

Professional licensing of landscape architects in Poland

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ABSTRACT: Landscape architecture was established as a course in Poland by the General Council of Higher Education in 1998. Earlier, in 1995, an ordinance defined the profession. Since the year 2000, universities in Poland have been educating students to become landscape architects. The course, due to its technical and design-oriented character, features subject matter associated with nature, and is counted among professions of public trust. Engineering competencies are an essential component of landscape architecture. However, landscape architecture is not a licensed profession in Poland, which is different from elsewhere in the world. In this article, the author discusses and compares the concepts and teaching of landscape architects in Poland with similar education in Anglo-Saxon countries. Also discussed is the problem of obtaining professional licences, including in the context of new concepts of urban development and changing technologies.

INTRODUCTION

The objective of this article is to demonstrate the connection between the landscape architecture specialisation and engineering landscape architecture training in the context of licensing landscape architects. The author has compared the situation of the profession in Poland with Anglo-Saxon countries, where landscape architecture is both more popular and prestigious. This is a consequence of improved training at both the academic and trade organisation level, and by professional licensing.

Expressed in this article is support for establishing professional licensing for landscape architects in Poland, which requires legal changes at the statutory level [1][2]. Engineering education, with quality confirmed by accreditation, is critical to this process [3]. The American Society of Landscape Architects (ASLA), founded in 1899, was the first landscape architect organisation. A year later, in 1900, Harvard University in the USA began teaching landscape architecture as an academic subject [4][5].

In Poland, this process started much later and is ongoing. The Anglo-Saxon model of teaching, as described in the conference proceedings of the 1999 Second Didactic Landscape Architecture Forum provides inspiration for university curriculum design, and direction to help legislate for the profession (Table 1).

Table 1: Professional development of landscape architecture in the USA and in Poland.

USA	Poland
<ul style="list-style-type: none">• 1899 - American Society of Landscape Architects (ASLA) is founded in New York City with 11 charter members.• 1900 - Harvard University becomes the first university to offer a degree in landscape architecture.• 1910 - Landscape Architecture Magazine (LAM) is founded by three ASLA members.• 1910 - National examining board is established and continues until 1948.• 1913 - First ASLA chapter is founded in Boston; as of 2016, there are 49 chapters representing all states and Puerto Rico.	<ul style="list-style-type: none">• The interwar period 1918-1939 - horticultural associations are active, and there is an ongoing discussion among professionals about the new profession, the garden planner (various names are proposed).• 1938 - Prof. Franciszek Krzywda-Polkowski, architect, establishes and supervises the Department of Landscape Architecture and Park Studies at the Warsaw University of Life Science, but it is not a university course to offer a degree in landscape architecture.• 1998 - The First Landscape Architecture Teaching Forum took place in Kraków; the conference has since

<ul style="list-style-type: none"> • 1930 - First Code of Professional Ethics was adopted. • 1953 - California adopts registration of the title <i>Landscape Architect</i>, followed by the adoption of practice acts by New York and Connecticut. • 1961 - Council of Landscape Architectural Registration Boards (CLARB) is organised to coordinate and assist the growing number of state registration boards. • 1970 - CLARB is incorporated as a separate organisation and begins administering the Uniform National Exam (UNE) for landscape architectural licensure; UNE later evolves into the Landscape Architecture Registration Exam (LARE), which continues to this day. • 2008 - The Landscape Architecture Continuing Education System (LA CES) is established as a collaborative project of ASLA, the Canadian Society of Landscape Architects (CSLA), the Council of Educators in Landscape Architecture (CELA), the Council of Landscape Architectural Registration Boards (CLARB), and the Landscape Architectural Accreditation Board (LAAB) to offer continuing professional education in landscape architecture [5]. 	<ul style="list-style-type: none"> • been organised annually. • 1999 - The General Council of Higher Education reinstated the Master's in landscape architecture university course; this course existed in the years 1988-1991. <p>Landscape architecture curricula in Poland after 2000:</p> <ul style="list-style-type: none"> • 2000 - The large-scale teaching of landscape architects at the university level began in 2000. It is performed by six universities. • 2004 - Establishment of the Landscape Architecture Association (in the years 2004-2009 acting under the name Association of Green Areas Contractors and Landscape Architects). • 2009 - Establishment of the Association of Polish Landscape Architects. • 2006 - The University Union for the Development of the Landscape Architecture Course is established and serves as a forum for discussing the problems and profile of training landscape architects. It makes efforts to strengthen the professional status of landscape architects. • The profession is not licensed.
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Since 2000, Polish universities have been teaching students to become landscape architects. By 2019, there were 19 state and private schools that offered first- and second-cycle landscape architecture courses. These courses, which are technical and design-oriented, relate to nature and the processes of nature. Landscape architecture is counted among the professions that attract public trust. Obtaining engineering competencies is essential in this profession [2][6].

