University* set up a one-year Master's course in *Science and Modern Systems in Plant Production, Plant Health Protection and Landscape Architecture*, offering a specialisation in landscape architecture.

In 2003, a two-year postgraduate programme in landscape architecture was set up by *Maria Ananiadou Tzimopoulou* and *Ioannis Tsalikidis* as a joint course with the *Schools of Architecture and Agriculture* of the *Aristotle University of Thessaloniki*. A big step forward was made for the profession in Greece when this course achieved EFLA accreditation. (Bargianni E. 2007)[172]

Portugal

In Portugal the first suggestion towards creating a Landscape Architecture course at the *University of Tras os Montes UTAD* in Portugal emerged in the 80s due to a landscape architect called *Robert Manners Moura*, who was the director of the *Natural Park of Alvão*.

The *UTAD*'s campus, built in Vila Real, in a former farm "*Quinta de Prados*" which was bought in 1975, was also an important factor in the final decision.

UTAD's Botanical Garden, which was officially accredited by the *Ibero-Macaronesian BotanicalGardens Association* in 1988, was of extreme importance too for landscape architecture as it includes Corgo cliffs and its terraces, forest natural traces, the *arboretum* and theme gardens and thus enables on site teaching.

In 1980, a commission that included *Luís Torres de Castro, António Nazaré Pereira, Carlos Abreu, Fernando Martins, Robert Manners Moura* and architect *Eunice Salavessa*, prepared the curriculum plan for the Landscape Architecture degree.

[172] Landscape Architecture in GreeceTopos 58, Elissavet Bargianni (2007), e-mail correspondence with Elissavet Bargianni 2007

The study plan of the course was based on other existing courses in this area in Portugal, however representation and communication technologies were highly emphasized. It was approved by the university senate and started in 1998 under the coordination of *Luís Fernando Torres de Castro* who, in 2001, became the coordinator of the Landscape Architecture Department.

The first classes taught were in an atelier environment so to focus on drawing skills, landscape design and representation techniques. Theory classes of Landscape Architecture, visual arts and landscape architecture history and landscape analysis were also based on hand-on activities and several field trips or excursions took place.[173]

5.3.6 RAPID DEVELOPMENT: TURKEY,

Turkey saw a significant rise in the number of landscape architecture degree programmes in the late 1990s until about 2005. Among the reasons for this is the high number of universities founded in Turkey in this period. According to the list of universities in Turkey on Wikipedia (accessed September 2015), some 126 universities exist in Turkey, 73 among those founded since 1995. Therefore, the rise in the number of landscape architecture programmes is in line with a general rise in the number of degree programmes in Turkey.

Antalya

In Antalya in 1995, *Osman Karagüzel*, a horticulturalist working in the *Alata Horticulture Research Center* of the *Ministry of Agriculture*, was appointed to the *Department of Landscape Architecture, Faculty of Agriculture* of *Akdeniz University*. The department had been formally established in 1991 in the faculty, the first teaching staff was appointed four years later. In 1996, *Veli Ortacesme*, a landscape architect who recently finished his Ph.D. in *Çukurova University*, was appointed to the department as the second teaching staff.

The region of Antalya where *Akdeniz University* is established is mainly a tourist region. There are many hotels and holiday villages established along the Mediterranean coasts of the region. The region has also rich natural and cultural landscapes. Today, there are remnants of many historical structures in the region. The region is also rich in natural areas. Antalya is home to the highest number of protected areas in Turkey. Therefore, the motivation behind the establishment of a landscape architecture department in *Akdeniz University* were regional potentials and needs.

New staff joined the department in the following years and the infrastructure was developed. The key books on landscape-related issues were bought to the university central library[174] and the departmental library; subscriptions were bought for international journals including those on landscape. After all preparations, the department opened first a master. programme in

[173]LE:NOTRE Rare Knowledge Questionnaire, Tras os Montes/PT by Meireles F. (2008)

[174] Journals of Urban and Landscape Planning; Landscape architecture: A Manual of site planning and design / J. Ormsbee Simonds; Landscape ecology / Richard T.T. Forman; Landscape architectural graphic standards/ Leonard J. Hopper

2000. In 2003 the bachelor started followed by the PhD course in 2007. The curriculum for each programme was developed by the examination of the previous landscape architecture programmes in Turkey and abroad. The regional needs were also considered in this process. (Ortacesme, V.,2008)[175]

Istanbul

Not only the coastal areas faced challenges coming from the rapid growth, the area in and around Istanbul is facing major urban developments through both social as well as economic changes.

The *Landscape Architecture Department* at *Istanbul University* was established as a 3rd department after *Forestry Engineering* and *Forest Industry Engineering* at the *Faculty of Forestry* in 1985. *Yalçın Özgen* was first professor from 1985 on. Despite the subject area being formally introduced in the 80s, the history of landscape architecture teaching in Istanbul goes back to 1935 when "*Parks and Garden Design*" was offered as a course unit.

Literature was translated from Russian into Turkish. The book regarded as central for teaching in early days was by *Alexis Chencine* (1946), "*Park and Garden Art*" (Styles, Projects and Techniques), it had been translated by *Ismail Eraslan* who was a research assistant at *IU Faculty of Forestry, Department of Forest and Biometry* at that time.

Another teacher was *Esad Muhlis Oksal* who was lecturer at the faculty from 1918 to 1957. The influence from other professions was high in the early years with heads being specialists in *Forest Botany* and *Silviculture*, while later heads *Yalçın Özgen, Yahya Ayaşlıgil* and *Adnan Uzun* were educated landscape architects.

The growing number of interested students and the growth of the city lead to more education facilities being developed there: On 4th January 2002 the *Landscape Architecture Department* in the *Faculty of Architecture* at *Istanbul Technical University* was founded by *Ahmet Cengiz Yildiczi*. He offered and brought with him the knowledge he gained through the establishment of the *Landscape Architecture Department* in the *Faculty of Forestry*in 1985 were he had organized the department curriculum, conducting the lecture of urbanlandscape planning and landscape design in housings projects. (Eksi, M., 2008)[176]

Bartin

Bartin University, Faculty of Forestry, Department of Landscape Architecture was legally established in 1993. *Mehmet Sabaz* was appointed first professor in 1994 after having obtained a PhD from the *Technical University of Munich*. The curriculum of this course was

[175] LE:NOTRE Rare Knowledge Questionnaire, Akdeniz/TR by Ortacesme, V.,(2008)

[176] LE:NOTRE Rare Knowledge Questionnaire, Istanbul/TR by Eksi, M.,(2008)

based on the education at *Karadeniz Technical University, Faculty of Forestry, Department of Landscape Architecture* in *Ankara*.

The education included subjects such as *history of landscape architecture* and *garden design* as well as *landscape design, landscape planning, plant material and cultivation* and *landscape techniques*. To build up the programme and to further the education, co operations were established with national universities within Turkey and other European as well as American universities. (Aciksoz S., 2008)[177]

5.3.7 PUBLIC AWARENESS: FRANCE

"*In the eighties in France, a new, significant curiosity was born. In political speeches, demands became more and more frequent for an increased number of gardens and green areas, for a decrease of pollution, for more natural spaces in cities and more urban development in the deprived suburban districts of major cities. Requesting more and more sophisticated implementations the mayors started to employ directly established landscape architects. Facing this demand, it was quite natural then to reorganise and to complete the training of a small professional sector*." *Jean-François de Boiscuillé (2008)*[178]

In January 1992, *Jack Lang*, Cultural Affairs Minister, then National Education Minister and Mayor of Blois commissioned *Jean-Paul Pigeat* to organise the "*Chaumont sur Loire International Garden Festival*". In parallel to this major event he asked *Jean-François de Boiscuillé* to submit a proposals for the foundation of a new school that would train students in all matters regarding the landscape. *Jean-François de Boiscuillé* was an architect, graduated from *Ecole Polytechnique de Lausanne (EPFL)* and from *Institut de l'Environnement in Paris* then studio professor at the *Camondo School of Union Centrale Des Arts Décoratifs* in Paris and former director of *Paris' Ecole Spéciale d'Architecture.*

A model curriculum describing the main lines of a 5-year programme for secondary school graduates was established. The five years of training should be completed by a yearly work placement: two months of practical work at the end of the first and second years, 5 months of office internship after the third year, two months of office internship after the fourth year and an optional internship at the end of the fifth year.

Each academic year focused on one to three projects. Students need to learn how to do the diagnostic analysis of a site, to identify the issues at stake, to formulate a proposal and then to make it into a spatial design. They must offer implementation lines and prepare a graphic and an oral presentation of their project to make it clear for potential users or decision-making authorities.

[177] LE:NOTRE Rare Knowledge Questionnaire, Zonguldak/Bartin/TR by Aciksoz S.,(2008)

[178] LE:NOTRE Rare Knowledge Questionnaire, Blois by Mc Nally D. (2008)

In December 1992, this proposal was presented to the Minister and the project was approved in January 1993. On March 29, 1993 the establishment of *Ecole Nationale Supérieure de La Nature et du Paysage* in Blois was made official.

In spring 1995, after a change of government the first recruiting campaign was launched among professionals. A team of instructors met to design the curriculum of the first two years and to organise the competitive entrance examination for high school graduates. Meanwhile the "Pioneer", who had been appointed temporary administrator, turned his attention to the finding a site for the school, which turned out to be temporary prefabricated buildings. *Jean Grelier* and *Michel Boulcourt* were appointed first professors on September 1st 1995. (Mc Nally D. 2008)[179]

5.3.8 POLAND

In 1991, the number of majors at Universities in Poland was reduced, and landscape architecture was deleted from the list of professions. So In the period from 1991 to 1998, landscape architecture was formally only a specialization of gardening in Poland which meant a major cut back for the profession.

However, in 1995 landscape architecture was added to the register of professions and specializations[180], the profession of "a landscape architect" had been specified in the same section as architects, urban planners and interior architects. That structure of classification results from the similarity of vocational qualifications required from each of the professions. The fact that the profession of landscape architecture has been specified in this official register of professions made the reinstallation of a formal higher education necessary and became the crucial argument by *Warsaw Agricultural University (now SGWW Warsaw)* and *Cracow University of Technology* to reinstate landscape architecture as a major, which finally took place in 1999. (Wolski 2009)[181]

The *Silesian University of Technology* in Gliwice started courses in "*Greenery Design*" and "*Introduction to Urban Design*" in 1990. *Landscape Architecture* was offered at the *Faculty of Architecture* at the *Silesian University of Technology* by *Jacek Rybarkiewicz* in 2002 for the first time. *Jacek Rybarkiewicz* had studied architecture and had obtained a PhD at the *University of Danzig*.

The Landscape Architecture course unit aimed to broaden the knowledge in theory of landscape planning, including basic terms, design methodology, interdisciplinary problems connected with

[179]LE:NOTRE Rare Knowledge Questionnaire, Blois by Mc Nally D. (2008)

[180]Regulation of the Minister of Economy and Labour of 8 December 2004 Concerning the Classification of Professions and Specialties for Labour Market Needs, landscape architecture is mentioned under No. 214102

[181] https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf

http://kak.sggw.pl/pl/historia, accessed June 2009

planning and protection of landscape as well as a consciousness of designing. The course emerged in particular to encourage the sensitiveness of young architects for the role and importance of landscape issues in their profession.

The actual knowledge for the development of the curriculum came from the personal education, research career and interest of *Janina Klemens, Jacek Rybarkiewicz* and *Krzysztof Rostanski*. (Rostanski, 2007) [182]

[182] LE:NOTRE Rare Knowledge Questionnaire, Gliwice, by Rostanski K. (2007)

5.4 CASE STUDIES MODEL 3 1949–2015

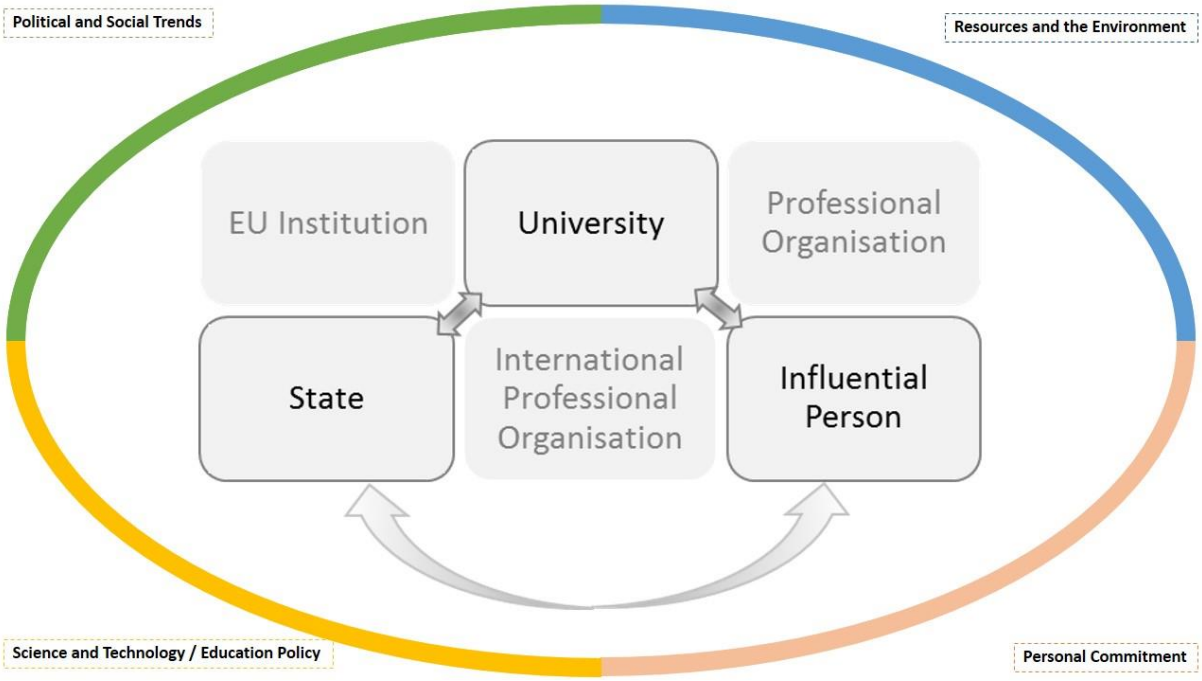


Figure 25: Drivers and Players in the Foundation of Landscape Architecture Higher Education – Model 3

5.4.1 A NEW FACULTY FOR LANDSCAPE ARCHITECTURE– AT WHICH UNIVERSITY TO SET UP A LANDSCAPE ARCHITECTURE COURSE?

In Munich, at the *Technical University*, *Alwin Seifert* – an architect and engineer - demanded a curriculum based on engineering rather than on the natural sciences, focusing on interdisciplinary teaching. He demanded that students should be educated for four semesters at Weihenstephan and continue their studies afterwards at the Technical University to be educated in urbanism, art history, water management and technical skills.

Courses started at the *University of Applied Sciences Weihenstephan* in Freising in 1956 and at the *Technical University of Munich* in 1957. The course in Munich had been planned since World War II, but the implementation was delayed. *Carl Ludwig Schreiber*, a landscape architect from Aachen, was appointed first professor at the Department of Garden and Landscape Architecture. In 1966 a second department was established, the *Department for Landscape Ecology* (Olschowy 1966)[183]

A new course in landscape architecture was set up at *Technical University Hannover*, in 1952. The existing *Higher School for Gardening*, which offered a 4 year course of education to become a gardener, was included as a 4th faculty within the university. The knowledge of gardening and a basic knowledge of plants were regarded as important for many years at the *Technical University Hannover*. In 1956 a new professorship was set up for landscape

[183] Olschowy, G. Landschaftspflege . Ein Beruf in der Entwicklung. In Buchwald.K. (Hrsg) Fragen zur Hochschulausbildung auf dem Gebiet der Landespflege, 1966, Frankfurth am Main

building and land planning (*Landbau und Landesplanung*), *Dr. Konrad Mayer* was made its new professor. His main interest was the cultural landscape. (Nothhelfer U., 2008)[184]

From 1960 on *Konrad Buchwald* was head of the department for "*Landschaftspflege und Naturschutz*". His main interest was the development of new landscape planning methods, improving the technical and planning skills of students.

Gerhard Darmer became professor for landscape management (Freiflächenpflege, Rekultivierungen) in 1960, *Landscape Ecology* was taught from 1966 on by *Hans Langer* and *Engineering biology* from 1969 on by *Uwe Schlüter*.[185]

5.4.2 AUSTRIA – "STUDIUM IRREGULARE" FOR A LONG PERIOD OF TIME

After 1918, due to the changes of Austria's borders Austria had no formal higher education for gardeners any more, as the *Higher school for Gardening in Lednice* was in Hungary from then on. In journals concerned with gardening and the landscape for example *„Gartenzeitung der Österreichischen Gartenbau-Gesellschaft"* a discourse on the education of a gardener and the potential higher education of a gardener took place. Close to *Schönbrunn Castle*a formal school for gardeners was founded in 1923, based on the curricula of Lednice.

In the early 1970s there was a first attempt to implement a joint higher education in landscape architecture and spatial planning in between *Vienna University of Technology* and *University of Life Sciences*, which failed as the *Technical University* decided against it and for spatial planning as independent and singular study course.

However, there was a group of students who applied for a so called "stadium irregulare" called *Landscape ecology and Landscape maintenance*, which meant that the curriculum was self-compiled and had to be accepted in each case by a commission.

More and more students started this education, in the non-legally established way and compiled their personal higher education in landscape architecture. By 1979 the first student graduated, it was *Johannes Kunisch*, working nowadays in Upper Austria Environmental Academy. Newspapers wrote about this and called him the "green engineer".In the early 80s about 60 students had studied and finished this forerunner. For the university this caused more and more organisational efforts so they administration tried to establish a so called "*Studienversuch*" a kind of trial study course.

Many attempts to set up this course of study failed. Political associations both from right and left wring supported the idea of a full landscape architecture course. Public relations work

[184] Nothhelfer Ursula, Landschaftsarchitekturausbildung - zwischen Topos und topologischem Denken, 2008, p46 -47

[185] http://www.laum.uni-hannover.de/iln/Geschichte des Instituts, acessed June 2009

was also part of the concept to implement the course. Information material was passed on to all ministers, all heads of countries "Landeshauptmänner", to all leading officials all associations concerned with nature protection or the landscape and also to all major cities in Austria.

On 22 April 1980 the university decided to apply again for a study trial in landscape architecture and the application was successful. On 2. Oktober 1980 there was a reunion of all persons involved at the ministry and it lead to the trial study course being introduced in autumn 1981.

All students that had finished this course were legally fully accepted academics but for the university this still was unsatisfying, as it was no permanent course and this lead to a number of organisational and financial problems like missing professorships.

Introducing the finally fully established and normal study course took some more years; in spring 1993 finally landscape architecture was a full study course in Austria called "*Landschaftsplanung und Landschaftspflege*" with *Gerda Schneider* as Professor in landscape planning at the "*Institut für Landschaftsplanung*" from 1994 on (Welan, 2006)[186].

5.4.3 - SPAIN ARCHITECTURE EDUCATION A BASIS FOR THE LANDSCAPE ARCHITECTURE COURSE

In Spain at the *Polytechnic University*, *Madrid* a Master in Landscape Architecture started in 1983, while the architecture curriculum offered from 1973 on lectures in *Gardens and Landscape*, optional for the last year. From 1978 on, Landscape was a compulsory course for architecture students, which later was the academic support to introduce a master for architecture graduates. Soon after the establishment the master course was opened also for graduates of other subject areas such as agriculture, land surveying and engineering attracting not only Spanish students but also students from abroad.

The person behind this development was amongst others *Manuel Ribas i Piera*, who graduated in Law at the *University of Barcelona* and was member of the *AEP (Spanish Association of Landscape Architecture)*. Despite his education in law, he became first professor of Planning at the School of Architecture in 1983.

His first two collaborators were *José Carrillo de Albornor*, Agricultural Engineer and *Miquel Vidal*, Architect, who was teaching *History of Landscape and Gardening*. Additional other external teachers were appointed in particular for fields of *Design, History of Landscape Architecture, Botany, Technical aspects of Planting, Ecology, Geology, Economics* and *Applied Law.*

[186] Welan Manfried, „Das Studium der Landschaft"Festvortrag anlässlich des 25jährigen Bestandes des Studiums der Landschaftsplanung und Landschaftsgestaltung, Vienna 2006

Teaching at the *Polytechnic University, Madrid* was organised in studios added to by some few lecture courses in *Botany, Knowledge of Plants, Plants associated to characteristic landscapes, Building and Law Sciences, Conservation* and *renewal of ancient landscapes* (mainly historic gardens) during the first years.

The treatment of natural damaged landscapes (quarries, sewage, water fronts and rivers) was subject to teaching in a later stage of the master. *Topos* was amongst the most consulted professional reviews. (Ribas i Piera M., 2008)[187]

[187]LE:NOTRE Rare Knowledge Questionnaire Madrid, 2008 by Ribas i Piera M.,

6 ANALYSIS

Almost 100 years of landscape architecture higher education, of professional development and the achievement of academic maturity are described in the case studies chapter. All these many individual actions took place within and were influenced by the wider historical context in Europe as well as by other trends and driving forces.

In the following chapter the case studies are sorted by time periods, the particular consequences are discussed in this chapter with reflections on the development of higher education programmes, reflections on cooperation and professional development, followed by an outlook on future tendencies. These aspects support the discussion in context of the research question:

What role did cooperation have on the development of landscape architecture higher education in the European context?

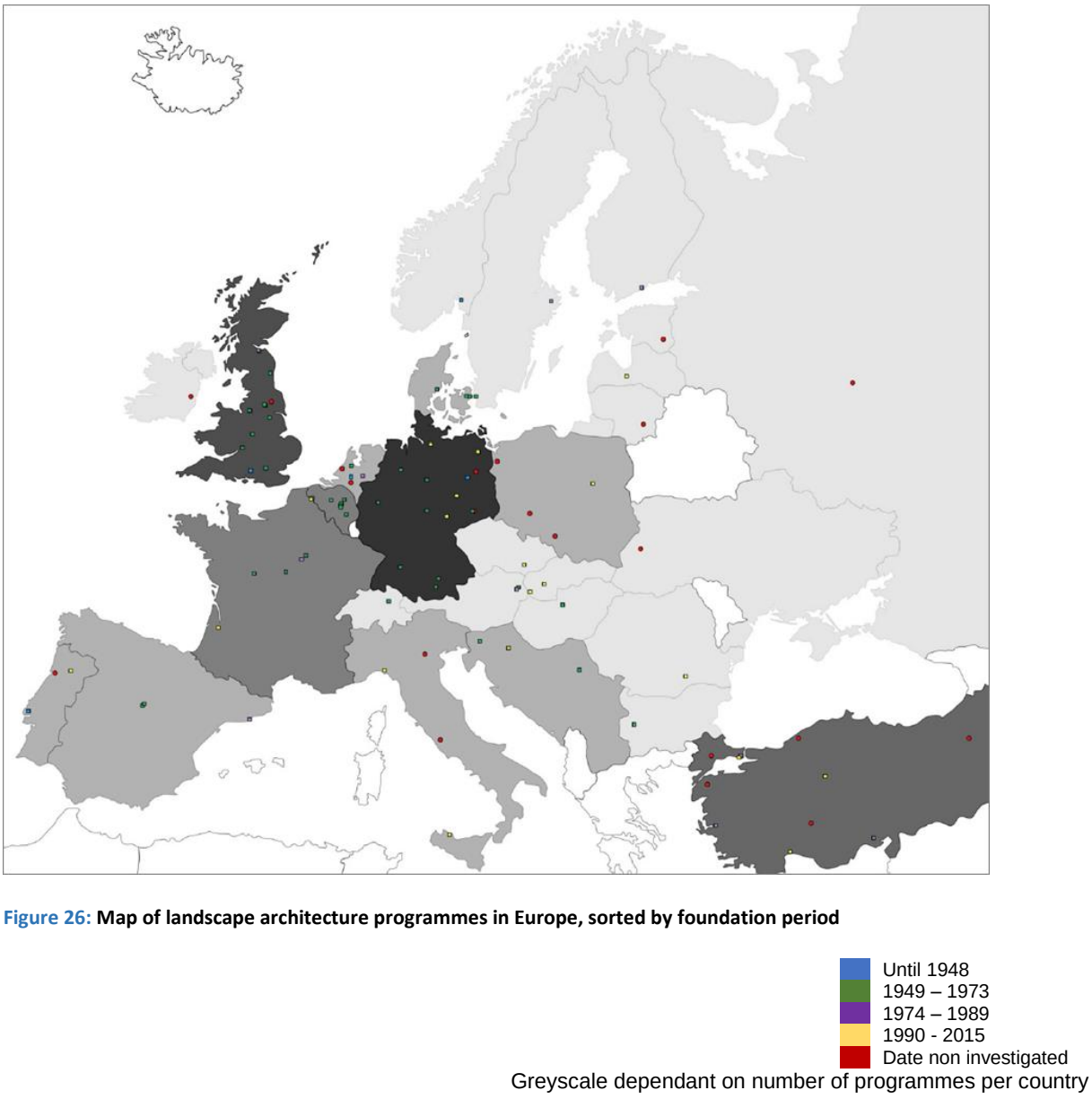


Figure 26: Map of landscape architecture programmes in Europe, sorted by foundation period

The map above (figure 27) outlines the programme foundations all over Europe and indicates not only the founding dates but also the number of programmes per country. The darker the country, the more programmes exist.

