FORMATION OF ARCHITECTURAL HISTORY AS A DISCIPLINE IN MODERN ARCHITECTURAL EDUCATION IN TURKEY

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ABSTRACT

FORMATION OF ARCHITECTURAL HISTORY AS A DISCIPLINE IN MODERN ARCHITECTURAL EDUCATION IN TURKEY

Architectural history courses, which examine the architectural works, buildings, and social structure of societies from various civilizations, regions, and ages with multiple viewpoints, are an important part of architectural education. In Turkey, within the scope of the education programs, architectural history courses take place in doctorate, master, and undergraduate programs, and in terms of undergraduate education, they are one of the critical elements of the compulsory courses. Undergraduate architectural education and architectural history courses are taught in 101 of Turkey's 204 universities, but when these courses are examined from a varied perspective, they show differences in the distribution to the semesters, duration, scope and subject content, naming, course sources, or local and national crediting. While this situation causes an architecture student studying architecture in Turkey to graduate with knowledge of architectural history at different scales, it also contradicts the National Qualifications Framework Charter in Turkey. Also, the consequences of this situation appear in many areas with negative examples both in education life and the built environment.

In this context, within the scope of this study, architectural history courses in undergraduate architectural education in Turkey are examined through data from the ECTS information package with the purpose of revealing the portfolio of architectural history education. The main objective of this study is to examine the effects of the causes and consequences of these differences on architectural undergraduate education by analyzing the different approaches seen in the scope of Architecture History courses in undergraduate architecture education in Turkey using numerical data.

Key Words: Architecture, Architectural Education, Architectural History, Architectural History Courses, Situation Analyses

ÖZET

TÜRKİYE'DE MODERN MİMARLIK EĞİTİMİNDE MİMARLIK TARİHİ DİSİPLİNİN OLUŞUM SÜRECİ

Farklı uygarlıklar, ülkeler ve zamanlardaki mimari yapıları çok yönlü olarak ele alan Mimarlık tarihi dersleri, mimarlık eğitiminin önemli bir parçasını oluşturmaktadır. Doktora, yüksek lisans ve lisans programlarının kapsamlarında yer alan Mimarlık Tarihi dersleri, lisans programı çerçevesinde öğrencilere zorunlu dersler olarak verilmektedir. Türkiye'de toplamda 101 farklı üniversitede mimarlık lisans eğitiminin bir parçası olarak ele alınan bu dersler, yerel ve ulusal kredilendirilmeleri, dönemlere yayılışları, konu içerikleri, adlandırılışları veya ders kaynakları açısından farklılıklar göstermektedir. Türkiye'de YÖK tarafından Uluslararası Mimarlık Eğitimi Tüzüğü örnek hazırlanan Türkiye Yükseköğretim Yeterlilikler Çerçevesi ve MİAK tarafından hazırlanan mimarlık eğitimi standartlarıyla çelişen bu durum Türkiye'de Mimarlık Lisans Eğitimi içerisindeki Mimarlık Tarihi derslerinin kapsamlarında dengesizliklere sebep olurken, mimarlık eğitimi gören öğrencilerin bilgiye eşit ulaşma hakkıyla da ters düşmektedir. Bu bağlamda, bu çalışma kapsamında Türkiye'de mimarlık lisans eğitimi içerisindeki mimarlık tarihi dersleri, üniversitelerin akts bilgi paketindeki veriler üzerinde karşılaştırmalı olarak incelenerek, okullarda verilen mimarlık tarihi eğitiminin portföyünü ortaya konmaya çalışılmıştır. Bu çalışmayla beraber, Türkiye'de mimarlık lisans eğitiminde Mimarlık Tarihi derslerinin kapsamlarında görülen farklı yaklaşımların sayısal veriler üzerinden durum analizlerinin yapılması, ve ortaya çıkan sonuçların mimarlık lisans eğitime etkilerinin incelenmesi hedeflenmiştir.

Anahtar Kelimeler: Mimarlık, Mimarlık Eğitimi, Mimarlık tarihi, Mimarlık Tarihi Dersleri, Durum Analizi

To my dear Family…

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ABBREVIATIONS AND TRANSLATIONS

CoHE: YÖK (In Turkish), The Council of Higher Education

ECTS: The European Credit Transfer and Accumulation System

ITU: Istanbul Technical University

METU: Middle East Technical University

MSFAU: Mimar Sinan Fine Arts University

Mühendishane-i Berri Humayun: İstanbul Technical University's first name during Ottoman Empir Era

NAAB: National Architectural Accrediting Board

NQF-HETR: National Qualifications Framework for Higher Education in Turkey

NQF-HETR: Türkiye Yükseköğretim Yeterlilikler Çerçevesi (In Turkish)

ÖSYM: Measuring, Selection and Placement Center

Sanayi-I Nefise Mektebi: Mimar Sinan Fine Arts University's first name During Ottoman Empire Period

UCTEA: Union of Chambers of Turkish Engineers and Architects, Türk Mühendis ve Mimar Odaları Birliği (TMMOB)

UIA: International Union of Architect

CHAPTER 1

INTRODUCTION

For the architect, who is one of the most important people shaping the built environment in which we live, there have been various definitions since the existence of mankind. In historiography, the appropriation of the identity and professional status of an architect is closely related to the process of understanding the practice of architecture as a profession. In other words, the social, economic, cultural, ideological, and political factors that constitute the professional practice of architecture have also influenced the presence of the architect (Onur 2018, 583).

However, until the Medieval era, the architect and related terminologies had no professional definition. Almost every language in societies naturally includes words related to architecture. However, it cannot be said that every language that has an architectural vocabulary has an architectural terminology (Tanyeli 1990, 52). During the Medieval Era, the appellation of architecture as a profession first appeared in the masonic guilds. Before the Industrial Revolution, in the early ages, master masons and constructors were the same people, and there was no mention of a specialized definition for the architect as a profession. When the term "Architectus" emerged among the mason guilds, it began to occupy a more distinguished position than the constructor and craftsman (Onur 2018, 584). After the Industrial Revolution, with specialization in professions, the terms architect and architecture find their definition. In the ongoing years, as technology developed and living conditions changed, architecture evolved into a more defined and skilled profession. In the present time, with new technologies and specializations in the field of construction, architecture and architect are defined more comprehensively. For instance, in the dictionary of Cambridge, the definition of an architect is; A person whose job is to design new buildings and make certain that they are built correctly, and the definition of architecture is the art and science of designing and making buildings, or the style of a building (https://dictionary.cambridge.org/tr/s%C3%B6zl%C3%BCk/ingilizce/architecture). Also, in the International Union of Architects

declarations, the definitions, scope, and competencies of architecture and architectural education are explained. In the revised 2017 Charter the architecture is:

- "That architecture, the quality of buildings and the way they relate to their surroundings, respect for the natural and built environment as well as the collective and individual cultural heritage are matters of public concern."
- "That it is in the public interest to ensure that architects are able to understand regional characteristics and to give practical expression to the needs, expectations, and improvement to the quality of life of individuals, social groups, communities, and human settlements (Uia 2017)".

The change and transformation of the meaning and mission of the architectural profession and the concept of "architect" throughout history has also been a factor in the transformation and shaping of architectural education (Onur 2018,587). In the Medieval era and early on, people began to learn architecture by imitating their masters and rose their abilities as they learned (Akyüz 1996, 22). In other words, architectural education was based on the master-apprentice relationship and the education method continued depending on the guild organizations. However, during the Medieval Era, the development of technology and changing living conditions also reflected on education. After 1000 years, at the end of the Medieval Era, there were two universities affiliated to the guild organization and churches, the University of Bologna, and the University of Paris (Tekeli 2014). These two universities are considered to be the oldest universities in the world. Accordingly, in other words, the first formation of today's universities started with guild organizations and over time it evolved and moved to the universities. However, during the Medieval Era, the education in these two universities was church-centered and conservative. At the same period, the equivalent of this institution in Anatolia was the Ahi organization and the education was given in the madrasas affiliated to the Ahi organizations. Like church-based universities, in madrasahs, religious education was at the forefront besides technical and vocational education (Tekeli 2015).

Continuing education affiliated to the guild and ahi organization gained a new dimension after the academies in France and England in the 16^{th} and 17^{th} centuries. With the developments in the industry, the need for professionals increased, architectural, engineering, and other types of technical educations were institutionalized and moved to technical schools or universities (Erpi 1995, 17). Also, the university-level education,

where religion was at the forefront before, based on science has become to the fore. This educational development, which is directly related to the industrial revolution, brought a new vision to universities and formed the basis of today's university-level education.

From the 17th century, new universities and technical schools were established with the industrial developments, technology, science, and the increasing needs in technical profession branches. This development process has progressed almost in the same way in Turkey. Higher education, which was given in madrasas before, gained a new dimension with the development in industry and science and so passed to technical schools or higher educational institutions during the Ottoman Empire Era. Among the Western-based universities, the ones that have the most influence on today's architectural education in Turkey are the Ecole des Beaux-Arts, which was founded in France in 1671, and the University of Pennsylvania, which was founded in the USA in 1740. With these two universities, French professors and German professors who escaped the Nazi regime in the Second World War that settled and started to work in Turkey contributed the university level architectural education. While Ecoles des Beaux-Arts influenced the establishment of the Istanbul Technical University and Mimar Sinan Fine Art University, the University of Pennsylvania influenced the establishment of the Middle East Technical University. After the establishment of these three universities, in the ongoing years, lots of universities with the departments of architecture and technical higher educational institutions were also established. However, in 1981, with the establishment of the Council of Higher Education in Turkey all universities, institutions, or schools turned to the university and architecture became a profession that cannot be performed without a completed university education. When came to 2010, almost every city in Turkey had at least one university, and in 2021, there are 205 universities in Turkey and 101 of these universities have departments of architecture. In the universities, although the course names, contents, and credits of the undergraduate education may vary, the aim of the education is the same for all.

In this context, when looking at the scope and purpose of undergraduate architectural education on the websites of universities in Turkey; The aim of architectural education is to maintain its existence in the field of contemporary architectural education in the international platform by adapting to today's changing conditions. In this context, the basis of undergraduate architectural education consists of compulsory courses in the fields of "design and theory", "history", "technology", and elective courses in secondary fields, and internships. The 4-year undergraduate architectural education that shaped

according to these three themes consist of multidimensional study areas of architecture, fundamentals of design and visual communication, architectural design and theory, building science and technology, architectural history, landscape design and planning, urban studies, and planning, and professional practice. Therefore, during the education, it is aimed to equip students with global and local knowledge in architectural practices at national and international scales and to train qualified architects. In this regard, when the background of these qualifications observed in undergraduate architecture education is researched, institutions and charters including CoHE, MIAK, and NQF-HETR are found.

In Turkey, the first institution that determines the purpose, scope, and content of architectural education is the Council of Higher Education (CoHE). Although this institution was established in 1981, it took until 2010 to create the architectural undergraduate education charter. Within the scope of the National Qualifications Framework for Higher Education in Turkey (NQF-HETR), a charter was prepared by CoHE and architectural education has been explained with certain definitions within the notion of 'knowledge', 'skills', and 'competencies' under the title of Architecture and Construction in 2010. According to NQF-HETR, undergraduate architectural education is at least 4 and at most 7 years and consists of a total of 240 ects and 6000-7200 course hours (http://tyyc.yok.gov.tr/?pid=36). In addition, with the charter published in the Official Gazette of February 2, 2008, architectural education was organized to ensure the equivalence of diplomas with Europe and as defined under the title of Article 9 (https://www.resmigazete.gov.tr/eskiler/2008/02/20080202-9.htm). According to the information in these two sources, to complete the bachelor architectural education in Turkey and become an architect, the student must meet the following requirements.

- Having sufficient knowledge of architectural design, urban planning, design, architectural history and theories, architectural art, fine arts, technologies, and humanities.
- To be able to understand and provide solutions to structural design, construction, and engineering problems related to building design.
- Knowing the relationship between people, building and environment, social dynamics, and the architect's place in society
- To be able to prepare a project proposal information, to have a good command of the bylaws and procedures.

- Having sufficient knowledge about the physical problems, technologies, and functions of the buildings.
- Having sufficient design skills to meet the needs of the occupants of the building within the constraints of cost items and building regulations.

Apart from these two institutions, MIAK is another critical institution that determined standards for architectural education in Turkey. The institution, which was founded in 2006, was established to contribute to the improvement of the quality of architectural education. In the beginning, MIAK worked under the dome of the Union of Chambers of Turkish Engineers and Architects about 15 years and became independent in 2019 and cooperates with the CoHE and UCTEA. The institution is accrediting architectural departments that provide education at European standards in Turkey. When 101 undergraduate architecture departments in Turkey are examined today, it is seen that only 12 of them are accredited by MIAK. Other departments are not accredited since they do not meet the criteria of MIAK's Charter. This situation is related to lots of reasons, and one of the important reasons is that the courses contents of the undergraduate architectural departments do not meet the expected qualification criteria. In this regard, while this status can be accepted as normal for the courses or course contents at universities to be different in the context of elective courses, it is not acceptable for the content deficiencies and differentiation observed within the scope of compulsory courses because these distinctions may affect the quality of education negatively directly or indirectly. In this context, within the scope of this thesis research, the reasons and main actors of these differences or disunity that are observed in architectural history courses within the scope of compulsory courses in architectural undergraduate education in will be discussed on several counts.

1.1. Problem Definition

After the 17th century, the institutionalization of university education in Turkey progressed in parallel with the world and until the end of the 20th Century, the number of universities and other types of higher educational institutions on architecture and

engineering education regularly increased. However, in 1981, with the establishment of the Council of Higher Education (CoHE) in Turkey, all universities, colleges, and higher educational institutions gathered under a single administrative roof, and university education was provided all over the country. Afterward, in 2010 the Council of Higher Education was prepared a competencies framework for all professional programs in universities named as National Qualification Framework of Higher Education in Turkey (NQF-HETR). This charter was derived from the architectural education charter prepared by UIA and shows the scope and qualifications of undergraduate architectural education in Turkey. Within the framework of NQF-HETR, certain qualifications are required to successfully graduate from undergraduate architectural education. In this regard, according to the NQF-HETR, it has been observed that undergraduate education is an education that is shaped through architectural design, building knowledge, architectural culture, and history courses, and fed by related subfields. (http://www.tyyc.yok.gov.tr/?pid=48). As follows, when the courses are accessed from the ECTS information packages of universities in Turkey, it is seen that Architectural Design and Planning, Building Science and Architectural History courses are compulsory courses in all universities.

The architectural history courses among these 3 courses, which are in constant relationship with each other, are of great importance in terms of conveying the relationship established with the past to the present. It is known that throughout World history, architectural designs were influenced by previous periods' constructions, which were used as examples for new designs, most of the resulting works were copies made with little changes, and sometimes they could be reinterpreted in the hands of skilled craftsmen so that new, forward-looking designs could be made (Yavuz 1997, 30) In this context, Architectural History is a direct source to reach the buildings and other architectural works in the past. In addition, architectural history gives us information not only about the constructions but also about the society, culture, way of living, or political order. For instance, for Tanyeli, all political ideologies use the history of architecture (Tanyeli 1997, 36). In this context, from a building, not only architectural information can be obtained, but also information about the social, cultural, or political situation of the period. Therefore, architectural works serve as a permanent mirror for the people who built them and live in or around them (Leach 2010, 23). Again, the criteria according to which buildings belonging to different periods need to be evaluated is made through the knowledge of architectural history. We interpret the buildings with what we have learned

from Architectural History and place them accordingly in a chronologic period (Tanyeli 1997, 35). Therefore, it is not possible to think of architecture by ignoring the history of architecture. In Turkey, architectural history courses, which are given as compulsory courses in undergraduate education, are defined in NQF-HETR. In this context, the competencies related to Architectural History are discussed in the 1st, 2nd, and 7tharticles under the Knowledge title. According to these 3 articles:

- An architecture student should have discursive, theoretical, factual knowledge and understanding in the relevant core area, in the local, regional, national, and global context for architectural design, planning, design activities, and research.
- The student should have the knowledge and understanding of the necessary intellectual, discursive, scientific, technological, aesthetic, artistic, historical, and cultural infrastructure in the field of architecture.
- The student should have knowledge and understanding of the place and importance of the relevant field in the historical, geographical, social, and cultural context.