In Poland, there is a strong academic and professional community associated with landscape architecture. However, the profession still lacks a legal framework in the form of professional licences, which exist around the world. There are now several active professional associations in Poland, e.g. the Association of Landscape Architecture (Stowarzyszenie Architektury Krajobrazu, SAK), active since 2004, which co-operates with the International Federation of Landscape Architects (IFLA) and the European Landscape Contractors Association (ELCA), as well as the Association of Polish Landscape Architects (Stowarzyszenie Polskich Architektów Krajobrazu, SPAK), active since 2009 [2][7].

DEFINING LANDSCAPE ARCHITECTURE

The definition of landscape architecture has changed and expanded as discussed by the ASLA, the IFLA, the British Landscape Institute (LI) and scholars [5][8][9]. The ASLA definition, adopted in 1983, characterised the specialisation as having a broad scope and underscores its engineering character, while also pointing to aspects, such as utility and safety, which are linked with regulations, standards and certification. This defines landscape architecture as a profession that applies artistic and academic principles to study, plan, design and manage the environment, regardless of whether it is natural or cultural [4].

Those who practise the profession apply academic, cultural and political knowledge about site development for the management and protection of wildlife and cultural assets. The resulting environment should meet requirements concerning utility, aesthetics, safety and pleasantness. The design documentation should include: site development plans, including terrain and hydrography; greenery plans and structural details; material solution specifications; cost assessments; roads and other structures regarding functional and aesthetic requirements; site plan execution; reconstruction and cultivation. This documentation provides a basis for applying for a professional licence [4].

TEACHING LANDSCAPE ARCHITECTURE IN ANGLO-SAXON COUNTRIES

The structure and methodology for teaching landscape architecture in Anglo-Saxon countries is considerably influenced by Charles Eliot and Frederick Law Olmsted Sr from the United States of America. At present, teaching in the USA is as diverse as are the universities that offer a landscape architecture course. There are over 60 accredited programmes and universities offering both Bachelor's and Master's programmes. Both levels are not always offered, and two models predominate: art/architecture/planning and agriculture/environmental sciences. Programme curricula are accredited by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects (LAAB-ASLA). The accreditation is a non-government and non-mandatory system of self-regulation based on self-assessment. The LAAB assesses every curriculum based on stated goals and compliance with internal minimum standards [1][5].

There is professional licensing of the landscape architecture profession in the United States, Canada, the United Kingdom and Australia. The course curricula and the profession encompasses all aspects of planning, design and management of the landscape and developed areas. It also includes the restoration and recultivation of transformed and damaged environments, as well as the design and management of external spaces, so as to create sustainable, functional and safe places and environments that contribute to improving the quality of life of communities [5][8-10].

THE LANDSCAPE ARCHITECTURE PROFESSION IN POLAND

In most European countries landscape architecture was developed as an independent discipline during the interwar period. In Poland, historically, the subject of landscape architecture led to polemics among specialists concerning the name and scope of professional activity, which was discussed in trade journals.

The aftermath of the Second World War put an end to the promising development of the discipline and eliminated landscape architects from shaping the Polish landscape and space, and landscape architecture being taught at universities [11]. After the Second World War, numerous agriculturally profiled universities would go on to teach the design of green areas, typically as a specialisation of horticulture. The large-scale teaching of landscape architecture at university level began in 2000. It is performed by six universities, primarily agricultural ones, including the Warsaw University of Life Sciences (WULS), the agricultural universities of Wrocław, Poznań, Olsztyn, Szczecin, and the sole technical university in the country, Cracow University of Technology (CUT).