The total number of higher education institutions has been growing since 1919, the date of the establishment of the first formal landscape architecture degree course and professorship. While growth of the total number was slow in the period of time from 1919 to 1949 and comprised only national first foundations, a boom in the establishment of new programmes took place in the 1960s and 1970s. A second such boom occurred after political changes in Europe with foundations of new independent countries over the period of time from 1990 to 2000.

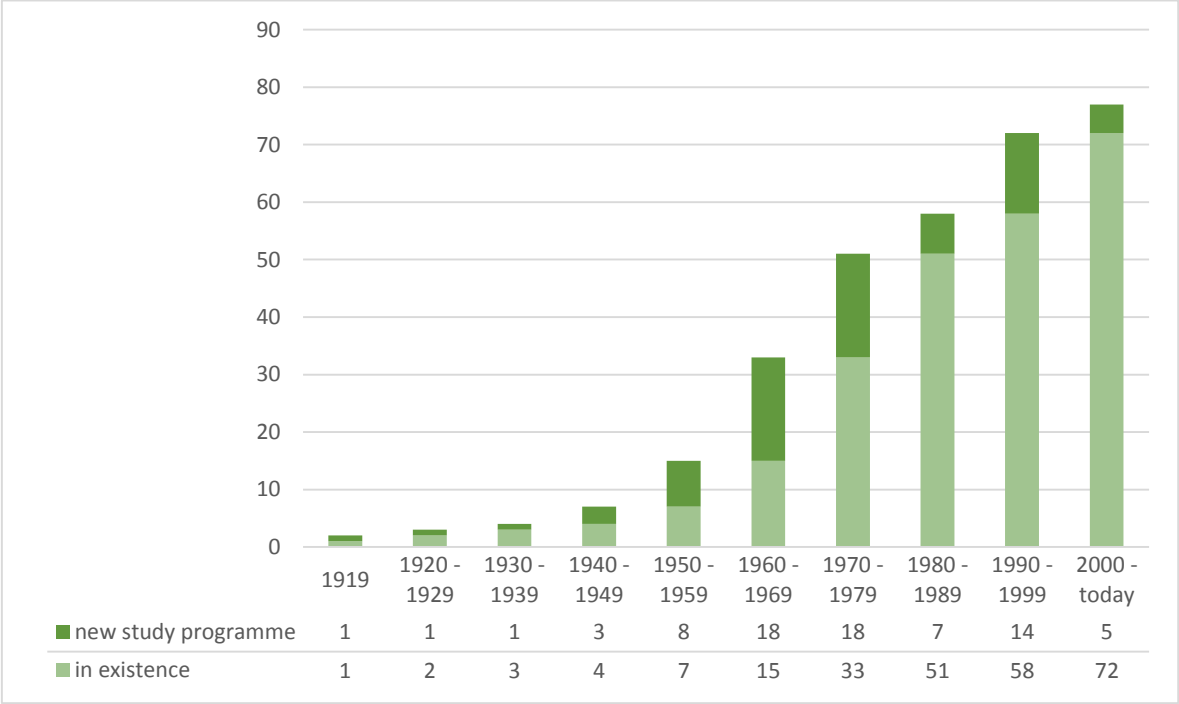


Figure27 Total foundations 1919 – 2015 (of all 76foundations investigated)

Figure 22 corresponds to a S-Curve, a typical curve for a development representing different periods of growth, saturation, and decline up to a point where no or only little growth occurs. The S-Curve[188] is used to describe, and sometimes predict, the performance of a company or a product over a period of time. S-Curves start with a modest and shallow growth then the growth accelerates rapidly and the slope arches upwards until it reaches maximum growth. This point of maximum growth is the point of inflexion. After the point of inflexion the growth tapers down to its mature where there is *little* to *no growth*. This mature stage of the S-Curve indicates a point of "market saturation". As indicated above this market saturation is almost reached. Only with a growing number of students and

[188] https://en.wikipedia.org/wiki/S_Curve, accessed July 2016

universities and a growing number of jobs offered, more programmes in landscape architecture can be started.

Usually landscape architecture full programmes remain once founded, although they are sometimes being combined with other subject areas and in the recent past some departments have become poorly staffed and equipped. A cancellation as full academic subject area from 1991 to 1998 took place in Poland, when landscape architecture was formally only a specialization of horticulture. Closure of the degree programme at TU Munich had been discussed at the beginning of the 21st century and also the programme in Budapest had to face reductions and lost its outstanding status as an own faculty in 2015. In Germany, some small programmes have been targeted, by professional bodies, for being too small to continue to exist, particularly during times when the market was not able to absorb all graduates in each year.

Only some few examples of programme closure have been found throughout the whole history of the discipline, The best known example for a closure is University of Reading. The education programme was closed in 1962.

During most of the Second World War the majority of the Universities were closed, but the programmes were for the most part reopened after the war.

6.1 REFLECTIONS ON THE PROGRAMME FOUNDATIONS FROM 1919 – 1949

Detailed reflections on the case studies follow the three time phases defined previously, 1919-1949; 1949-1989; 1990-2015 which correlates with the sorting and the structure of the case studies in the previous chapter. (Compare 4.2.1)

6.1.1 HISTORICAL BACKGROUND

The end of World War I saw the European nations exhausted, an entire generation of young men had died on the battlefields. After seeing the horrors and atrocities of war during World War I, the European population desired to avoid such a situation again in the future. However fascism rose in Europe as well as problems with unemployment and colonial struggles.

The World War influenced the professional orientation as it led to the profession being concerned with building war cemeteries, support the construction of railways and of course the reconstruction after the wars. Landscape architects created then parkways and residential subdivisions.

All over Europe nature protection started to take action, visible in a growing number of nature reserves. For example in Sweden in 1909 nine national parks were established, in Germany in 1911 the first German Nature Park (*Lüneburger Heide*) had been opened, in France, in 1912 the *Seven-Island Bird Sanctuary* and in 1913 *Parc du Pelvoux* were created, in Spain, in 1918 *Ordesa y Monte Perdido* and *Picos de Europa* were founded as natural reserves.

At the same time, governments started to take action to ensure the conservation of landscapes, for example in France with the 1906 *Law on the Protection of Natural Sites and Monuments*, (reinforced in 1930), which provided the first legal foundations for nature conservation in France. The Swedish Parliament passed in 1909 the *National Parks Act* and established nine national parks, among others *Sarek* and *Abisko*. The first legislation on nature conservation in Norway was adopted in 1910. In 1909 and 1912 in Italy acts were released that aimed at the protection of natural sites that were either related to Italian history, described in literature or that were of particular historic interest.

In Germany publications concerned with spatial planning and green zone planning were edited, for example the PhD of *Robert Schmidt* called *Grundsätze zur Aufstellung eines Generalsiedlungsplans* für den Regierungsbezirk *Düsseldorf (*Principles for the establishment of a General Development Plan for the Region of Düsseldorf), released in 1912. Robert Schmidt outlined the high role of green areas in between the growing cities in the German *Ruhrarea*, an area with a high intensity of mining. He further demanded an approach towards planning that is less oriented on administrative borders but rather on the shape of the landscape.

In line with these developments, the first education facilities in landscape architecture were founded in Europe.

6.1.2 PROGRAMME FOUNDATIONS

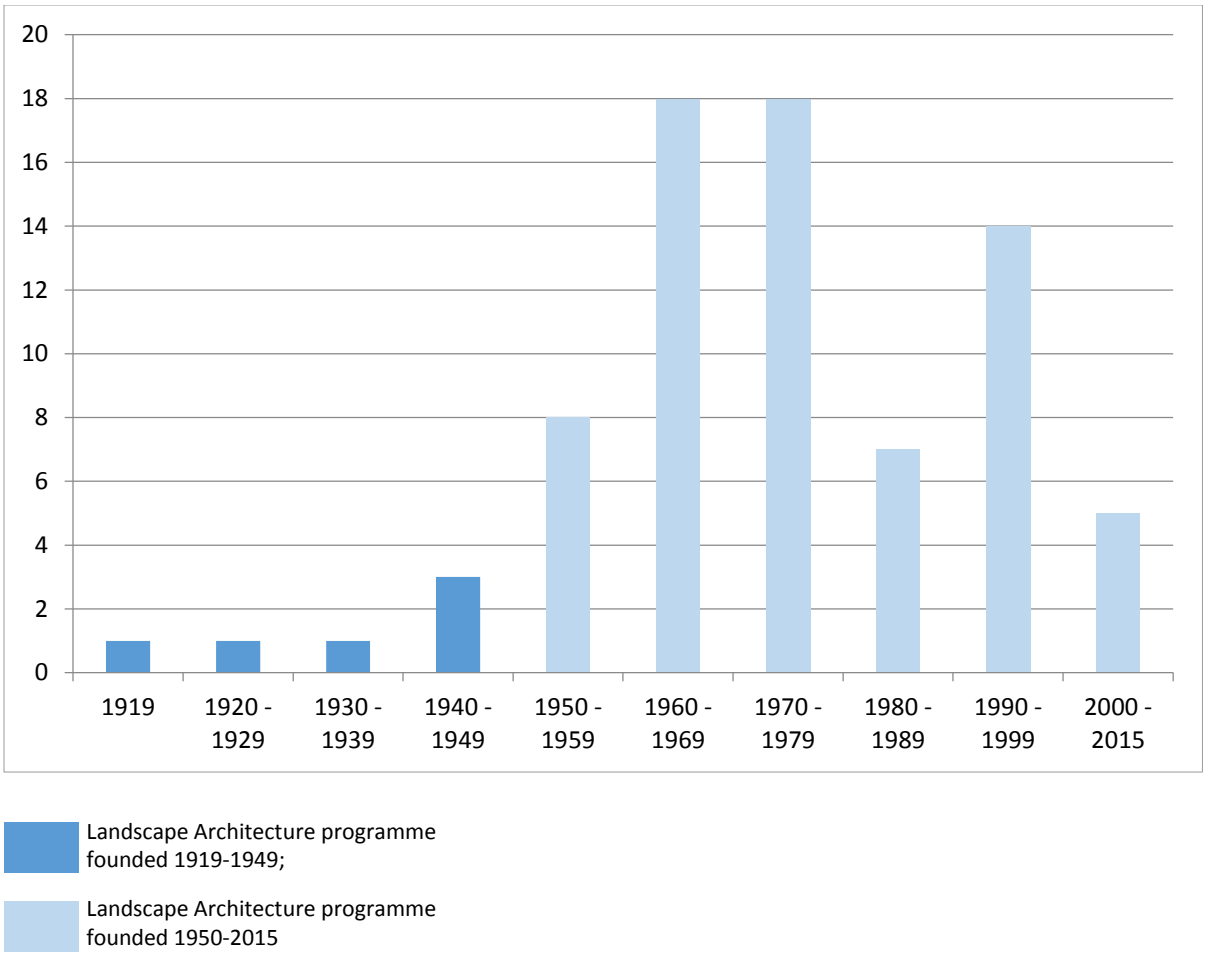


Figure28: Foundation of Landscape Architecture Higher Education in Europe by decade, number of higher training institutions offering courses or full degree programmes

The 30-year period in question was marked by the efforts of landscape architecture pioneers in establishing new degree programmes in landscape architecture in their own countries, as all newly founded programmes were the first in each country concerned. The UK would become the first country to offer more than one programme when, in addition to the original course at Reading, a second was established in Newcastle in 1949.

The following “pioneering” courses were set up in Norway, Germany, The United Kingdom, Portugal and The Netherlands.

Table 4: Legal foundation of landscape architecture programmes at universities, names of the programmes and names of course pioneers

1919	1929	1932	1942	1948
Norwegian University of Life Sciences	Agriculture College of Berlin	University of Reading	Agronomy Higher Institute; Lisbon Technical University	Wageningen University
NLH – Norges Landbrukshøgskole	Landwirtschaftliche Hochschule Berlin	University of Reading	Universidade Técnica de Lisboa	Wageningen Universiteit
Linje for hagekunst	Course to become „Diplom Gärtner“	Landscape Architecture	Cursol livre de arquitectura paisagista	-
Olav L. Moen Olav Aspeseter Anton Hjeltnes	Erwin Barth	Arthur J. Cobb Geoffrey Jellicoe Russell Page	Caldeira Cabral	Jan Bijhouwer

6.1.3 EXPERTISE AND DRIVING FORCES

In the above cases, the founders of programmes gained their professional knowledge and expertise from their university education plus work experience in landscape architecture and through foreign travel. They had studied a related subject area, either horticulture or architecture, and had gained professional experience in the design of the landscape. Their education in landscape architecture (independent of/in addition to their university education) was often based on their personal interest in and commitment to the subject, while professional expertise gained in a working environment completed their professional profile.

This personal interest and commitment is what all these cases have in common, while other factors such as the kind of university where the course had been established or their personal education where different. These cases are single stories with few common parameters.

6.1.4 PERSONAL EXPERTISE

The Norwegian example shows that the preliminary training option at the university itself – through the study programme in horticulture plus the 25-hour specialisation in landscape design– offered by Professor *Hans M Misvaer*, in addition to the educational experience of the course pioneer *Olav L Moen*, including his degree from Denmark and Germany, was the basis for the specialist knowledge. They formed the curriculum used for the foundation of a landscape architecture department, a professorship and a full course.

In Norway, no professional association was in existence at the time that the higher education programme was initiated, it being formed at a later date by the first graduates of the programme. Still, there was renewed growth in social awareness in early 20th-century Norwegian society that supported the work of landscape architects and gave political backing to the implementation of the course. Reasons for Norway to be the first country to start such a course might be the attempt to contribute to nation building of a newly founded state. National identity was created through, amongst other things, landscape and nature and landscape architecture as an "art of peace".

Another reason was potential competition from other institutions: another university in Norway was also interested in setting up a programme in garden design and members of the university board were afraid, that this might have negative impact also on the horticulture education at the *Norges Landbrukshøgskole.*[189]

In Germany, not only were several training institutions of a non-university education level in existence before the actual foundation of a degree course, so too were a professional association, the *Deutsche Gesellschaft für Gartenkunst*, and professional journals. Articles in journals such as *Das Gartenamt*, *Gartenkunst* and *Die Gartenwelt* were important in influencing the overall development of a programme. Discussions about the necessity of new foundations were published (and reactions to this) as well as texts on where to implement the programme. The association, for its part, promoted education at university level. The pioneer educator Erwin Barth was a graduate of the gardening school in Potsdam (having been trained previously in the cities of Lübeck and Elmshorn as gardener) and was head of the horticulture department (Gartenbaudirektion) in both Charlottenburg and Berlin before being appointed the first German professor in landscape architecture. His education was different from the other pioneers described in model 1 1919-1949 as the others all had all obtained a university degree. (Giseke, 2006)[190]

In Poland, the pioneer Franciszek Krzywda-Polkowski had obtained the title of architect at the *Strogonov Higher School of Painting* and had studied architecture in Moscow. He completed his academic profile with a one-year course in urban planning in London in 1915 and was appointed professor by the council of the faculty of gardening at *Warsaw Agricultural University.* (Wolski 2009)[191]

[189]LE:NOTRE Rare Knowledge Interview, NO Aas and e-mail correspondence with Karsten Jörgensen,

[190]Giseke U., Perspektive Landschaft, 2006, Berlin

[191] http://kak.sggw.pl/pl/historia, accessed June 2009

Francisco Caldeira Cabral had studied at the *Technical University in Berlin*. He had received a scholarship from the municipality of Lisbon in 1935 that was devoted to training a person who would later head the department of forestry and gardening in the city. Cabral may be seen as first example of knowledge transfer from one country to another and an early form of transnational cooperation in landscape architecture education with one university providing knowledge for the foundation of another university. Cabral, compared to the other pioneers described in model 1, 1919-1949, enjoyed thus the facilities of an existing landscape architecture programme for his own education. (Andresen 2001)[192]

In the UK with *The Institute of Landscape Architects (later renamed to Landscape Institute)* a well organised and connected professional association supported the attempts to start a full programme. This intention was in line with a document of education requirements published in 1933 by the Institute.

The members were well connected in the British nobility and probably moved in elevated social circles, which helped to bring the topic to the attention of decision makers. As next step after editing the document on educational requirements, they had founded a professional oriented journal in 1934 called *Landscape & Garden*. (Downing 1992)[193]

*Russell Page h*ad studied painting at the *Slade School, University London* and in Paris after an apprenticeship in gardening and gained practice also through travelling and landscape projects all over Britain. *Geoffrey Jellicoe* studied at the *Architectural Association* in London. They were both instrumental in the foundation of the programme at the University of Reading.

In The Netherlands, the education of *Jan Bilhouver* was based on horticulture and was complemented with specialist education on the subject of vegetation studies and professional practice. He obtained a PhD in vegetation studies and gave lectures in garden art to students of architecture and city planning at the *Technical University of Delft* from the early 1920s on, and thus had teaching experience before actually setting up a full programme. The implementation of his course was supported by the *Dutch Association of Garden Architects* (BNT), which argued vehemently in favour of Wageningen being the university to offer the first full degree programme in the Netherlands. (Vroom 2007)[194]

[192] T. Andresen, Franciso Caldeira Cabral, LDT monographs, Surrey, 2001, p23 - 60

[193]Mike Downing, former president of EFLA and ECLAS, interview

[194]LE:NOTRE Rare Knowledge Interview followed by a letter, NL, Wageningen by Meto Vroom,

Various forms of education and apprenticeship were instrumental in creating the “landscape architecture pioneers”. Horticulture, Architecture, Gardening and Landscape Architecture were the subject areas from which the pioneers arose. None of the pioneers came from just a single educational background, they all started with one discipline to then acquire further skills, some followed the academic career in doing so (*Bilhouver* who had a PhD in horticulture), others rather started a second education in another subject area, such as urban planning, to complete their knowledge in both natural sciences and planning (*Franciszek Krzywda-Polkowski*). Gardening was the basic education for *Russell Page* as well as *Erwin Barth*.

6.1.5 TYPE OF UNIVERSITY AND TEACHING CONTENT

The actual decision about the kind of university suitable to start a course at was often based on economic concerns rather than academic content. The intention to keep costs for the state low have to be regarded against the backgroound that no or only little tuition fees were asked from students. Discussions did take place about which university would offer the best education for a future profession as a part of the arts, natural sciences or technical sciences. In Germany, lengthy debates, documented in professional journals (*Das Gartenamt*, *Gartenkunst* and *Die Gartenwelt)* took place about the kind of university suitable for the first degree programme, before it was finally set up at the university where the lowest costs were incurred as most resources were already available. *Erwin Barth* actually argued the point with minister *Steiger,* that the *Landwirtschaftliche Hochschule* (agricultural university) would be an “interim solution” until later when enough resources would be available for the requested technical or arts approach.

Former syllabus that are available today contain mainly titles but only few detailed indications of content. The pioneering course lectures included, among other disciplines: garden design; urban parks; recreation areas; horticulture; soil science; plant materials and vegetation studies; town planning; history of art; accuracy/drawing and elementary design.

Table 5: Overview of disciplinary approach, methods and teaching units of the five first programmes in Europe

	Norwegian University of Life Sciences	Agriculture College of Berlin	University of Reading	Agronomy Higher Institute; Lisbon Technical University	Wageningen University
Teaching Mode	Lectures, 100 hours of studio training,	Lectures, Art Studio, project in private city gardens, drawing (outside)	Lectures	Lectures, Project work,	Lectures, Design studios from the second year onwards
Disciplinary Approach	Horticulture	Horticulture	Faculty of Architecture and the Faculty of Letters	Agronomy	strong horticultural emphasis: Garden and Landscape Architecture was formally defined as "Horticulture II"
Teaching units (syllabus included…)	botany, chemistry, geology and land surveying, perspectives and free hand drawing. horticulture, plant material basic landscape design, history of architecture and garden art, and garden design studios studio work regarding parks and urban open spaces, cemeteries, technical specifications (Jörgensen, 2008)	agricultural studies, engineer biology, forest sciences, forestry, geology, horticulture, metrology, rural planning, soil science, vegetation studies, water engineering, (Gieseke, 2006; Nothhelfer, 2008)	Botany, physics and chemistry, horticulture, surveying and levelling, building construction and bookkeeping (Downing, 1992)	agricultural physics, arboriculture, botany, general mathemathics, and chemistry, microbiology, topogryphy, general agriculture, horticulture, viticulture, silviculture, rural constructions, agricultural hydraulics (Andresen 2001)	landscape history, town planning, history of the arts and architecture and basic design horticultural plant breeding, plant taxonomy, decorative plants, vegetation studies, regional soil science, hydraulics, surveying and levelling, rural engineering, sociology (Vroom, 2007)

Some teaching subjects were available more or less on all courses, such as botany, chemistry and horticulture. The courses in Norway and Berlin offered drawing classes, which the others did not do. In Reading "bookkeeping" had been compulsory which was not required in the other courses. From these very first five courses only in the Netherlands town planning was part of the study course. So these first programmes that were developed by the members of this group might have - in the absence of normative models - been more than usually diverse.

The main approach within the universities offering these courses was horticulture. Not much is known about the actual teaching methods. All curricula included lectures. Project work was offered in Berlin and Lisbon, studio work in Norway and The Nethderlands.

Each of these programmes had been run independently. The course in Lisbon was clearly influenced by the one at Berlin. The syllabus in Norway was influenced by the programme in Harvard/US.

The duration was three years in Norway, the UK and The Netherlands and four years in Germany and Portugal.

Academic literature used was mainly in German or from the UK, in addition to literature by the pioneers themselves. Examples of literature refered to in the survey as being used in the first years of teaching included Gothein, Marie-L. „*Geschichte der Gartenkunst*“, Schnitler, Carl W. *Norske Haver Lange*, Willy & Otto Stahn: *Gartengestaltung der Neuzeit*, *Die Friedhofbiebel*

6.1.6 COOPERATION

Physical resources as well as personal resources were scarce and the success of teaching was highly dependent on the personal skills and abilities of the first professors and their few staff. International cooperation helped to compensate for the lack of resources and experience.

Another aspect of these scarce resources were a kind of mixture in between professionally oriented and academic oriented approaches in cooperation. While professional oriented activities had the aim to strengthen the market and the selling of knowledge and design, the academic side was based on building up a research infrastructure, teaching methods and materials. There are various examples (in the case studies and in the text below) were early in the 20th century all these activities were done by the same persons: a person running the own office as well as teaching at universities as well as professors being concerned with the design of public parks.

Conferences were not strictly academic oriented but rather concerned with summoning the few persons with a professional knowledge, be it that they were professional landscape architects, be it that they were working at the universities in teaching or research.

These joint efforts from the academic as well as the professional side contributed to the building of an identity and body of knowledge of the discipline.

Cooperation at this period of time had various forms:

Apart from the exchange between individuals that was based on personal friendship, some national professional associations supported representatives to attend international congresses of garden architects that were the forerunners of the later IFLA conferences. The discussion of professional matters and professional identity was stimulated through

exhibitions, excursions and lectures. At and through the exhibitions (for example *Jean Caneel-Claes "Exhibition de l´Eau"* held in Belgium in 1939) a platform existed where discussions of the actual sites were possible. Such exhibitions were of importance in particular for the development of the profession in the direction of the modernist garden.

Professional discussions took place not only face to face but also in journals with articles and reactions to articles leading to an open debate on subject specific issues. (Among these journals were *Das Gartenamt*, *Gartenkunst* and *Die Gartenwelt, Landscape and Garden* later *Garten und Landschaft* as well as the British journals *Garden Design, The Architectural Review* and the *ILA Journal, compare. 5.1.3, 5.3.1).* In these discussions varying attitudes to the profession were expressed; one example being those who saw the profession as very closely linked to the subject areas from which it arose academically (i.e. the pioneers' initial educational background), as opposed to those who called for new, modernist approaches to design: "is there a need for a higher education in landscape architecture" or "is landscape architecture rather close to horticulture or rather close to urban planning" (Imbert 2007; Treib 2002)[195] [196]. So cooperation in establishing a profession and cooperation in establishing a discipline were closely related.