In other words, an architectural student should have scientific, technological, aesthetic, artistic, historical, and cultural knowledge on a local, regional, national and global scale within the context of architectural design, planning, and research. When considering this frame, these qualifications are not fully met within the scope of architectural history courses in Turkey, in terms of courses' content and credits, hours, and distribution over the semesters. In terms of courses' contents, general examinations show that, in Turkey, European-centered or regional approaches are dominant (Özkan 2010, 125). In other words, while the History of Architecture courses of one university can be based on European and Western architectural history, the other can be Turkish-based architectural history. This is also related to the fact that architectural historians were left behind in new research in scientific fields after the 1960 revolution in Turkey, and therefore Western sources on architectural history were used as a coursebook in architectural education (Yavuz 1997, 32). In addition, the other noticeable differences are observed in the courses' credits, weekly and semester distributions, and total hours per semester.

Considered in this context, the architectural history courses, which are seen as compulsory courses in all university's undergraduate architectural curriculums, are the courses that examine the building types, architectural developments, and the built environment from the beginning of humanity to the present day and form the basis for the understanding, discussion, and evaluation of architectural movements and architectural works (Karahan 2016, 2). In this regard, the relationship established with the past in architectural education is provided through architectural history courses. Therefore, these courses, which form the architectural formation of the student and give the student an intellectual perspective, are one of the most important courses given within the scope of architectural education (Pilehvarian Kara 1998, 99). However, the scope of the Architectural history courses shows different approaches in undergraduate architectural departments in Turkey. From the universities' curriculums, it is seen that these courses may differ in terms of local and international credits, distribution over the semesters, naming, chronological division, and the contents. These distinctions in the courses are contrary to the right of the "principle of equal opportunity in education" that all students have within the scope of university education. In other words, students who are required to have an undergraduate architectural education within the framework of the same Charters, graduate with unequal knowledge and competencies because of differences in architectural history courses. This condition also contradicts the NQF-HETR Charter prepared by CoHE and implemented by MIAK. As a result of this condition, the knowledge, skills, and competence that must be provided at the lowest level are not met within the scope of architectural undergraduate education in Turkey. In other words, students studying architecture in Turkey graduate with different knowledge of architectural history, despite having an education subject to the same charter. In the light of all this information, the research problem within the scope of this thesis study is the reasons and consequences of multi-layered differences and inconsistencies observed in architectural history courses in undergraduate architecture education in Turkey.

1.2. Aim of Study

Depending on the problem definition discussed in the previous part, in this part of the research, the aim of the study will be discussed. In this context, in Chapters 1 and 2, it is aimed to present the historical background of the architectural education and architectural history courses in Turkey. Thereby, in the light of the data obtained, the multi-layered diversities in architectural history courses and their relationship of it with the historical process can be presented. In the continuation of this part, which examines the process from past to present, it is aimed to reveal the current situation of undergraduate architectural education and architectural history courses in Turkey. In this context, initially, the institutions and charters that constitute the scope and framework of today's architectural education, together with their aims, and articulations are examined. The main purpose of this part is to understand the qualifications and scope of undergraduate architectural education and the architectural history courses in this education at present. In this way, it will be determined in which context the differences and discrepancies occur in architectural history courses in Turkey. In these two Chapters, after mentioning the causes for the differences in undergraduate architectural history courses, in Chapters 3 and 4, how these discrepancies concretize in architectural education and its results are aimed to reveal.

In Chapter 3, it is aimed to present the situational analyzes of architectural history courses in the frame of crediting, course contents, the language of instruction, and periodic and hourly distributions. In this regard, within the light of the situation analyses, inconsistencies in architectural history courses will be understood more clearly with numerical data, figures, and tables. Hereby, in Chapter 4 in the light of the situation analysis, the main purpose is to evaluate and reveal the reflection and effect of the multilayered inconsistencies of architectural history courses to the architectural education in Turkey with the criticism of numerical data, courses contents, and sourcebooks. In the outline of the research, it is aimed to deal with the thesis problem discussion in these two Chapters.

Finally, within the scope of this research study, it is aimed to discuss the direct and indirect effects of the differences in architectural history courses on architectural education, architecture students, and the built environment and to reveal the results. Thus,

it will be questioned how the architectural history courses in the undergraduate architecture education in Turkey can be transferred to the students in common integrity and more successfully.

1.3. Methodology

Scientific research is the process of collecting, analyzing, evaluating, and reporting data in a planned and systematic way to seek reliable solutions to problems (Karasar, 1999, 22). The research methodology that uses in scientific studies, thesis, articles, etc. is the philosophy or general principle which guides the research (Dawson 2002,22). In other words, the thesis research, which has a scientific quality, should meet the definition of scientific research and should be handled with a certain scientific method. In the scope of this part of the Chapter, the used research methodology will be discussed. For this purpose, firstly, research methods are introduced in general. Afterward, the methods of the thesis are discussed in detail by chapters.

Depending on the objective and content of the research, a variety of methodologies can be used within the framework of scientific studies. When examining architectural studies, it is seen that the most used research methods are the qualitative method, quantitative method, or methods that cover both. Apart from these, there are also other research methods named correlational, experimental, or case study, but these are used less than the first three ones. This is also related to the scope and content of the research. In the scope of this study, among these methods, the quantitative research method is used. However, before discussing the quantitative method, it is beneficial to have information about quantitative and qualitative research methods to better understand the concept of these methods.

The words quantitative vs qualitative are one of the most used strategies for framing dichotomous models. Quantitative research, at its most basic level, is based on manipulating phenomena that can be measured numerically, whereas qualitative research is based on non-numerical data, whether verbal (oral or written), experiential (video or notes on people in action), or artefactual (objects, buildings, or urban areas). Therefore, while quantitative research assumes an objective reality and a view of the researcher is

independent of the subject of inquiry, qualitative research assumes a subjective reality and a view of the researcher as interactive with the subject of inquiry (Groat and Wand 2013,69- 71).

At this point, since the main discussion of the study is shaped over the architectural history courses' situation analyses and assessments on numerical data, the research method of this study is the Quantitative Research Method. In this regard, when examined chapter by charter, in Chapter 1 and Chapter 2 the introduction and historical background of the thesis problem are examined. In these Chapters, it is aimed to establish the backbone of the main discussion of the thesis. The quantitative research methods are mainly observed in Chapter 3 and Chapter 4. In Chapter 3, the architectural history courses situation analyses in the undergraduate architectural education in Turkey are examined over standards, contents, and quantitative data including credits, hours, and semester with tables, figures, and other supporting numerical data in 353 courses in 101 universities. In the list below, the main subjects of the situation analyses are presented.

- Course Credits (National and ECTS)
- Architectural Education Language numerical distribution
- Weekly course hour and distribution of Architectural History courses
- Architectural History courses' contents by universities

Afterward, in Chapter 4, the assessments of the architectural history courses over the above subjects are presented. The evaluations made in this chapter are directly related to the analyzes in Chapter 3 and are the results and evaluations of the analyzes there. Just as in the previous chapter, numerical data tables and figures are the main elements in Chapter 4. When considered in this context, Chapter 3 is shaped within the context of the numerical data of situation analyses, while Chapter 4 is shaped within the context of the interpretation of these situation analyses. In other words, in these two Chapters, the main argument of the thesis problem is examined and presented on numerical data including tables, figures, and other supporting data in 353 courses in 101 universities.

In this context, in this thesis, which deals with the inconsistencies observed in architectural history courses, each data obtained corresponds to numerical analysis. That is, each subject examined within the scope of the thesis was obtained and evaluated either from a written document or from numerical data. Therefore, the research method in this thesis is compatible with the parameters of the quantitative research method.

CHAPTER 2

THE HISTORICAL BACKGROUND OF ARCHITECTURAL EDUCATION AND ARCHITECTURAL HISTORY COURSES IN UNDERGRADUATE ARCHITECTURAL EDUCATION IN TURKEY

In this chapter, the formation and evolution of undergraduate architectural education and architectural history courses in this education in Turkey will be examined from the westernization period in the Ottoman Empire era to the Republic of Turkey period. Therefore, the overall aim of this chapter is to research the emergence and transformation in institutionalized architectural education from the Ottoman Empire era to the end of the 20th century, to discuss the formation, articulation, ecole, content, and place of architectural history courses in this education and to see the how it affected and shaped the current architectural history courses.

In the beginning, in Chapter 2.1 the pioneer institutions that form the basis of today's university education system are researched. For this reason, this part begins with the Ottoman Empire era. In this period, the first step of today's universities, Mühendishane-i Berri Hümayun that established in 1773 (Istanbul Technical University) and Sanayi-i Nefise Mektebi that established in 1882 (Mimar Sinan Fine Arts University) to train engineers and architects under the influence of the Ottoman Empire's westernization policy in the 19th century are examined. After then in the ongoing part, the other significant university that came from another education ecole, the Middle East Technical University (METU) (1956) is examined. Since the current undergraduate architectural education curriculums are derived from these three universities, they have critical importance in the context of this research to shed light on today's architectural education.

Afterward, in Chapter 2.2, the historical background of architectural history and theory courses in undergraduate architectural education in Turkey is examined. In the context of the thesis research, in this part, the emergence, formation, articulation, and

place of architectural history courses are handled in the frame of ITU, MSGU, and METU. As in the previous part, since these three universities' education ecole shaped the undergraduate architectural education in Turkey, to understand the current architectural history courses curriculums', its goal, and problems in undergraduate architectural education, it is very critical to understand them in the scope of the research.

2.1. The Formation and Evolution of Architectural Education in Turkey

After the 18th century, the developments in the industry and new methods of production affected the whole world. The changes in living conditions, production technics, and work practices had also shown themselves in the field of education in Europe and Western countries. With industrialization, the need for skilled labor increased and vocational education had been institutionalized and shifted to universities (Onur 2018, 587). The change of the understanding of education in Europe, after the 18th century, showed itself in schools including the Ecole des Beaux-Arts, the Ecole Polytechnic in France, and the Bauhaus in Germany (Nalçakan 2006, 34). These developments, which affected the whole world, in industry and education also affected the Ottoman Empire in the 19th century. The rapid development of Europe and the backwardness of the Ottoman Empire caused alterations and new styles in the Ottomans educational system (Hızlı 2013,13). This reform movement began with students being sent to Europe to receive a Western-style education. Students who received a comprehensive education in the fields of engineering, architecture, and art in England, France, and other countries, later returned to the country to put into practice the education system that they learned here in the field of engineering and architecture. In this sense, Mühendishane-i Berri Hümayun (1773) (İstanbul Technical University with current name) and Sanayi-I Nefise Mektebi (1882) (Mimar Sinan Fine Arts University with current name) were the first institutionalized schools in Turkey with French educational ecole (Karahan 2016, 34-35).

Mühendishane-I Berri Hümayun which was later converted to Istanbul Technical University is the first institution in Turkey to provide university-level education with modern approaches. The school was established in 1773 as part of the modernization

movement in the Ottoman Empire. The founding purpose of the school was to train qualified personnel for the military in the field of engineering, architecture, restoration, and construction (Mangtay 1995, 33). Therefore, in the beginning, all educational units trained together, and architectural education was not independent as a department or faculty, instead, it was taught part of the engineering department. During this training process, in the field construction, it was expected for students to gain experience in building military structures through the training that developed with the Western teachers at the university. Also, initially, the school hadn't got a university qualification, but in the following years, it evolved into a university with the developments in the country, technology, and professional needs in the field. With these developments, after the establishment of the university, since the university education, ecole was taken from France Universities, French professors mainly took part in the teaching staff of the school (Hızlı 2013, 11).

Figure 1. ITU Faculty of Architecture Taşkışla Building
(Source:https://aripedi.com/%C4%B0T%C3%9C_Mimarl%C4%B1k_Fak%C3%BCltesi in 05.11.21)

In the university, the courses in the field of architecture were divided into 4 years and each year different courses were taught. Geometry, calculus, French lessons, technical drawing, Arabic, algebra, engineering, and architectural courses were in the

foreground (Mangtay 1995,34). After the educational order had continued like this for a while, changes were made in 1847, and separate architectural classes were opened in addition to the other engineering classes (Mangtay 1995, 34).

Although the history of Istanbul Technical University goes back to the 18th century, undergraduate architectural education began to be institutionalized in 1945 in the Republic of Turkey period (Kuban 2009, 673). In this period, the name of the school was changed to the Istanbul Technical University, and the "Taşkışla Building" in Beyoğlu was allocated to the faculty for the department of architecture. From this moment on, undergraduate architectural education at Istanbul Technical University continued as an independent department, and foreigner and Turkish academics, new sub-departments, course contents, and curriculums were added to the programs. At present, ITU, which is one of the most important institutions in university education in Turkey, continues its education in architecture where technical knowledge and equipment are at the forefront. In the university, there are doctorate, master's, and undergraduate programs in the field of education in architecture, and the language of education is both English and Turkish. In other words, there are two departments affiliated to the same faculty but providing education in different languages. Among these programs, as in all other universities, undergraduate architectural education continues a minimum of 4 and a maximum of 7 years. With the qualifications it offers in architecture and engineering education, ITU is one of the most important universities in Turkey today.

As İstanbul Technical University, Mimar Sinan Fine Arts University is another important institution in the Ottoman Empire where western-style education is at the forefront. In this period, as mentioned before the Ottoman Empire sent students to Europe, especially France, to follow developments in the industry and to learn the contemporary architectural and engineering education and art movements with all, aspects. The fine arts academy "L'Ecole Des Beaux-Arts" in France was one of the higher education institutions that played a significant role in the establishment of the Sanayi-i Nefise School (MSFAU) in Tukey (Aydın 2014, 75).

Figure 2. Mimar Sinan Fine Arts University
(Source: Güzel Sanatlar Eğitiminde 100 Yıl, Mustafa Cezar, sf 23)

The academy (MSFAU) was established by Osman Hamdi Bey, who had studied law, painting, and art in Paris, and opened in 1882 as a higher educational institution on art and architecture (Nalçakan 2008,90). Within the years, the name of the institution had changed with educational reforms in Turkey. These names were respectively "Mekteb-i Sanâyi-i Nefîse-i Şâhâne", "Sanâyi-i Nefîse Akademisi", "Fine Arts Academy" and in 2004 the name of the university changed for the last time as "Mimar Sinan Fine Arts University" (Cezar 1968, 9). One of the main reasons for the establishment of the Academy was that architects in Turkey did not receive adequate training until the 19th century, therefore the construction of the most important architectural works was given to foreign architects. With the establishment of the Academy, it would be possible for our students to receive a comprehensive education in art and architecture in their own country (Hızlı 2013, 20). In the beginning, the departments in the university were painting, sculpture, architecture, and engraving, however because of the lack of academicians in the department of engraving, until 1892, the department could not open (Karakaya 2006, 7). When the academy was opened, it had a library, a collection of paintings, a plaster collection, and classrooms for students (Magtay 1995, 49).

On the other hand, in beginning, the Architectural education at the Academy was based on the master-apprentice relationship and lasted 4 years. While the education usually consisted of art-oriented courses, the theoretical courses, building elements, project courses, surveying courses, geometry, perspective, topography, building materials, and architectural knowledge were the main elements of the architectural education curriculum (Mangtay 1995, 63-65). In the school at the beginning the French education ecole was dominant, however, in time the Central European education ecole also gained effectiveness with the participation of some well-known architects, who escaped from the Nazi regime in the 1930s, to the teaching staff of the school (Nalçakan 2006, 66). In this sense, the first instructor in the department of Architecture was the architect Vallury. At the end of Vallury's 25-year tenure, Mongeri became the head of the department. Along with Mongeri, Turkish architects the Architect Kemalettin and the Architect Vedat started to take part in the academic staff of the architecture department. In 1934, with the influence of the French architect Ernst Egli, the architectural department in the Academy was transformed into the 'higher architectural department' and the education period was increased from 4 to 5 years (Cezar 1983, 25). With this purpose, it is aimed to increase the equipment and education quality of the graduated architect.

The education, which continued in this way for many years, again decreased to 4 years with the establishment of CoHE. Today, the Department of Architecture, which still has an education period of 4-7 years, continues to provide one of the most qualified architectural educations in Turkey, under the Faculty of Architecture. Although continuing architectural education is not as art-oriented as when it was first opened, the courses art history and traditional building materials still cover an important part of the education. Just like ITU, there are doctorate, master, and undergraduate departments within the scope of the department and the language of education is Turkish. These two universities had been the pioneers of university-level education in architecture in Turkey until the 20th century. In the 20th century, with the establishment of Middle East Technical University, another architectural education understanding arose in the country.