In 1995, an ordinance of the Minister of Labour and Social Policy defined the specificity of the profession as [12]: architects, engineers and similar includes, among others ... architects and urban planners. The profession of landscape architect was described as follows:

...Landscape architect - I. Prepares studies, programmes and designs for the construction and modernisation of landscape architecture sites and urban greenery systems, as well as studies and designs for the protection and shaping of the landscape of non-urbanised areas; the objective of these programmes is the preservation and development of diversity, specificity and beauty of the landscape; they supervise the execution of the sites they design through author supervision; they conduct studies and research of the practical application of research findings from other fields: ecology, geology and geomorphology; climatology, hydrology, phytosociology, comprehensive physical geography and the protection of the natural environment; horticulture, forestry, water management, history of art, architecture, etc [12].

LANDSCAPE ARCHITECTURE CURRICULA IN POLAND AFTER 2000

In 1998, the Polish General Council of Higher Education reinstated the Master's in landscape architecture university course. This course had existed in the years 1988 to 1991. In 1998, a programmatic minimum was drafted for a five-year (ten-semester) long-cycle Master's studies in landscape architecture. The minimum, approved by the General Council of Higher Education in 1999, was later supplemented to include requirements for vocational courses (Bachelor of Engineering) and remained in force until 2006 [2][6].

Universities that teach landscape architecture courses prepared their curricula based on this minimum. Many universities; for instance, the CUT, included the European Federation of Professional Engineers (FEANI) criteria in their curriculum design, in which technical modules should comprise not less than 55% of the classes in a course curriculum. The FEANI unites national engineering associations from 33 European Higher Education Area (EHEA) countries.

Another document that influenced the curricula was the ordinance of the Minister of Science and Higher Education concerning the teaching standards for individual courses and education levels (2007) [12]. The ordinance included teaching standards for first-cycle (Bachelor's) and second-cycle (Master's) courses in landscape architecture. This was in conformity with the Bologna process, which promotes the unification of education systems throughout Europe and the formulation and facilitation of student exchanges between universities. The teaching standards of 2007 defined 50% of the structure of teaching landscape architecture, with the second 50% at the discretion of universities. The standards include core curriculum modules; of the 915 hours, 645 hours, i.e. 70%, were to be technical modules.

Another ordinance stipulated that students can select not less than 30% of the contact hours from the full scope of the offerings of the faculty that still guarantees the teaching of the complete curriculum content. This provision did not apply to courses where professional qualifications were dependent on vocational curriculum contact hours. The curricula in universities that teach landscape architecture reflect the university's specificity, i.e. primarily agricultural and technical universities. The curricula typically also display regional specificity, e.g. they differ in their focus on rural areas or the cultural landscape or the post-industrial landscape-

For example, the landscape architecture curriculum in the Faculty of Architecture at Cracow University of Technology (FA-CUT) is based on integrated design (105 contact hours during each semester, in combination with other modules), as well as an increased number of hours devoted to technical modules. The number of elective modules is also increased. This manner of teaching classes has been adopted based on the curriculum that has been taught for many

years as a part of the architecture and urban design course in the FA-CUT. This is accredited by the Royal Institute of British Architects (RIBA). Further changes in 2012 resulted from amendments to the Polish Higher Education Act [12].

University course curricula were based on the National Qualifications Framework, modified in 2016 into the eight-level Polish Qualifications Framework (Polska Rama Kwalifikacji, PRK). This referenced the European Qualifications Framework and the qualification levels of individual European countries. Throughout this period, the Minister of Science and Higher Education did not list landscape architecture as a separate field. Due to the interdisciplinary character of landscape architecture, the course covers three areas of teaching: technical sciences; agricultural, forest and veterinarian sciences; art studies and social sciences. This resulted in a high degree of diversification in curricula, which is a hindrance for a profession that has been pursuing the introduction of professional licensing since 2000.