In journals, not only debate, but also extended reports on journeys were published allowing professional insight on landscape architects' work for those who were not able to travel themselves. As usual for the period of time concerned, only a small number of pictures was available in the journals, with at most only a few tables or graphics. However publications in journals were an important tool to spread news and to reach colleagues from abroad. It would have been interesting to investigate how wide-spread these journals were in this period of time, unfortunately no data on subscription numbers or libraries offering these journals was able to be investigated.

Further to this, literature on gardens including descriptions and critical discussions of gardens and parks were available. Examples were *Gardens and Gardening* or *Modern Gardens* (1936)

Also the profession was the subject of writing. *Lady Allen of Hurtwood* wrote about the *Future of Landscape Architecture* and described how the profession may contribute to the „seven stages of man", she listed playgrounds sports pitches, personal gardens in city centres, public parks, holiday centres, roads, factory gardens and allotments as future professional work contents. (Jacques, 2009)[197]

The education of landscape architects was also discussed at international meetings (compare 5.1.9) and closely related to discussions on professional identity. And while there was

[195]Imbert D. Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948, Jola 2, (2007)

[196] Treib M., The Architecture of Landscape, 1940-1960, (2002)

[197]D. Jacques,Landscape Modernism Renounced: The Career of Christopher Tunnard, p.5 (2009),

consensus that standards for education were necessary, opinions about the actual content of courses were divergent: At the *First International Congress of Garden Architects* in Paris in June 1937 for instance *Jean Caneel-Claes, i*nfluenced by his work relationship with architect *Le Corbusier* and his own education at *The decorative Arts Institute of La Cambre*, presented "the new practitioner". In his opinion a landscape architect required skills in architecture, urbanism and art and had to be capable of shaping the environment from the scale of a garden to that of a city. As the professional organisation in Belgium, the ABAJ was rather influenced by *Rene Pechere* and his horticulture oriented approach to education, *Jean Caneel-Claes* refused to join the ABAJ and rather collaborated internationally, for example with *Christopher Tunnard*.

With the foundation of the IFLA, an international organisation was formed, taking the subject area a step further on the way to professionalisation. Despite its enormous role as the international professional organisation IFLA was not a strong organisation in its early days and it took some time for it to develop. Among the activities to strengthen its existence were to set up a permanent office and structures including permanent funding. The executive committee of the IFLA was formed to run the organisation and to stimulate activities to consolidate the profession.

Fairs and conferences on national and international level were still the main occasions on which to meet in person in the period of time up to 1949. The agenda, the titles of the presentations and the reports written in professional journals are basis for the assumption that attending these meetings had influence on the Landscape Architecture programmes at the home universities, but reliable documentation for this assumption is lacking.

6.2 REFLECTIONS ON THE PROGRAMME FOUNDATIONS 1949 – 1989

6.2.1 HISTORICAL BACKGROUND

The destructions left, after the World Wars were over has led to a concerted effort by European leaders to secure a lasting peace in Europe. At a political level it was agreed that the best method would be to unite the nations economically and politically which further lead to the foundation of the European Union (EU).

The years after the second world war were marked by the efforts to reduce hunger and so the profession was concerned amongst others with land consolidation.

In the 1950 and 1960s the growing masses of litter became a challenge for society and administration. Waste disposal sites were built or illegally occurred in depressions of the landscape. These illegal waste disposals became working fields for landscape architecture and its neighbouring disciplines later on. [198] The ruins of the past war became a new working field for the profession as these areas were developed into new landscapes and parks, for example, the area for the Olympic Games 1972 in Munich was a former debris field.[199] A further example are The Kassel Garden Exhibitions of 1981, that were developed on gravel extraction areas that were restored after the building of the city ring roads was finished during the early 1970s.

The 1960 and 70s were a good period for the economy which furthered the construction industry. This strong development led to counter movements within the society calling for preservation and conservation of historic sites as well as natural habitats. The demand for more nature protection - visible also through the mass demonstrations in the 70s and 80s in context of the environment movement - was incorporated into national laws (waste management, environmental impact assessment, air and water quality monitoring…), and thus furthered the professional development.

The profession on the one hand, was concerned with the design and planning of landscapes of infrastructure and industrial production and, on the other, public landscapes. In particular in the post-war years the profession broadened its professional field through new legislation. In Europe, two approaches to planning were implemented, with either responsibility “top down” from national to regional level, or the responsibility for planning based on the regions. Town planning developed further, the “Copenhagen finger plan” as one example modified the idea of green belts to built areas and green areas. (Alexander 1986)

Besides reconstruction activities large national and international exhibitions and fairs provided opportunities for the profession to develop and to gain a wider recognition.

[198] Küster H. (2013) „Geschichte der Landschaft“, p361ff

[199] Küster H. (2013) „Geschichte der Landschaft“, p356ff

The period of time concerned is marked by a rise of the number of degree programmes in Europe. In particular the 60s and 70s were the time for new degree programmes to be established. Driving forces for this development was on the one hand the desire for a better educated society and larger groups within society that were able to afford a higher education of their children.

The growing number of study programmes is not a development of landscape architecture alone but is in line with a growing number of university foundations all over Europe at that period of time. According to *Walter Rüegg* (Rüegg 2010)[200] the number of universities in Europe rose from 201 in 1945 to 524 in 1984, some of them being newly founded universities, some of them being upgraded colleges or schools.

On the other hand the promotion of regional development was also a reason to set up new universities. Apart from strengthening the local pride and identity, students do not only contribute to the future wealth of a society, also during their studies they are consumers of local goods and services. In particular for developing regions, the foundation of a university was a lucrative investment as many of the graduates stay at the city of their study time and contribute to and stimulate the economy there.

[200] Geschichte der Universität in Europa: Vom Zweiten Weltkrieg bis zum Ende des 20. Jahrhunderts. Bd. 4, 2010, Ulm

6.2.2 PROGRAMME FOUNDATIONS

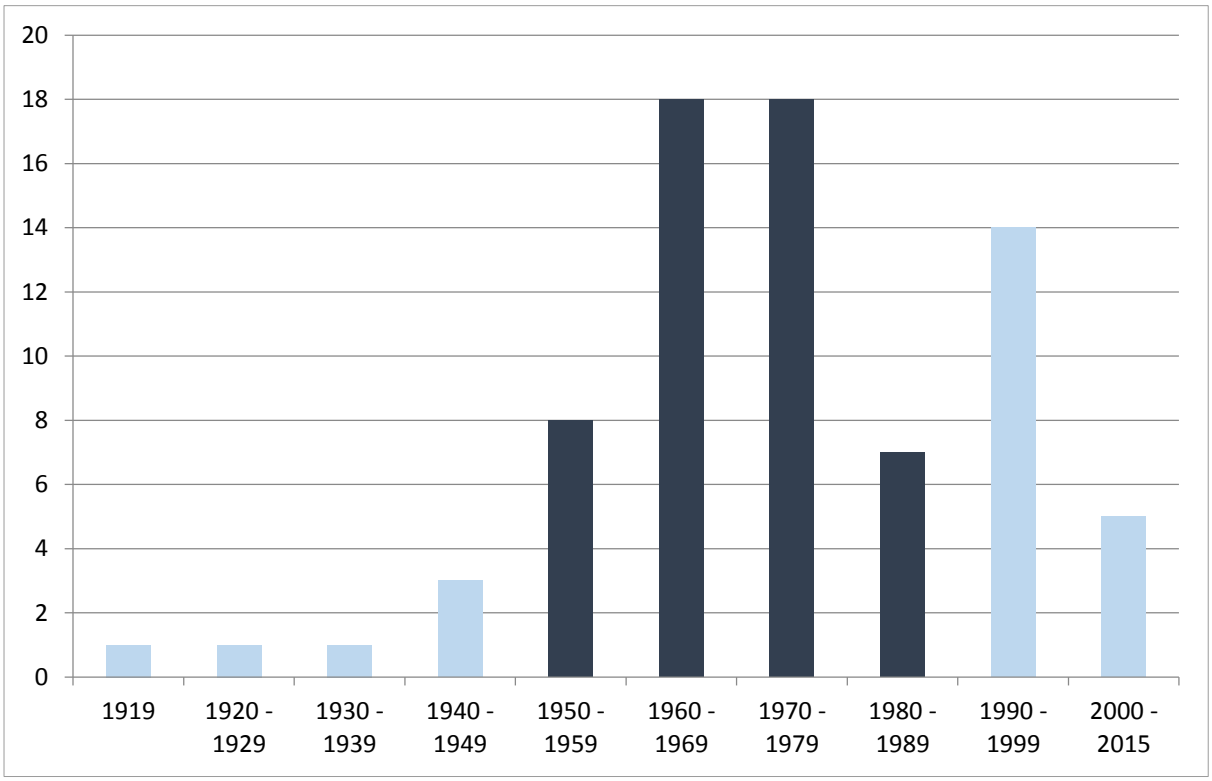


Figure 29: Foundation of Landscape Architecture Higher Education in Europe by decade, number of higher training institutions offering courses or full degree programmes

Landscape Architecture programme founded 1919-1949; 1990-2015

Landscape Architecture programme founded 1950-1989

There is a significant rise in the 1960s compared to the 1950s and a decline in foundations in the 1980s compared to the previous two decades.

The demand seemed to be saturated in the 1980s. The second rise in the number of study programmes seems to be driven by the political changes in Europe in the 1990s. The foundation of new countries and the unified Germany lead to a significant rise of new study programmes in these countries. This development was influences by the recommendations[201] of the German "Wissenschaftsrat" in 1991 for the foundation of new universities in former eastern Germany. The recommendation was based on the assumption that in the near future more students were to be expected in eastern Germany. Actually the number of inhabitants in Germany is declining for years.

[201], Wissenschaftsrat (1991) Empfehlungen zur Errichtung von Fachhochschulen in den neuen Ländern

6.2.3 EXPERTISE AND DRIVING FORCES

The renewed growth of the urban population and their need for public green space increased the demand for landscape architects, in particular in city or regional administrations. In a letter dated 1953 to *Rene Pechere, Caldeira Cabral* writes about the growing number of landscape architects in city administrations, describing that Lisbon municipality and the Urban Planning Division of the Ministry of Public Works had hired landscape architects (Cabral, 1953).

There was support for the establishment of new landscape architecture courses coming from new planning legislation in European countries. In the UK *the Town and Country Planning Act (1947)*, gave a first rise to the demand for landscape architects, although there was no direct mention of landscape or landscape architecture in the act, despite the efforts of *Geoffrey Jellicoe*.

In Germany, the *Bundesnaturschutzgesetz*,(the nature protection act,1977) was a crucial driving force. With this enactment landscape planning got a legal foundation in Germany which caused strong demand for specialists particularly in the public sector.

Further legislation, such as laws concerned with village renewal was, implemented all over Europe, following the concern of society for the protection of their regions and villages. In France the *Malraux Law for the preservation of protected townscapes* has existed since 1962, In Norway the first explicit urban renewal law was introduced in 1967: *the Urban Renewal Act*. In the UK in 1977 the *White Paper 'Policy for the Inner Cities'* provided the formal basis for an urban renewal policy. Since 1974 Austria has had an urban renewal law, in Germany it had been enacted in 1971, in Finland the *Dwelling Improvement Act* was introduced in 1979.

In The Netherlands, village renewal had been enacted in 1985, Denmark has since 1983 the Act for *Urban Renewal and the Improvement of Dwellings townscapes and the restoration of buildings*. In Sweden in 1983 the government launched the *10-year ROT programme* for dwelling improvement (Priemus, 1996)[202]

Land consolidation, or other procedures to redistribute agricultural landholdings in order to achieve field shapes and sizes which can be more efficiently cultivated, provided further areas of work for landscape architecture offices, and widened the market for private landscape architecture offices in some countries.

Not only new acts concerned with planning, also acts concerned with the education *per se* were driving factors. In Germany, a change of the educational system gave the backing for the foundation of the new courses in Kassel and Nürtingen. The political backing for the establishment came from a general restructuring of education in Germany in the70s. In 1969, a Federal Ministry for Education and Science was established, and the German Basic

[202] Priemus H., urban renewal policy in a European perspective, Delft, (1996)

Law (Constitution) was amended to define the joint tasks of the Federal governments in higher education, notably the construction of buildings, the coordination of educational planning, and research promotion. A new Federal Ministry began to deliberate a Framework Act for Higher Education, aimed at setting general guidelines for higher education, teaching, research and the studying, access, participation, staffing; organization, and administration of higher education institutions, which was eventually enacted in 1976.

Also changes in the laws concerning universities and higher education schools influenced landscape architecture. The basically unitary system with only university degrees was complemented by the universities of applied sciences. The establishment of these education institutions with different names all over Europe (polytechnic, hogschool, Fachhochschule,…) was a reaction to the rise of industrial power and technical education in Europe. These universities of applied sciences offer programmes that focus on the practical application of arts and sciences and focus less on the research education. Landscape architecture is taught at universities of applied sciences as well as traditional universities, with the focus on either the applied aspects of the subject area or the research aspects.

Most case studies apply to model 2 (Site specific challenges) as the driving forces outlined in the sources are closely related to site specific challenges and thus to be pushing the development in this period of time leading to a broader teaching offer in Europe.

Further pioneers foundations took place as well, with or without international support. Model 3 (University Profile) is rarer than Models 1 and 2 in the case studies 1949-1989.

From the total number of newly founded degrees or courses, some were programmes founded as first courses per country, some were further programmes in the country concerned. So catergory one (pioneers foundation, dark orange) had to bring knowledge into the country concerned, category two (further foundation, light orange) had knowledge on national level available, but had to bring it to the university were the new course was implemented. The relation in between pioneers foundations and further foundations in the period of time from 1949 to 1989 is consistent with the overall founding number.

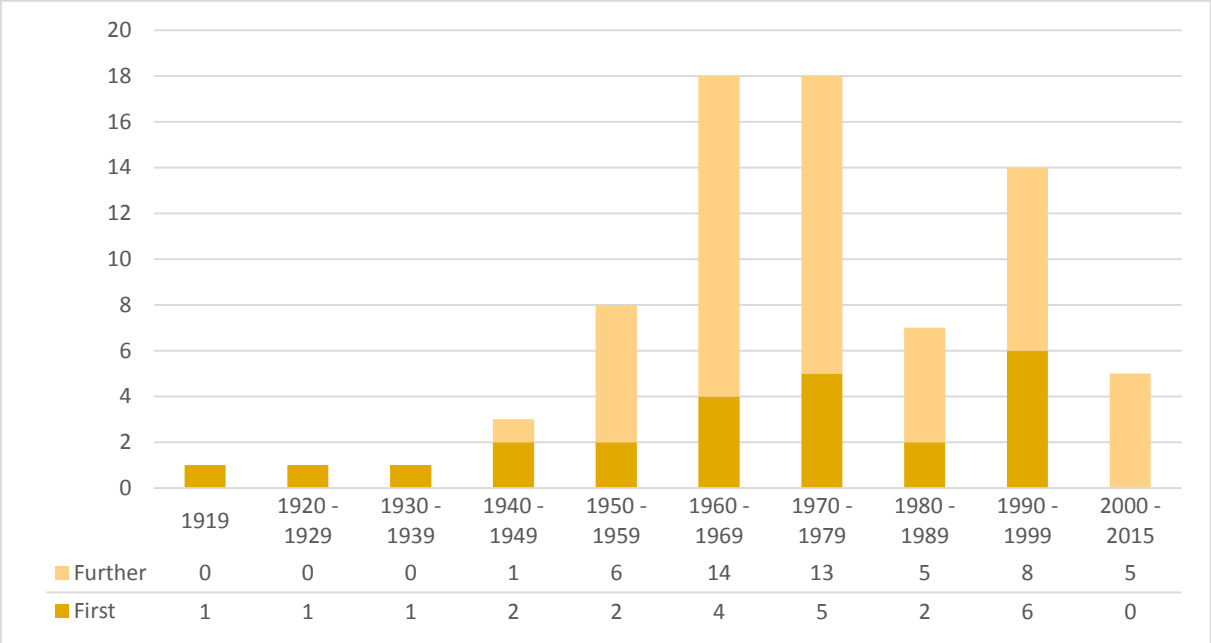


Figure 30: First national and further national foundations of landscape programmes in Europe

Landscape Architecture programme
founded in a country with existing programmes

Landscape Architecture programme
founded in a country with no existing programme

Analysing the overview of first and further institutions, one has to keep in mind that a number of 40 universities is not included in the overview, due to an unknown foundation date. Among these 40 universities, there are 3 which are the only universities in the country and thus must be the first. The remaining 37 universities and higher education institutions are universities where further programmes were established, mainly founded in Germany, Poland or Turkey.

6.2.4 COOPERATION

Cooperation in establishing a profession and *Cooperation in establishing a discipline* were not as closely related as in the previous period of time. With the development of academic structures the profession landscape architecture turned into the university structures and increasingly responded to the "inner university" driving forces based on the pressures of research and teaching rather than just being influenced by the professional demands associated with an applied subject area. This led to a new 'role' for the *landscape architecture academia* which is further outlined under 6.2.4.1. (personal) expertise.

Personal Cooperation at the beginning of this period of time was mainly based on individual commitment and friendship of persons concerned with landscape architecture teaching, research and practice.

Cooperation between institutions within the context of professional organisations most often took the form of meetings, both on national and international level, with the main emphasis on professional development.

Some meetings were more locally oriented, for example the meetings of the landscape architecture academia of the Nordic countries (Sweden, Denmark and Norway) that took place before the foundation of the European professional organisations (EFLA; ECLAS).

Later in this period, the establishment of the main European professional organisations ECLAS, EFLA and ELASA took place (compare chapter 3). These organisations were funded to handle professional issues on European level, additional to national level. One of the effects of these establishments were a growing number of international meetings and conferences. So the environment to enable professional cooperation had been founded and was not based on individual personal arrangements any more. These organisations provided a framework and events for professionals to exchange, although much was still based on personal commitment of the persons acting in these groups.

The Executive Committee of IFLA took some trouble to map the status of the profession through a worldwide survey in the 1970s among its members, thereby providing insight in how colleagues from abroad were working and teaching. All this international work depended on communication based on sending letters or speaking on the telephone during this period of time. Compared to today's tools for networking- in the retrospective view - this must have been an obstacle, as international cooperation was expensive and time consuming. However in the absence of electronic communication these international meetings were highly regarded and decisive for exchange and broadening ones horizon.

The foundation of the EU and the facilities this organisation provides had just begun to affect the profession. In particular the demand of mutual recognition of qualifications is an issue of importance triggered through the movement of professionals and students between member states of the European Union. A development that continues up until today.

Additional to professional associations, professionally oriented networks were founded to enable exchange, one example is the ELEE network; “European Landscape Education Exchanges” that has been established in 1985 in the UK. (Compare 3.4)[203]

While the first letters in between the founding members of IFLA are still available and are kept in the *Rene Pechere library* in Brussels, later international exchange and professional oriented cooperation, in particular since the start of using electronic communication, is less well documented. This is a sign that cooperative work became more “normal”.

6.2.4.1 (PERSONAL) EXPERTISE

First professors usually were not educated in landscape architecture but had obtained a degree in a related discipline. The first professor in Barcelona, *Manuel Ribas I Piera*, had graduated in law, *David Neave Skinner* (Edinburgh) was an architect who gained professional knowledge in landscape architecture in Ian *McHarg’s* practice in Philadelphia and later in his own practice. Arnold Weddle, the founder of the course in Sheffield, was an educated town planner and architect, who had qualified externally in landscape architecture, after which he taught landscape design at the Department of Civic Design in Liverpool. (compare 5.2)

Werner Volgmann, programme founder in Nürtingen, had a degree in forestry, *Rosemarie Pfeffer* was the person educated as a landscape architect at Nürtingen, she joined the programme in 1972 to teach planting design, one year after the formal start and some three years after the specialisation in landscape management was offered to students of agriculture. She had received her education and PhD at the Technical University of Berlin. (compare 5.2)

Below, the transition from a high level of influence of academics educated in related disciplines towards one of more academic staff “growing” from within the discipline itself, as the logical result of the increasing number degree programmes in landscape architecture.

The list of heads of departments of Istanbul University is an example of such a change in the education of teaching staff: (unfortunately such information is not easily available for all universities)

1985 – 1989	*Prof. Dr. Burhan Aytuğ*	*(Professor – Forest Botany)*
1987 – 1989	*Prof. Dr. Suad Ürgenç*	*(Professor – Silviculture)*
1989 – 1992	*Prof. Dr. Melih Boydak*	*(Professor – Silviculture)*
1993 – 1999	*Prof. Dr. Yalçın Özgen*	*(Professor – Landscape Architecture)*

[203] http://elasa.org/archive/archive1/YB94/YB94-24.html

1999 – 2002 Prof. Dr. Yahya Ayaşlıgil (Professor – Landscape Architecture)

2002 - conti. Prof. Dr. Adnan Uzun (Professor – Landscape Architecture)

(Eksi, M., 2008)[204]

The academic infrastructure necessary to enable an academic career leading to a full professorship was instrumental in allowing academic careers for graduates of landscape architecture. Once the possibility to study for a PhD in landscape architecture became available, landscape architects had an option for the academic career. PhD Programmes as formal institutions, with a defined set of taught courses are only now beginning to be established in some universities. However, there were also other obstacles for the young researchers compared to those of other disciplines with a longer academic tradition such as a shortage of subject related journals for publication and subject related academic conferences.

As a result of this lack in "academic infrastructure", when landscape architects with professional knowledge were involved in the implementation of a course, they sometimes were not afforded the status of full professors but accompanied a professor from another discipline as a professional partner with lower academic status.

An example of this situation can be found in Greece, where in 1974, the School of Architecture at the Aristotle University of Thessaloniki modules in landscape architecture were established by an architect, *Dimitris Fatouros* as professor and *Maria Ananiadou Tzimopoulou*, a professional landscape architect. (Bargianni E. 2007)[205]

The "academic landscape architect" was seen critically by the professional organisations, who outlined their demand for graduates that are educated in the professional knowledge of an applied subject rather than knowledge in research and scientific working. Further pressures for the development of landscape architecture research led to a broadening of the scope of scholarly activities within the discipline, with the development of such activities as applied research, research by design, historical scholarship and critical reflections on existing design projects.

In the late 70s and early 80s nature conservation became an issue for a wider public in Europe. Ecology and projects concerned with nature protection were increasingly included in curricula.

In *Nürtingen for example, a*t the beginning mainly foundation subjects together with agriculture were in the syllabus, in addition: geology, climatology, soil science, plant nutrition, plant protection, business administration, economics and techniques. Only after

[204] LE:NOTRE Rare Knowledge Questionnaire, Istanbul/TR by Eksi, M.,(2008)

[205] Landscape Architecture in GreeceTopos 58, Elissavet Bargianni (2007), e-mail correspondence with Elissavet Bargianni 2007

1972 planting design, and after 1973: drawing techniques and construction were taught. *University of Ljubljana* offered from 1971 on Landscape design, Landscape planning, Environmental and nature conservation, Landscape Ecology, Landscape Design and Landscape Planning as compulsory subjects in the syllabus.

Not only were the academic structures in development, there was also a growing body of literature (compare appendix) available for and from teaching and research. In addition to publications used all over Europe, there are examples for literature "imported" from countries with an existing programme (from France to Turkey, from Germany to the Nordic countries, from the UK to Slovenia…). The pioneers took the literature they used for their own education and applied or translated it in their newly founded courses. The rising number of teaching facilities and the growing research infrastructure significantly contributed to the availability of literature specific to landscape architecture.

Not only literature, teaching methods specific to the profession also developed further. Here in particular the kind of university (technical, art based, natural sciences based) had an influence on the teaching methods and the teaching infrastructure available. (laboratory available or not, botanical garden available or not, teacher capable of free hand drawing or not, studio teaching experience,…). The newly founded curricula consisted of lecture courses, practical courses (outside the classroom), studio courses and some had compulsory periods in practice. Some curricula in the then Eastern European block (e.g. Hungary and GDR) were influenced by the Soviet Union as Marxism was compulsory and reduced the actual number of teaching hours in landscape architecture.

6.3 REFLECTIONS ON THE PROGRAMME FOUNDATIONS 1990 – 2015

6.3.1 HISTORICAL BACKGROUND

The Soviet Union was dissolved in 1991, the failure of Glasnost and Perestroika to revive the situation in the Soviet Union resulted in its demise. Several Eastern European countries became independent upon the collapse of the Soviet Union. The Yugoslavia Wars began with demonstrations in Kosovo and lasted for 4 years.

Europe's nations, however, are faced with ageing populations and falling birthrates, making it increasingly challenging to sustain expensive programs of social services. As the twenty-first century began, the continent is redefining itself with multiculturalism, a strengthening of Europe's common economic policies and the formation of a European parliament. Communication is made easier as more and more people start using mobile phones and the internet.