With the idea of establishing an international Turkish university, the ideological foundation of the Middle East Technical University was laid in 1953 (Mangtay 1995, 72). With this purpose, on November 15, 1956, Middle East Technical University was established with the name of "Orta Doğu Yüksek Teknoloji Enstitüsü" (Middle East High Technology Institute) through the aim of contributing to the development of Turkey and the Middle East Countries, particularly by training people to create a skilled workforce in

the natural and social sciences (https://www.metu.edu.tr/history). The first department at the University was the Department of Architecture, which was opened in 1956. Afterward, in 1957, the Faculty of Mechanical Engineering was opened and then the Faculty of Arts and Sciences was opened in 1959. The Faculty of Education started teaching in 1982.

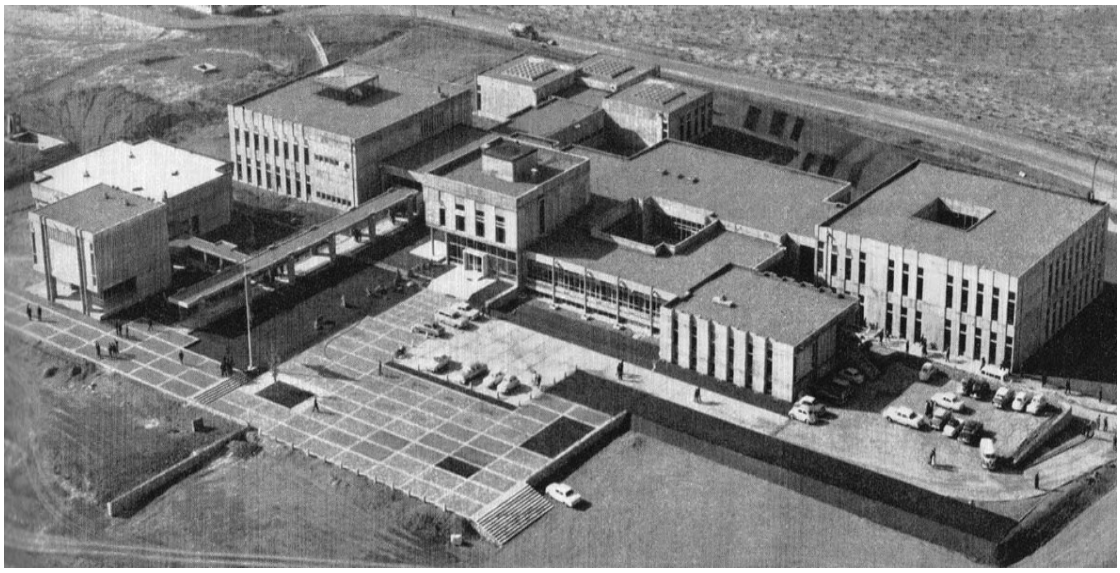

Figure 3. Middle East Technical University Faculty of Architecture (Source:http://www.arkiv.com.tr/proje/ortadogu-teknik-universitesi-mimarlik-fakultesi/7915 in 05.11.2021)

In the university, firstly, the Department of Architecture was opened to education, and at the beginning of the academic year 1957-1958, the Faculties of Architecture, Engineering, and Administrative Sciences were opened too (Nalçakan 2008, 94). The university, which consisted mostly of academics from America, has been providing education in English since its establishment. The vision and the of the Faculty of Architecture is to be an institution that provides qualified education at an international level in Turkey. Also, the University brought several innovations to architectural education in the country. The education model that was applied by the institution is partly influenced by the "American extension of Bauhaus legacy" (Özelgül 2009, 75). The first of this new system was the use of the deductive method rather than induction in the

courses and the basis of the deductive method was introduced to the students with the design courses (Nalçakan 2006, 79). Also, architectural education in the Department of Architecture was divided into three main groups: design courses, technical and structural courses, and social-cultural courses. These 3 groups were spread into the 4-year undergraduate program with laboratory, office, and site internships, so that theory and practical training were designed in harmony. According to the architectural education program determined by the Department of Architecture in 1972-73, the first two years consisted of preparatory courses. These courses provided the basic knowledge of the architectural profession and the knowledge requiring technical skills and taught students simple architectural syntheses. In the remaining two years, students produced detailed architectural syntheses with more content in addition to the basic knowledge and skills they had acquired in the courses taken (METU 1974,4).

Also, in terms of academic staff, it is known that Godfrey, Perkins, Cox, Sevely, etc. and the names Rasmussen, Fathy, Oliver, Rapoport, Broadbent, De Carlo, Smithsons, with their short-term participation, contributed to education at various times in the department, which has an international character (Karahan 2016, 57). In addition to these names, it is known that Enis Kortan and İnci Aslanoğlu are among the active names in the department of architectural history. Within the frame of the new architectural education ecole adopted by METU, instead of the conventional teaching methods, the new method in which the student takes an active role in the lesson as much as the instructors were applied. With this method, the border between the instructor and the student was thinned, and the student's activity in the course became one of the vital elements that shaped the quality of the education.

When looking at today's architectural undergraduate education curricula in Turkey, we come across many universities that have taken their education from these three universities. One of the reasons for this status is related to the establishment of new faculties of architecture over the country in the advancing years and academic staff and graduates from these three universities were included in the staff of the newly opened universities. For instance, after the establishment of Karadeniz Technical University in 1960, due to the lack of adequate personnel, academics were provided by İstanbul Technical University (Kömürlü 2019, 39). Also, in 1982, while Selçuk University was established by merging two private technical colleges on engineering and architecture, the Gazi University was established in 1983 by merging three private technical colleges on engineering and architecture. Also in 1982, Dokuz Eylül University and Trakya

University were established by turning of private colleges. When looking at the past, the influence of Istanbul Technical University is observed in these private schools that focus on technical education.

Either the education ecole of Izmir Institute of Technology, which was established in Izmir in 1999, was taken over by the education ecole of METU. Another example of this situation is Gaziantep University. The university was established in 1973 as part of METU, which provides higher education in the city of Gaziantep in the southeastern region of Turkey. In 1987, the university separated from METU and continued on its independent way. Even today, METU's influence on the university's curriculum can be seen. In addition, the education ecole of the Bauhaus that applied in METU has also had an impact on universities. At present, the Bauhaus education ecole plays an active role in all architecture departments throughout Turkey, even including ITU and MSFAU.

In this context, it is seen that the influence of İstanbul Technical University, Mimar Sinan Fine Arts University, and Middle East Technical University on the other universities in many aspects. In the ongoing years, the different educational approaches of these three universities started to be implemented in the universities architectural education those were established later, and thereby, at present the architectural education courses' may differ in terms of courses contents, credits, names, hours, etc. Although efforts were made to prevent this situation with the establishment of CoHE in 1981, unfortunately, it was not very successful. When looking at the historical background of the present universities' architectural departments, we find that most of the educational packages are derived from these three universities. While some of the universities adopted these educational packages directly, some of them interpreted and arranged them according to their educational approaches.

2.2. The Historical Background and Articulation of Architectural History Courses in Undergraduate Architectural Education in Turkey

In the previous parts of Chapter 2, how institutionalized undergraduate architectural education was emerged and formed in Turkey through İstanbul Technical

University, Mimar Sinan Fine Arts University, and Middle East Technical University is presented. As mentioned before, these three universities are the leading institutions of university-level Architectural education in Turkey. And at present, the architectural faculties are generally derived from the education ecoles or curricula of these three universities. Therefore, in this part of Chapter 2, the formation, and articulation of architectural history courses in undergraduate architectural education in Turkey are examined mainly on these three universities as in line with the previous part of the Chapter.

As mentioned in the previous part, Istanbul Technical University is the first western-style university established in Turkey to meet the needs of the Ottoman Empire in the field of construction. In the beginning, architectural education, civil engineering, and other related fields were given together in the university, however, architecture and engineering education was separated in 1944 and the Department of Architecture moved to the Takışla building. After the moving of the Faculty of Architecture to the Taşkışla as an independent department, the architectural history courses were started to teach by Austrian professor Clemens Holzmeister (Kahya 2002, 32-41). At that time, since there was no Architectural History chair at the university, the Architectural History courses were performed under the Building Science II chair, to which Holzmeister was affiliated and architectural history courses started to be given by him (Kolay and Kuban 2009, 673). After the departure of Holzmeister, Kemali Söylemezoğlu started to teach architectural history courses under the Building Science Chair that is administered by Paul Bonatz (Kolay and Kuban2009, 674). In 1952, with the appointment of Paolo Verzone to the University, the Architectural history chair was established and at the same period, Doğan Kuban was started to work in the university as a research assistant. After the resign of Verzone, architectural history courses were respectively taught by Doğan Kuban, Berge Aran, Orhan Bıçakçı, Afife Batur, Bülent Özer, Feyyaz Kuğu, Selçuk Batur, Ayda Arel, Metin Sözen, Ayla Ödekan, Metin Ahunbay, Zeynep Ahunbay and Nur Akin (Kolay and Kuban 2009, 673-75). In addition to these names, it is known that Semra Ögel is among the active names in the department of architectural history.

Although the information on academicians in the department is accessible, the same situation cannot be said for the contents of the architectural history courses. For the contents of the courses from 1944 to the present, unfortunately, there isn’t any direct source. However, on Özden İlker Mangtay's master's thesis, written in 1995, the periodic schedules of the undergraduate architectural programs are accessed from the 1960s to the

1986s. As a result of the inferences made from these periodic schedules, although there are changes observed in the distribution or course names in the architectural history courses in the program, it has been seen that the course contents are close to the present. From the courses' periodic schedules, it is seen that architectural history courses were lectured with art history courses and given 8 periods from 1959 to 1973. In 1973, there was a radical change, and architectural history courses were reduced from 8 semesters to 4 semesters. At the same time, the number of art history courses has decreased and only one semester has begun to be given. Earlier, when the annual system was used, when the semester system was adopted, it was revised as semester courses without changing the number of courses. When compared today, the courses' titles are respectively "Architectural History I" corresponds to "Ancient and Byzantine Architecture", "Architectural History II" corresponds to "Turkish Architecture History", "Architectural History III" corresponds to "History of European Architecture" and lastly "Architectural History IV" correspond to "Contemporary Architecture". The scope of the courses in the 1st year focused mainly on ancient (Greek and Roman) architecture, Byzantine architecture, and especially the historical topography of Istanbul. In the 2nd year, the Anatolian Seljuks, the Beylics period, and Ottoman architecture were studied, while in the 3rd year the main features of European architecture from the Medieval Era to the 19th century are presented. In the 4th year, various architectural movements that changed in the 20th century are presented. Even today, while the number of courses changes, the content of the courses in the university continues in the same line. (Kolay and Kuban 2009, 676). At present when looking at the other universities' architectural history courses distribution or content, we encounter the reflection of ITU's architectural history courses order. For instance, in Balıkesir University, Düzce University, Fırat University, Gaziantep University, İstanbul Kültür University, Karadeniz Technical University, Necmettin Erbakan University, Trakya University, Yıldız Technical University semester schedules' it is seen that the division of courses' contents is similar to the architectural history courses in ITU's schedules. However, reflections are also seen in the architectural history courses of other universities, although not as much as the previous ones. This information can be seen on the ECTS information packages of the universities.

1984- 85	Tablo 6 - İstanbul Teknik Üniversitesi - Mimarlık Fakültesi (166)			
1985- 86	1. Yarıyıl	2. Yarıyıl	3. Yarıyıl	4. Yarıyıl
Dersin Adı	Genel Matematik I	Genel Matematik II	Yapı Statiği	Betonarme
	Statik	Mukavemet	Yapı Elemanları I	Yapı Elemanları II
	Temel Tasarım	Mimari Proje II	Mimari Proje III	Mimari Proje IV
	Teknik Resim	Mimari Planlama Bilgisi	Bina Bilgisi II	Şehircilik
	Mimari Proje I (Analiz)	Ölçme Tekniği	Perspektif	Sağlık Donatımı
	Bina Bilgisi I	Yapı Malzemesi I	Anadolu Sanat ve Mim.	Türk Mimarisi Tarihi
	Elemanter Yapı Bil. ve Kav.			
	5. Yarıyıl	6. Yarıyıl	7. Yarıyıl	8. Yarıyıl
	Çağdaş Mimarlık Kayn. ve Avrupa Sanatı	Isıtma Havalandırma ve Aydınlatma	Proje Geliştirme/ Uygulama Projesi	Yapım Yöntemi ve Ekonomisi
	Mimari Proje V	Mimari Proje VI	Bina Maliyeti	Bitirme Ödevi
	Şehircilik Projesi I	Çağdaş Yapı Sistemleri	Genel Ekonomi	Meslek Pratiği Bilgisi
	Çelik Yapılar	Yapı Malzemesi III	Sosyoloji	İş Hukuku
	İklimlendirme	Şehircilik Projesi II	Seçime Bağlı Ders	İmar Hukuku
	Betonarme Yapılar	Seçime Bağlı Ders	Mimari Proje VII	Seçime Bağlı Ders
		Tarihî Çevre Koruma ve Restorasyon		

Figure 4. İstanbul Technical University Academic Program in 1985-86
(Source: Mangtay 1995, 136)

At Mimar Sinan Fine Arts University, the historical process of the courses was different from ITU in undergraduate architectural education. As in ITU, the change of architectural history courses at MSFAU can be observed through the semester schedules in Özden İlker Mangtay's master thesis. In the thesis, MSFAU's semester schedules are listed from 1960 to1992 (Mangtay 1995, 141-157). However, since the Architectural history courses' names stay the same as "Mimarlık Tarihi", the inferences on courses contents cannot be made. Also, the problem of lack of resources in ITU is encountered here. At this point, for this part of the research, one of the most important sources examined on the architectural education and academic staff of Mimar Sinan University is Mustafa Cezar's book "Güzel Sanatlar Eğitiminde 100 Yıl".

From Cezar's book, academics who shaped the architectural education and architectural history courses in the university can be found. When looking at the courses

and professors, it is seen that since the establishment of the University, courses on architectural history and art history were given as compulsory courses and had an important place in the architectural education of the University. It is seen that the professors who worked on architectural history also had an important position in the University. From the late 1800s to the late 1900s, the following professors were involved in teaching architectural history; Vedat Bey (1899-1930), Sırrı Bilen (1923-1959), Celal Esad Arseven (1924-1943), Hamit Kemali Söylemezoğlu (1936-1946), Ali Saim Ülgen (1939-1944), Ernst Diez (1946-1950), Turgut Cansever (1946-1952), Kurt Erdmann (1951-1958) and Behçet Ünsal (1952-1982) (Cezar 1983, 53-74). These professors also took charge of design courses, building science, or art history. With the educational reform in 1930, the period of study become 5 years until the 1980s. In 1981, with the establishment of CoHE, the period of study was reduced again for years and therefore the number of architectural history courses became lesser.

In this context, although the contents of the architectural history courses are not fully accessible due to the lack of sources, a general framework can be drawn about the architectural history courses schedules from the academicians' field of studies, articles, books, etc. Thusly, in the journal Arkitekt in 1931, it is mentioned that the student studied and learned the historical process and characteristics of Roman, Greek, and Egyptian architecture as well as studying and learning the historical process and architectural characteristics of Turkish Architecture in the University (Arkitekt, 1931, 25). On the other hand, when looking at the Turkish academicians of that period, it is seen that a domestic and national architectural history concern was at the forefront, as it coincided with the Republican regime. This situation can be observed more clearly in the names of Celal Esad Arseven, Vedat Tek, Turgut Cansever, and their architectural approaches. However, there was still a western system of Beaux-Arts education at the university was at the forefront. The balancing of these two situations was achieved by adding Turkish art and architectural history courses to the existing architectural history courses. In other words, the education system in the school has not changed completely, instead, it has been progressed by articulating the national architecture and the republican regime. This situation can also be seen in the History of Turkish Art courses added to the History of Architecture courses.