An example of this diversification is the landscape architecture curriculum of the FA-CUT that has been taught since the 2019/20 academic year. This includes the following academic disciplines: first-cycle course - architecture and urban design - 60%; civil engineering and transport - 5%; environmental engineering, mining and energy - 10%; agriculture and horticulture - 20%; visual arts and art conservation - 5%; second-cycle course - architecture and urban design - 65%; civil engineering and transport - 10%; environmental engineering, mining and energy - 10%; agriculture and horticulture - 10%; visual arts and art conservation - 5%.

In Poland, the Union for the Development of Landscape Architecture Courses was established in 2012; the founding agreement was signed by 11 state universities that teach this course. Its aims include maintaining commonality in the teaching of landscape architecture and was motivated by the possibility of divergent interpretations of the new curriculum standards. The provisions of the agreement state that learning outcomes for first-cycle studies will have the following structure: 45% will be a part of the technical sciences, about 45% will be a part of agricultural, forest and veterinary sciences and about 10% will be a part of the arts. Each university will provide as large a share of design modules as possible, and the course specialisations will be adapted to the research and projects performed by a given university's academic and teaching staff.

ENGINEERING EDUCATION AND LANDSCAPE ARCHITECTURE COURSES

At present, landscape architecture course graduates in Poland are given engineering degrees: Master of Science (*magister inżynier*) after graduating from second-cycle courses and Bachelor of Engineering (*inżynier*) after graduating from first-cycle courses. The curriculum stresses the significance of engineering competencies, which is key to pursuing professional licensing. These matters are regulated by the Minister of Science and Higher Education, most recently in 2018, on the characteristics of second-cycle learning outcomes for qualifications at levels 6-8 of the Polish Qualifications Framework. Among others, the following learning outcomes were listed: design using properly selected methods, techniques, tools and materials; the solving of practical engineering tasks that require the application of engineering standards and the proper technologies as demanded by the course.

As an example, the landscape architecture course in the FA-CUT has the following learning outcomes that incorporate engineering competencies. After the first-cycle (Bachelor of Engineering) course: graduates are expected to apply a methodical approach to solving design tasks; be able to assess the utility of a given method and select and apply a proper method; to design pursuing their own concepts with the use of imagination and creative inventiveness; apply the precepts of the design of landscape architecture sites located in different contexts and of various scales in practice; prepare design documentation up to formal requirements. After graduating from the second-cycle course, they should: be able to adopt a methodological approach to solving design tasks; possess the ability to solve tasks related to landscape architecture, while aware of various conditions and the consequences of the solutions proposed; prepare design documentation that is compliant with formal requirements; be familiar with economic, ethical, social and other conditions associated with professional activity.

The difficulty and scale of successive term design assignments increase to reflect the learning outcomes to be achieved by the student of the FA-CUT. Modules, such as building construction, structural systems and materials science support integrated design studio and diploma design; preparing drawings typical of the technical and detailed design phase (for site plans, plans and cross-sections) that comply with construction law standards is a key element. The recommendation is to have a black-and-white plan drawing that presents all site development elements in compliance with proper standards (including infrastructure) [6][12][13].

Also critical is awareness of the need to self-educate in areas key to the profession. The diploma project is a critical element of teaching that finalises each course. During the first-cycle (Bachelor's) landscape architecture course, it is mandatorily prepared as a design project, while at the second-cycle (Master's) most universities opt for an architectural and landscape design project that covers a broad range of planning studies and analyses. Some universities also permit other forms, such as academic studies. Each curriculum is assessed by the Polish Accreditation Commission, an institution that works independently towards improving the quality of university-level teaching as per the Higher Education and Science Act of 2018 [12]. The Commission evaluates university teaching quality and assesses curricula. A positive rating is valid for six years. The university can also pursue other accreditations, e.g. the International Federation of Landscape Architects (IFLA), which propagates professional models and also verifies curricula.

The curriculum changes and accreditations aim to improve education quality. The CUT students rated them positively, and opined that they increase their employment opportunities. This was confirmed in an evaluative study by the CUT in 2015 (*Politechnika XXI wieku - program rozwojowy Politechniki Krakowskiej - najwyższej jakości dydaktyka dla przyszłych polskich inżynierów*).