After the Fall of the Iron Courtain in particular in former East Germany and Poland surface mining closed down and left devastated sites and areas, contaminated and with non-stable surface through the mines below. In joint efforts, landscape architects and other professions changed these sites into large landscape pars or lake areas. [206]

In the 21st century landscape changes towards the "energy revolution" are new areas for the profession. Solar Panels, agriculture for the sole aim of energy production rather than food production and the location of wind power stations are subject to professional debate and discourse. [207] The growing cities and shrinking population in rural areas is a challenge for the society and an opportunity for landscape architecture to provide professional solutions.

The profession is influenced not only by these new professional challenges. In particular the implementation of the four economic freedoms: free movement of goods, services, labor and capital within the EU has and impact on landscape architecture - from the point of view of the educational approach (Bologna) and from the professional side. It leads to pressure to harmonise professional education and professional recognition. Further EU regulations influence the profession through the implementation of legislation aimed at land management, nature protection or regional development.

[206] Küster H. (2013) „Geschichte der Landschaft", p359ff

[207] Küster H. (2013) „Geschichte der Landschaft", p383ff

6.3.2 PROGRAMME FOUNDATIONS

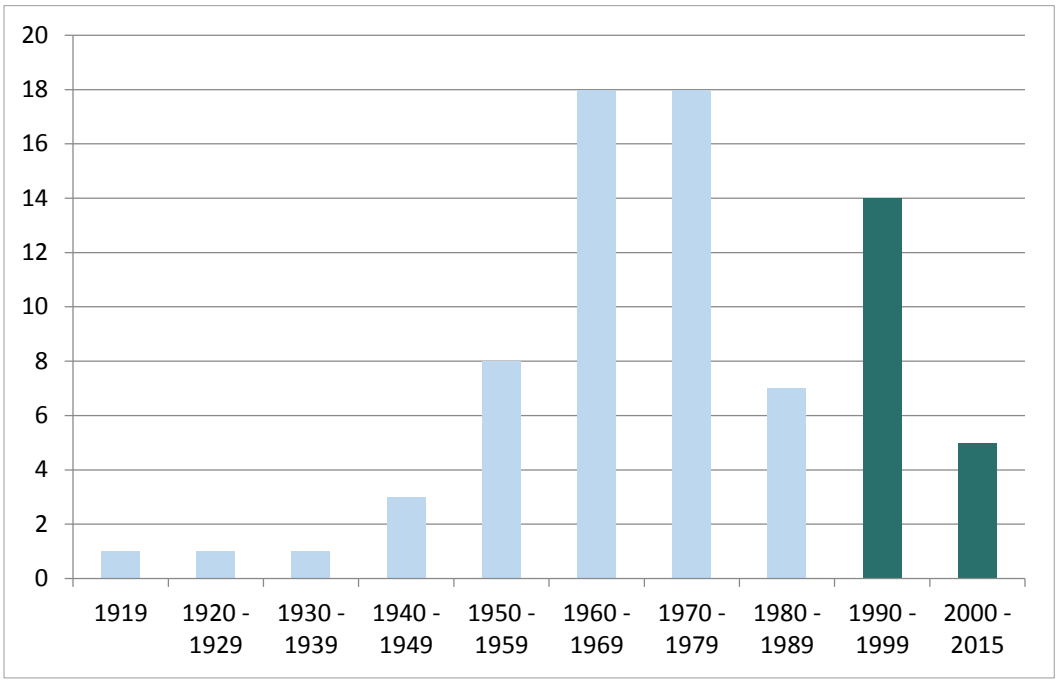


Figure 31: Foundation of Landscape Architecture Higher Education in Europe by decade, number of higher training institutions offering courses or full degree programmes

The period concerned is marked by a second rise in the total number of foundations with a total of 14 new programmes being established between 1990 and 2000.Landscape Architecture education facilities are still growing in number, and saw a second rise in the period following the fall of The Iron Curtain. Reasons for the second rise in the number of total programmes are to be found in the political changes after the Fall of the Iron Curtain which led to the reestablishment of a number of independent states in the territory of the former Soviet Union but also of former Yugoslavia. These new states found themselves without a proper education in landscape architecture and thus such programmes were established. As a consequence, the total number of courses grew significantly over the decade concerned.

During this period of time, international cooperation developed from being the result of personal commitment and interest of individual dedicated persons to become a mainstreamed activity taking place in a defined context. This development was driven largely by the policies within the European Union, in particular by the consequences of the aim of the EU to enable free movement of its citizens.

Apart from the EU also other internationally active bodies were influential on landscape architecture education and/or cooperation. One striking example is the edition of the

European Landscape Convention by the Council of Europe, as it defines landscape, and tackles both education and cooperation in landscape matters and strongly promotes international cooperation. However, these developments were not simultaneous but successive. They cumulatively came to support professional as well as educational cooperation which, to some extent, had already been established without them.

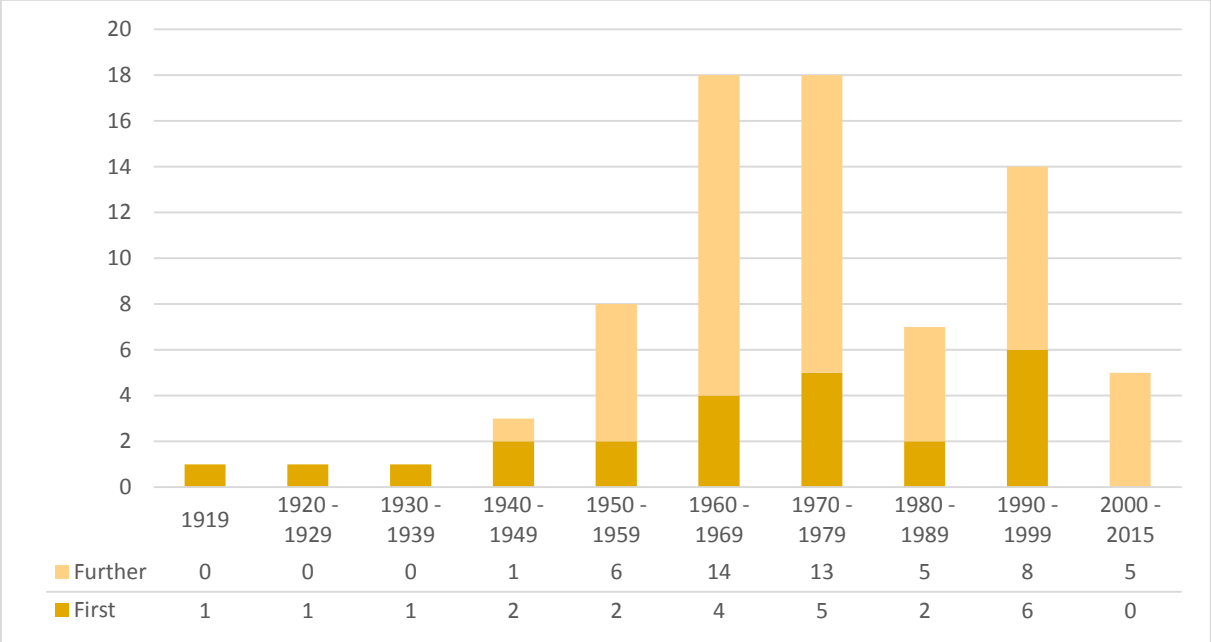


Figure 32: First and further foundations of landscape programmes in Europe

Landscape Architecture programme
founded in a country with existing programmes

Landscape Architecture programme
founded in a country with no existing programme

An additional aspect is visible in the table above, where “first” foundations in a state are outlined. Eight programmes were founded as additional programmes, 6 were founded as the first programmes in a country, which marks the highest number of first foundations in the whole period of time investigated.

6.3.3 EXPERTISE AND DRIVING FORCES

The general movement in the period of time is the establishment of environmental issues. This is visible in the foundation of environmental ministries, budgets dedicated solely to the environment on national and EU level and through the release of acts dedicated and concerned with the environment and regional development. Examples here are the acts concerned with environmental impact assessment and the many activities concerned with village restoration and regional change management.

The second rise we see in the overall number of programme foundations is based on political changes and higher education policy in some European countries.

This background is a driving force for the profession of landscape architecture calling for further persons educated and thus for more training facilities. The actual reason for foundations are however not only based on this demand but also based on regional development, for example support for a new university in eastern Germany has been released to back up regional development processes, the decision to found a landscape architecture programme at this particular new training station had reasons driven by the trend to environmental issues.

A further main driving force in this period of time is the development of IT and internet tools and facilities. P Healey (1996) describes the “communicative turn”, and how stakeholders in spatial planning change and allow influence for the general public. New online forums and arenas where spatial strategy-making takes place are incorporated in the existing planning tools. Further to this, IT tools allow visual renderings and support the visual understanding of citizens and thus support citizen involvement.

6.3.4 COOPERATION

The Bologna process required all universities to adapt their curricula to make them fit the Bologna regulations. This was a major development within Europe in the higher education area. Student’s mobility was encouraged through grants and scholarships, many students took the opportunities offered by the EU grants to study abroad for 6 to 12 months. Grants for staff exchange are also available and also grants to work on the European dimension of a subject area. This significantly contributed to the formalisation of international exchange and furthered joint actions and thus cooperative work. On the other hand, applications to research grants from the EU required international teams, so cooperative work was necessary even to gain research grants.

Through joint work within working groups set up by the various institutions involved, a series of documents relevant for the professional education have been prepared:

The IFLA/UNESCO Charter for Landscape. Architectural Education sets out Education Objectives and criteria for Landscape Architectural Education. It explains general considerations including educational ideals, mobility, and goals and educational objectives.

The creation of the IFLA Guidance Document for Recognition and Accreditation was the result of a long consultation process, and includes definitions, principles, standards, and modes of evaluation of schools in landscape architecture, and an administrative framework.

The European Landscape Convention, despite being written without any landscape architects being involved, has been instrumental in the further development of the discipline of landscape architecture as well as the profession. Apart from its definition of landscape, its

approach to landscape is different in that it does not make any distinction between urban and rural areas. It promotes public participation which has increasingly become an important field of work for landscape architects, as more and more planning projects involve public participation processes. However, as the Landscape Convention is a treaty of the Council of Europe and not the EU, and it is not obligatory for all members of the Council to sign and ratify it, although most member states of the EU (24 of the 28 at the time of writing) have chosen to do so. Due to the broadly based definition of "landscape" in the Convention, it is of high importance for the profession. In particular, the active approach to the landscape is outlined in the Convention text, where it says (Article 1 f): "Landscape planning means strong forward-looking action to enhance, restore or create landscapes."

International exchange and cooperation are easy compared to the previous time period. New facilities are enabled by social media specific for the profession landscape architecture, on social media platforms professional groups are formed, there are internet based platforms specific to the profession such as land8lounge or the LE:NOTRE Institute.

6.4 REFLECTIONS ON THE OVERALL ACADEMIC DEVELOPMENT

6.4.1 LANDSCAPE ARCHITECTURE AS ACADEMIC DISCIPLINE

Academic disciplines tend to be distinguished from one another by the subject matter which they deal with and the methods which they use. They are traditionally classified into the main categories of relevant disciplines: humanities, social sciences, natural sciences and arts. Landscape Architecture programmes were founded mainly at universities of natural sciences, some at technical universities and few at art universities. (compare list 7.3)

However, through these steps in establishing the subject area in the university world academic research began– a big step forward for the discipline.

Besides the definition of the body of landscape architecture's professional knowledge and expertise in the form of numerous curricula, a fully established educational programme should offer also the possibility of obtaining a higher education in the subject without using or adapting curricula of other subject areas. Compared to a non-academic education, the establishment of landscape architecture at universities brought landscape architecture and its representatives into the academic world and therefore into its system of accreditation and research evaluation. In due course, the subject's areas of development became academic research questions, landscape architecture became a university research topic. However, while landscape architecture has a long tradition of practice, it is, in comparison to disciplines such as medicine or law, a relatively new academic discipline.

The milestones of professionalisation do not explicitly outline the value of university research, but other works like Thomas S. Kuhn's book, *The Structure of Scientific Revolutions*,

describe the development of a 'normal science', which Kuhn defines as research based on scientific achievements.

He further outlines that the acquisition of a paradigm,[208] and the more esoteric type of research it permits, is a sign of maturity in the development of any given scientific field. Transformations of the paradigms are scientific revolutions, the successive transition from one paradigm to another via revolution the usual developmental pattern of mature science.

The question whether landscape architecture can be considered as a 'science' in the sense of Kuhn and whether it thus has a paradigm in the period concerned will remain unanswered in this study. Describing the history of other disciplines, he admits that the road to a firm research consensus is extraordinarily arduous. In the absence of a paradigm, or any candidate for a paradigm, all the facts that could possibly pertain to the development of a given science are likely to seem equally relevant.[209]

Kuhn refers to tangible facts and occasions from well-established professions such as physics, such substantial facts (temperature, pressure,…) as available in physics are not available in landscape architecture. However the maturity of landscape architecture as a 'science' in the sense of Kuhn was not a research question within this text and requires different methods and more work on the content of the lessons and the publications during the past 100 years.

What is evident from the survey done for this research is that landscape architecture is a subject area of unusual breadth, based on and using knowledge from both the creative arts and the natural sciences, while also incorporating aspects of the humanities and technology. Methods used were probably influenced also by the education the pioneers and first professors had. They all were taught in related disciplines and might have been expected also to apply knowledge and methods used there.

---

[208]He defined the term paradigm as follows: "Aristotle's Physica, Ptolemy´s Almagest, Newton´s Principia and Opticks, Franklin´s Electricity, Lavoisir´s Chemistry and Lyell´s Geology – these and many other works served for a time implicitly to define the legitimate problems and methods of a research field for succeeding generations of practitioners. They were able to do so because they shared two essential characteristics. Their achievement was sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity. Simultaneously, it was sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve. Achievements that share these two characteristics I shall henceforth refer to as paradigms."208

To be accepted as a paradigm, a theory must seem better than its competitors, but it need not, and in any fact does not, explain all the facts with which it can be confronted. The new paradigm implies a new and more rigid definition of the field. When the individual scientist can take a paradigm for granted, he need no longer, in his major works, attempt to build his field anew, starting from the first principles and justifying the use of each concept introduced.

[209] Kuhn. T. The Structure of Scientific Revolutions, Chicago, 1962, p.15

There are discussions about the extent to which landscape architecture is a discipline in Thomsons and Roes work. Thompson outlines the significance of the profession for the discipline. Roe argues that landscape architecture is rather a disciplinary field than a discipline.[210]

The different approaches within the subject area should also be mentioned. Landscape planning, landscape design and landscape management to some extent require different approaches and methods, and are summarised in the term *landscape architecture***,** which is also usually used nowadays to overcome linguistic problems of "the right name"

There were discussion in journals, at conferences and among academic and professionals on what to call the subject area (Garten und Landschaft, Discussions at meetings of the LE:NOTRE network). These discussion were a symbol of the subject area being about to define its own identity.

Also on national level discussions about the name (compare in German: Landschaftsplanung, Landschaftsökologie, Grünraumplanung,…) were significant steps in defining the scope of the profession.

However, finally the English term *Landscape architecture* was taken to name the profession, this coming from the United States and being already established there. The name of the profession in the various national languages still varies as can be read from the table below.

Table 6: Examples for the Name of the profession at universities in Europe

Country	Examples for the Name of the profession at universities in Europe
AT	Raum, Landschaft und Infrastruktur
AT	Städtebau, Landschaftsarchitektur
BE	Architectuur, Stedenbouw en Ruimtelijke Ordening
BE	Biowetenschappen en Landschapsarchitectuur
BE	Landschaftsarchitektur
BE	Vakgroep Geografie
BG	Urban Planning
BG	Landscape Architecture
CZ	krajinářské architektury
DE	Städtebau und Quartiersplanung
DE	Architektur
DE	Landschaftsarchitektur und Umweltplanung
DE	Landschaftsnutzung und Naturschutz
DE	Landbau/Landespflege
DE	Landschaftsarchitektur

[210] "While the landscape architecture profession can be seen as a discipline with a particular training, there is a strong case to say that landscape architecture research is not 'a' discipline rather a disciplinary field which uses many different methodologies and methods and examines many areas of interest that lie outside what may be relevant to the (generally applied) research interests of the landscape architecture profession"

DE	Landschaftsarchitektur und Gartenbau
DE	Landschaftsarchitektur und Umweltplanung
DE	Landschaftsplanung/ Landnutzung
DE	Agrarwissenschaften und Landschaftsarchitektur
DE	Landschaftsarchitektur, Umwelt- und Stadtplanung
DE	Landwirtschaft, Ökotrophologie und Landschaftsentwicklung
DE	Landschaftsarchitektur und Umweltplanung
DE	Landschaftspflege und Naturschutz
DE	Landschaftsökologie
DK	Økonomi, Skov og Landskab
DK	By og Landskap
EE	Pollumajandus - ja keskkonnainstituut
ES	Urbanisme i ordenacio del territori
ES	Producción Vegetal: Fitotecnia
FR	Paysage
FR	Social Sciences
GR	Oporokipeutica kai Ampelou
HR	Uređenja krajobraza
HU	Kert- és Szabadtértervezési
IE	Planning and Environmental Policy
IS	Umhverfisdeild
IT	Architettura
IT	Urbanistica e Pianificazione Territoriale
IT	Territorio e Sistemi Agro Forestali
IT	Agraria
IT	Architettura
LT	Urbanistikos
LV	Arhitekturas un buvniecibas
MK	Agricultural Sciences and Food
NL	Tuin en Landschap
NL	Landschapsarchitectuur
NO	Landskapsplanlegging
PL	Architektury Krajobrazu
PL	Architektury Krajobrazu i Agroturystyki
PL	Kształtowania Krajobrazu
PT	Arquitectura Paisagista
PT	Botanica
PT	Arquitectura Paisagista
RO	Peisagistica
RS	Poljopriveredni
RS	Arhitekturu i hortikulturu
SE	Landskapsplanering, Trädgård och Jordbruk
SE	Stad och land
SI	Krajinsko arhitekturo

SK	Krajinnej architektúry
TR	Peyzaj
TR	Peyzaj Mimarligi
TR	Peyzaj Mimarligi
UK	Landscape Architecture
UK	Landscape Architecture
UK	Landscape, Architectural Studies
UK	Architecture, Landscape & Design
UK	Human Dimensions
UK	Architecture & Construction, Design
UK	Architecture, Planning & Landsacpe
UK	Landscape

It is of remark that in areas of the same language (e.g. German) the names of departments in mother tongue vary significantly. There are two approaches towards these many names for one subject area, either the many names are an expression of ambiguity and missing definitions or they express the broadness of the subject area.

6.4.2 INTERNATIONAL EXCHANGE AND ACADEMIC DEVELOPMENT

The growing number of members of the landscape architecture academic community met at conferences. After the foundation of IFLA international conferences were an occasion to meet and exchange.

The conferences which took place before the 1970s were mainly the IFLA conferences, according to an internet search and an analysis of publications with references to and descriptions of early conferences. Conferences organised in context of associations often were reviewed in the associations' journals/newsletters and thus better recorded than others that might have also take place. There were no conferences concerned with landscape architecture found before 1900.

Until 1978 IFLA conferences took place every two years. From then on they were held every year. From 1980s on a rise in the number of international conferences can be seen (for a full list see appendix).

Conference titles reflected the main themes of the profession over time.

In the 1960s IFLA conferences had the following titles, mostly concerned with the role of the landscape architect:

1960 Space for Living

1962 The Landscape Architects Role in shaping tomorrows Landscape

1964 Landscape Architecture in human Life

1966 The Landscape Architect in Town and Landscape Planning

1968 The Role of the Landscape Architect in the Planning, Development and Conservation of non-urban Environment for Leisure

In the1970s environmental protection issues came up:

1970 Landscape Problems in Developing Countries, with special Reference to the Tropics

1972 The Gardener of the Earth is the Environments Healer

1974 Naturally Designed Environment

1976 The Role of the Landscape Architect in coastal area Management and Development

1978 Spontaneous Development of Human Settlements in Countries on their way to industrialisation: The Role of the landscape architect in Planning, and Development for an improved Quality of Life

1979 Landscape 2000 - Conservation or Impoverishment

In the 80s we see as IFLA titles:

1980 River and Lake Landscapes

1981The Frontier Landscape

1982 Australia - A challenge

1983 City - Nature – Future

1984 The Urban Fringe

1985 Seeking new Steps towards the creative Environment

1986 Rural Landscape Management - History, Contemporaries, Future

1987 Plaisir du Paysage

1988 International Perspectives, Collaboration and Communication

1989 The Realities of the Tropics - a challenge

Effects of the implementation of landscape architecture programmes at universities were various: not only were there graduates available, but the subject area as such was also influenced by the academic world and so also was the profession of landscape architecture.

Academic staff are dependent on the publication of their research output and thus publication facilities specific for the profession, such as high quality academic journals, are vital for academic careers. With the foundation of "Journal of Landscape Architecture" in 2006 by ECLAS, a new option for publications related to landscape architecture (methods?) only was available to academic staff. Only if such infrastructure is available can landscape architecture staff compete with academic staff of other disciplines.

The overall development was driven by the European history and changes in European societies. Not only the World Wars influenced landscape architecture contents (war cemeteries, railway building and building up after the war). The demand for more nature protection - visible also through the mass demonstrations in the 70s and 80s in context of the environment movement - was incorporated in national laws and thus furthered the professional development. In particular the development of the European Union influenced landscape architecture education both from the educational approach (Bologna) and from the professional side through the implementation of European directives aimed at land management, nature protection or regional development.

The situation of landscape architecture higher education today, was subject to the EU ERASMUS Programme funded project LE:NOTRE. Within the context of this project the network also took part in some of the activities of the so called "Tuning Project"[211]. As part of this, a report was compiled that describes in particular the competences that landscape architecture students should have once they obtained their degree. (Bruns 2011) [212] The legal background of landscape architecture higher education is outlined as follows:

[211]http://www.unideusto.org/tuningeu/

[212]Bruns D., de Vries J. Tuning Landscape Architecture Education in Europe, 2011

Landscape Architecture in the Bologna Process - Tuning" report

"Current first cycle Landscape Architecture programs in Europe range from 3 to 5 years and second cycle programs range from 1 to 4 years. In the Bologna agreement, there is a minimum for the first cycle of 180 ECTS and a minimum for the second cycle of 60 ECTS. Some schools feel that there is a need to have a comprehensive course that leads up to a master degree with a minimum length of 5 years. In some countries there are 4 years required within the context of formerly first cycle courses (like some of the Fachhochschulen in Germany); these lead to a level which might be higher than a 3 year first cycle level.

To acquire all competences needed to be a landscape architect a minimum of 300 ECTS of education in landscape architecture is mentioned. A master degree in landscape architecture (MA in landscape architecture, MSc Landscape Architecture, MLA) is taught to be the entrance level for recognition as a landscape architect in Europe. According to the developments in different countries the length of the courses could be temporarily shorter. First cycle programs should be at least 180 ECTS to acquire the basic competences (defined by knowledge, skills and attitude) for landscape architecture. The second (masters) cycle should be at least 120 ECTS. Part of the competences may be acquired by doing a traineeship or year-out at a landscape office."

213

'Mature' sciences, or those with well-developed paradigms, have clear and unambiguous ways of defining, ordering and investigating knowledge. At the opposite end of the scale are fields characterised by a high level of disagreement as to what constitutes new knowledge, what are appropriate methods for inquiry, what criteria are applied to determine acceptable findings, what theories are proven and the importance of problems to study.

In the period of time concerned various efforts were made to improve landscape architectures academic status. In particular the conferences were the profession itself was issue of consideration are to be outlined such as the Ljubjana conference 1992 where the aim was to define a theory of the profession to agree upon name and the scope of the profession.

6.4.3 LANDSCAPE ARCHITECTURE RESEARCH

For landscape architecture as an independent discipline, developing a body of knowledge and theory specific to landscape architecture is instrumental.

Landscape architecture research is widely based on existing theories and approaches from disciplines such as geography, ecology, archaeology and urbanism. Landscape architecture

[213]Bruns D., de Vries J. Tuning Landscape Architecture Education in Europe, 2011

researchers adapt and apply these existing methods and students learn to use them, which influences their thinking and approaches to landscape.

Simon Swaffield outlines three approaches to theory in landscape architecture in his book "Theory in landscape architecture: a reader"(Swaffield, 2002)[214]

According to him, theory can - as instrumental theory - generalize and codify knowledge, as basis for practical action. Typically instrumental theory is derived from empirical observations. Theory can also evolve from practical experience. The staged approach to site planning codified into a set of principles by Kevin Lynch and John Ormsbee Simonds is among the widely used methods in landscape architecture and is according to Swaffield a stable and coherent framework for the discipline. However Swaffield also emphasizes the critical role of theory challenging the so called "taken for granted" ways inviting for new ways of thinking. He refers to Elizabeth Meyers work as challenging the modern view of landscape as a largely passive setting for architecture and argues for landscape architecture as an autonomous design practice, expressing its own language of space and form. Also further critical theory such as James Corner's work outlines the active part of landscape architecture as profession compared to other professions concerned with the landscape.