Tablo 7 - İstanbul Güzel San'atlar Akademisi Yüksek Mimarlık Bölümü (167)					
1960- 61	1. Yarıyıl	2. Yarıyıl	3. Yarıyıl	4. Yarıyıl	5. Yarıyıl
Dersin Adı	Tasarı Geometri	Tasarı Geometri	Perspektiv	Perspektif	Mimari Resim
	Teknik Resim	Teknik Resim	Serbest Resim	Serbest Resim	Modlaj
	Serbest Resim	Serbest Resim	Yapı	Yapı	Maket
	Yapı	Yapı	İnce Yapı	İnce Yapı	Yazı
	Malzeme	İnce Yapı	Malzeme	Malzeme	Tesisat
	Y. Matematik	Malzeme	Statik	Statik	Betonarme
	Statik	Y. Matematik	Betonarme	Betonarme	Bina Bilgisi
	Bina Bilgisi	Statik	Bina Bilgisi	Bina Bilgisi	Proje ve Eskizler
	Mimarlık Tarihi	Zemin Prob., Temel İnş.	Proje ve Eskizler	Proje ve Eskizler	Şehircilik
	Yabancı Dil	Bina Bilgisi	Topoğrafya	Yol	Meslek Bilgisi
		Mimarlık Tarihi	Mimarlık Tarihi	Topoğrafya	Yapı Hukuku ve Mesken Ekonomisi
		Yabancı Dil	Sanat Tarihi	Mimarlık Tarihi	Estetik
			Yabancı Dil	Sanat Tarihi	
				Yabancı Dil	

Tablo 8 - İstanbul Güzel San'atlar Akademisi Yüksek Mimarlık Bölümü (Tablo 7'nin Devamı) (168)					
1960- 61	6. Yarıyıl	7. Yarıyıl	8. Yarıyıl	9. Yarıyıl	10. Yarıyıl
Dersin Adı	Mimari Resim	Mimari Resim	Zemin Prob., Temel İnş.	Proje ve Eskizler	İnkılâp Tarihi
	Modlaj	Zemin Prob., Temel İnş.	Dekorasyon ve Mobilya		
	Maket	Dekorasyon ve Mobilya	Proje ve Eskizler		
	Yazı	Proje ve Eskizler	Şehircilik		
	Tesisat	Şehircilik	Meslek Bilgisi		
	Betonarme	Meslek Bilgisi	Mimari Rölöve		
	Bina Bilgisi	Mimari Rölöve	Türk Sanat Tarihi		
	Proje ve Eskizler	Türk Sanat Tarihi	Estetik		
	Şehircilik	Estetik	İnkılâp Tarihi		
	Meslek Bilgisi	————	————		
	Yapı Hukuku ve Mesken Ekonomisi	Yapı Hukuku ve Mesken Ekonomisi	Yapı Hukuku ve Mesken Ekonomisi		
	Estetik				

Figure 5. Mimar Sinan Fine Arts University Academic Program in 1982-83 (Source: Mangtay 1995, 137-138)

As it can be understood from all these, architectural history courses at Mimar Sinan Fine Arts University consist of both Western-based architectural history and Turkish architectural history courses. However, as can be seen from the semester schedules, art history, or, in other words, the history of civilization, has been given as a compulsory subject within the scope of architectural education at the school since the beginning. Even today, the same picture is encountered when looking at the distribution

of today's architectural history courses. At present the architectural history courses in the University are “History of Art and Architecture”, “History of Turkish Architecture”, “19th and Early 20th Century Architecture”, and “History of Architecture From the 1920s to the Present”. The closest naming of these courses is also seen in Nalçakan's article which was published in 2008 (Nalçakan 2008, 90). Even if the courses were used in this way in the previous periods, this information could not be reached due to the lack of resources. However, it is observed that the course content distributions have progressed in the same way since the early stages of architectural history courses. When looking at the curricula of universities offering undergraduate education in architecture today, although the naming of courses is different, the same periodical division in courses is encountered in many universities. For instance, in 17 universities the same introductory courses on art and architectural history are taught, those are almost similar content with the "History of Art and Architecture" course in Mimar Sinan Fine Arts University.

Apart from these two universities, another university that has critical importance in the field of today's architectural history courses is Middle East Technical University. In the university, where the education model of the Bauhaus and the American University of Pennsylvania was applied, different approaches are observed in the courses. In the beginning, these foreign educational approaches were also observed from the academic staff of the university. As instructors, foreign national architects whom Godfrey, Perkins, Cox, Sevely, Amano, Jordan, Sprechelsen, Kaikonnen, Janeba, Corbelletti, Vidor, May, Stonyer, Westphal, Abel, Polonyi, and Highlands gave education in the University. In this context, the professors that gave lectures in the field of architectural history in the first years of the university were Aptullah Kuran and Orhan Özgüner (Karahan 2016, 59). In those years, the approach of Kuran, which both defended modernist principles and gave importance to traditional Turkish and Ottoman architecture research, was also effective in architectural history courses (Aslanoğlu 2004, 4-5). Also, in the ongoing years, the other important professor, Enis Kortan’s historical approaches were very effective in these courses.

The Architectural History courses given by Aptullah Kuran and Orhan Özgüner in the first years of the university are given as compulsory courses at present with the same content under the title of "History of Architecture I-II-III" in the two semesters of the second year and the first semester of the third year of the undergraduate architectural program (Ergut and Özkaya 2009, 685). Since these early periods of the university, undergraduate and graduate architectural education included architectural history courses

as compulsory courses, and today, undergraduate architectural students can complete their education by taking three compulsory courses and an architectural history elective course to become an architect. (Ergut and Özkaya 2009, 685). Also, when looking at the content of the courses it is seen that; in Architectural History I the Prehistoric, Classical, Early Christian, Byzantine, Romanesque and Gothic periods are discussed, in the Architectural History II, the 7th and 18th centuries in the lands Muslims ruled, the Renaissance and Baroque periods are discussed and finally in the Architectural History III, modernism, post-modernism and contemporary movements in 18th, 19th and 20th centuries are discussed. At present more than 30 universities applied the same chronological contents to their Architectural History courses curriculums. And also, more than half of the universities use the content of the History of Architecture I course in their programs.

In this context, it is observed that there are many reflections of the education models implemented by İstanbul Technical University, Mimar Sinan Fine Arts University, and Middle East Technical University in the content distributions in Architectural History courses present undergraduate architectural education. While this situation is related to the fact that these universities are the first institutions to provide education in the field of architecture in Turkey, it is also related to the practice of architectural education and architectural history being integrated into Turkey from the Western educational approaches.

CHAPTER 3

PRESENT STATUS OF ARCHITECTURAL EDUCATION AND ARCHITECTURAL HISTORY COURSES AT UNDERGRADUATE EDUCATION LEVEL IN TURKEY

In the previous Chapter, after examining the historical background of architectural education and architectural history courses at the university level in Turkey, in this Chapter, the status analyses of undergraduate architectural education and architectural history courses are going to be examined. In this context, in Chapter 3.1., the emergence, founding purpose, and scope of the main actors that shaped the undergraduate architectural education, CoHE, ECTS, NQF-HETR, and MIAK, and their influences on architectural education are examined through their charters, standards, and frameworks. The main purpose of this part of the Chapter is to understand the aims of the institutions that determine the structure of architectural education in Turkey holistically. Therefore, the data related to undergraduate architectural education is researched and discussed in detail through tables and figures for a better understanding of the thesis discussion. The information on these topics is mostly obtained from the Charters and official websites of CoHE, ECTS, NQF-HETR, and MIAK.

In the ongoing part, in Chapter 3.2, a situation analysis of today's undergraduate architectural education in Turkey is examined. In this context, the scope and courses of undergraduate architectural education formed within the framework of charters, the duration of the education, the language of the education, the distributions of departments by provinces, the faculty names those the departments are affiliated and other significant quantitative data that are effective in architectural education are discussed through the written text, tables, and figures. The main purpose of this part of the thesis is to examine the undergraduate architecture education in Turkey and its scope in every aspect and to create a general picture of this education.

Eventually, in Chapter 3.3, as in the previous part, a situation analysis of architectural history courses in undergraduate architectural education in Turkey is researched. In this context, initially, what kind of a course and the scope of the architectural history course is defined in a general frame. Afterward, the architectural history courses' credits, hours, duration (by period), methods, contents, and resources are discussed comparatively within the framework of all universities that have undergraduate architectural departments in Turkey. The main purpose of this part is to examine, step by step, the distinctions, and differences of architectural history courses by universities that are shaped in line with the same regulations and standards within the scope of the NQF-HETR and Bologna Information Package.

3.1. The Formation of Contemporary Architectural Education in Turkey: Institutions and Architectural Education Charters

As mentioned before, architectural education at the university level in Turkey began with the establishment of Mimar Sinan Fine Arts University in 1928, Istanbul Technical University in 1944, and Middle East Technical University in 1956. With the opening of the Department of Architecture at Karadeniz Technical University in 1963, the number of universities on architectural education increased to 4 around the country, and over time, many private and state higher educational institutions on architectural education were also opened and closed in addition to these 4 universities (Dostoğlu 2003, 2. This process, which lasted until the 1980s, took a new dimension with the establishment of the Council of Higher Education in Turkey (CoHE) in 1981.

After the establishment of the Council of Higher Education in Turkey, universities, faculties, and departments were more precisely defined and consolidated under a single main administrative institution. However, despite the establishment of CoHE in 1981, until the mid-2000s there was no holistic educational charter for higher educational programs. Within the Accession of Turkey to the European Union and the adaptation of the Bologna Process and the accreditation system to Turkey's higher education system in 2005, studies on a holistic charter had begun that is valid for associate, bachelor, master, and doctorate programs, and finally, in 2009 the National

Qualifications Framework for Higher Education in Turkey was prepared by CoHE. After the adoption of NQF-HETR, as in the other departments, qualifications, scope, and context in Architectural education were defined more precisely. Also in the same period, to increase the quality of architectural education, a volunteer association Architectural Education Accreditation Association shortly MIAK was established under the roof of Union Chambers of Architects in Turkey and the ECTS is adopted architectural education. In the ongoing years, in line with these developments, architectural education aimed to reach standards equivalent to those of Europe and took its current form. In the following subsections, these institutions and statutes that determine the formation of architectural education will be discussed in detail.

3.1.1. Council of Higher Education in Turkey (CoHE)

In the 1970s-80s, with political turmoil in Turkey universities and higher educational institutions' scientific environment was damaged and universities become the focal point of political confrontations due to their independent structure and the lack of a central administrative authority. In this case, it caused miscommunication and disconnection between educational institutions. Therefore, on 6 November 1981, The Council of Higher Education (CoHE) was established in Turkey with Law no. 2457 to rehabilitate universities from political turmoil and conflict and to gather them under one roof. With this law, all higher education institutions in Turkey have gathered under the dome of CoHE, and from this time on, the higher education system in Turkey has been supervised by the Council of Higher Education (CoHE). Academies, universities, educational institutions have been transformed into the faculties of education, and conservatories and vocational higher schools have been affiliated to universities (CoHE Official Website: https://www.yok.gov.tr/en/institutional/history).

In this context, at present, there are 4 different education levels in higher education that have been defined by CoHE. These are;

- Associate's degree programs
- Bachelor's degree programs

- Master programs
- Post-Graduate programs

Among these programs associate's degrees take two years to complete. Without passing any centralized tests, vocational high school graduates can qualify for associate's degree programs. Bachelor's degree programs are typically four years in length. The programs in specialized fields, such as medicine (6 years), may take longer. After undergraduate programs, graduate programs come as Master's and Doctorate programs. Turkey's universities provide several different master's programs. Doctoral programs require approximately 4 to 6 years, whereas master's programs take about 2 to 3 years (non-thesis master's programs often take 1-2 years), (https://www.yok.gov.tr/en/institutional/higher-education-system). And Universities in Turkey provide post-graduate programs as well. The length of time is determined by the program and the scope of the research study.

Table 1. Turkish Higher Education System Levels and Qualifications of Different Learning Outcomes for Each Level

Source: (http://www.tyyc.yok.gov.tr/?pid=36 in 20.10.2021)

Higher Education Levels	**Awarded Degree /Qualifications**		
Doctorate QF-EHEA: 3. Level **EQF-LLL: 8. Level**	Doctorate	Proficiency in medicine	Competence in art
Master's QF-EHEA: 2. Level **EQF-LLL: 7. Level**	Master's with thesis		Master's without thesis
Bachelor's QF-EHEA :1. Level **EQF-LLL:6. Level**	Undergraduate (Faculty programs)		Undergraduate (Higher school and Conservatoire programs)
Associate's QF-EHEA: Short cycle **EQF-LLL: 5. Level**	Associate's (Among the bachelor's degree programs)		Associate's (Vocational higher schools-MYO)

After the establishment of CoHE, there have been changes in the field of architecture as well as in other fields. Architectural education is distributed in 3 levels including undergraduate, graduate, and doctorate programs, and an international credit system for courses and program levels was defined with the name of ECST. Also previously, while the duration of undergraduate architectural education that varied from school to school has been accepted as 4 years across Turkey, and the education types, levels, and quality of architectural education were tried to be placed in a general framework. It is seen that from the academic programs of ITU and MSFAU, after the 1980s the duration of the undergraduate architectural education was reduced from 5 years to 4 years. Also, all private or state schools on architectural education were transformed into universities and placed in a general system as well. For instance, "Zafer Engineering and Architecture Private College" which was established in Ankara in 1966, and "Yükseliş Engineering and Architecture Private College" which was established in 1967, first was incorporated into "Ankara State Engineering and Architecture Academy" in 1973, and then to "Gazi University" in 1983. Another architectural college that was established in 1970, "Konya School of Engineering-Architecture" first joined the "Konya State Academy of Architecture and Engineering" in 1971, and then took its place under the roof of "Selçuk University" in 1982. in İzmir, the "Ege Private Architecture and Engineering College" which was established in 1963 was included in the "Ege University Faculty of Fine Arts" in 1975, and then in "Dokuz Eylül University Faculty of Engineering and Architecture" in 1982 Finally, "Edirne State Academy of Engineering and Architecture", which was established in 1977, turned into "Trakya University Department of Architecture". However, over time within the transformation of architectural schools, the contents and scopes also changed over time. Courses are divided into compulsory and elective, and certain conditions were introduced for the student to graduate as an architect. In the following years, together with the Accession of Turkey to the European Union, CoHE took part in the international crediting system (ECTS) and prepared a qualifications charter called "National Qualification Framework for Higher Education in Turkey (NQF-HETR)" to make Turkey's university education equivalent to European standards. This statute, which is applied in today's associate, undergraduate, graduate, and doctorate education, also affected architectural education on a large scale. In the next part of the Chapter, this condition and its effects on architectural education will be discussed in detail.

3.1.2. European Credit Transfer and Accumulation System (ECTS)

The European Credit Transfer and Accumulation System (ECTS), created by the European Union in the late 1980s to facilitate student mobility and to ensure the recognition of studies abroad by institutions in the country, is a credit accumulation and international level transfer system. In 1988, ECTS was first introduced and developed as part of the ERASMUS initiative. Following the successful completion of the 6-year trial program, ECTS was accepted into the ERASMUS program (1995-1999). This system has been implemented in Turkey since 2010 to provide university education in international and European standards. ECTS credit, on the other hand, is a unit that expresses all the work (theoretical course, practice, seminar, individual study, exams, homework, etc.) that a student must do to complete a course. In undergraduate programs, 60 ECTS credits are given for one academic year of education and 30 credits for one semester of education. In some higher education institutions, there are 3 semesters in 1 academic year. In such cases, 20 ECTS credits are given for each semester (https://www.yok.gov.tr/yayinlar/yayinlarimiz). Also, undergraduate students in undergraduate programs must have a minimum achievement grade of DC in all courses, have completed at least 240 ECTS credits, and have a CGPA of 2.00/4.00. At the same time, students must complete their required internship within the specified time frame and with the required qualifications. In this context, from the perspective of architectural education, ECTS allows for a quantitative evaluation of international standards. In this context, for the purpose of higher education in accordance with the international standards applied by CoHE, every university has an ECTS information package in associate, undergraduate, and graduate programs in Turkey

ECTS information packages, which are prepared in international standards to ensure co-crediting, are a platform that should be prepared and made available to open access by all universities in the context of university education in Turkey. With the ECTS Information Package, the educational program definition, scope, and aim, the courses in the education programs at the universities, the academicians of these courses, local and ECTS credits, their contents, aims, weekly flowcharts, hours and program learning and competencies outputs can be presented transparently.

In the example below, there is the ECTS information package of Eskişehir Technical University Architecture Undergraduate Department accredited by MIAK. As seen in the example, the scope of the Architecture Undergraduate Program at Eskişehir Technical University is given under 15 headings. Although the number and naming of these titles vary from university to university, there is the same or close information in terms of content.