A survey of CUT students investigated how the educational offerings matched employment market needs in a knowledge-based economy. The sample was of 629 students (rating I) and 270 (rating II) enrolled in courses and specialisations, including the Landscape Architecture course. For the survey, students in the Landscape Architecture course, i.e. 31.8% were rating I and 36.7% were rating II. The students expressed the following opinions:

- there was market demand for specialists with a background compliant with their chosen course/specialisation (rating I - 66.2%; rating II - 55% after a re-evaluation);
- graduating from their chosen course/specialisation will enhance the attractiveness of students as employment candidates (rating I - 87.5%, rating II - 75.6%);
- in a re-evaluative rating, 80% of students said the CUT's offering better adapted them to the employment market demands of a knowledge-based society;
- 67% of students would chose the course/specialisation again.

PROFESSIONAL LICENSING IN POLAND: A DISCUSSION

As the review of landscape architecture training in Poland has shown, students are being prepared to take responsibility for their designs and to pursue professional licences. In the present legal situation, large projects, such as those of public parks, must be supervised by a licensed architect, unlike the situation in Anglo-Saxon countries. The comparison of teaching demonstrates their considerable similarity. However, the essential difference is that in the USA, there is a strong trade association that was founded prior to the start of training future landscape architects (1899), and there was early examination of professionals at the national level (1910). This puts the profession in a strong position, which is also being pursued in Poland.

The Anglo-Saxon position results in better career perspectives and designs where a landscape architect is mandatory. In Poland, the obligatory inclusion of landscape architects in design teams in tendering for parks and landscape architecture sites has been common only for the past five years. However, this does show that the profession is rising in prominence and contributes to better employment opportunities.

The profession of the landscape architect does not have a professional licensing system. Professional licensing would considerably improve the status of the profession and create a better environment for its practise. This is associated with legal aspects concerning the sites designed by landscape architects. For instance, in the present legal environment, a landscape architect who designs a park and prepares site development plans must have a licensed architect to sign-off such a design, because of the provisions of Polish construction law.

Since 2000, several thousand landscape architecture graduates have entered the employment market. Attempts are being made for the Construction Law Act to cover landscape architecture sites. This would allow landscape architects to have a trade chamber or be within an existing Polish trade chamber. The work that licensed landscape architects would be able to perform must be defined, which is a task for trade associations.

A second opportunity to obtain a professional licence has appeared. It is the result of EU regulations and the IFLA Europe. In 2012, under the direction of Professor Fritz Auweck, a working group was formed to identify the situation of the profession in each EU member state. There is a possibility of the automatic regulation of the profession on the basis of the Common Training Frameworks (Art. 49a) and Common Training Tests (Art. 49b) of the Proposal COM (2011/883). The automatic regulation of the profession at EU level occurs when a profession is regulated in at least ten EU member states. In 2015, there were seven such countries. In 2019, the required number was reached. The countries include: France, the Netherlands, Iceland, Luxembourg, Germany, Slovakia, Slovenia, Hungary, the United Kingdom and Italy [10].

This brings hope that, after the necessary formalities, the profession will be regulated in Poland. However, this does not change the fact that the matter of establishing a trade chamber and formulating the principles of licensure remains open.

CONCLUSIONS

When landscape architects began to be trained on a larger scale in Poland in 2000, a number of problems became apparent that were associated with the development of the landscape architecture discipline. They included the development of academic staff and creating a dynamic professional community. Both have since happened, as evidenced by academic publications and the professional market. At present, the matter of addressing the legal framework for practising the profession - professional licensing - has come to the fore. The curricula of each university that teaches landscape architecture in Poland has developed depending on their specificity, which can be seen when comparing contact hour schedules. As shown above, landscape architecture is a specialisation in which engineering competencies are critical.

It is beneficial to compare countries in which the tradition of practising this profession is long; this results in good quality and a high status for the profession. The legal basis for the functioning of a profession is key, particularly in a situation, where the profession is still establishing foundations, and where there is a lack of teaching and academic research.

There is an entire range of benefits to be had from introducing professional licensing. It guarantees that designs will be made by specialists; the prestige of the profession will increase and the market will be protected from unskilled designers. Proper safety and quality standards will be enforced. This will be conducive to the introduction of unified principles concerning the practising of landscape architecture. The author hopes that the efforts of the professional community in Poland to this end will be successful.

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