Recent publications are concerned with the role research has for landscape architecture and the level of theoretical maturity for example in Gobster et al. (2010); Deming and Swaffield (2011); Brown and Corry (2011) work. They set out that landscape architecture may not always have been recognised as a research discipline.

These "landscape architecture internal" discussions (compare also Martin Prominskis and Ian Thompsons work) are a sign of a discipline undergoing development.

In their recent publication on *Research in landscape architecture – methods and methodology Adri van den Brink, Diedrich Bruns, Simon Bell* and *Hilde Tobi* outline that landscape architecture borrows methods developed and tested in other fields and that methods solely to landscape architecture were hard to identify in literature.

The body of knowledge in landscape architecture consists of written *and* visual documentation, in particular case studies are becoming increasingly common in landscape architecture research. Research through, by and for design is specific for landscape architecture and documented through projects. So landscape architecture links the scientific methods from the natural and technical sciences with the Arts.

Academic critique of projects has evolved as research practice within the discipline. Landscape architecture researchers examine the typical characteristics and potentials of a place and work on uncovering its genius loci and interpreting the complexity of nature. Time

[214]Swaffield Simon R. 2002, Theory in landscape architecture: a reader,

and transformation of the landscape, the movement and change of landscapes are specific for landscape architecture research.

Not only the landscape is in change, also theoretical approaches are in permanent transition. In between instrumental and critical theory in landscape architecture S. Swaffield sees the interpretive theory as the tool to help better understand a situation without necessarily changing it. None of these are exclusive or even stable over a longer period of time, changes in theory occur as it is shaped by particular people, for specific reasons, in particular places and at particular times.

6.5 REFLECTIONS ON COOPERATION

As outlined in chapter 3.7 we find the following kinds of cooperation in the past 100 years of landscape architecture professional and academic development

> *Cooperation in establishing a profession* (landscape architecture) involving all joint actions and activities that contribute to the profession's foundation.
>
> *Cooperation in establishing an academic discipline* (landscape architecture) - through specialisation within existing disciplines such as horticulture and architecture and evolved through discussions and research from a diffuse field of interest to a firm (but flexible) discipline with a body of knowledge and a clearly structured subject matter.
>
> *Cooperation in developing and evolving a discipline* (landscape architecture)- involving all actions related to content and knowledge, the joint effort to build a common body of knowledge and to develop accepted methods and paradigms specific for the discipline of landscape architecture

Specialist cooperation came in various forms (compare: 6.1.6 6.2.4 6.3.4) on a national and international level and on a personal and institutional level. Direct and indirect driving forces, long and short term activities required (and thus lead to) cooperative actions.

6.5.1 SMALL ORGANISATIONS WITH LARGE IMPACT

Through the establishment of ECLAS, EFLA and ELASA international professional cooperation had been institutionalised. These organisations provided a framework and tools for the academics and professionals as well as students. Within the context of professional organisations professionally oriented meetings took place both on national and international level, leading to exchange and cooperation for teaching and research.

The foundations all took place in the 1980s, so relatively late as national bodies existed considerably earlier. No hard facts were able to be investigated, but the assumption is that international exchange on general professional level took place through IFLA and only with the background of the development of a European common market and the exchange of students within Europe the European organisations were founded.

Professional associations were further concerned with their relation to associated professions (both in collaboration as well as about demarcation of clear boundaries), with contracting issues and with setting their parameters through defining professional knowledge, methods and working fields, as well as with education standards and mutual recognition of degrees.

But these organisations are neither well-funded nor do they have a strong inner organisation or management, according to the notes taken at the first meetings. But they are strong in so far, as all or most countries sent representatives and decision were jointly taken. These

organisations are multipliers of professional issues. So the large activities were always based on projects rather than (financially) carried through the organisations the effects of this combination of small offices and specific projects considerable.

6.5.2 ACADEMIC WORLD VERSUS PROFESSIONAL REQUIREMENTS

Landscape Architecture has been established as a programme of study at universities all over Europe as described above, and thus graduates have access to the professional job market. Graduates are recognised as having the same status in public administration as graduates of other professions.

Additional to working in private offices and the public sector, an academic career is open to graduates, scholarships for a PhD are probably available, becoming a teacher and/or researcher is an alternative career option (with a low number of vacancies and positions), which requires active approach to publications and excellence in research work – a challenge for many landscape architects given the low number of dedicated landscape architecture research journals and the low citation index level they are on, and together with the low number of research calls concerned with planning and design.

These different career options have influence on the profession as such: Young researchers are influenced by the driving forces coming from within universities and the academic community, which are usually different from the requirements of offices and the public body looking for staff. Employers ask for acquisition abilities, organisational aspects, marketing, and abilities in cost control or probably knowledge of juridical basics. On the other hand professionals are dependent on new methods and approaches developed at universities.

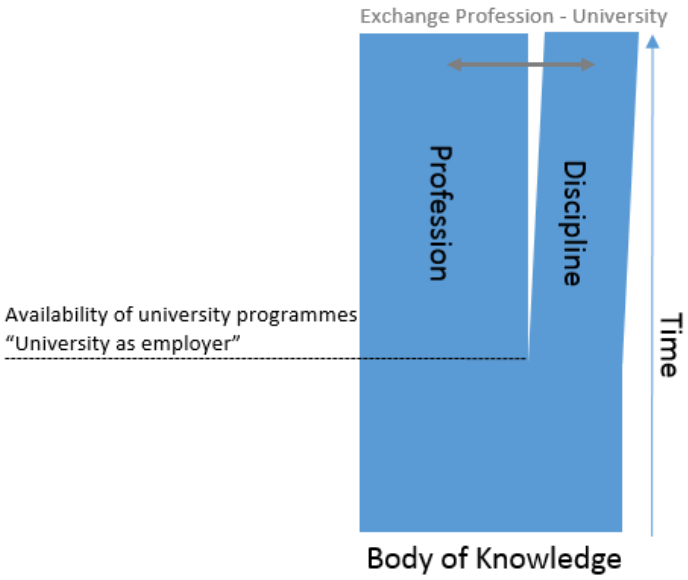


Figure 33: Professional and academic development

So there is a development visible over time of the profession being influenced by the demands coming from the market and by the demands coming from within the academic discipline, although the basis here and there is the same.

Based on the same body of knowledge, academic discipline and professional practice require different working methods and approaches. This drifting apart of the academic and the professional staff is enhanced by requirements of professional and academic accreditation, actual work content and conditions of working contracts, e.g. publication requirements for academic work. So the demands from the employer ("university" versus "professional practice") act as drivers in the split of professional landscape architecture and academic landscape architecture body of knowledge.

To compensate these divergent demands in the education phase, many university courses require compulsory internships at master level to link students to the professional world as soon as possible and to avoid the education for research work only. Internships offer insight into the actual working fields and processes, and are a valuable contribution to a student's education, but due to the low number of internship places generally available, students might have to work for free or under poor working conditions. Students nowadays are under pressure to finish the study course within the regular study period in order not to lose scholarships and social benefits, and may not question the actual quality of their internship working place and conditions, but rather just aim to get the internships done in time. A further example for interaction in between universities and professionals are active involvement of professional work in landscape architecture curricula through projects. For example students to design sites together with landscape office staff.

Research and practice oriented projects, (with funding from the EU or based on national funding) usually involve academic partners as well as a partners from professional practice. Landscape architecture academia and professionals thus cooperate in developing and evolving the discipline, but only within the boundaries that are set by financial considerations and conditions from the funding institution.

They cooperate in developing and evolving the discipline through the many single actions they take. Not all of these actions are meant to be collaborative actions, more often the focus of the action is to "have a good and challenging project" and to "solve actual problems related to the landscape". So distinction in between the personal motivation and the results of these actions is necessary, the focus is a matter of the point of view.

6.5.3 PERSONAL LEVEL VERSUS INSTITUTIONAL LEVEL

The various case studies presented in chapter 5 describe *cooperative actions* on a personal as well as an institutional level.

Institutions use partnerships to promote student and staff mobility in a targeted manner, for example through joint and double degree programmes. Cooperation with the “right partners” can help institutions increase their local identity and public attention, which subsequently benefits their recruitment activities.

Institutional partnerships also offer great potential in terms of the more effective application of research funding and facilities. Universities as well as research institutions seek to work with strategic partners to set up individual partnerships in important target countries or concerning specific themes. Institutions are also initiating network-based cooperation initiatives.

On an institutional level, joint projects have contributed to enhancing the quality and innovativeness of learning and teaching, to developing new curricula, building bridges between the different sectors of education and to fostering more intense forms of cooperation to achieve modernization.

Cooperation at a personal level tends to be influenced more by considerations of building one's own career, an academic career or professionally oriented career. The table below provides examples of cooperative actions in context of professional organisations:

Table 7: Personal and institutional cooperative actions

Personal	Institutional
Joint work of persons with comparable aims (e.g. pioneers to support each other, the first international conferences being organised, the foundation of international professional organisations (IFLA; ECLAS; ELASA),…)	Free support of one institution by another - through the exchange of knowledge e.g. the support by UMB Aas for the foundation of the programme in Latvia, Compare: 3.7
Unpaid work/advice for a colleague in the same or another country (based either on personal friendship or based on a formal commitment in between two universities) This can be subject related advice as well as joint work on a funding bid	Exchange of staff and students (e.g. in the process of a new programme implementation compare for example staff exchange in between Norway and Latvia, or invitations of relevant experts by the university in Ljubljana to strengthen the theoretical development of the profession
Contributions to national or international conferences (the cooperative aspect is providing data for others)	Running of national or international events (conferences, workshops,...) these events strengthen the own academic profile and provide a floor for the presentation of research outcomes for others
Sharing of teaching material (e.g. through joint teaching and research or by making teaching material public via the internet)	Providing the tools and a platform for sharing of teaching material (for example through membership in the LE:NOTRE institute)
Submitting a research paper to a professional journal (the cooperative aspect is providing concise and well elaborated research outcomes for others, new research outcomes enable colleagues to base their research on it and to subsequently build on the professional body of knowledge)	Running a professional academic journal with focus on the discipline for example The Journal of Landscape Architecture that has been founded by the universities with a degree programme in landscape architecture through ECLAS and with support from the LE:NOTRE project
Personal active membership in a national or international professional organisation (investment of time and efforts for the international community by single persons)	Membership and active participation in a national or international professional organisation (for example through a membership in ECLAS, the financial support from the universities to ECLAS enables ECLAS to proceed work on international level)
Lobbying for the profession within the own organisation including negotiation of membership in international professional organisations (for example university departments outlining the activities ECLAS/IFLA/ELASA sets, explaining the advantages and benefits a membership brings to the next hierarchical level within a university)	Lobbying for the profession on national and international level (from small national entities up to the relevant DGs of the European Commission)
To stand up against political or administrative tendencies that restrict or limit international exchange, and to work “fair” with colleagues from abroad	To ensure that staff is allowed to work on the international level by providing all necessary resources and conditions

A change is evident within the total process of professionalisation. While earlier subject specific exchange on university level was based on personal commitment on the part of individuals and took place either on bi-national level or included only specific, neighbouring countries, the foundation of professional organisations and international professional organisations as well as European Programmes for academic exchange provided the necessary preconditions for Europe wide exchange.

6.5.4 HARMONISATION VERSUS INDIVIDUALISATION

The European Union's foundation had major impact on cooperation in landscape architecture academia.

In due course with the development of the European Union, an institutionalisation of international exchange took place and thus cooperation changed significantly. The Bologna Process, a process that originally started without EU involvement, to then be adapted by the commission, intends to improve the mobility of students and teachers. In order to support the European cohesion policy incentives for mobility were set, for example through the establishment of a system of comparable standards in university degrees. This was supported by promoting cooperation between universities with regard to quality assurance and the consolidation of higher education in Europe. In context of the Bologna Process the "Dublin Descriptors" documents have been edited outlining all competences a student has to have achieved on Bachelor, Master and PhD level, which led in a further step to the need to reverse all European curricula to make them comply the Bologna standards.[215]

However, in a more and more competitive context, university administrations want to keep their (probably?) locally influenced characteristics and their own identity, and do not want to appear to be interchangeable with any other European university. They want to be chosen by students for their good reputation and particular emphasis on selected themes. Too much harmonisation and standardisation in higher education, in particular for an education that has impact on the local landscape is to be called into question. The danger of the "EUROGRADUATE" that designs, maintains and develops landscape in the same way all over Europe, ignoring the local history and landscape patterns is presented as the danger of too much cooperation and harmonisation.

The EU funded project "Tuning Educational Structures in Europe" developed thus the approach to define and describe subject specific competences without describing or defining *how* to acquire these competences. Through this approach individualism in teaching is possible, while a set of competences for the comparison of academic degrees throughout Europe is available.

For example the use of design techniques based on the functional and aesthetic attributes of natural material is what landscape architectural practice has in common throughout Europe.

[215]http://www.ond.vlaanderen.be/hogeronderwijs/bologna/ accessed June 2008

While teaching and working content e.g. geology, has to be dealt with on local level, methodology and approach are internationally valid.

Landscape architecture is an academic subject and as such its methods ought to be valid independent of time and place. The common understanding is based on research outcomes and the current paradigm - which are internationally recognised. Landscape architecture as a relatively small subject area profits in particular from cooperation as a certain critical mass of persons similarly educated and working on comparable projects or teaching the same subject can only be reached at international level.

6.6 REFLECTIONS ON THE PROFESSIONAL DEVELOPMENT

The section on professionalisation focuses on the significance the establishment of landscape architecture programmes had for the development of the landscape architecture profession.

Professional development is the subject of a theory of professionalisation and consists of the many, uncoordinated and various single activities of professionals. As a group (but without necessarily knowing each other or intending to do so) all landscape architects fulfilled *the development of a profession* as outlined in the *milestones of professionalisation*.

Professionalisation broadly follows the following stages in either the chronological order set out below or in a different sequence (compare 2.1.7).

- *It becomes a full-time occupation*
- *The first training school is established*
- *The first university school is established*
- *The first local association is established*
- *The first national association is established*
- *The codes of professional ethics are introduced*
- *State licensing laws are established*[216]

Figure 34: The milestones of professionalisation

Following the thoughts above, taking all landscape architecture graduates as one group and thus landscape architecture as one single subject area in Europe it is possible to test to which extend this subject area has fulfilled the milestones of professionalisation in Europe. The following table shows whether and when these milestones were fulfilled by "landscape architecture":

Table 8: Overview Landscape Architecture and the milestones of professionalisation

Step in Professional Development	Fulfilment	Role of cooperation in this process
Landscape Architecture became a full-time occupation	Yes, offices and positions called "landscape architect" were available	
The first training school was established	Yes, On 1 March 1824 the Gardener Academy in Schöneberg and Potsdam, Germany was opened by Peter Josef Lenne.	Peter Josef Lenne took many study trips outside Germany to gain knowledge and experience, the actual foundation was possible though his political influence and contacts
The first university school (in Europe) was established	Yes, In Aas, Norway in 1919 the first academic education was opened to the public. (Followed by many more…)	Olav L Moen as the first professor was a person with international experience, having worked and studied abroad. He

[216]Wilensky, H. L. 1964: The professionalization of everyone? The American Journal of Sociology, 70, 2,137-158

		was influenced by the first university programme in Harvard. The actual foundation was supported by the national, political situation
The first local association was established	Yes, local associations were founded, as national professional organisations	Proponents of local association met and exchanged on professional issues locally, on national level and later on international level
The first national association was established	Yes, Associations were formed either by first graduates of a newly founded course or they probably derived from horticulture associations and were instrumental in the formation of a university degree programme	Proponents of national association met and exchanged on professional issues locally, on national level and later on international level
The codes of professional ethics were introduced	Yes, professional organisations provided control of ethics, through a code of practice to which members were required to follow. This can either be membership in a chamber and membership in national and international professional organisations. Codes are controlled by other members of the profession[217]	International cooperation and exchange is indirectly a tool to ensure quality control. Professional organisations are national groups, regulations and political tasks are based on national laws, however membership in e.g. EFLA ensures international exchange of professional organisations and quality control through accreditation done by EFLA
State licensing laws were established	Yes and No, landscape architecture is not a fully established profession in all European countries, but where it is the necessary legislation exists	Failure to recognise landscape architecture as an independent profession lead to more efforts by national and international professional organisations (EFLA, ECLAS)

Landscape architecture as a field of professional activity and an academic discipline is concerned with conscious and active shaping of the outdoor environment at various scales. While other academic disciplines also have their focus on the study of a wide range of different aspects of landscapes, it is the central focus of landscape architecture, which is concerned with active intervention in the landscape through means of planning, design and management. Core competences of an academic discipline refer to those distinctive capabilities that give it its specific characteristics and thereby distinguish it from other disciplines.

These competences are reflected in study programme's curricula and are set out in publications by Professional organisations such as the "ECLAS Guidance on Landscape Architecture Education" by ECLAS[218].

[217] An example for the UK is here http://landscapeinstitute.org/PDF/Contribute/CodeofConduct-May2012.pdf accessed July 2016

[218]http://www.eclas.org/accreditation-advice.php accessed 27. July 2012

So landscape architecture as a profession has passed most of the steps of professional development. But the profession as such is broad and has undefined boundaries and in some cases varied titles. These blurred boundaries of the profession are obvious for example in a publication of the European Science Foundation, an *Analysis Report on Peer Review Practices*, (European Science Foundation, 2011) where it is mapped under the heading of "Social Sciences" (as landscape design) and under "Architecture and Design" (as landscape architecture) under "Urbanism and Physical Planning" (as landscape planning) under "Architecture and Urban Environment" (as landscape planning) and under "Agriculture" (as landscape architecture)

Unfortunately, as a result of this, the profession is facing problems in market access when working internationally. These problems are essentially based on the alleged non-existence of the profession of landscape architecture in the host member state.

Landscape architecture is, for example, found on national lists of academic disciplines but is not accepted in all European countries as an independent field. This may be because representatives of other disciplines claim the work of landscape architects as their own, or that national organisations fail to represent the professional and academic knowledge of landscape architects effectively. Italy and France[219] are countries where landscape architecture has struggled to become accepted as an independent field of study, in Poland landscape architecture was deleted from the list of majors for some years after the Fall of the Iron Curtain but has since been reinstated.

As *Swaffield* sets out in *Social Change and the Profession of Landscape Architecture in the 21st Century*, (Swaffield, S 2002)[220]) two significant trends in landscape architecture profession are evident. As a result of increasing pressure on professionals coming from a combination of a changing, open market with constantly changing customer needs, client taste and new employment modes, professionals need to redevelop, adapt and reinvent their skills and competences. He describes the necessity of professionals to go deeper into niches and to specialise in a smaller market in order to survive. The consequent increase in the diversity of professional activity raises the question of the ability of a profession to maintain the internal cohesion that leads to a differentiation from other professional bodies. On the other hand, he argues that the fragmentation of established structures, norms and values that challenge the profession lead to a need for an enhanced sense of professionalism. The new professionalism then focuses less on technical and more on the ethical basis for professional action.

In his paper *Is Professionalisation Always to be Desired?* (Grossman A. 2003) *Andrzej Grossman* describes the current trends similarly to S *Swaffield*, but adds a further attribute to this process – professionals are frequently also clients: "More practitioners, including

[219]Compare Donadieu, P. Is Landscape architecture an academic discipline? www.topia.fr, accessed 6. July 2010

[220] Swaffield, S (2002) Social Change in the Profession of Landscape Architecture in the Twenty-First Century, Landscape Journal21, pp 183-189.

those in the established professions, are working in managed, employed or multi-disciplinary environments where there is a trend towards higher specialisation. Specialisation also brings with it more potential jurisdictional tensions within and between professions. Work on international projects is demanding the involvement of business professions such as accountants, lawyers and bankers, and more practitioners are looking to practise in countries other than the ones in which they trained and were licensed to practise. Professionals, too, are increasingly becoming clients or their clients' gatekeepers to professional services."[221]

Landscape Architecture is a profession and aspects of professions apply to landscape architecture.

The current main aim of all professional bodies in Europe is thus to position landscape architecture on the chart of professions that are recognized according to the EU Qualifications Directive (2005/36/EC)[222]. Qualifications in the EU are recognised through this Directive, which sets out recognition of professions in European Union member states. This will only be possible for landscape architecture when it is recognised as a profession in all European Union countries.

According to the EFLA report "*Modernising the Professional Qualifications Directive*" [223] the profession of Landscape Architecture is developed in different levels in European countries. There are countries with a long tradition and countries where the profession is very young. Therefore the status of the profession across Europe is very different. There are countries where

Stage 3: the title is protected, a state registration is obligatory and at least on certain projects, clients have to use a state registered professional
Stage 2: the title is protected, no state registration
Stage 1: title is not protected but allowed
Stage 0: Landscape Architects are not even allowed to use such a title

Recent activities of the EFLA and ECLAS include a proposal for the integration of the profession of Landscape Architecture into the regime of automatic recognition via Common Training Frameworks (Art. 49a) and Common Training Tests (Art. 49b) of the Proposal COM (2011) 883 final. The reference to the assessment of Educational Standards via the European Qualification Framework (EQF) under Art. 49a remains incoherent and EFLA and ECLAS have

[221]Grossman A. 2003 for The Royal Society for the encouragement of Arts, Manufactures & Commerce, Is Professionalisation Always to be Desired , http://www.rsa.org.uk/acrobat/Grossman.pdf

[222]http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:en:PDF accessed

[223]http://europe.iflaonline.org/administrator/components/com_tadr/files/20/120208EFLA_PQD_Report.pdf accessed on 27. July 2012

asked for it to be replaced by reverting to the system of Art. 11 PQD (Professional Qualifications Directive). [224]

6.7 FUTURE

Much has been achieved in the period of time covered by this study. Landscape Architecture evolved from being a hobby or a personal occupation of only a few well educated or interested persons to a subject area with many and various teaching and research options all over Europe and professional organisations on national and international level

Landscape architecture has developed into a profession with a specific body of knowledge, which is more and more often included in calls for tenders as compulsory partner. The interested society is aware of the benefits the profession provides.

The profession has developed a research infrastructure with a broad literature and subject specific journals of high quality, both academic and professionally oriented.

The full establishment of landscape architecture as a profession in its own right in all European countries still requires the efforts of the professional organisations and will most likely take place in the future. This will then enable the profession to be added to the chart of professions that are recognized according to the EU Qualifications Directive (2005/36/EC).

The quality of teaching and research in future will be influenced by whether and how international cooperation takes place. Here the blurring of fixed disciplinary boundaries will be more evident with funding programmes demanding multi-disciplinary teams rather than experts all from one profession.

The tools available today for “easy” international cooperation and exchange are various and enable cooperation with low costs and efforts. The *LE:NOTRE Institute* serves as a model for such communication formats. However, the local context and the specific interpretation of the local landscape is seen to be of high value in these times of globalization.

Due to the increasing awareness on the high importance of the landscape also in future landscape architecture will be in competition with other subject areas which work on and shape the landscape.

This competition also has influence on the financial support available for maintaining the many teaching and learning facilities currently available. As a result, landscape architecture researchers, teachers and professionals will have to remain active in promoting the profession as capable of solving the current tasks in landscape and urban planning and environmental protection.

[224] http://www.bdla.de/aktuell/news/552-efla-position-paper-related-to-the-professional-qualifications-directive accessed August 2015

Future research

As a result of the research done for this study new areas for future research can be derived.

While data on foundation dates, first professorships, literature and international cooperation has been mapped other data relevant for the development of teaching landscape architecture is still unknown.

It was not possible to investigate the content of the many landscape architecture programmes and all methods used for teaching in detail. So the actual teaching content and in particular the change of teaching contents over time all over Europe would of course also be an interesting research field. The assumption might be that teaching content varies dependant on the kind of university (technical, life science based or art based) and changed over time towards more landscape architecture related subjects and less basic subjects. With detailed data it is possible to explore which themes were relevant from the beginning on and which themes were added later on and whether there have been subject areas that were taken out of the landscape architecture university education?

Apart from a concise summary of teaching contents and the change of these teaching contents over time a survey on the change of teaching methods would be a further valuable research task. This might be accompanied by an overview of the change of maps, drawings and IT related forms of landscape architecture related illustrations and models.

Another issue is the change of professions as such. *Richard* and *Daniel Susskind* describe in their book "*The future of the professions*" the recent loss of relevance of professions and the tendency to a "self-service" professional working with instructions provided by internet sites. This development is supported by new technical devices for interior design and garden design offering professional services on a general level.

Is landscape architecture subject to such a change, will the services of landscape architects be provided by "self-service apps", that do a perfect design on demand? This is subject to future research.