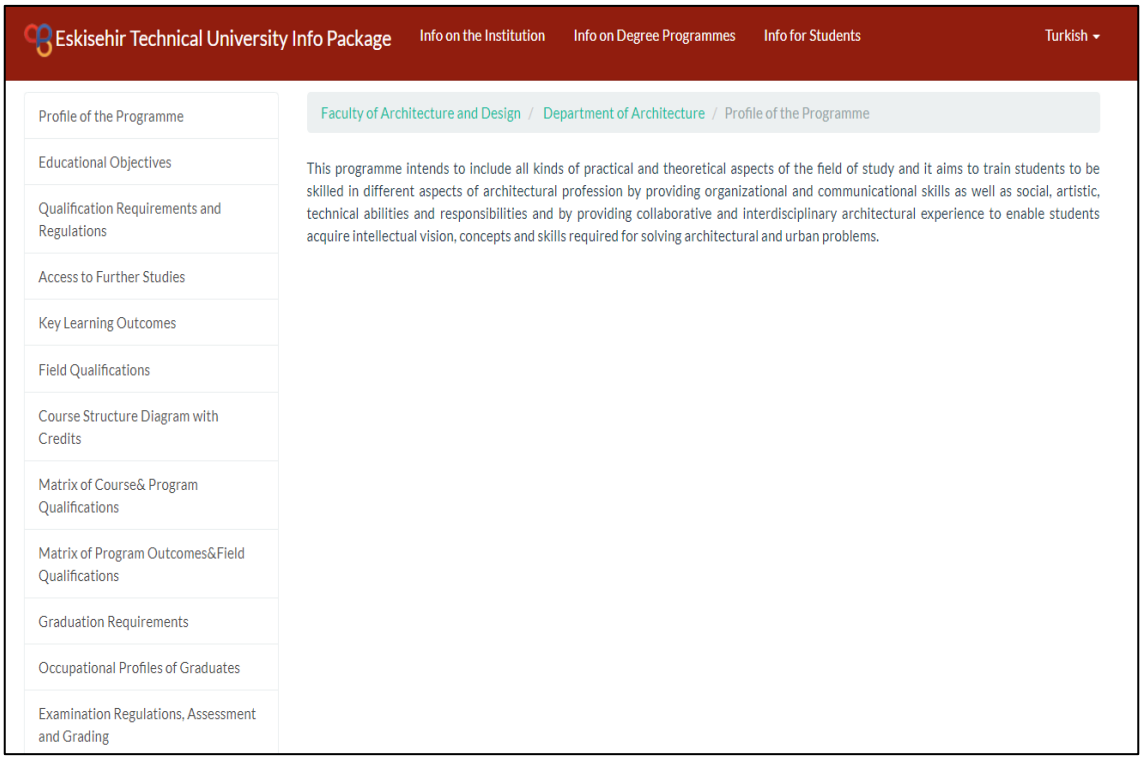

Figure 6. Eskişehir Technical University Undergraduate Architectural Program AKTS Info Package Home Page
(Source: https://akts.eskisehir.edu.tr/en/program/programProfili/246/8/1)

Through these information packages, the courses and contents in the architecture programs of the universities can be accessed. Within the scope of the 2020-2021 academic year, a total of 100 universities has ECTS information packages. Of these, approximately 70% have full access to courses and other content, while 30% have deficiencies in information. In the following parts of the research, this information and ECTS packages will be discussed in detail through architectural education and architectural history courses.

3.1.3. National Qualifications Framework for Higher Education in Turkey (NQF-HETR)

The CoHE adopted the National Qualifications Framework for Higher Education in Turkey (NQF-HETR) in 2010, which was developed with reference to the Qualifications Framework of the European Higher Education Area and the European Qualifications Framework for lifelong learning. NQF-HETR is a frame that was drawn up for doctoral, master's, bachelor's, and associate degree education that defines the knowledge, skills, and competencies that must be acquired according to international standards. Qualifications for higher education mean what a person who achieved a degree is supposed to know, do, and be able to do. The NQF-HETR, on the other hand, expresses the qualifications for a national education system and the relationship between them. In other words, the National Qualifications Framework is a system in which qualifications that are recognized and can be related to each other by national and international actors are structured within a given organization. Through this system, all qualifications for higher education and the other learning outcomes can be explained and consistently related to each other. The degree to which qualifications are acquired is objectively measured at the end of each lesson/module as 'learning outcomes (NQF-HETR Official website: http://tyyc.yok.gov.tr/). In this context, within the scope of NQF-HETR, certain standards as credit system and duration of education have been applied to catch the international level at the doctorate, master's, bachelor's, and associate degree programs.

As in all programs, durations, and ects credit systems were implemented to the architectural education too. Within the scope of NQF-HETR in Turkey, architectural education has been handled with certain definitions within the framework of knowledge, skills, and competencies under the title of Architecture and Building. According to NQF-HETR, undergraduate architecture education is 4 years and consists of a total of 240 ECTS and 6000-7200 course hours. In the below table, competencies in undergraduate architectural education in the frame of NQF-HETR are presented. These requirements are mainly determined to provide an architectural education in European and international standards. In this context, the knowledge, skills, and competencies that an architecture student should acquire throughout his/her education life are discussed together with their definitions and scopes.

Table 2. NQF-HETR Architecture and Building Basic Field Competence

(Source: http://tyyc.yok.gov.tr/?pid=48 in 20.10.2021)

NQF-HETR Architecture and Building Basic Field Competences (Academically)		
NQF-HETR LEVEL **Bachelor - EQF-LLL:** 6. Level-**QF-EHEA:**1. Level		
Knowledge	-Theoretical -Factual	1. In the relevant basic field, the person can gain multidimensional information covering the discursive, theoretical, factual knowledge, and professional service sensitivities in the local, regional, national, and global context for architectural design/planning/design activities and research, from a wide variety of environments, and enter academic sharing environments. have the necessary knowledge and understanding to reflect 2. In this context, the person has the knowledge and understanding of the necessary intellectual, discursive, scientific, technological, aesthetic, artistic, historical, and cultural infrastructure in the field. 3. The person has knowledge and understanding of architectural design/planning/design/research methods that are focused on people and society, sensitive to the environment (natural and built). 4. The person has multidimensional knowledge and understanding of economic, environmental, and social sustainability principles and standards in the relevant field and on disaster-related issues. 5. The person knows the principles, laws, regulations, and standards related to his field. 6. The person has knowledge and understanding of the institutional and ethical values related to his field. 7. The person has knowledge and understanding of the place/importance of the relevant area in the historical, geographical, social, and cultural context.
Skill	-Cognitive -Applied	1. The person can develop concepts in the fields of architectural design/planning/design. 2. The person can provide the unity of discourse, theory, and practice (practice) for architectural design/planning/design activities and research. 3. The person has the skills to define the facts, potentials, and problems in architectural design/planning/design and the necessary research for them. 4. Uses theoretical/conceptual knowledge, cognitive and practical skills, research methods, and techniques related to the field of a person. 5. The person can develop the alternative architectural design, planning setups, and solutions. 6. The person will have skills in interdisciplinary interactive architectural design/planning/design. He uses his knowledge, understanding, and skills in the interpretation of contextual data, in the definition of problems, in the development of alternative architectural design/planning/design decisions/projects/solutions that exhibit mastery and innovation.
Competencies	-Ability to work independently and Take Responsibility	1. The person independently carries out an architectural design/planning/design project, plans and carries out research projects for these processes, produces new syntheses. 2. The individual carries out individual studies related to his/her field independently and takes individual and joint responsibility in multidisciplinary, interdisciplinary, and supra disciplinary studies. He has the necessary self-confidence and competence for this. 3. The person plans, take responsibility, and carries out joint work in an architectural design/planning/design project.

(cont. on next page)

Table 2 (cont.)

Competencies	-Learning Competence	1. The person learns the knowledge and skills in the field by evaluating with a critical and dialectical (critical, counter-thesis and synthesis) approach. 2. The person is self-oriented, has the necessary motivation and learning skills for personal and professional development, determines learning needs, makes plans for this, and applies them. 3. The person acts with the awareness of lifelong learning.
	-Communication and Social Competence	1. The person informs the relevant people and institutions on the issues related to his field, conveys his thoughts and solutions to the problems in written, verbal and visual forms, and shares the information with experts and non-experts by supporting them with quantitative and qualitative data. 2. The person organizes and implements projects, collaborations, and activities for the social environment in which he lives with the awareness of social responsibility. 3. Using a foreign language at least at the European Language Portfolio B1 General Level follows the developments in the field and communicates effectively with colleagues. 4. 4-Person interactively uses computer software and information (information and communication) technologies required by the field, at least at the Advanced Level of the European Computer Use License.
	-Domain-Specific Competence	1. In the field of profession, professional practice, and professional research, the person acts with the understanding of the rules of ethics and behavior, the habit of behaving, and the awareness of social responsibility. 2. The person collects, evaluates, and interprets the data that will form the necessary basis for making decisions by considering the possible social, environmental, and ethical consequences in architectural design/planning/design processes. 3. To be able to evaluate the existing knowledge in the field of a person with a critical and dialectical approach, to take into account the possible social, environmental, and ethical consequences in the light of ethical principles, by professional behavior rules, criteria, and standards and legal frameworks, with a professional approach required by the discipline of knowledge, understanding, and skills. takes and uses. 4. The person decides and acts with the awareness of justice, with the knowledge of human value, respect of human rights, and social and cultural rights on this basis, showing the necessary sensitivity in the protection of the natural environment and cultural heritage. 5. Being aware of the fact that his profession is beneficial for human rights and society, and produces social service, the individual must have the necessary sensitivity about social justice, quality culture, protection of natural and cultural values, environmental protection, occupational health, and safety, legal frameworks specific to professional service and ethical principles. Shows personal sensitivity to fair treatment issues. 6. Have knowledge and awareness about local, regional, national and global general and professional problems in the historical period he lived in.

As seen from the table above, to graduate from the undergraduate architectural department, a student must acquire certain knowledge, skills, and competencies in his/her 4-years education life. Out of these three main titles, the title of Knowledge consists of theoretical and factual knowledge, the title of Skill consists of cognitive and applied, and the title of Competences consists of independent working and taking responsibility, learning competence, communication, and social competence and field-specific competence. Also, from the above table, these subtitles are defined in themselves too. As can be understood from here, the scope of architectural education in Turkey is discussed in detail in the NQF-HETR charter. In this context, universities that provide architectural education in Turkey must provide maximum theoretical, and practical education in areas that are directly related to the field of architecture and construction including design, history, urbanism, planning, art, and science, on a regional, national and global scale. In this context, courses' contents, courses' names and hours, or credits may vary from university to university, as long as they meet the above conditions.

3.1.4. Architectural Education Accreditation Association (MIAK)

As mentioned before the other institution which is the main actor in the architectural education quality and standards in Turkey is Architectural Education Accreditation Association shortly MIAK. In the context of this part of the chapter, MIAK, its role in architectural education, objectives, and contributions are presented.

In the 2000s in Turkey, although there were many universities with architectural departments, there wasn't any administrative institution that controlled the quantity and quality of the students and lecturers, the teaching plans, the course contents, the education method, the standards of the education places, the status of the graduates and the accreditation system, that on produced solutions to the problems and contributed to the development of architectural education (Atasoy 2006, 2). Therefore, Architectural Education Accreditation Association (MIAK) was established in 2006 to improve the quality of architectural education by working on accreditation, quality assessment, and information studies in the field of architectural education in Turkey as UIA (International Union of Architects), ACE (Architects' Council of Europe), or NAAB (National

Architectural Accrediting Board). In the beginning, the association worked with the Architectural Accreditation Board under the roof Union of Chambers of Turkish Engineers and Architects (UCTEA) in 2006, and the members of the association work voluntarily and can be educators, academicians, students, graduates, employers, and professionals, etc. In 2020, MIAK continued its accreditation activities, which it had voluntarily carried out for 13 years, in line with the Higher Education Institution's decisions and expectations regarding accreditation, by officially becoming an association (Doğaner and Hoşkara 2020). In this regard, it can be said that MIAK, like other worldwide institutions in the area of architecture, is an institution that oversees and contributes to the development of architectural education in Turkey in the context of accreditation. At this point, the way MIAK deals with the concept of accreditation in the context of architectural education in Turkey is very critical.

Accreditation obtained by MIAK and based on UIA Documents: Whether requested voluntarily by an educational institution itself or obligatory by authorized institutions, for the benefit of society; First of all, it aims to ensure that the design, technical and professional skills, and ethical formation required for a professional practice acquired by graduates who successfully complete the training program are sufficient (Atasoy 2006). In this context, what does accreditation expect from the architecture program or the student? The expectations from the architecture program within the scope of MIAK can be briefly stated as follows:

- Integration of Knowledge and Skills: The program should integrate architectural knowledge, courses, and projects should broaden the student's horizons, and create environments for extracurricular discussion and mental nourishment.
- The program should be open to criticism, change, and transformation. It should applaud and promote originality at all levels.
- The program should support students and lecturers to construct their own development paths (Esin 2014).

MIAK's activities within the scope of the above articles:

- To prepare, update, and publish materials relating to the accreditation of architectural education programs, on processes, conditions, institutional quality policy, and visiting guides.
- Evaluating and accrediting programs upon the application of institutions providing architectural education,
- To carry out the selection and training of evaluators who will take part in accreditation studies,
- Provide program managers and faculty members with information and training on program evaluation.
- To monitor the current and future needs of the participant of architectural programs, to determine the program criteria, and to review and update the evaluation criteria and processes. (MIAK official website: http://www.miak.org/?p=sayfalar&sayfa_id=37)

In line with all these objectives, to protect and increase the quality of architectural education in Turkey, between the years 2006-2021, MIAK created and developed the "Accreditation Conditions and Processes", which has been created and developed by examining many international accreditation documents of NAAB, UIA, and other international institutions. In line with its certificate, as of November 2021, MIAK has been accredited 9 architectural programs in Turkey. These universities are respectively;

- Yıldız Technical University (Turkish)
- Yeditepe University (English)
- Mimar Sinan Fine Arts University (Turkish)
- İstanbul Kültür University (Turkish)
- Gebze Technical University (Turkish)
- Fatih Sultan Mehmet Vakıf University (Turkish)
- Eskişehir Technical University (Turkish)
- Bahçeşehir University (English)
- Atılım University Turkish)

Except for these 9 universities, there are also 9 other universities in the assessment process. These universities are:

- Özyeğin University (Turkish)
- Maltepe University (English)
- Maltepe University (Turkish)
- Dicle University (Turkish)
- Yaşar University (English)
- Trakya University (Turkish)
- Karadeniz Technical University (Turkish)
- İzmir Institute of Technology (English)
- Çankaya University (English)
- Middle East Technical University (English)

In this context, it is seen that the NQF-HETR charter prepared by the Turkish Council of Higher Education within the scope of the Bologna process and accreditation is not applied equally by all universities' undergraduate architectural departments in Turkey. Both of these institutions (CoHE and MIAK) aim to bring architectural education in Turkey to the same level with international standards in the context of accreditation. Although the studies continue for many years, it is seen from the accredited universities scheme of MIAK that 9 universities fully implement them. This situation reveals that architectural education in Turkey has not yet settled into a certain system within itself and differs from school to school.

3.2. Situation Analyses of Undergraduate Architectural Education in Turkey Through Quantitative Data

In the previous part of the Chapter, after examining the main actors, ECTS, CoHE, MIAK, and NQF-HETR, which have been influential in the shaping of the undergraduate architectural education in Turkey, in this part of the research, the undergraduate architectural education implemented within the framework of these charters will be

examined. In line with the purpose, a situation analysis of the undergraduate Architectural education in Turkey in 2020-2021 is made through numerical data, tables, and figures.

As mentioned before undergraduate architectural education in Turkey goes into the division as pre-CoHE and after the CoHE period. In the pre-CoHE period, there were plenty of private and public institutions on architectural education and only a few of them could provide university-level education. After the establishment of CoHE in 1981, one of the main purposes was to increase the quality of education and gather them. For this purpose, all higher educational institutions were required to become a university and affiliated with CoHE. In the following years, the number of universities providing architectural education in the country increased regularly.

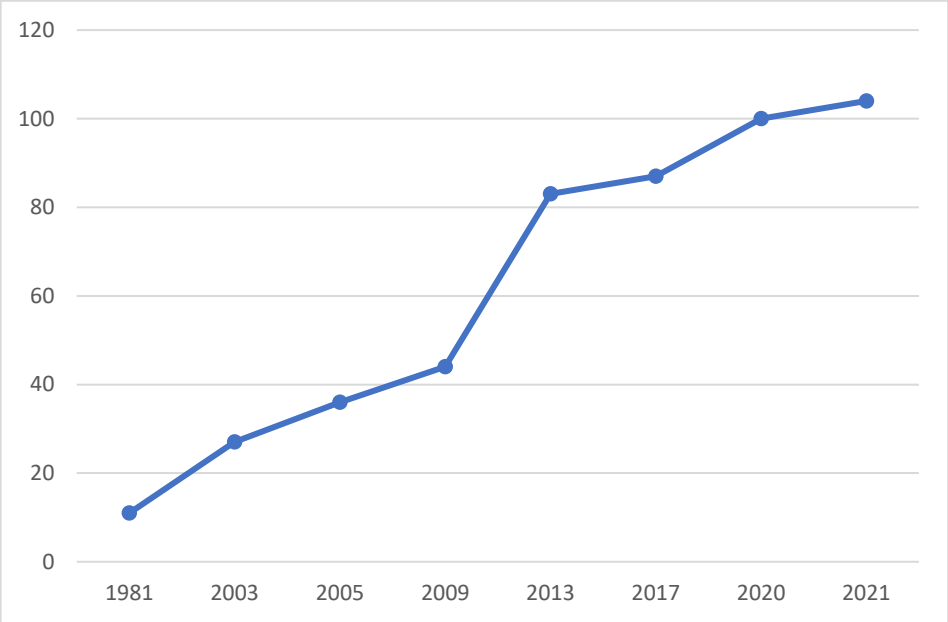

Figure 7. Number of Universities with Undergraduate Architectural Departments by Years

Until the 2000s, while the number of universities that provide architectural education reached 20, in 2003, undergraduate architectural education was given in 27 universities, 21 of which were at state universities and 6 of which were at private universities (Dostoğlu 2003). When came to 2005, while the number of architecture departments in universities increased to 36, in 2009 it increased to 44 and in 2013 it

increased the 83. In the meantime, with the increase in the number of universities in the following years, the number of students studying architecture also increased. The number of architectural students, which was 1937 in 2005, reached 5631 in 2013 (Alioğlu, Arslan, and others 2013). These numbers continued to increase with the opening of even more architecture departments in the following years. When looking to 2020-2021, there are 207 universities and 101 architectural departments in Turkey and in these universities, there are 41714 students and 2104 academic staff, instructors, and professors. In the above figure, the number of architectural departments by years is presented more clearly. Also, in Tables 1 and 2, the name of the universities, their located provinces, and educational languages are presented. Among these universities, while 57 are state universities, 44 are private universities. From these two tables, in 2020, it is seen that there are 101 universities in Turkey and while 81 of their education languages are Turkish, 31 of them are English.

Table 3. Departments of Architecture in Turkey: by Provinces, Foundation Years, Names and Education Language

City	University Names	Language	City	University Names	Language
Adana	Çukurova University	Turkish	Düzce	Düzce University	Turkish
Adana	Alparslan Türkeş Science and Technology University	Turkish	Edirne	Trakya University	Turkish
Aksaray	Aksaray University	Turkish	Elazığ	Fırat University	Turkish
Ankara	Ankara Yıldırım Beyazıt University	English	Eskişehir	Eskişehir Osmangazi University	Turkish
Ankara	Atılım University	Turkish	Eskişehir	Eskişehir Technical University	Turkish
Ankara	Başkent University	Turkish	Gaziantep	Gaziantep University	English
Ankara	Çankaya University	English	Gaziantep	Hasan Kalyoncu University	Turkish
Ankara	Gazi University	Turkish	Hatay	Hatay Mustafa Kemal University	Turkish
Ankara	İhsan Doğramacı Bilkent University	English	Hatay	İskenderun Technical University	Turkish
Ankara	Middle East Technical University	English	Isparta	Süleyman Demirel University	Turkish
Ankara	TED University	English	İstanbul	Işık University	English, Turkish
Ankara	TOBB ETÜ University of Economics& Technology	Turkish	İstanbul	Altınbaş University	English
Antalya	Alanya Alaaddin Keykubat University	Turkish	İstanbul	İstanbul Ayvansaray University	Turkish
Antalya	Alanya Hamdullah Emin Paşa University	English	İstanbul	İstanbul Bilgi University	English
Antalya	Antalya Bilim University	English	İstanbul	İstanbul Esenyurt University	Turkish
Antalya	Akdeniz University	Turkish	İstanbul	Bahçeşehir University	English
Artvin	Artvin Çoruh University	Turkish	İstanbul	Beykent University	English, Turkish
Balıkesir	Balıkesir University	Turkish	İstanbul	Beykoz University	Turkish
Bingöl	Bingöl Üniversity	Turkish	İstanbul	Doğuş University	Turkish
Bolu	Bolu Abant İzzet Baysal University	Turkish	İstanbul	Fatih Sultan Mehmet University	Turkish
Burdur	Burdur Mehmet Akif Ersoy University	Turkish	İstanbul	Haliç University	Turkish
Bursa	Bursa Technical University	Turkish	İstanbul	İstanbul Arel University	Turkish
Bursa	Bursa Uludağ University	Turkish	İstanbul	İstanbul Aydın University	Turkish
Denizli	Pamukkale University	Turkish	İstanbul	İstanbul Gedik University	Turkish
Diyarbakır	Dicle University	Turkish	İstanbul	İstanbul Gelişim University	Turkish, English
Erzurum	Atatürk University	Turkish			

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Table 3 (cont.)

City	University Names	Language	City&	University Names	Language
İstanbul	İstanbul Kültür University	English	Mardin	Mardin Artuklu University	Turkish
İstanbul	İstanbul Medipol University	English, Turkish	Kayseri	Nuh Naci Yazgan University	Turkish
İstanbul	İstanbul Okan University	English, Turkish	Kayseri	Abdullah Gül University	English
İstanbul	İstanbul Rumeli University	Turkish	Kırklareli	Kırklareli University	Turkish
İstanbul	İstanbul Technical University	Turkish, English	Kocaeli	Gebze Technical University	Turkish
İstanbul	İstanbul Ticaret University	Turkish	Kocaeli	Kocaeli University	Turkish
İstanbul	İstanbul University	Turkish	Konya	Konya Technical University	Turkish
İstanbul	İstanbul Yeni Yüzyıl University	Turkish	Konya	KTO Karatay University	Turkish
İstanbul	İstinye University	English, Turkish	Konya	Necmettin Erbakan University	Turkish
İstanbul	Kadir Has University	English	Manisa	Manisa Celal Bayar University	Turkish
İstanbul	Maltepe University	English, Turkish	Mersin	Mersin University	Turkish
İstanbul	MEF University	English	Mersin	Toros University	Turkish
İstanbul	Mimar Sinan Fine Art University	Turkish	Muğla	Muğla Sıtkı Koçman University	Turkish
İstanbul	Nişantaşı University	English, Turkish	Niğde	Niğde Ömer Halisdemir University	Turkish
İstanbul	Özyeğin University	English, Turkish	Sakarya	Sakarya University	Turkish
İstanbul	Yeditepe University	English	Samsun	Ondokuz Mayıs University	Turkish
İstanbul	Yıldız Technical University	English, Turkish	Şanlıurfa	Harran University	Turkish
İstanbul	İstanbul Sabahattin Zaim University	Turkish	Siirt	Siirt University	Turkish
İzmir	Dokuz Eylül University	Turkish	Sivas	Sivas Cumhuriyet University	Turkish
İzmir	İzmir Demokrasi University	English	Tekirdağ	Tekirdağ Namık Kemal University	Turkish
İzmir	İzmir Institute of Technology	English	Trabzon	Avrasya University	Turkish
İzmir	İzmir University of Economics	English	Trabzon	Karadeniz Technical University	Turkish
İzmir	Yaşar University	English	Tunceli	Munzur University	Turkish
Karabük	Karabük University	Turkish	Van	Van Yüzüncü Yıl University	Turkish
Kayseri	Erciyes University	Turkish	Yozgat	Yozgat Bozok University	Turkish

According to these two tables, it is seen that universities with architectural departments mainly located in Metropol cities including İstanbul, Ankara, and İzmir. In Figure 8 the density and distribution of universities with the undergraduate architectural departments by provinces are presented. From this figure, it is seen that while there are 33 universities with undergraduate architectural departments in İstanbul, this number is 9 in Ankara and 5 is in İzmir. With this numerical data, it is seen that almost %33 of undergraduate architectural departments are located in İstanbul. Also, among these universities, six of the MIAK's accredited universities are located in İstanbul. At this point, in terms of undergraduate architectural education in Turkey, Istanbul is the city with the highest density of universities, professors, and students. However, 92 architecture departments in provinces other than Ankara, Eskişehir, Istanbul, and Kocaeli are not accredited by MİAK and are considered as not providing architectural education at international standards.

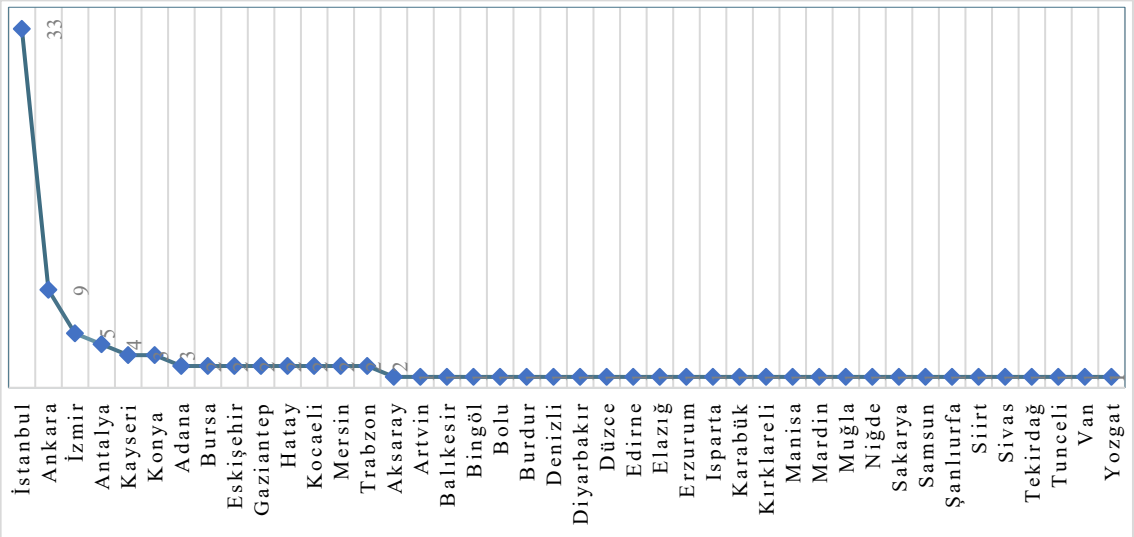

Figure 8. Number of Architectural Departments by Provinces

Afterward, when examining the architectural faculties in these universities, many different names of architecture faculties are encountered. While some faculties are named with architecture and fine arts faculties and their varieties, some faculties are named as architecture and engineering faculties and their varieties. In the table below, these faculties are presented with their names. From this table, it is seen that 18 of the faculties

are related to engineering and architecture, while 21 of them are related to fine arts. In addition, some of the universities that provide undergraduate education in the field of architecture give more importance to structure and technical knowledge, while others give more importance to design and art-oriented courses. This situation is due to the derivation of architectural education in Turkey from different western sources, as examined in the previous sections.

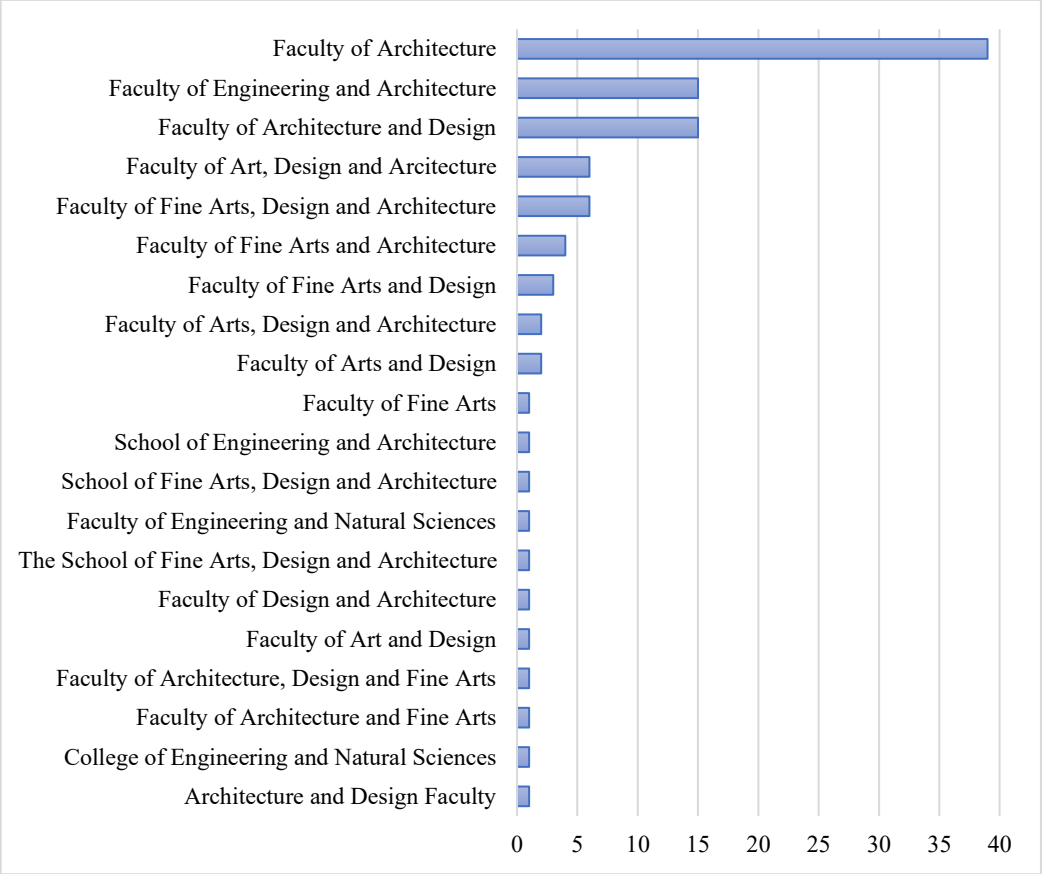

Figure 9. Number and Name of Architectural Faculties in Turkey

In the light of all this information, architectural education applied today is a process that starts before primary school years, continues with secondary and higher education, and extends to lifelong education after university education. Later, in undergraduate and graduate stages, architectural education is examined in different areas of expertise including 'Design Methods', 'History of Architecture', 'Building Knowledge', 'Sustainable Built Environment' and 'Cultural Heritage'. In this context, when examined

within the framework of undergraduate education, architectural education consists of compulsory and elective courses as well as office and construction site internships, interdisciplinary or inter-institutional studies, different workshops, and architectural studies related to psychology, sociology, philosophy (Tmmob 2020, 7). From this point of view, the main purpose of the architectural education given at the universities in Turkey coincides with the purpose and scope of the architectural education prepared by UIA. In other words, architectural education develops the skills of an architectural student to conceptualize, design, interpret and realize the act of architectural practice and building, balancing the conflicts between emotion, reason, and intuition, providing the expression of social and individual needs. When considered in more detail, the aims of undergraduate architecture education in Turkey are:

- Capability to develop architectural designs that meet both aesthetic and technical standards.
- Adequate understanding of architecture's history and theory, as well as associated arts, technologies, and human sciences
- Sufficient knowledge of fine arts as an influence on the quality of architectural design, urban design, and the skills involved in the planning process.
- Understanding the interaction between people and structures, as well as between structures and the environment
- Understanding of the structural design, construction, and technical issues
- Understanding of knowledge in project financing, project management, cost control, and project delivery methodologies is required
- Awareness of responsibilities toward human, social, cultural, urban, architectural, and environmental values, as well as architectural heritage.
- Sufficient knowledge of the industries, companies, restrictions, and various steps in translating design concepts into buildings and integrating plans into overall planning (https://www.uia-architectes.org/webApi/en/ressources).

In consideration of these objectives, the scope of the architectural departments and courses in these cities was first created by the Council of Higher Education in Turkey. On 6 November 1981, the duration of architectural education was determined as 4 years with the Law of Higher Education No. 2547, and the scope of architectural undergraduate education was defined for the first time. Afterward, with these new developments,

different types of compulsory and elective courses had been implemented into the scope of architectural education. In this context, at present, undergraduate architectural education in Turkey consists of courses on Architectural Design, History of Art and Architecture, Building Science and Technology, Fine Arts, Technology, Human Science, Urban Design and Planning within the frame of design, technical drawing, scale relations, structural system, spatial relations, building information, project budget, and building economy.

However, the scope and content of these courses may differ by architectural departments of universities in Turkey. While these differences observed in elective courses are considered normal, differences observed in compulsory courses indicate that NQF-HERT is not applied equally. In this context, the majority of the differences observed in undergraduate architectural education are in design courses, structural courses, building knowledge courses, and architectural history courses, as well as the local crediting, workload, and course contents. For example, ECTS credits in architectural design courses vary between 12-8, ECTS credits in construction courses vary between 8-3, and architectural history courses vary between 6-2 ECTS. This situation, which affects the quality and quantity of architectural undergraduate education, may cause the architectural student and his/her future architectural life, the built environment, and all areas related to architecture to be adversely affected. In the context, within the scope of the problem definition of the study, the differences observed in architectural history courses will be discussed in detail.