Another interesting subject to research is of course the development of the subject area in areas other than Europe. Interesting areas might be Asia, as it is a well developing area with a growing market for landscape architects. Is the model for professionalisation that has been applied here and are the models developed in this study also relevant and applicable there?

7 APPENDIX

7.1 QUESTIONNAIRE FORM

Rare Knowledge from the Modernist Period of Landscape Architecture Education - History of the development of landscape architecture courses in Europe

The aim of the output is to document the development process of landscape architecture study programmes in Europe with the main focus on the initiation and implementation of the curricula. The history of academic landscape architecture education goes back to lectures in garden design in Budapest in 1907, the first full course in landscape architecture and professorship in Garden Art in 1919 in Aas, following landscape architecture lectures in Copenhagen in 1921 and a full course in Berlin in 1929. Landscape architecture programmes were finally started all over Europe up to more than 100 universities offering education in landscape architecture today.

Reasons for opening new courses are various and so are procedures until a university is finally able to accept students in landscape architecture. This progress with universities offering new courses, others closing their courses, is so far not documented at the European level.

Through interviews with persons who were involved in this process or are familiar with it the "rare knowledge" of how each single course was established and which persons, organisations or political tendencies influenced these processes, will be collected.

Interviews with 'Pioneers of European Landscape Architecture Education'

The person to be interviewed

The implementation of a new degree programme at a university is not an easy task. Still, there are persons and initiatives who have managed to implement landscape architecture as a new subject area at universities.

So far in research about how programmes where set up bibliographies and obituaries where good sources, not only because of good data, but because they describe how influencing such a task is for the whole life of a person.

If available, such persons, who have worked themselves on the implementation of a new study course in landscape architecture would be the ones we call "Pioneers of landscape Architecture".

Probably you are this person yourself? Probably you will have to find the person concerned and help to overcome language barriers.

There are also persons who have done research in this and have tried to investigate the roots of their education. In case the above described person cannot be interviewed, please try to interview persons who have collected the necessary knowledge.

Please feel free to make more than one interview. The interview should be documented in English language.

The interview

The results of the interview should be a description of the history of the implementation as well as a "story". This is why the questionnaire consists of two parts.

The first part is intended to be a free text, to describe the history of the implementation of the study programme. The format of a story may give space to include the main question "what have the pioneers to teach us"

The second part asks for data only.

We would be glad to get supporting documents such as pictures or probably a video of the interview from you. Pictures or documents that are concerned with the implementation of the study programme are welcome.

1. Please investigate for your university who the pioneer(s) of landscape architecture education were and send us a short e-mail with the name of the person

2. Please fill in the questionnaire form and send it to barbara.birli@tuwien.ac.at

The results of this initiative will be accessible through the LE:NOTRE web site

Questionnaire – Part 1:

Name of the 'Pioneer of European Landscape Architecture Education

Please describe the development step by step; from first initiatives, first lectures to the legal establishment of the study programme and beyond describing all persons and associations involved.

Please focus in particular on:

Where did knowledge for the development of curricula came from?

Was there a (supporting) background from a change in society?

What did you actually teach? (Keywords)

Which teaching methods were used?

Which books/journals/articles where most important?

What were your most important sources?

What were your inspirations?

Was international cooperation of any help in this process?

Questionnaire – Part 2:

Please try to investigate all answers for then to follow research work.

Date of approval of first professorship in Landscape Architecture

Name of first professor

Date of launch of first department of Landscape Architecture

Date of legal establishment of full programme

Subject area of first lectures

Books and Journals used for early teaching

Kind of university where programme was established

When did your university become a member in an international association concerned with landscape architecture (EFLA, ECLAS, IFLA,…)

7.2 LIST OF NON INVESTIGATED UNIVERSITIES

In alphabetical order

University Name	Location
Ataturk University	Erzurum
BANAT`S University of Agricultural Sciences and veterianry medicine,	Timisoara
Bartin University	Zonguldak
Canakkale Onsekiz Mart University	Canakkale
Catholic University of Lublin	Lublin
Estonian Agricultural University	Tartu
G. d´Annunzio University	Pescara
HTW Dresden (University of Applied Sciences)	Dresden
Kalecik Vocational School Ankara University	Ankara
Kingston University London	Kingston London
Lviv Politechnic National University	Lviv
Moscow State University	Moscow
National Academy of Sciences of Ukraine (UNAS) Lviv	Lviv
Politecnich of Milan - 1st Architecture Faculty	Milan
Reggio Calabria Mediterranean University	Reggio Calabria
Selcuk University	Konya
Silesian University of Technology	Gliwice
Technical University Delft	Delft
Technical University in Eindhoven	Eindhoven
Technical University of Szczecin	Szczecin
Trakya University	Tekirdag
Ukrainian State University of Forestry and Wood Technology	Lviv
Universität Dortmund	Dortmund
University College Dublin	Dublin
University Kaiserslautern	
University of Applied Sciences	
University of Applied Sciences Eberswalde	Eberswalde
University of Duisburg-Essen	Essen
University of Padua	Padova
University of Perugia	Perugia
University of Porto	Porto
University of studies of Rome "La Sapienza"	Rome
University of Turin. Faculty of Agriculture	Grugliasco Torino
University of Warmia and Mazury	Olsztyn
University of York	York
University Paderborn	Paderborn
Univesity of Florence	Firenze
Vilnius Gediminas Technical University	Vilnius
Writtle College	Chelmsford
Wroclaw Academy of Agriculture	Wroclaw

7.3 TABLE OF FOUNDATION DATES

University name	Location	Foundation Year
Norwegian University of Life Sciences	Aas/NO	1919
TFH Berlin-University of Applied Sciences	Berlin/DE	1929
University of Reading	Reading/UK	1932
Agronomy High Institute; Lisbon Technical University	Lisbon/PT	1942
Wageningen University	Wageningen/NL	1948
Newcastle University	Newcastle upon Tyne/UK	1949
University of Applied Sciences Osnabrueck	Osnabrück/DE	1950
University of Forestry Sofia	Sofia/BG	1951
University of Hannover Universität Hannover	Hannover/DE	1952
Erasmus University Brussels Erasmushogeschool Brussel	Brussel/BE	1956
Hogeschool Gent	Gent/BE	1956
Hortec	Vilvoordae/BE	1956
University of Applied Sciences Weihenstephan Fachhochschule Weihenstephan	Freising/DE	1956
Technical University of Munich Technische Universität München - Weihenstephan	Munich/DE	1957
The Royal Veterinary and Agricultural University Den Kongelige Veterinær- og Landbohøjskole	Frederiksberg/DK	1960
University of Belgrade Univerzitet u Beogradu	Belgrade/CS	1960
University of Gloucestershire	Gloucestershire/UK	1960
Corvinus University of Budapest Faculty of Landscape Architecture Budapesti Corvinus Egyetem Tájépítészeti Kar	Budapest/HU	1963
Edinburgh University	Edinburgh/UK	1963
The Royal Academy of Fine Arts Kunstakadamiets Arkitektskole	Copenhagen/DK	1963
Aarhus School of Architecture Aarhus School of Architecture	Aarhus/DK	1965
Manchester Metropolitan University	Manchester/UK	1965
Ecole Speciale d´Architecture des Jardins (private) Paris	Paris/FR	1966
Hammersmith School of Art and Design	Leeds/UK	1966
Leeds Metropolitan University	Leeds/UK	1966
University of Duisburg-Essen Universität Essen	Essen/DE	1966
University of Manchester	Manchester/UK	1966
Coovi-Phits	Brussel/BE	1968
Haute Ecole Lucia de Brouckere Institut Arthur Haulot	Brussel/BE	1968
ISI Institut superieure Industriel	Gembloux/BE	1968
University of Greenwich	London/UK	1968
University of Sheffield	Sheffield/UK	1968
Dresden University of Technology	Dresden/DE	1970
University of Applied Sciences Lullier	Jussy/FR	1970

Amsterdam Academy of Architecture /Academie van Bouwkunst	Amsterdam/NL	1971
Kassel University	Kassel/DE	1971
National School of Higher studies in Nature and Landscape Architecture	Blois cedex/FR	1971
Swedish University of Agricultural Sciences, SLU(Alnarp) Sveriges Lantbruksuniversitet	Alnarp/SE	1971
University of Central England in Birmingham	Birmingham/UK	1971
University of Applied Sciences Nürtingen /Fachhochschule Nürtingen	Nürtingen/DE	1972
University of Applied Sciences Rapperswil	Rapperswil/CH	1972
University of Ljubljana /Univerza v Ljubljani	Ljubljana/SI	1972
Vienna University of Technology/ Technische Universität Wien	Vienna/AT	1972
Castillo de Batres School of Landscape Architecture and Gardening /Castillo de Batres Escuela de Jardineria y Paisajismo	Madrid/ES	1973
INH Institut National d´Horticulture Angers /INH Institut National d´Horticulture	Angers/FR	1973
Polythecnic University, Madrid. Master in Landscape Architecture/ Universidad Politécnica Madrid	Madrid/ES	1973
Edinburgh College of Art	Edinburgh/UK	1974
Swedish University of Agricultural Science /Sveriges Lantbruksuniversitet	Uppsala/SE	1977
The Versailles National School of Landscape Architecture /Ecole Nationale Supérieure de Versailles	Versailles/FR	1977
Cukurova University, Department of Landscape Architecture /Çukurova Üniversitesi	Adana/TR	1981
University of Natural Resources and Applied Life Sciences, Vienna /Universität für Bodenkultur	Vienna/TR	1981
Ege University /Ege Üniversitesi	Bornova-İzmir/TR	1982
Istanbul University	Istanbul/TR	1985
Polytechnic University of Catalonia /Universitat Politecnica de Catalunya	Barcelona/ES	1986
Helsinki University of Technology /Teknillinen korkeakoulu	Helsinki/FI	1988
Larenstein University /Hogeschool Larenstein	Velp/NL	1988
University of Palermo /Universita degli Studi di Palermo	Palermo/IT	1990
Bilkent University	Ankara/TR	1991
School of architecture and landscape of Bordeaux /Bordeaux Ecole d´Architecture et du Paysage	Talence/FR	1991
Anhalt University of Applied Sciences /Fachhochschule Anhalt Abteilung Bernburg	Bernburg (Anhalt)/DE	1992
University of Applied Sciences Erfurt /Fachhochschule Erfurt	Erfurt/DE	1992
National School of Higher studies in Nature and Landscape Architecture /Ecole Nationale Superieure de la Nature et du Paysage	Blois cedex/FR	1993
Latvia University of Agriculture /Latvijas lauksaimniecîbas universitâte	Jelgava/LV	1993

FH Neubrandenburg, University of Applied Sciences /Fachhochschule Neubrandenburg	Neubrandenburg/DE	1993
Slovak Agricultural University in Nitra /Slovenská poľnohospodárska univerzita v Nitre	Nitra/SL	1995
University of Zagreb, Agricultural Faculty, Dept. of Landscape Architecture /Agronomski fakultet Sveucilišta u Zagreb	Zagreb/HR	1996
Mendel University of Agriculture and Forestry Brno /Mendelova Zemědělská a Lesnická Universita v Brno	Brno/CZ	1997
University of Agronomical Sciences and Veterinary Medicine /Universitatea de Stiinte Agronomice si Medicina Veterinara	Bucharest/RO	1998
University of University of Tras-os-Montes e Alto Douro	Vila Real/PT	1998
Warsaw Agricultural University /Szkola Glówna Gospodarstwa Wiejskiego	Warszawa/PL	1998
Akdeniz University /Akdeniz Üniversitesi	Antalya/TR	2000
University of Genova /Università degli Studi di Genova	Genova/IT	2000
Istanbul Technical University School of Architecture	İstanbul/TR	2002
Slovak Technical university /STU Bratislava	Bratislava/SL	2003
Hafen City University	Hamburg/DE	2006

7.4 CONFERENCES OF INTERNATIONAL ASSOCIATIONS (INCOMPLETE)

Year	Title/Association			
1935	International meeting by Association Belge des Architects de Jardins (ABAJ) during the Brussels Exposition Universelle at Internationale			
1936				
1937	June Paris " First international Congress of Garden Architects" during "Exposition Internationale des Arts et Techniques dans la Vie Moderne" (May- November)			
1938	Berlin Second International Conress of Landscape Architects hosted by Alwin Seifert coinciding with "12. Internationaler Gartenbaukongress"			
1939	Zurich "Third International Congress of Garden Art" coinciding with Swiss national Exhibition "Landi" "Schweizerische Landesausstellung" from 6. May to 29.October on "Lebensraum eines Volkes"			
1940				
1941				
1942				
1943				
1944				
1945				
1946				
1947				
1948	London Conference August 9.-11 "The Work of the Landscape Architect in Relation to Society"			
1949				
1950	II IFLA congress Madrid, September 20-24 Art and Utility in the Landscape			
1951				
1952	III IFLA Congress, Stockholm, SE, July 13-15 An Idea and its Realisation			
1953				
1954	IV IFLA Congress, Vienna AT, June 8-11 International Landscapes			
1955				
1956	V IFLA Congress Zurich CH, August 19-23 Landscape in Contemporary Life			
1957				

1958	VI IFLA Congress, Washington D.C. USA July 2-4			
1959				
1960	VII IFLA Congress Amsterdam, NL June 19-22 Space for Living			
1961				
1962	VIII Congress Haifa, ISRAEL, June 28-30, "The Landscape Architects Role in shaping tomorrows Landscape"			
1963				
1964	IX IFLA Congress Toky and Kyoto JP, May 13 - 16, Landscape Architecture in human Life			
1965				
1966	X IFLA Congress, Stuttgart, DE, June 6-12, The Landscape Architect in Town and Landscape Planning			
1967				
1968	XI IFLA Congress, Montreal CA, June 15-20, The Role of the Landscape Architect in the Planning, Development and Conservation of non urban Environment for Leisure			
1969				
1970	XII IFLA Congress, Lisbon PT, September 6-11, Landscape Problems in Developing Countries, with special Reference to the Tropics			
1971				
1972	XIII IFLA Congress, Brussels BE, September 4-7, The Gardener of the Earth is the Environments Healer			
1973				
1974	XIV IFLA Congress, Vienna Austria, June 16-22, Naturally Designed Environment			
1975				
1976	XV IFLA Congress Istanbul, TR, September 6-9, The Role of the Landscape Architect in coastal area Management and Development			
1977				
1978	XVI IFLA Congress, Salvador, Brazil, September 25-28, Spontaneous Development of Human Settlements in Countries on their way to industrialization: The Role of the landscape architect in Planning, and Development for an improved Quality of Life			
1979	XVII IFLA Congress, cambridge, UK, September 4-5 Landscape 2000 -			

	Conservation or Impoverishment			
1980	XVIII IFLA Congress, berne CH, September 8-11, River and Lake Landscapes			
1981	XIX IFLA Congress, Vancouver, CA, July 28-31, The Frontier Landscape			
1982	XX IFLA Congress, Canberra, AUS, September 5-11, Australia - A challenge			
1983	XXI IFLA Congress, Munich, West Germany, Augsut 31-September 3, City - Nature - Future			
1984	XXII IFLA Congress, Siofok HU, September 26-29 The Urban Fringe			
1985	XXIII IFLA Congress, Tokyo and Kobe, JP, May 27 - June 1, Seeking new Steps towards the creative Environment			
1986	IFLA - ICOMOS International Conference, Warsaw, PO, June 26-23, Rural Landscape Management - History, Contemporaries, Future			
1987	XXIV IFLA Congress Paris, FR, September 1-4, Plaisir du Paysage			
1988	XXV Congress Boston, USA, July 16-19, International Perspectives, Collaboration and Communication	International Conference Rotterdam, NL, May 9-11, Changing Agriculture, changing landscapes	Central region symposium, Athens GR, September 23-26, Aesthetic and functional Values in landscape Design	
1989	XXVI IFLA Congress, Manila, Philipines, May 25-29, The Realities of the Tropics - a challenge	IFLA - Central Region Symposium, Moscow and Leningrad, USSR, August 28 - September 2, Protection and Restoration of Historic Monuments and Landscape Ensembles		1st European Landscape Universities Conference Berlin
1990	XXVII IFLA Congress, Bergen NO, August 30 - September 1, The Landscape of Coastlines and Fjords	IFLA - Central region symposium, Oporto, PL, May 17 - 20, Tourism and Landscape Management		2nd European Landscape Universities Conference Vienna
1991	XXVIII IFLA Congress, Cartagena Colombia, August 16 - 19, Cultural dimensions of the Landscape	IFLA Central region Symposium, Lilongwe, malawi, April 2-5, Landscape Architecture Education and Training in Africa	IFLA Eastern Regional Conference Singapore, May 31 - June 2 Landscape Architecture in developing Countries, Conservation, Recreation and Tourism	3rd European Landscape Universities Conference Wageningen
1992	XXIX IFLA Congress, Seouls-Kyung, korea, August 31-September 4, Tradition and Creation in the Landscape	IFLA Central region Symposium, Vienna AT, May 6-10, Garden - City - Landscape		ECLAS Conference Ljubljana 27th - 28th August, Concepts in Landscape Architecture
1993	XXX IFLA Congress, Cape Town, South Africa, August 31- September 3, Landscape Architecture for developing countries - Focus on Africa		IFLA Eastern region Conference, Bali, Indonesia, November 15 - 19, Shaping the regional Landscape	ECLAS Conference Alnarp 19th - 24th August The teaching of design and planning
1994	XXXI IFLA Congress, mexico City, mexico, June 3-5, Metropolis: Landscape Architecture and Ecology	IFLA International Seminar, nairobi, Kenya, February 23 - 26, Education in landscape Architecture in Africa	6th Eastern Regional Conference, Taipei, Taiwan, November 6-10, Quality environment for the 21st century: Establishing green	ECLAS Conference Edinburgh 11th - 13th August The local context in landscape teaching and research

			and blue-belt networks in the city	
1995	XXXII IFLA Congress, Bankok, Thailand, October 21-24, Tourism development and landscape change		7th Eastern Regional Conference, Christchurch, New Zealand, March 5-9, Views and visions - a response to Pacific Tourism	ECLAS Conference Barcelona
1996	XXXIII IFLA Congress, Florence, IT, October 12-25, Paradise on earth - The Garden of the 21st. century	IFLA International Seminar, Moscow, RU, may 27 - 31, Training and Improving the qualification standards of Landscape Architects in the CIS countries	8th Eastern Regional Conference, Hong Kong, December 11- 14, Urban explosion in Asia - a review	ECLAS Conference Brussels
1997	XXXIV IFLA Congress, Buenos Aires, Argentinia, October 8-11, Recreation and Landscape - The re-created landscape			ECLAS Conference Haifa Multicultural aspects of landscape education...
1998	XXXV IFLA Congress, bali, Indonesia, October 8-11, Landscape architecture/Quest for the Future, rsponsibilities, challenges and opportunities	Central region symposium, Athens, Greece, September 8-10, Art and Landscape		ECLAS Conference Vienna 17th - 20th September, Urban landscapes and city regions
1999	XXXV Congress, Copenhagen, DK, June 26-29, Danish Landscape Architecture		9th Eastern regional Conference, Yang-yang, Korea, October 17 - 20, New Directions for 21st century landscape architecture	ECLAS Conference Berlin 23rd - 25th September Landscape Architecture between Convention and Utopia
2000	XXXVII IFLA Congress, san Jose, Cost Rica, September 30 - October 3, Conservation and Ecotourism		10th Eastern Regional Conference, Awaji island, Japan, August 30 - September 2, Regional landscape Architecture - strategy in a global century	ECLAS Conference Dubrovnik 21st-24th September Landscape of the Future - The Future of Landscape
2001	38th IFLA World Congress, Asian Places in the New MillenniumSingapore, 26-29 June 2001			ECLAS Conference Velp 13th-16th September, Integration of infrastructure and Landscape Architecture
2002	39th IFLA World Congress From Landscape Past to Landscape Future in Tel Aviv, Israel, in October 7-10 2002			ECLAS Conference Budapest 12th-15th September, Landscape Architecture in the developing urban regions
2003	40th IFLA World Congress Landscapes on the Edge in Calgary May 25 – 29 2003			ECLAS Conference Lisbon Modernism and the evolution of landscape architecture education and professional practice
2004	41 th IFLA congress Integration And Harmony In Landscape Architecture Taipei, Taiwan 4-12 September			ECLAS Conference Aas 16th – 19th September Critique, Outdoor Lightning
2005	42th IFLA Congress Edinburgh,Scotland 26-29 June Landscape leading the way			ECLAS Conference Ankara 14 to 18 September Landscape Change
2006	43rd IFLA World Congress 2006 ASLA Annual Meeting & EXPO Minneapolis, United States of America 6-9 October, Green Solutions for a blue Planet			ECLAS Conference Bratislava Cultural Dimensions of the Urban landscape
2007	44th IFLA2007 World Congress EDEN-ing the Earth			ECLAS Conference Belgrade - Landscape Assessment - From Theory to Practice:

	Kuala Lumpur & Putrajaya, Malaysia 27-31 August 2007			Applications in Planning and Design
2008	45th IFLA World Congress Transforming with Water Apeldoorn June 30 - July 3			ECLAS Conference Alnarp - New challanges in landscape planning, design and management
2009	46th World Congress Green Infrastructure: High Performance Landscapes Rio de Janeiro on October 21-23, 2009			ECLAS Conference Genova - Landscape and Ruins - Planning and design for the regeneration of derelict places
2010	47th IFLA World Congress Harmony and Prosperity - Traditional Inheritance and Sustainable Development Suzhou, China from 28-30 May 2010			ECLAS Conference Istanbul - Cultural Landscapes
2011	48th World Congress Scales of Nature : From Urban Landscape to Alpine Gardens Zürich, Switzerland - June 27-29			ECLAS Conference Sheffield Ethics and Aesthetics
2012	49th World Congress Landscapes in Transition Cape Town, South Africa - September 7-9			ECLAS Conference Warsaw "The Power of Landscape"
2013	50th World Congress Shared Wisdom in an Age of Change Auckland, New Zealand - April 10-12			ECLAS Conference Hamburg specifics
2014	51st World Congress Thinking and Action: EarthHome & LandSpace; Ideas, Strategy and Action Buenos Aires, Argentina - June 4-6			ECLAS Conference Porto A place of cultivation

7.5 LIST OF LITERATURE RESOURCES EXTRACTED FROM SURVEY CONTRIBUTIONS

The following titles were named as remarkable for the foundation in the questionnaire forms submitted

7.5.1 JOURNALS

Journal „Garten und Landschaft“

Journal of Urban and Landscape Planning

Journal: Nas Vrt, Zagreb, Croatia"

Journal “Topos”

7.5.2 BOOKS

Berall.JS. (1966) The Garden : An illustrated history, Viking Press, NY

Burke G.L. (1956) The Making of Dutch Towns

Charageat Marguerite (1962) L’art des jardins. Vendôme, France,

Church Thomas, (1955) Gardens Are for People, Reinhold Publishing Corp., New York,

Clark, Kenneth (1949): Landscape into Art

M. Laurie; An Introduction to Landscape architecture.

Le Corbusier (1946) Propos d’urbanisme

D. Lovejoy: Land Use and Landscape Planning,

D. Ogrin: Zelenje v našem okolju

Die Friedhofbiebel

E. Sereni, (1961) Storia del paesaggio agrario italiano, Bari

Eckbo,G. (1950) Landscape for Living

Edelman C.H. (1950)

Fabos, GJ. Middle Tg, Weinmayr MV. 1968 Frederick Law Olmsted, Sr: Founder of Landscape Architecture in America, University of Massachusetts Press

Fariello F. (1967) L’architettura dei giardini, Roma

Gothein, Marie-L. „Geschichte der Gartenkunst“

Gromort, G. (1934) L’art des Jardins. Ed. Vincent, Fréal & Cie, Paris,

I. McHarg (1969) Design with Nature,

Iliescu, Ana-Felicia (1998) Arboriculture. Ed. Ceres, Bucureşti,

Itoh, Teiji, (1973) Space and Illusion of the Japanese Garden. Weaherhill/Tankosha, NY-Tokyo

Ivanchev, I. (1965) Parks perspective, Sofia

Jellicoe, Geoffrey and Susan (1975). The Landscape of Man. Thames & Hudson;

Kārlis Barons „Dārzu māksla”Krajinsko planiranje, Zbornik (Landscape Planning, Proceedings),

Landscape architectural graphic standards / Leonard J. Hopper

Landscape architecture: A Manual of site planning and design / J. Ormsbee Simonds

Landscape ecology / Richard T.T. Forman

Landschaftspflege und Naturschutz in der Praxis,

Lange, Willy & Otto Stahn: Gartengestaltung der Neuzeit

Loxton, H. – The Garden. David Bateman Ltd., London, 1"

Lynch Kevin, (1973) Site Planning, MIT Press, Cambridge, Massachusetts.