3.3. Situation Analysis of History of Architecture Courses in Undergraduate Architectural Education in Turkey Through Quantitative Data

In the previous part of the chapter, after a general introduction to the current status of undergraduate architectural education in Turkey is examined, in this part of the chapter, the main topic of the research, the status of architectural history courses in this education will be examined. With this purpose, here, it is aimed to analyze the compulsory

architectural history courses within the scope of data including courses' contents, crediting, distribution of semesters, and weekly course hours, and to present the portfolio of these courses in universities in Turkey.

In this context, ECTS information packages of architectural history courses in 178 undergraduate architectural programs of 101 universities were examined. Of these universities, 57 of them are state universities and 44 are private universities. These numbers are directly related to the distinction between architectural departments that offer education in English and Turkish, and departments with and without scholarship in private universities. For example, since Istanbul Technical University and Yıldız Technical University have 2 separate architectural departments in both Turkish and English, 57 state universities have 59 departments of architecture. (https://yokatlas.yok.gov.tr/lisans-bolum. php?b=10155). Also, in private universities, the number of programs has increased to 119, as 3 more classifications as scholarship, semi-scholarship, and paid are added to this numerical distribution. For example, the Undergraduate Architectural department at Nişantaşı University offers two separate undergraduate education in both Turkish and English. Since each program is divided into full-scholarship, half-scholarship, and paid programs, there are 6 different architecture undergraduate programs in total at this university. Another example, Özyeğin University has a total of 5 undergraduate architectural programs in English, Turkish, scholarship, semi-scholarship, and paid. Among these universities, which generally have 2 and 3 undergraduate architectural programs, only Istanbul Ayvansaray University has 1 undergraduate architectural program. This situation is also seen in State universities in the field of education language but only in Yıldız Technical University and Istanbul Technical University. However, although differences are depending on the number of programs or the languages of instruction, the curricula used in the courses in the departments of each university are within the same scope. In other words, the same curricula are used in all courses in the architecture undergraduate programs at universities.

Table 4. The number of Universities with Undergraduate Architectural Departments and Programs in 2020-2021

Universities with Undergraduate Architectural Departments	State Universities with Undergraduate Architectural Departments	Private Universities with Undergraduate Architectural Departments
101	57	44
Universities with Undergraduate Architectural Programs	State Universities with Undergraduate Architectural Programs	Private Universities with Undergraduate Architectural Programs
178	59	119

Within the framework of the above tables and data, the compulsory architectural history courses within the undergraduate architectural programs of each university in Turkey in 2020-2021 are comparatively analyzed over content, distribution of courses to semesters, credits, workload, and course contents within the scope of ECTS Information Packages of Architectural history courses. In this context, the differences observed within the scope of architectural history courses were analyzed comparatively and status analyses are presented. In this regard, the first data examined is the distribution of the ECTS and local credits of the courses. Since there is a standard crediting system applied in all departments, the research was first discussed over this data. After the data in this part were analyzed according to the curricula of architectural history courses in 101 schools, the distribution of these courses on semesters is examined. The overall aim in this part is to determine 'how many semesters do the architectural history courses cover in a 4-year undergraduate education and what is their distribution in terms of semesters?'. After these two analyses, in the next part, how many weeks do the courses cover in each semester and how many hours do they consist of in total per week are analyzed. All of the analyzes up to this part have been made on quantitative data. In the following part, analyses will be handled on the courses' contents that are more open to interpretation and may vary. In this context, in the last part of the chapter, the scope of architectural history courses will be analyzed comparatively under 11 headings according to the contents of the courses. In this regard, within the scope of this part, the data in each category

supported in figures and tables provide a quantitative assessment of Turkish architectural history courses in 2020-2021 to present more data comprehensibly.

3.3.1. Analyses of Architectural History Courses Through the Crediting System

In this part of the thesis research, architectural history courses in undergraduate architectural education in Turkey will be analyzed through ECTS and National Credits. In this context, first of all, the definitions of local and ects credits are made. Within the framework of university education in Turkey, a student must obtain sufficient local and ECTS credits to graduate successfully. In terms of National Credits, while this number is determined as minimum 120 and maximum 150, in terms of ECTS credits it has been determined as a minimum of 240 credits by OSYM (https://www.resmigazete.gov.tr/eskiler/2019/03/20190318-6.htm). In this context, the national credit value of a course consists of the sum of all the weekly theoretical course hours of that course and half of the weekly hours of laboratory, practice, workshop, studio, internship, and similar studies. That is, in calculating the credit of a course whose credit is expressed as (1-4)3;

- The theoretical hour is taken as it is = > 1
- Half of the laboratory hour is taken = > 2
- Course credit = > 1+2= 3 (https://oidb.metu.edu.tr/tr/derslerin-kredi-sistemi).

ECTS credit, on the other hand, is a unit that expresses all the work (theoretical course, practice, seminar, individual study, exams, homework, etc.) that a student must do to complete a course. Within the scope of ECTS credits, there are not only course hours; All work done by students outside of class hours is included in this credit. In this context, in the ongoing parts, ECTS and National Credits of architectural history courses in undergraduate architectural education in Turkey are analyzed comparatively and a status analysis was presented on figures and numerical data.

3.3.1.1. Analysis of Architectural History Courses on ECTS Credits

In this part of the Chapter, a situation analysis is presented on the ects credits of architectural history courses in undergraduate architectural education in Turkey. In this regard, ects credits of 352 courses in 101 departments are examined and it has been observed that the ECTS credit distributions of the courses vary between 2 and 6. Among these courses, since there isn't any information on Siirt University, only 349 of architectural history courses universities are analyzed. In this context, 98 of the 353 courses are 2 ects, 152 are 3 ects, 74 are 4 ects, 24 are 5 ects and 1 is 6 ects. Furthermore, the distribution of total ECTS credits of architectural history courses also differs by the architectural department. In the consideration of the analyses, TOBB University has the most ects with a total of 32 credits. In the program, there are 8 semesters with architectural history courses and each course has 4 ECTS. After TOBB, the universities with the highest total course credits are Muğla Sıtkı Koçman University with 21 ECTS and İstanbul Ayvansaray University with 20 ECTS. On the other hand, among these universities, the lowest total architectural history courses ECTS credits are observed at Atatürk University and Süleyman Demirel University with 4 ECTS. A total of 2 semesters of architectural history courses are given in these 3 universities and each course is credited as 2 ECTS. In this context, as a result of the total architectural history courses ECTS survey, it is seen that the total credits may vary between 4ECTS and 32 ECTS.

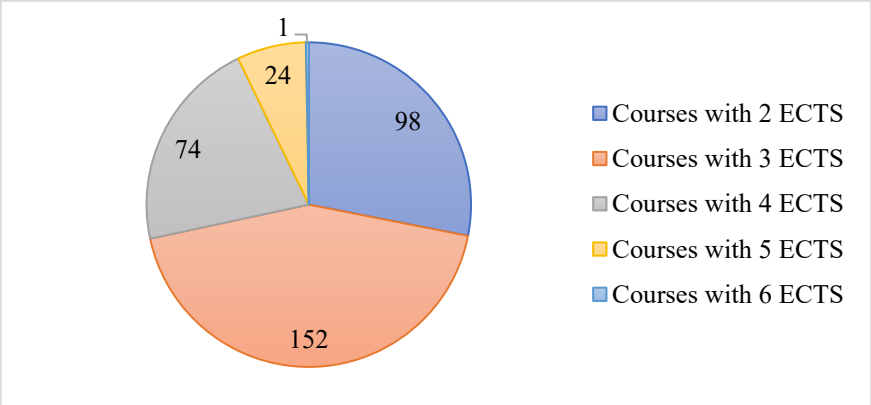

Figure 10. Distribution of ECTS Credits by Architectural History Courses in Turkey

3.3.1.2. Analysis of Architectural History Courses on National Credits

In university education, while ECTS credit provides an international assessment, National Credits provides an assessment throughout Turkey. For this reason, national crediting is an important criterion in architectural education in Turkey. In this context, in this part of the research, architectural history courses distribution is analyzed over national credits. Within this framework, since there isn't any data of Siirt University Architectural History courses only 349 of the courses are evaluated. 349 courses national credits in 100 undergraduate architectural departments are examined separately. It has been observed that the national credits distributions of the courses vary 2-4. In this context, while 220 of the 349 courses are 2 credits, 121 are 3 credits, and 8 of them are 4 credits. In addition to this, the distribution of total national credits of architectural history courses also differs by universities' departments. In the consideration of the data from the Info Packages, with 24 national credits, while TOBB University comes first, with 20 national credits Muğla Sıtkı Koçan University comes second and with 15 national credits, Mardin Artuklu University comes third. Also, among these universities, the lowest total national credits are observed at Atatürk University, Haliç University, İstanbul Arel University, İstanbul Ticaret University, Mersin University, and Süleyman Demirel University. In these universities, there are 2 architectural history courses with 2 national credits in whole undergraduate architectural education. In this context, as a result of the analysis, it is seen that the total credits of architectural history courses vary from 4 to 24.

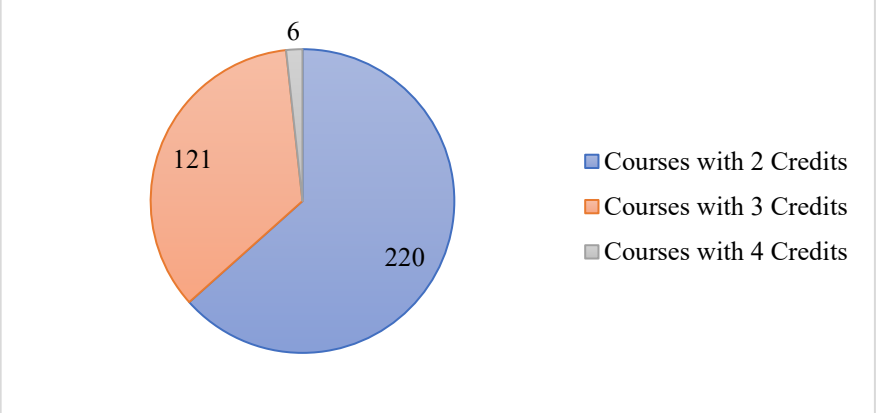

Figure 11. Distribution of National Credits by Architectural History Courses in Turkey

3.3.2. Analysis of Architectural History Courses on Educational Languages

In this part of Chapter 3, the educational languages of architectural history courses are examined. As mentioned before, since the universities establishments in Turkey are associated with western universities, many of the Turkish universities give education in English too. In this context, the languages of courses in 178 undergraduate architectural programs in 101 universities were examined one by one on CoHE's website (https://yokatlas.yok.gov.tr/lisans-bolum.php?b=10155). According to the results, Architectural history courses are given in Turkish in 119 of 178 architecture programs, and in English in 59 of them. Of these programs, 9 out of 59 state universities and 50 out of 119 private universities offer English education. As is it seen, education in English is more common in private universities.

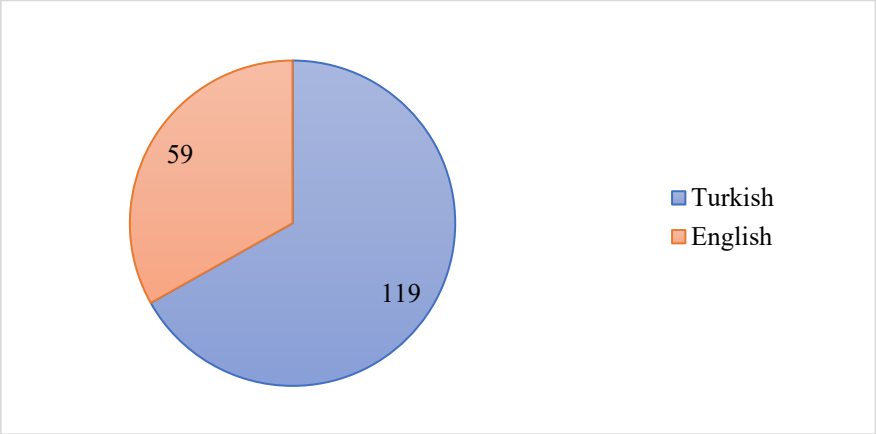

Figure 12. The language of Architectural History Courses in Undergraduate Architectural Education in Turkey

3.3.3. Distribution of Architectural History Courses by Semesters

After the status analyses of Architectural history courses on the crediting system and educational languages, in this part of the thesis research, the periodical distribution of architectural history education in undergraduate architectural education in Turkey will be analyzed. In Turkey undergraduate education is consist of 8 semesters, however, in some universities, it can be 10 semesters with an English preparatory semester. With this regard, architectural history courses in 101 universities and their periodical distribution were examined one by one, and it is observed that architectural history courses distribution on semesters changes 2 to 8 semesters. When considered in detail, architectural history undergraduate education continues for 2 terms in 15 universities, 3 terms in 38 universities, 4 terms in 37 universities, 5 terms in 9 universities, 7 terms in 1 university, and 8 terms in 1 university. Among these universities, TOBB University spends the most time on architectural history education with its 8 semesters of architectural history courses, and Harran University comes second with 6 semesters of architectural history courses. In the figure below, the numerical distribution of courses is seen as more understandable.

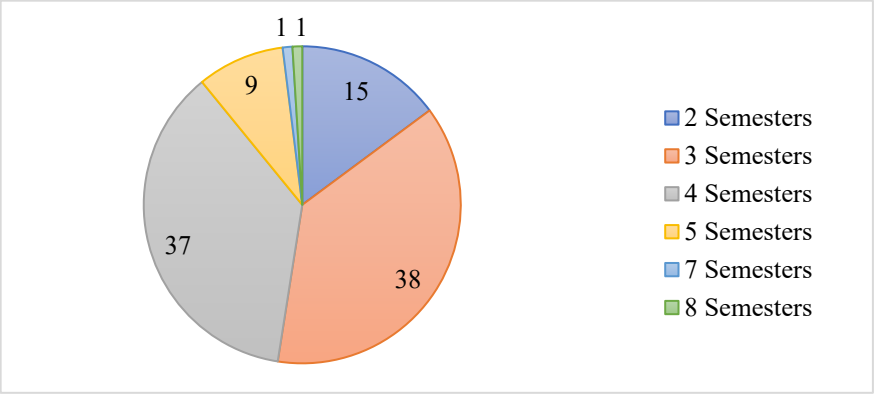

Figure 13. Architectural History Education by Periods in the Undergraduate Architectural Education in Turkey

3.3.4. Analysis of the Hourly Distribution of Architectural History Courses by Weeks and Periods

The undergraduate architectural education in Turkey consists of compulsory and elective courses with 6000-7200 courses hours. However, in each university, courses hours may vary differently. In this regard, in this part of the research, within the context of the thesis problem, the hourly distribution of the architectural history courses by weeks and semesters will be analyzed on numerical data. With this purpose, 101 universities in Turkey researched one by one and it is observed that architectural history courses are 4 hours a week in 7 universities, 5 hours in 1 university, 6 hours in 21 universities, 7 hours in 3 universities, 8 hours in 30 universities, 9 hours in 13 universities, 10 hours in 9 universities, 11 hours in 2 universities, 12 hours in 10 universities, 14 hours in 2 universities and 15 hours in 1 university. However, since data from TOBB University and Siirt University could not be reached, the data in this part were analyzed over 99 universities. Among these, the first three universities with the highest number of weekly architectural history courses are respectively Muğla Sıtkı Koçman University, Harran University, and Mardin Artuklu University.