Mac Harg, Ian L. (1971), Design with Nature, Doubleday/Natural History Press, Garden City, NY

Mordini A (1966),. Porcinai P., Giardini d'Occidente e d'Oriente, Milano

Newton, Norman, T (1971) Design on the Land: The Development of Landscape Architecture. Belknap Press, Cambridge, Massachusetts

Nourry, Jean-Pierre (1971, 1973). Art e Technic des Jardins –

P. Shepheard: (1953) Modern Gardens,

Prof. Dr. Alexis Chencine (1946), "Park and Garden Art" (Styles, Projects and Techniques), Besalet Pamay "Parks, Gardens and Landscape Architecture"

Schiller Hans, Gartengestaltung;

Schnitler, Carl W. Norske Haver

Sestini A., (1963),Il Paesaggio, Touring Club Italiano, Milano

Shangov, B. (1945), Garden architecture. Design analysis, Sofia.

Shterev, S. (1965), Parks architecture, Sofia.

Simonds, J. (1961), Landscape Architecture: A Manual of Site Planning and Design

Sorensen C.Th. Parkpolitik I Sogn og Kob

Stoychev, L. (1960), Parks and landscape art, Sofia.

Sugarev, D. (1947), Parks and Gardens. Lecture notes in brief, Sofia.

Sugarev, D. (1953) Parks and Gardens. Lecture notes, 2nd ed. Sofia.

Sugarev, D. (1956), Karlovo yards from the period of revival, BAS, Sofia

Sugarev, D. (1960), Parks and Gardens, Sofia.

Tobey, B. George, (1973), A History of Landscape Architecture: The relationship of People to Environment. American Elsevier Publishing Company, Inc. NY

Tomes I et II. Bailiere; Coutanceau, Maurice (1957). Encyclopedie des jardins. Paris,;

Udall, L. Steward, (1972), The National Parks of America. Country Beautiful Corp. Wisconsin"

Залеская, В. (1969), Ландшафтная архитектура, Будывельник, Киев

Залеская, В.(1964), Курс Ландшафтной архитектуры, Москва

Иванчев, И. (1965), Паркова перспектива, София

Саймондс, Д (1965), Ландшафт и архитектура, перевод с английского, Москва

Стойчев, Л. (1960), Парково и ландшафтно изкуство, София

Сугарев, Д. (1947), Паркове и градини. Записки, съкратен лекционен курс, София

Сугарев, Д. (1953), Паркове и градини. Записки, лекционен курс, София

Сугарев, Д. (1956), Карловските дворове от епохата на възраждането, София

Сугарев, Д. (1960), Паркове и градини. София

Шангов, Б. (1945), Градинска архитектура. Анализ на проектирането, София

Щерев, Щ. (1965), Паркова архитектура, София

7.6 NAMES REGISTER[225]

Ahmet Cengiz Yildiczi

IstanbulTR

Landscape Architecture Higher Education Programme Founder TU Istanbul, Professor

---

Alina Scholtzowna

1908–1996

WarsawPL

Founder of IFLA 1948 from Poland

Alwin Seifert

1890 - 1972

MunichDE

Professor TU Munich, self educated landscape architect

Participant, First International Congress of Garden Architects, Paris 1937, from Germany

Host of the Second International Conress of Landscape Architects, Berlin, 1938

Ana Felicia Iliescu

*1942**

BucharestBG

Landscape Architecture Higher Education Programme Founder at University of Agronomical Sciences and Veterinary Medicine Bucharest, Professor

---

Arnold Weddle

1924-1997

SheffieldUK

Landscape Architecture Higher Education Programme Founder Unversity of Sheffield, Professor

[225]The names register has been compiled based on the names in the case studies, using various sources such as the interviews and literature and the internet such as “The Oxford Companion to the Garden, 2006” Edited by Patrick Taylor to add birth dates and to verify the data provided in the interviews

_____

Audur Sveinsdóttir

*1947**

BorgarnesIC

Landscape Architecture Higher Education Programme Founder Borgarnes, Professor

_____

Brenda Colvin

1897 - 1981

GloucestershireUK

President of the Institute of Landscape Architects

Founder of IFLA 1948 from the UK

_____

Brian Hackett

1911-1998

Newcastle-upon-TyneUK

Landscape Architecture Higher Education Programme Founder, Professor

_____

Carl Ludwig Schreiber

1903-1976

Munich DE

First Professor Technical University Munich

_____

Catharina Polak-Daniels

1904-1989

Den Haag NL

Founder of IFLA 1948 from the Netherlands

_____

Ciril Jeglič

1897-1988

Ljubljana SL

Professor and Head of the Department of Horticulture and Landscape Dendrology at the Ljubljana Faculty of Agriculture, Forestry and Veterinary Medicine

---

Christopher Tunnard

1910 - 1979

LondonUK

Landscape Architect, Professor, Author

Participant, First International Congress of Garden Architects, Paris 1937, from England

---

David Neave Skinner

1928-1989

EdinburghUK

Landscape Architecture Higher Education Programme Founder, Professor

---

Dušan Ogrin

*1929**

LjubljanaSL

Founder of the Programme at the Biotechnical Faculty in Ljubljana, on the postgraduate level in 1972 and on the undergraduate level in 1976

Among the Founders of ECLAS

Elise Sorsdal

1912-

Oslo/KristiansandNO

Norwegian Landscape Architect and Teacher

Founder of IFLA 1948 from Norway

Ellef Grobstok

1891-1979

OsloNO

Norwegian Landscape Architect, educated in Berlin

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Norway

---

Erwin Barth

1880-1933

Lübeck/BerlinDE

Garden Architect, first Professor at TU Berlin

head of the horticulture department in Charlottenburg and Berlin

committed suicide under Nazi regime

Ferdinand Duprat

1882-1974

ParisFR

Participant, First International Congress of Garden Architects, Paris 1937, from France

Founder of IFLA 1948 from France

Franciszek Krzywda-Polkowski

1881-1949

WarsawPL

Founder of the department of landscape architecture and parks science, SGWW Warsaw/PO in 1930

Geoffrey Jellicoe

1900 - 1996

LondonUK

Founder of IFLA 1948 from the UK

First President of IFLA

Georg Belà Pniower

1896-1960

BerlinDE

Landscape Architect, Professor Berlin

Professional landscape Architect, threatened by Nazi regime, had to stop working

---

Gudmund Nyeland Brandt

1878 - 1945

CopenhagenDK

Teacher of garden art at the Royal Academy of Fine Arts, School of Architecture, Copenhagen, from 1924 - 1941

Gustav Ammann

1885 -1955

Zürich CH

Participant, First International Congress of Garden Architects, Paris 1937, from Switzerland

Organiser 3rd International Congress of Garden Architects, Landi 1940,

---

H.F. Clark

1902 - 1971

Edinburgh UK

Participant, First International Congress of Garden Architects, Paris 1937, from England

---

Hanns Thierolf

1887-1933,

Worms DE

head of the communal parks department in Worms, comitted suicide under Nazi regime

---

Heidrun Schniedewind

Neubrandenburgh DE

Landscape Architecture Higher Education Programme Founder, Professor

---

Helmut Lührs

*1959**

Neubrandenburgh DE

first Professor

Hermann Mattern

1902 - 1971

Hofgeismar/Kassel DE

Landscape Architecture Higher Education Programme Founder, Professor

Participant, First International Congress of Garden Architects, Paris 1937, from Germany

---

Herta Hammerbacher

1900 - 1985

Berlin DE

Landscape Architect, Professor at TU Berlin

Holger Blom

1906 - 1996

Stockholm SE

Founder of IFLA 1948 from Sweden

Hugo A C Poortman

1858—1953

Founder of The Vereniging voor Tuin en Landschapskunst, Bond van Nederlandse Tuinarchitecten (Netherlands Association of Landscape Architecture, NVTL

Imre Ormos

1903 - 1979

Budapest HU

Landscape Architecture Higher Education Programme Founder, Corvinus University, Professor

---

Jacek Rybarkiewicz

*1944**

Gliwice PL

Landscape Architecture Higher Education Programme Founder,Silesian University of Technology, Professor

---

Jan Bijhouwer

1898–1974

Wageningen NL

Founder of the study programme at the Agricultural University of Wageningen

---

Jan Supuka

*1959**

Nitra CZ

First Professor Technical University in Zvolen, later Professor in the course in Nitra

---

Jaques Greber

1882 – 1962

Paris FR

Chief architect of the 1937 First International Congress of Garden Architects, Paris

---

Jean Caneel-Claes

1909-1989

Auderghem BE

Belgian landscape architect

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Belgium

Participant, First International Congress of Garden Architects, Paris 1937, from Belgium

---

Jean Grelier

*1947**

Blois FR

first Professor Ensnp Ecole Nationale Supérieure de la Nature et du Paysage Blois

Jean-François de Boiscuillé

*1941**

BloisFR

Landscape Architecture Higher Education Programme Founder, head, Ecole Nationale Supérieure de la Nature et du Paysage

---

Jules Buyssens

1872-1958

Fort-Jaco BE

Belgian landscape Architect, co-founder of the Belgian Association of Garden Architects

Participant, First International Congress of Garden Architects, Paris 1937, from Belgium

Participant, First International Congress of Garden Architects, Paris 1937, from Belgium

---

Juris Skujāns

*1952**

Jelgava LV

Landscape Architecture Higher Education Programme Founder, Professor

---

Karsten Jorgensen

*1953**

Aas NO

Professor, involved in setting up the programme in Latvia, founding member of Jola

---

Konrad Mayer

1901 - 1973

Hannover/Salzderhelden bei Einbeck DE

first Professor

Loutrel Briggs

1893 - 1977

Charleston,USA

Founder of IFLA 1948 from the USA

Ludwig Lesser

1869-1957

Berlin DE

Named to be the first German self employed landscape architect

had to leave Germany after having been president of the Deutsche Gartenbau-Gesellschaft 1923 to 1933

Luis Riudor Carol

1906-1989

Barcelona ES

Founder of IFLA 1948 from Spain

Magne Bruun

*1932**

Aas NO

Professor, involved in setting up the programme in Latvia and Iceland

---

Manuel Ribas i Piera

1925 – 2013

Madrid ES

Landscape Architecture Higher Education Programme Founder, Professor

---

Maria Teresa Parpagliolo

1903-74

Rome IT

Participant, First International Congress of Garden Architects, Paris 1937, from Italy

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Italy

---

Maurice Thionnaire

FR

Founder of IFLA 1948 from France

Mehmet Sabaz

*1950**

Bartin TR

First Professor Bartin University

_____

Michael Oldham

*1946**

London/Chalet Les Chouettes UK

First President of EFLA

_____

Michel Boulcourt

*1959**

Blois FR

first Professor, École nationale supérieure de la nature et du paysage de Blois

_____

Mike Downing

London UK

First President of ECLAS

Consultant for the foundation of an education at the University of Agronomical Sciences and Veterinary Medicine Bucharest

President of EFLA

_____

Olav L Moen

1887 - 1951)

Trondheim NO

Founder of the study programme in Aas/NO

First Professor of the study programme in Aas/NO

_____

Osman Karagüzel

Antalya TR

first Professor, Akdeniz University/TR

Otto Valentien

1897 – 1987

Berlin DE

Landscape Architect, Author, Artist

Participant, First International Congress of Garden Architects, Paris 1937, from Germany, Organiser International Congress of Garden Architects, Berlin 1938, Berlin

---

Paul Olsson

1890 – 1973

Helsink iFI

Founder of IFLA 1948 from Finland

Garden Architect, son of Svante Olsson - first head gardener of the City of Helsinki

---

Pavol Vreštiak

Nitra CZ

Landscape Architecture Higher Education Programme Founder, Professor

---

Rene Pechère

1908 - 2002

Brussels BE

Founder of IFLA 1948 from Belgium

Landscape Architect in Belgium, France and The Netherlands

Participant, First International Congress of Garden Architects, Paris 1937, from Belgium

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Belgium

---

Pietro Porcinai

1910–1986

FlorenceIT

Founder of IFLA 1948 from Italy

Participant, First International Congress of Garden Architects, Paris 1937

Prentice Mawson

1885 – 1954

Ambleside UK

First Landscape Architecture Lecturer at The University of Reading

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from the UK

René Latinne

1907 - 2003

Antwerp BE

Founder of IFLA 1948 from Belgium

Garden Architect and professor at the gerdeners school in Vilvoorde

---

Robert Manners Moura

*1942**

Tras os Montes PT

Initiator of the Landscape Architecture Higher Education Programme in Tras os Montes/PT

Søren Carl Theodor Marius Sørensen

1893 – 1979

Copenhagen DK

Danish Landscape Architect, Book author

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Denmark

Participant, First International Congress of Garden Architects, Paris 1937, from Denmark

---

Sven Hansen

1910 – 1989

Copenhagen DK

Founder of IFLA 1948 from Denmark

Editor of Havekunst Landskab

Sven Hermelin

1900–84

StockholmSE

Swedish Landscape Architect

Participant, First International Congress of Garden Architects, Paris 1937, from Sweden

---

Sylvia Crowne

1901 – 1997

Sussex/LondonUK

Founder of IFLA 1948 from the UK

President of the Landscape Architects Institute of

Ulla Bodorff

1913 - 1982

StockholmSE

Swedish Landscape Architect running her own office

Participant International Congress of Garden Architects, Berlin 1938, Berlin, from Sweden

---

Walter Leder

1893 -

CH

Founder of IFLA 1948 from Switzerland, second president of IFLA

Walter Mertens

1885 - 1943

ZürichCH

Participant, First International Congress of Garden Architects, Paris 1937, from Switzerland

Participant and Organiser International Congress of Garden Architects, Berlin 1938, Berlin, from Denmark

---

Werner Bauch

1902-1983

DresdenDE

First Professor Dresden TU

Landscape Architect in former GDR

Werner Volgmann

NürtingenDE

Landscape Architecture Higher Education Programme Founder, Professor Nürtingen

---

Yalçın Özgen

IstanbulTR

First Professor Landscape Architecture Istanbul University

Bodfan Gruffydd

1910–2004

CheltenhamUK

Landscape Architecture Higher Education Programme Founder, University of Gloucestershire

---

7.7 LIST OF EUROPEAN DIRECTIVES INFLUENCING LANDSCAPE ARCHITECTURE

Policy / Programme/ Initiative	Description	Link to Landscape Architectre
Water Framework Directive (2000/60/EC)	Commits member states to achieve good qualitative and quantitative status of all water bodies. with the objectives of preventing and reducing pollution, promoting sustainable water use, protecting the aquatic environment, improving the status of aquatic ecosystems and mitigating the effects of floods and droughts. The WFD will ultimately require the management of river catchments to ensure the protection of water resources.	Landscape Architects are amongst other professions concerned with the management and redesign of river systems and nature protection
Thematic Strategy on the Urban Environment (COM(2005)718)	The Strategy aimed to bring together EU action on urban environment issues, focusing upon synergies between other EU policies and training/dissemination of best practice. It makes limited reference to ensure sustainable urban design via appropriate land use planning, helping to reduce urban sprawl, loss of natural habitats and biodiversity. It is commented that integrated management of the urban environment should foster sustainable land-use policies which avoid urban sprawl and reduce soil-sealing. The Urban Environment Thematic Strategy, however, has no legislative weight in its own right.	Landscape Architects are amongst other professions concerned with the development of urban regions
Flood risk management Directive *(2007/60/EC)*	This measure requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. Member States are required to develop flood management plans taking account land use, water and soil management.	Landscape Architects are amongst other professions concerned with the management of the protected land
Addressing the challenge of water scarcity and droughts in the European Union *(COM(2007)414)*	This Communication represents an initial set of policy options to increase water efficiency and water savings. It highlights the importance of land use planning and the better management of river catchments.	Landscape Architects are amongst other professions concerned with the management of the protected land

Policy / Programme/ Initiative	Description	Link to Landscape Architectre
EIA Directive (97/11/EC)	Directive on the assessment of the effects of certain public and private projects on the environment, amending Directive 85/337/EEC. The EIA procedure ensures that environmental consequences of public and private projects are identified and assessed before authorisation is given. The public can give its opinion and all results are taken into account in the authorisation procedure of the project. Direct and indirect effects of a project on the following factors are considered: human beings, fauna and flora; soil, water, air, climate and the landscape; material assets and the cultural heritage.	Landscape Architects are amongst other professions concerned with the assessment procedure
SEA Directive (2001/42/EC)	The Directive requires authorities to undertake an environmental assessment of certain plans and programmes which are likely to give rise to significant effects on the environment.	Landscape Architects are amongst other professions concerned with the assessment procedure
Habitats Directive (92/43/EEC); *Birds Directive (79/409/EEC);* *Natura 2000.*	Avoiding pollution and the deterioration of agricultural soils are implicit preconditions for the protection or recovery of habitats and species under both of these Directives. Natura 2000 is an ecological network of nature protection areas comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and Special Protection Areas (SPAs) under the Birds Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats, and therefore protects these areas.	Landscape Architects are amongst other professions concerned with the management of the protected land
Council Regulation 1782/2003/EEC – Article 5 – Cross-compliance requirement to maintain permanent pasture	Member States are required to ensure that land which was under permanent pasture at the date provided for the area aid applications for 2003 is maintained under permanent pasture. (1 May 2004 for New Member States and 1 January 2007 for Bulgaria and Romania). Protecting specific areas from intensification of development Limited impact given the nature of protection, but potentially offers the opportunity to safe guard areas.	Landscape Architects are amongst other professions concerned with the management of the protected land

Policy / Programme/ Initiative	Description	Link to Landscape Architectre
EU Sustainable Development Strategy (SDS) European Council DOC 10917/06	The EU SDS sets out a single, coherent strategy on how the EU will more effectively live up to its long-standing commitment to meet the challenges of sustainable development. The strategy sets overall objectives and concrete actions for seven key priority challenges: Climate change and clean energy; Sustainable transport; Sustainable consumption & production; Conservation and management of natural resources; Public Health; Social inclusion, demography and migration; Global poverty and sustainable development challenges.	Landscape Architects are amongst other professions concerned with the management of the protected land
Infrastructure for Spatial Information in the European Community directive (2007/2/EC INSPIRE directive March 14, 2007 on EUR-Lex)	Inspire lays down a general framework for a spatial data infrastructure (sdi) for the purposes of European community environmental policies and policies or activities which may have an impact on the environment.	The making available of key data in a more or less comparable format is a basis for planning projects and in particular for political decision concerning land use. Landscape architects use this data in their work.

Figure 35: EU Directives and their link to landscape architecture

7.8 DEFINITIONS

Landscape architecture is, according to the *European Council of Landscape Architecture Schools* (ECLAS), the discipline concerned with mankind's conscious shaping of its external environment. It involves planning, design and management of the landscape to create, maintain, protect and enhance places so as to be functional, attractive and sustainable (in every sense of the word), and appropriate to diverse human and ecological needs.[226]

Profession A profession is an occupation, vocation or career where specialised knowledge of a subject, field or science is applied.[227] The term is usually applied to occupations that involve prolonged academic training and a formal qualification. It is axiomatic that "professional activity involves systematic knowledge and proficiency"[228]. Professions are usually regulated by professional bodies that may set examinations of competence, act as a licensing authority for practitioners and enforce adherence to an ethical code of practice. The whole body of persons engaged in a calling is also called a profession.[229]

In *The New Fontana Dictionary of Modern Thought* (London), Alan Bullock and Stephen Trombley describe the formation of a profession as follows (Bullock, A. 1999, p.689): a profession arises when any trade or occupation transforms itself through "the development of formal qualifications based upon education and examinations, the emergence of regulatory bodies with powers to admit and discipline members, and some degree of monopoly rights".[230]

Discipline The Oxford English Dictionary gives as one of its definitions 'discipline: a branch of learning or scholarly instruction'.

[226] www.eclas.org, accessed October 2007

[227] Oxford English Dictionary, Second Edition (Oxford University Press, 1989)

[228] http://www.ethical-perspectives.be/page.php?LAN=E&FILE=ep_detail&ID=100&TID=909 Asa Kasher, Professional Ethics and Collective Professional Autonomy A Conceptual Analysis, Ethical Perspectives, 12/1 (March - 2005), pp.67-97, accessed June 2008

[229] http://www.merriam-webster.com/dictionary/profession, accessed June 2008

[230] Alan Bullock & Stephen Trombley, The New Fontana Dictionary of Modern Thought, London: Harper-Collins, 1999, p.689

Models: According to the New Fontanta Dictionary on Modern Thought (Bullock 1999) [231] a model can be characterised by the following:

- Variables are to be used for characterisation and understanding of the process
- The forms of relationships connecting these variables must be specified
- Ignorance and simplicity ensure that all relationships other than identities are subject to error – these errors have to be outlined
- The parameters of the model must be estimated and the extent of its identification ascertained
- The model has to be kept up to date

[231]Alan Bullock & Stephen Trombley, The New Fontana Dictionary of Modern Thought, London: Harper-Collins, 1999, p.537

7.9 IMAGES AND FIGURES

7.10 LITERATURE

Anagnostopoulos G., et al., IFLA – Past Present, Future, Versailles, (2000)

Alexander, E. Approaches to Planning (1986)

Andresen, T., Franciso Caldeira Cabral, LDT monographs, Surrey, p103 – 107, p23 – 60 (2001)

Arbeitsgruppe Modellversuch „Entwicklung von integrierten Studiengängen für Architekten/Planer“: Studieninformation zum Studiengang Architektur, Stadt- und Landschaftsplanung WS 1975/1976; 2. überarbeitete Auflage, (1976)

Attwell K., The Department of Landscape architecture – a presentation, p67 – 74, Ugeskripft for Jordbrug, Selected Research Reviews, (1986)

Attwell, K. Ugeskrift for Jordbrug, Selected Research reviews, p67-74, (1986)

Abbott A., The system of professions. Chicago: The University of Chicago Press, (1988)

Baloghne Ormos I., (ed), Ormos Imre, Budapest, p83, (2003)

Banfield Ends and Means in Planning (1959)

Bargianni E., Landscape Architecture in Greece Topos 58, (2007)

Bayles, M. D., Professional Ethics. Belmont, California: Wadsworth, (1981)

Blanchon B., Pratiques paysagères en France de 1945 à 1975, Programme Cités projets, Plan Construction et Architecture, ministère de l’Equipement, sept. (1998)

Borchert, J., Die professionelle Leistung und ihr Preis. In: Mieg, H. A. & Pfadenhauer, M. (Hg.): Professionelle Leistung – Professional Performance: Positionen der Professionssoziologie. Konstanz: UVK. S. 267-312 (2003)

Brenda C., 28. February 1975, IFLA Report, UK (1975)

Brink A., Bruns, D. Bell S. Tobi H. Research in landscape architecture – methods and methodology (2016)

Bruns D., Tuning Landscape Architecture Education in Europe, (2011)

Bullock A., The New Fontana Dictionary of Modern Thought, London: Harper-Collins, p.537, p686, p.689 (1999)

Caldwell R.L., A New Framework for Anticipating the Future, (2009)

Clerckx E., Het Hoger Rijksinstituut voor Tuinbouw te Vilvoorde, Vlaamse Toeristenbond vzw (1970)

Clewing C., European PhD in Landscape Architecture. LE:NOTRE Outputs. Year 3. (2006)

Conze, W. (Hg.), Bildungsbürgertum im 19. Jahrhundert. Teil I: Bildungssystem und Professionalisierung in internationalen Vergleichen. Stuttgart: Klett-Cotta (1985)

de Vries, J., LE:NOTRE TWO Output 1: Tuning, validation and accreditation - Transform 'Tuning' from a product into an ongoing process, (2008)

Donadieu, P., Is Landscape architecture an academic discipline? www.topia.fr, accessed 6. July (2010)

Downing M., in EFLA - Teaching Landscape Architecture in Europe, p72 (1992)

Gal, P., Landscape Design. Bratislava: SVŠT in Bratislava, 208 p.,(1981)

Gesamthochschule Kassel, Organisationseinheit 6 Architektur Stadtplanung Landschaftsplanung: Kommentiertes Lehrveranstaltungsverzeichnis p. 50 WS 1977/1978 (1977)

Gieseke, U., Wieck, K. Perspektive Landschaft / Institut für Landschaftsarchitektur und Umweltplanung, Technische Universität Berlin (Hg.) p.54, p.55 p.64, Berlin (2006)

Grossman A., Is Professionalisation Always to be Desired?, The Royal Society for the encouragement of Arts, Manufactures & Commerce, (2003)

Grzimek, G., Leitbild für das Studium am Lehrstuhl für Landschaftskultur an der Hochschule für bildende Künste, Kassel; in: Hochschule für bildende Künste Kassel, Lehrstuhl für Landschaftskultur, Sonderdruck aus Garten und Landschaft Heft 04 (1968)

Hebbelinck K., De Bavay - 1849 & 1860 - Fuchs, Groenblad Campus Vilvoorde, 150 jaar Horteco, (1998)

Hennebo, D., Gartenkünstler – Gartenarchitekt – Landschaftsarchitekt, in BDLA – das Berufsbild des Garten und Landschaftsarchitekten, p 11, München, (1973)

Henrich, J.,Cultural group selection, coevolutionary processes and large-scale cooperation. J. Econ. Behav. Org., in press. (2003)

Homann, K., Bedeutung und Arbeitsfelder von Freiraum- und Landschaftsplanerinnen – Von der Professionalisierung seit der Jahrhundertwende bis 1970; Kassel, (2006)

Hruska, E., Landscape and its Present Time Urban Development. Praha: B. Pyšvejc, (1946)

Hruska, E., Some Problems of Present Time Town planning. P.411 Bratislava: SAV, (1966)

Imbert D., Landscape Architects of the World, Unite! Professional organizations, practice, and politics, 1935-1948, Jola 2, (2007)

Abel, J., EFLA - Teaching Landscape Architecture in Europe, p59 (1992)

Milchert, J., "Vom Hausgarten zur autogerechten, gegliederten Stadt" in Garten+Landschaft1/87 (1987)

Jerney, W., Rasen betreten erlaubt; in: Garten + Landschaft 08/2003, S. 13-16 (2003)

Johnson, T., Professions and Power, London: Heinemann, (1972)

Jörgensen, K., Two Centuries of International Influence on Norwegian Landscape Architecture, in Byggekunst, the Norwegian Review of Architecture, p42, 43, Oslo, (2005)

Kodon, M., Town building: Landscape and Technical Work in it. Bratislava: SVŠT v Bratislave, 99 p. (1965)

Kuhn. T., The Structure of Scientific Revolutions, Chicago, p.15, p.18, 19 (1962)

Larkin, G., Occupational Monopoly and Modern Medicine, London: Tavistock, (1983)

Läsker-Bauer, U., Gutachten zur Entwicklung eines Rahmencurriculums der Studienrichtung Freiraum-/Landschaftsplanung innerhalb des integrierten Studiengangsystems der Architekten-/ Planerausbildung an der Gesamthochschule Kassel; S. 9 (1975)

Magalhaes M.R. et al., Landscape Architecture Course at the Institute of Agronomy, ECLAS proceedings p 33., Lisbon, (1992)

Mappes, M., „Bericht über die Tagung der Beiräte und Landesgruppenleiter der Dt Gesellschaft für Gartenkunst, 15/16 Nov. 1040, published in „Die Gartenkunst, p23-33 (1940)

Marwell, G., Economist free ride: Does anyone else? J. Publ. Econ. 15:295–310 (1981)

McClelland, C. E., Escape from freedom? Reflections on German professionalization, 1870-1933. In: Torstendahl, R. & Burrage, M. (Eds.): The formation of professions. London: Sage (1990)

Melanie L., Forest and Garden von Simo, Virginia, p11, (2003)

Mette, A., (ed): Landskapet vi lever i, Norsk arkitekturforlag, Om etableringen av landskapsarkitektutdanningen i Norge og Sverige" in Eggen, Oslo (1999)

Mieg, H. A., Professionalisierung. In F. Rauner (Hrsg.), Handbuch der Berufsbildungsforschung (S. 342-349). Bielefeld: Bertelsmann (2005)

Milchert, J., 200 Jahre städtische Grünflächenpolitik. In: Garten u. Landschaft 9/1980, S. 703–796 (1980)

Möcsenyi, M., The Ormos School, in Ormos Imre, p64, Budapest, (2003)

Nothhelfer U., Landschaftsarchitekturausbildung - zwischen Topos und topologischem Denken, p46 -47, 2008,

Olschowy, G., Landschaftspflege . Ein Beruf in der Entwicklung. In Buchwald.K. (Hrsg) Fragen zur Hochschulausbildung auf dem Gebiet derLandespflege, Frankfurth am Main (1966)

Ostrom, E., Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge: Cambridge Univ. Press. (1990)

Perks, R. W., Accounting and Society. Chapman & Hall (London); ISBN 0412473305. p.2. (1993):

Peter E S., Health Illness and the Social Body A Critical Sociology, New Jersey, USA: Prentice Hall, p.211 (1995)

Richerson, J., Cultural Evolution of Human Cooperation, in Genetic and Cultural Evolution of Cooperation, Edited by P. Hammerstein, (2003)

Roggemans J., Les racines de la licence en architecture du paysage, Conversations paysagères (2004)

Roggemans J., Les racines de la licence en architecture du paysage, Haute École Charlemagne, Gembloux (2004)

Rüegg, W. (Hg.), Geschichte der Universität in Europa: Vom Zweiten Weltkrieg bis zum Ende des 20. Jahrhunderts. Bd. 4, Ulm (2010)

Sears, D.O., Self interest in Americans' political opinions. In: Beyond Self-interest, ed. J. Mansbridge, pp. 147–170. Chicago: Univ. of Chicago Press, (1990)

Siegrist, H., Bürgerliche Berufe: Zur Sozialgeschichte der freien und akademischen Berufe im internationalen Vergleich. (Kritische Studien zur Geschichtswissenschaft, Bd. 80) Göttingen: Vandenhoeck & Ruprecht. (1988)

Surowiecki, J., 2005, The Wisdom of Crowds – Why the Many are Smarter than the Few, Abacus, London

Swaffield S., Theory in landscape architecture: a reader, (2002)

Swaffield, S., Social Change in the Profession of Landscape Architecture in the Twenty-First, (2002)

Szilagy K., Traditions and development possibilities in Hungarian Landscape Architecture, p.92, Cracow, (1999)

Tapscott, D., Wikinomics – How Mass Collaboration Changes Everything, Portfolio, New York (2006)

Tunnard .J, Landscape Design at the Paris International Congress: What the Others are Doing, (1937)

Tuomela, R., Cooperation and trust in group contex, Helsinki, (2005)

Vogt B., Franz Heinrich Siesmayer (1817–1900) Biographien europäischer Gartenkünstler, in: Stadt und Grün', 48 Nr. 2, S. 105–111 (1999),

Weddle, A E., Techniques of Landscape Architecture, London, William Heinemann, (1968)

Welan M., „Das Studium der Landschaft“ Festvortrag anlässlich des 25jährigen Bestandes des Studiums der Landschaftsplanung und Landschaftsgestaltung, Vienna (2006)

Wenzel J., Die Begründung der universitären Ausbildung von Landschaftsarchitekten durch Erwin Barth. in Perspektive Landschaft, TU Berlin (Hg.), p.124 - 130, Berlin. (2006)

Wilensky, H. L., The professionalization of everyone? The American Journal of Sociology, 70, 2, 137-158 (1964)

Wolschke-Bulmahn, J., Nature and Ideology, Natural Garden Design in the Twentieth Century, V18 Dumbarton Oaks Colloquium on the History of Landscape Architecture, Harvard, (1997)

Woudstra, J., The ‘Sheffield method’ and the first department of landscape architecture in Great Britain, Garden History 38/2 242-266, Sheffield, (2010),

Die Gartenkunst, 31, 1918, p.149, Januarheft, 1912 p9, (1912)

Die Gartenkunst „Bei unseren Kollegen in der Schweiz“ in Die Gartenkunst (1939)

Lebenslauf Hermann Mattern; in: Garten + Landschaft 08/1972, S. 350

London: ILA, (1961)

Oxford English Dictionary, Second Edition (Oxford University Press, (1989)

ESF/COST Landscape in a changing world. Bridging divides, integrating disciplines, serving society, Science Policy Briefing, October, No. 41. (2010)

7.11 INTERVIEWS AND OWN SOURCES

Dusan Ogrin, letter to Barbara Birli, June 2008

e-mail correspondence with Elissavet Bargianni (2007)

IFLA minutes of Committee meetings, taken from the IFLA achieve at Rene Pechere Library Brussels, accessed February 2010

Auskunft Jürgen von Reuß, mdl. 05.08.08

Interview and e-mail correspondence with Helmut Lührs, 04. June 2014

Interview with Kristine Vugule, Jelgava University and Karsten Jörgensen, Aas University 2008

Downing Mike, former president of EFLA and ECLAS, interview February 2006

Downing Mike, about the origins of ECLAS, letter to Barbara Birli, July 2008

LE:NOTRE Rare Knowledge Questionnaire United Kingdom, Downing M., (2008)

LE:NOTRE Rare Knowledge Questionnaire Slovak Republic/Nitra Supuka J., (2009)

LE:NOTRE Rare Knowledge Interview followed by a letter, NL, Wageningen by Meto Vroom,

LE:NOTRE Rare Knowledge Interview, NO Aas and e-mail correspondence with Karsten Jörgensen, (2008, 2010)

LE:NOTRE Rare Knowledge Questionnaire DE, Nürtingen, by Ellen Fetzer (2008)

LE:NOTRE Rare Knowledge Questionnaire Genova, by Francesca Mazzino (2008)

LE:NOTRE Rare Knowledge Questionnaire IS, Borganes, by Thorsteinn Gudmundsson based on an interview with Audur Sveinsdottir (2008)

LE:NOTRE Rare Knowledge Questionnaire Madrid, 2008 by Ribas i Piera M., (2008)

LE:NOTRE Rare Knowledge Questionnaire SI Ljubljana by Davorin Gazvoda, (2008)

LE:NOTRE Rare Knowledge Questionnaire, Akdeniz/TR by Ortacesme, V.,(2008)

LE:NOTRE Rare Knowledge Questionnaire, Blois by Mc Nally D. (2008)

LE:NOTRE Rare Knowledge Questionnaire, Gliwice, by Rostanski K. (2007)

LE:NOTRE Rare Knowledge Questionnaire, Istanbul/TR by Eksi, M.,(2008)

LE:NOTRE Rare Knowledge Questionnaire, Latvia by Kristine Vugule, 2007

LE:NOTRE Rare Knowledge Questionnaire, Tras os Montes/PT by Meireles F. (2008)

LE:NOTRE Rare Knowledge Questionnaire, Zonguldak/Bartin/TR by Aciksoz S.,(2008)

LE:NOTRE Rare Knowledge Questionnaire Romania Iliescu, A (2008)

All LE:NOTRE Rare Knowledge Questionnaire are available at the LE :NOTRE web site

7.12 INTERNET SOURCES

IDENTITY STATEMENT, Thames Polytechnic,accessed July 2002
Facebook/Land8Lounge accessed June 2014
http://cms.uni-kassel.de/index.php?id=510, accessedJuly 08
http://education.stateuniversity.com/pages/1723/Academic-Disciplines.html, accessed November 2009
http://education.stateuniversity.com/pages/1723/Academic-Disciplines.html, accessed November 2009
http://elasa.org/archive/archive1/YB94/YB94-24.htmlaccessed June 2009
http://en.wikipedia.org/wiki/Erasmus_Programme, accessed September.2014
http://en.wikipedia.org/wiki/Landscape_Institute accessed July 2008
http://en.wikipedia.org/wiki/Scientific_community accessed March 2008
http://en.wikipedia.org/wiki/Town_and_Country_Planning_Act_1947 accessed July 2008
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:en:PDF accessed July 2012
http://europe.iflaonline.org/administrator/components/com_tadr/files/20/120208EFLA_PQD_Report.pdf accessed on July 2012
http://kak.sggw.pl/pl/historia, accessed June 2009
http://kak.sggw.pl/pl/historia, accessed June 2009
http://www.1851.fr/hommes/joigneaux/devarennes/sommaire.htm,accessed July 2008
http://www.archive.org/search.php?query=subject:%22Landscape%20gardening%22, accessed June 2008
http://www.asla.org/FAQAnswer.aspx?CategoryTitle=+About+the+American+Society+of+Landscape+Architects&Category=3146, accessed July 2014
http://www.bfn.de/fileadmin/MDB/documents/themen/recht/BGBl.%20I%20S.%203574.pdf accessed October 2014
http://www.bologna-bergen2005.no/Docs/00-Main_doc/050218_QF_EHEA.pdf accesed June 2010
http://www.bvrp.net/en-us/community/patronageanddonors/buyssens.aspx accessed October 2014
http://www.coe.int/t/dg4/highereducation/recognition/lrc_EN.asp accesed June 2010
http://www.eclas.org/accreditation-advice.php accessed July 2012
http://www.efla.org/base/frames/centre.asp?LG=uk accessed July 2008
http://www.ethical-perspectives.be/page.php?LAN=E&FILE=ep_detail&ID=100&TID=909 Asa Kasher, accessed June 2008
http://www.european-heritage.net/sdx/herein/european_heritage_program/showcontent.xsp?id=2, accessed February 2009
http://www.european-heritage.net/sdx/herein/thesaurus/introduction.xsp accessed February 2009
http://www.gardenvisit.com/landscape_architecture/careers_jobs/landscape_institute_li_uk accessed October 2014
http://www.independent.co.uk/news/obituaries/obituary-professor-brian-hackett-1161209.htmlaccessed October 2014
http://www.ingentaconnect.com/content/klu/meta/2000/00000021/00000005/00274496 accessed October 2014
http://www.kunsttexte.de/download/denk/grunert.pdf, accessed July 2008
http://www.land8lounge.com/notes/About_Us, accessed 06.Feb 2009
http://www.laum.uni-hannover.de/iln/Geschichte des Instituts, accessed June 2009
http://www.lebenslanges-lernen.at/erasmus-at accessed October.2014
http://www.le-notre.org/working_groups/working_groups_overview.php, accessed May 2013
http://www.merriam-webster.com/dictionary/profession, accessed June 2008
http://www.ond.vlaanderen.be/hogeronderwijs/bologna/ accessed June 2008
http://www.shef.ac.uk/landscape/ 19 eahn newsletter Nº1/09, accessed August 2009
http://www.stadtentwicklung.berlin.de/umwelt/stadtgruen/geschichte/de/stadtgruen/1870_1920/teil_3.shtml, accessed July 2008
http://www.thomasmawson.co.uk/, accessed October 2014
https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf accessed October 2014

https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf accessed October 2014
https://suw.biblos.pk.edu.pl/resources/i3/i7/i2/r372/WolskiP_NauczanieArchitektow.pdf accessed October 2014
http://64.233.183.104/search?q=cache:3bUoc0ranJ0J:www.usca.edu/essays/vol62003/tinsley.pdf+professional+esteem&hl=en&ct=clnk&cd=9&gl=uk Ron Tinsley & James C Hardy, Faculty Pressures and Professional Self-Esteem: Life in Texas Teacher Education. accessed June 2008
http://www.ingentaconnect.com/content/rsm/hsmr/2004/00000017/00000002/art00004 P C S Lian & A W Laing, The role of professional expertise in the purchasing of health services, Health Services Management Research, 17.2, 1 May 2004 , pp.110-120
http://www.rcpath.org/index.asp?PageID=28 Royal College of Pathologists, The role of the College and benefits of membership, accessed 16 Dec 2005
http://www.teachingexpertise.com/articles/recognising-professional-expertise-in-science-education-1579 Derek Bell, Recognising professional expertise in science education, accessed June 2008
http://oasis.lib.harvard.edu/oasis/deliver/findingAidDisplay?_collection=oasis&inoid=2083&histno=0&targ=12
www.le-notre.org accessed 06.May 2023
LE:NOTRE encyclopaedia entry by Simon Bell; http://www.le-notre.org/encyclopedia/encyclopedia_show_details.php?encyclopedia_id=38, accessed August 2009
LE :NOTRE encyclopedia entry by Vesselina Troeva, http://www.le-notre.org/encyclopedia/encyclopedia_show_details.php?encyclopedia_id=21, accessed August 2009http://kak.sggw.pl/pl/historia, accessed June 2009
http://kak.sggw.pl/pl/historia, accessed June 2009
http://conventions.coe.int/Treaty/en/Reports/Html/176.htm
www.eclas.org, accessed October 2007
http://www.kunsthochschule-kassel.de/willkommen/?&sub=3, Stand: 02.07.08
http://www.wma.net/e/policy/a21.htm The World Medical Association Declaration of Madrid on Professional Autonomy and Self-Regulation, 1987, accessed June 2008
Holden R. http://www.le-notre.org/encyclopedia/encyclopedia_edit.php?encyclopedia_id=34, accessed June 2008

7.12.1 IFLA FOUNDERS EDUCATION AND WORK EXPERIENCE – INTERNET SOURCES

https://sv.wikipedia.org/wiki/Holger_Blom, accessed June 2016
https://en.wikipedia.org/wiki/Loutrel_Briggs, accessed June 2016
http://phala.gr/pdf/iflanews_febr2012.pdf, accessed June 2016
http://phala.gr/pdf/iflanews_febr2012.pdf, accessed June 2016
http://kak.sggw.pl/pl/historia/2-uncategorised/178-alina-scholtzowna-1908-1996, accessed June 2016
https://en.wikipedia.org/wiki/Pietro_Porcinai, accessed June 2016
http://www.cascade1987.nl/catharina-polak-daniels/, accessed June 2016
http://www.mfa.fi/arkkitehtiesittely?apid=16591931, accessed June 2016
https://fi.wikipedia.org/wiki/Paul_Olsson, accessed June 2016
https://en.wikipedia.org/wiki/Brenda_Colvin, accessed June 2016
https://en.wikipedia.org/wiki/Sylvia_Crowe, accessed June 2016
http://arts.brighton.ac.uk/collections/design-archives/resources/women-designers/sylvia-crowe, accessed June 2016

8 CURRICULUM VITAE BARBARA BIRLI

PERSONAL INFORMATION

Dipl. Ing. Barbara BIRLI

Spittelauer Lände 5, 1090 Wien (Austria)

- 004369911007108

barbara.birli@umweltbundesamt.at

Sex female | Date of birth 18.04.1977 | Nationality Austrian

WORK EXPERIENCE

10/2010 - today

Project Manager – Soil Expert

Umweltbundesamt GmbH /Austrian Environmental Agency; http://www.umweltbundesamt.at

- School projects related to soil protection, land take and land recycling
- Publications on inner Urban development and soil science
- Soil expert in the environmental assessment process.

Business or sector Environmental Services

BERUFSERFAHRUNG

01/2004-09/2013

Project Manager – Higher Education/ University Networks

Vienna University of Technology

- Project Management of ERASMUS funded project LE:NOTRE network
- Management of ECLAS - European Council of Landscape Architecture Schools
- Editorial Assistant Jola - The Journal of Landscape Architecture

Business or sector Higher Education

BERUFSERFAHRUNG

05/2003-05/2004

Researcher – Traffic Security

L. Boltzmann Institut für Verkehrssystemanalyse, interdisziplinäre Unfallforschung und Unfallrekonstruktion

- Research in traffic security,
- Eye tracking and visual awareness in traffic
- Public Relations Work

Business or sector Research Institution

EDUCATION AND TRAINING

10/2003 -11/2004

Mediator for Civil Right, Mediation

5

Arge Bildungsmanagement, Vienna

- An education as mediator for civil right with emphasis on dispute related to (planned) building activities

EDUCATION AND TRAINING

(10/1996 – 5/2003)

Degree in Landscape Planning and Management (Landschaftsplanung und -pflege)

7

University of Natural Resources and Life Sciences, Vienna)

- Planning - Design and Maintenance of Landscape
- Nature protection
- Engineering and Technology

PERSONAL SKILLS

Mother tongue(s): German

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	B2
	Replace with name of language certificate. Enter level if known.				
French	A2	A2	A1	A1	A1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- good teaching and pedagogy skills gained through soil awareness workshops at schools
- good communication skills gained through my experience as project manager

Organisational / managerial skills

- project management acquired through more than 10 years project management
- International conference organisation,

Job-related skills

Replace with any job-related skills not listed elsewhere. Specify in what context they were acquired.
Example:

- soil protection
- environmental assessment
- landscape architecture
- landscape management

Computer skills

- good command of Microsoft Office™ tools, Adobe InDesign and Adobe Photoshop
- good command of internet based lecture rooms/e-teaching and online conference tools

Other skills

-

Driving licence

- B

ADDITIONAL INFORMATION

Publications

Birli B., Gerstenmayer J. et al. (2016) *Ein Boden voller Leben*, Der Kleingärtner, Wien, Austria

Englisch M., Foldal C., Berthold H., Birli B., Schwarz S., (2015) *Boden macht Schule*. BFW-Praxisinformation, Wien, (39), p.20-23

Birli, B. ,Schwarz S., (2015) *Bodenpädagogik in Österreich – Methoden der Wissensvermittlung zum Bodenschutz in Österreich*, in Natur und Landschaft Wien, Austria

Klaffl I., Wagner F., Birli B. et al. (2015) *Nationaler Gewässerbewirtschaftungsplan 2015* Wien, Austria

Birli B., (2014), *Lernmöglichkeiten „Boden" in Österreich* - Im Auftrag des BMBF, Austria

Birli B., (2014) *Bodenschutz – Komm mach mit!* in Boku Magazin 4/2014, Vienna, Austria

Weich E., Birli B. (2013) *Umwelteffekte der Flächennutzung im schulnahen Umfeld* , Wien, Austria

Prokop, G.; Birli B. Schabel A. (2012) *Die Flächenmanagementagentur Voitsberg* Wien, Austria

Prokop, G.; Birli B. (2012) *Kompakte Siedlungen: Klimaschutz für Generationen*, Wien, Austria

Birli, B., Prokop, G., *Circular Flow Land Use Management - Voitsberg* (2012) in Innovative Solutions for Revitalisation of Degraded Areas, Ustron, Poland

Birli, B., *Flächenkreislaufwirtschaft in Theorie und Praxis* (2012) in Nachhaltiges Flächenmanagement von Industrie- und Gewerbebrachen, Irdning, Austria

Prokop, G.; Birli B. (2012) *Flächenkreislaufwirtschaft in der Region Voitsberg*, local land & soil news no.40/41, Osnabrück, Germany

Birli, B., Prokop, G.; *Umwelteffekte der Flächennutzung* (2011) Lehrmaterialienheft, Wien,

Birli, B., Prokop, G.; *Land Use and Environmental Effects* (2012) Teaching Booklet for Secondary Schools, Wien,

Stiles R. Birli B., Müllender V.,(2007) *Erasmus 3 – Thematische Netzwerke, in EU-Bildungsprogrammen*, p. 54

Birli B., Vugule K. (2006) "Rare Knowledge" from the Modernist Period of Landscape Architecture Education, Vienna/Jelgava, Austria/Latvia

Stiles R. Birli B. (2005) *LE:NOTRE+PLUS follows LE:NOTRE*, TOPOS 53, Callwey, Munich, p. 105

Tönies B. (2004) Abschlussarbeit Mediation in Öffentlichem-, Planungs-, und Baubereich, *Mediation Davidgasse*, Vienna, Austria

Pfleger E., Mayerhofer S., Tönies B., (2004) *Verkehrsicherheitsgutachten B 17*, km 7,0-7,5 Im Auftrag der NÖ Landesregierung, Gruppe Straße; Wien, Austria

Tönies B. (2004) *Ein kurzes Stück Weg* in *Gehen in Wien* Werkstattbericht 68, Stadtentwicklung und Stadtplanung Wien, S. 8, Wien, Österreich

Poster

Huber S., Baumgarten A., Birli B., Englisch M., Tulipan M., Zechmeister-Boltenstern S., (2015) *Scientific Support, Soil Information and Education provided by the Austrian Soil Science Society (ASSS),* Poser presented at European Geosciences Union, General Assembly 2015, Vienna, Austria, 12 – 17 April 2015

Berthold H., Birli B., Schwarz S., Englisch M., Leitgeb E., Helmut H., (2015): *2015 Jahr des Bodens : Gesunde Böden für ein gesundes Leben*. Bundesforschungszentrum für Wald, Wien: Poster

S. Huber; B. Birli; et al. (2014) *Instruments to raise soil awareness in schools and support national soil protection,* Wien, Austria

Aust G., Baumgartner A., Berthold H., Birli B., Englisch M., u.a., (2013), *Boden macht Schule* at Jahrestagung der Österreichischen bodenkundlichen Gesellschaft, 23.9.2013, Wien Mariabrunn

Projects

LE:NOTRE Landscape Education: new Opportunities for Teaching an d Research in Europe (2003-2013), www.le-notre.org
JoLA – The Journal of Landscape Architecture (2006- ongoing), www.jola-lab.eu
ECLAS – European Council of Landscape Architecture Schools (2006- ongoing), www.eclas.org
CircUse – Circular Land Use Management (2010-2013), www.circuse.eu
Boden macht Schule (2012 – ongoing) www.umweltbundesamt.at
IMST - Umwelteffekte der Flächennutzung, Pichelmayergasse (2012-2013)
Bodenschutz.com – (2014- 2016) - https://bodenschutz.wordpress.com/
Recare Project – (2013 – 2018), http://www.recare-project.eu/

Honours and awards

JoLA received the ASLA Award of Excellence - Communications Category, 2009

.