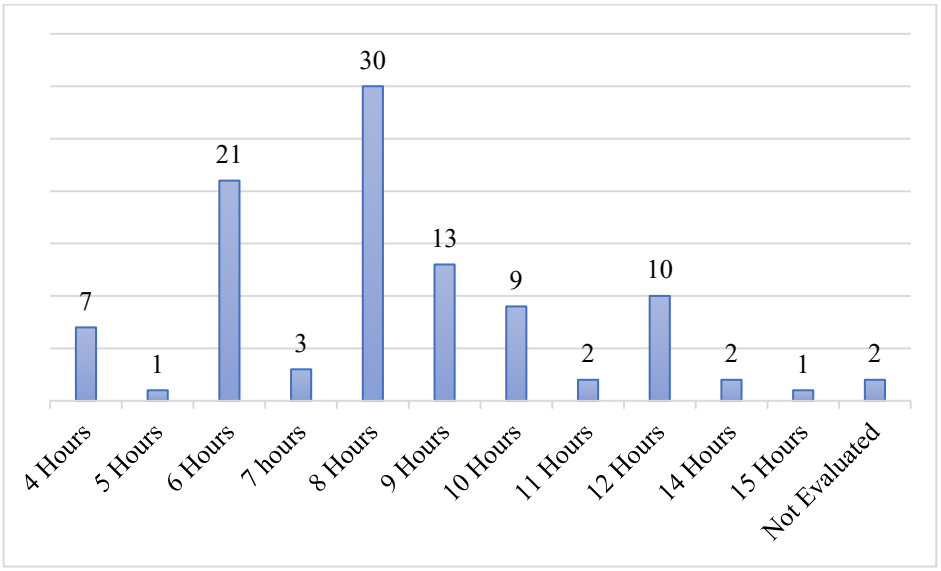

Figure 14. Number of Universities and Weekly Hours

In this context, another analysis was made over the weekly distribution of architectural history courses within a semester. In this context, initially, how many weeks do architectural courses take up space in one semester is researched in undergraduate architectural education in Turkey is discussed. In the first review of this analysis, it is observed that the weekly distribution of an architectural history course in a semester varied between 11 and 17 weeks. In the next step, the total number of architectural history courses at each university and the total number of weeks were discussed together. With this data, it is observed that during the 4-year undergraduate education, the weekly duration of the architectural history courses varies between 27 and 110 weeks. With this regard, this part aims to understand how much space the history of architecture education occupies in the 4-year undergraduate architecture education in Turkey. As in the previous analyses, the data in this part is gathered from the ECTS Info Packages of the universities. In this context, the table below shows the weekly duration of the courses during the 4-year undergraduate education in detail.

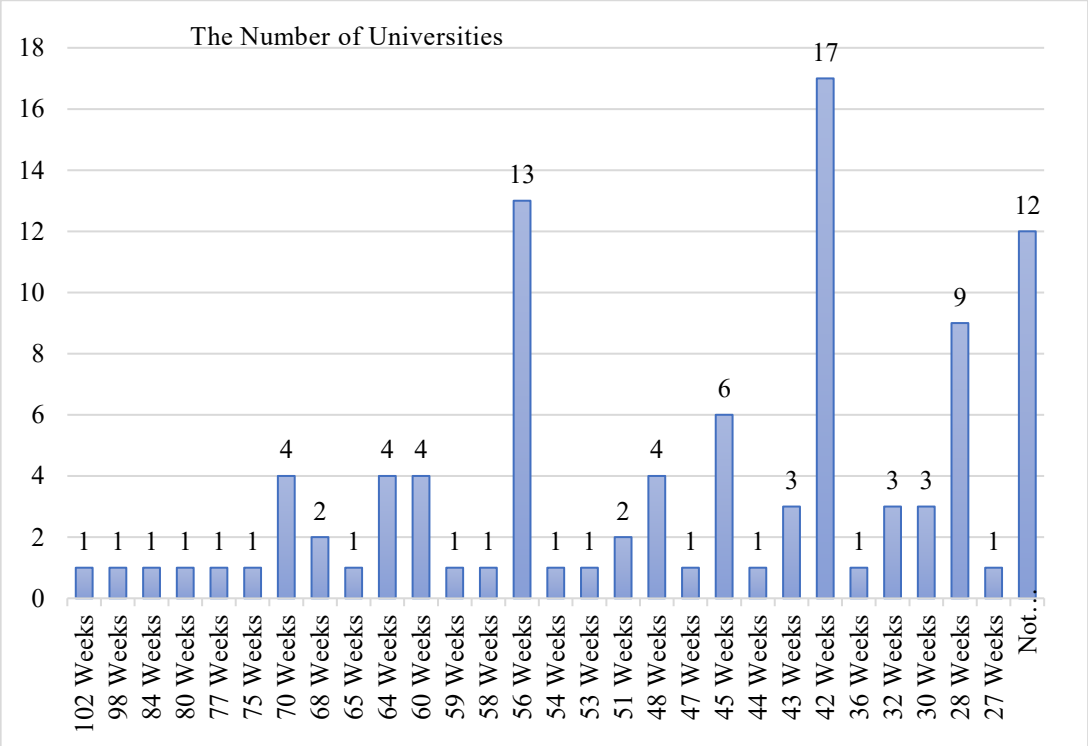

Figure 15. The Numbers of Architectural History Courses Weeks Per 4 Years Education

However, in addition to the information above, how many terms these courses are given in total during the 4-year undergraduate architectural education were also examined. When each university is examined one by one, it has been observed that the distribution varies between 8 semesters and 2 semesters. Accordingly, TOBB University comes first with the education of architectural history courses for 8 semesters, while Harran University comes second with 7 semesters. In this context, the periodic distribution of architectural history courses is presented more clearly in Figure 17.

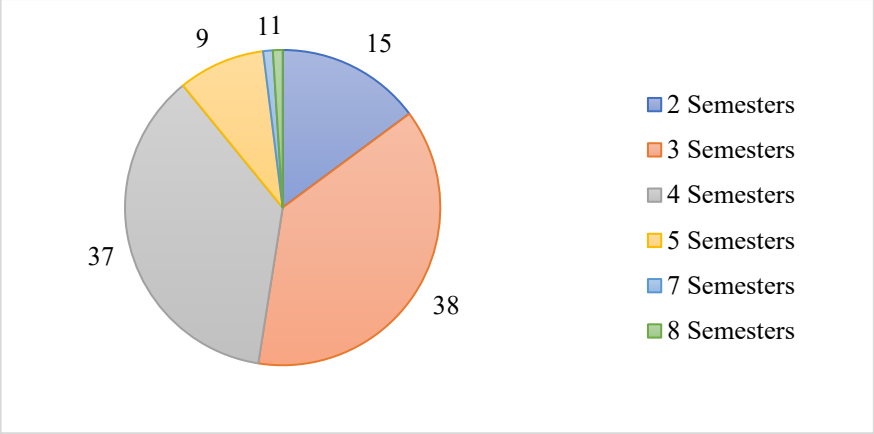

Figure 16. Distribution of Architectural History Courses by Semester

As a result of these analyzes, numerical data of the area covered by the architectural history courses per semester in the 4-year undergraduate architecture education, the weekly course hours, or the number of weeks in a semester are determined more precisely. In this way, the assessment of architectural history courses through numerical data and their weight in architectural undergraduate education will be observed more concretely.

3.3.5. Analysis of Architectural History Courses Scopes and Contents

Within the framework of the thesis research, in this part of the Chapter, the contents of the compulsory architectural history courses in undergraduate architectural education in Turkey are examined. In this context, first, the scope of architectural history courses is examined through 101 universities' ECTS information packages. The architectural history courses, which deal with the process from prehistoric times to the present, have been evaluated in this context under the ten distinct sub-titles. This classification was made within the framework of common contents in all universities and was analyzed equally in all architectural history courses' curricula. In this context, the sub-headings examined within the scope of the course contents are as follows:

- From Prehistoric to Medieval Era
- From Medieval Era to the End of the Renaissance
- Renaissance & Industrial Revolution
- Industrial Revolution&Modern Period
- Post-Modern Period
- Turkish Architectural History
- Turkish Architecture Before Islam
- Period of Seljuqs and Beylics
- Ottoman Empire Period
- Republic of Turkey Period
- History of Civilization and History of Art

In this context, after giving general information about the title, scope, and time interval of each department, analyzes are made in the context of universities. From these analyzes, it has been tried to understand how the contents of architectural history courses in undergraduate architecture education in Turkey are distributed.

3.3.5.1. From Prehistoric to Medieval Era

This period, which is explained through the concepts of the architect, architecture, architectural history, and built environment, is examined within the scope of architectural history courses, from the prehistoric era to the Medieval Era. In this context, the topics of these time slots are related to Ancient Egypt, Mesopotamian architecture, Anatolian Civilizations, Aegean Civilizations Hittite, Ancient Greek architecture, Hellenistic, Etruscan, and Roman Architecture, and Byzantine architecture. When researching with this purpose, the data on this course were acquired in 100 of 101universities in Turkey on ECTS Info Packages as part of undergraduate architectural education. 97 of these universities' architectural history courses have the content of from the Prehistoric era to the Medieval Period in the. In this context, universities where this Period does not exist;

- Beykent University
- Nişantaşı University
- Nuh Naci Yazgan University

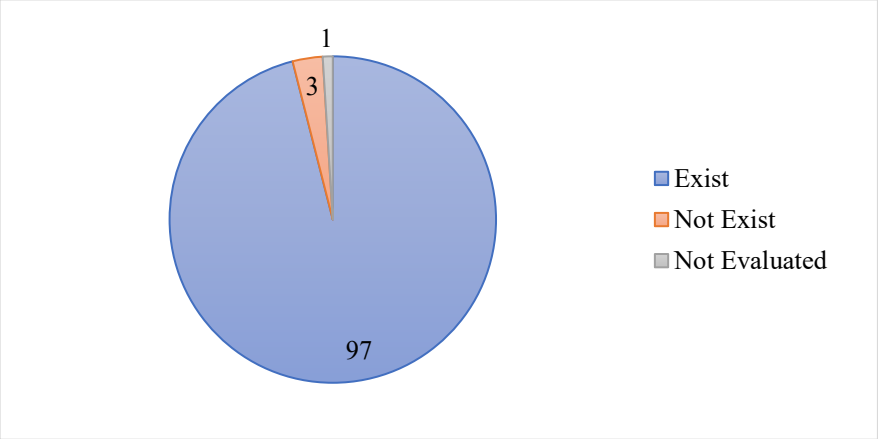

Figure 17. Distribution of Prehistoric and Medieval Era Contents in Architectural History Courses

3.3.5.2. From Medieval Era to the End of the Renaissance

This period, which is explained through the concepts of the architect, architecture, architectural history, and built environment, is examined within the scope of architectural history courses, from the Medieval Era to the End of the Renaissance Period. In this context, the topics of these time slots are related to early Christian Architecture, Byzantine, Romanesque, Gothic, Renaissance, and Baroque architecture. With this purpose, in this part of the study, the distribution of the Medieval Era and Renaissance contents in the architectural history courses in undergraduate architectural education in Turkey is analyzed. Since the architectural history courses data in a university cannot be accessed, the total analyses are examined over 100 universities ECTS Info Packages and 96 of these universities have architectural history contents from the Medieval Era to the end of the Renaissance in the architectural history courses. In this context, universities, where these contents do not exist are;

- Beykent University
- Nişantaşı University
- Mardin Artuklu University
- Van Yüzüncü Yıl University

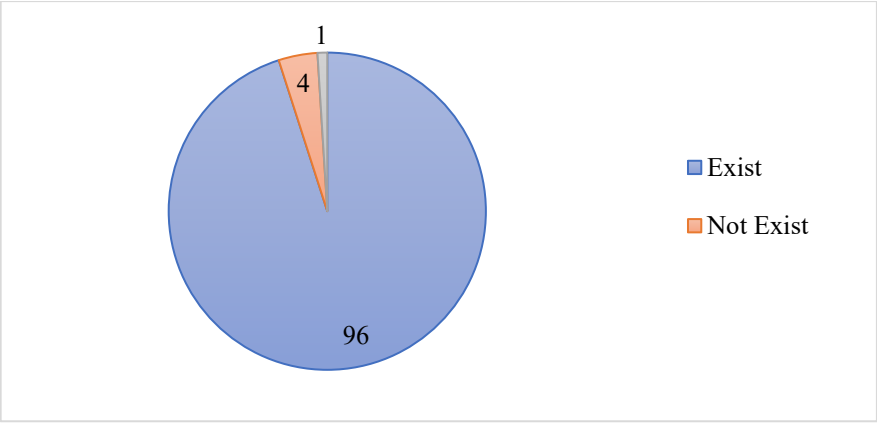

Figure 18. Distribution of Medieval and Renaissance Contents in Architectural History Courses

3.3.5.3. Renaissance & Industrial Revolution

This period, which is explained through the concepts of the architect, architecture, architectural history, and built environment, is examined within the scope of architectural history courses, from the Renaissance to the end of the Industrial Revolution. In this context, the topics of these time slots are related to Mannerism, Baroque, Rococo, and Industrial Revolution Era architecture. In this context, in this part of the Chapter, the distribution of the Renaissance and Industrial Age contents in architectural history courses are analyzed. Since the architectural history courses data in three universities cannot be accessed, the total analyses are examined over 98 universities' ECTS Info Packages. In this regard, it is observed that 90 of these universities' architectural history courses have architectural history contents from the Renaissance Period to the end of the Industrial Revolution period.

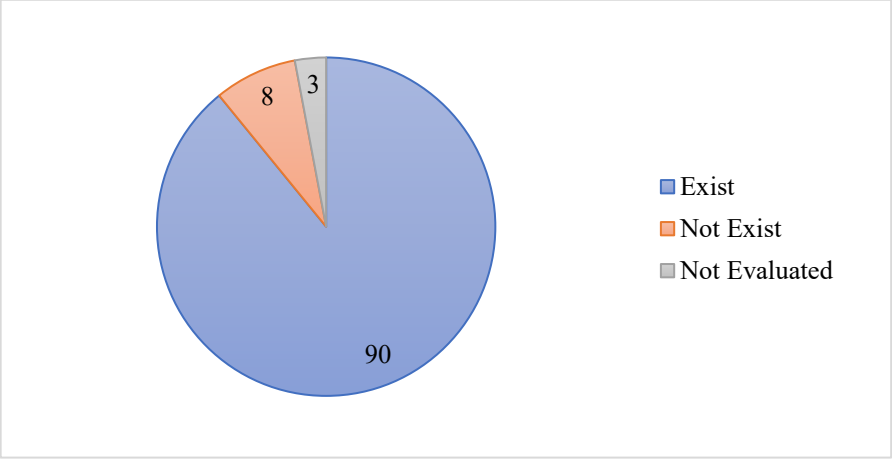

Figure 19. Distribution of Renaissance and Industrial Revolution Periods in Architectural History Courses

3.3.5.4. Industrial Revolution & Modern Period

In this period, within the scope of architectural history courses, architectural developments in Industrial Revolution and Modern Periods are examined. Within the scope of these courses the technological transformation and development and Architectural and urban design under the effect of Industrial developments, the birth and development of Modern Architecture thought in the 19th century, Modernism and housing architecture, Industrialization, and the City notions are examined. In this regard, since the architectural history courses data in 4 universities cannot be accessed, data on this course were acquired from 97 universities in Turkey over ECTS Info Packages. Within the light of these numerical data, it is observed that 85 of the universities have architectural history courses with the contents of the Industrial Revolution and Modern Period.

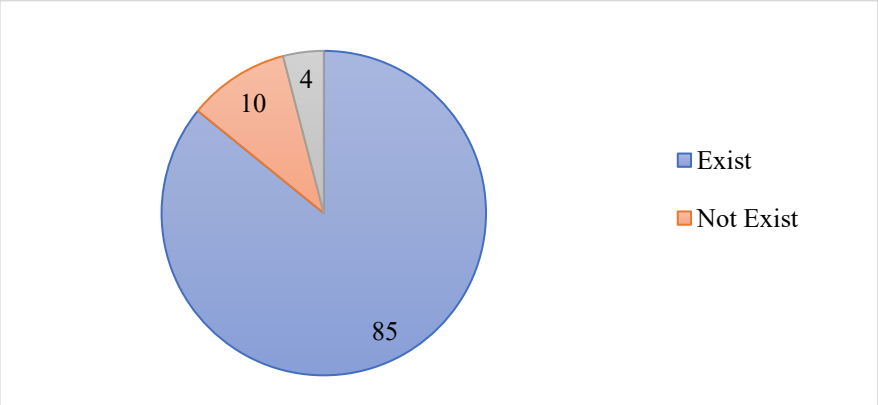

Figure 20. Distribution of Industrial Revolution and Modern Periods in Architectural History Courses

3.3.5.5. Post-Modern Period

In this period, within the scope of architectural history courses in undergraduate architectural education in Turkey, the architectural developments in Post Modern Periods are examined. In this context, the topics are examined within courses are; Reactions to modernism, the emergence of Postmodernism in Architecture, Postmodern criticism, Robert Venturi and his designs, and the approaches of architects Charles Moore and Philip Johnson to Postmodernism. In this context, data related to this period were obtained from the Ects Information Packages of the universities and it is observed that Postmodern period courses contents are examined in 75 of 101 universities.

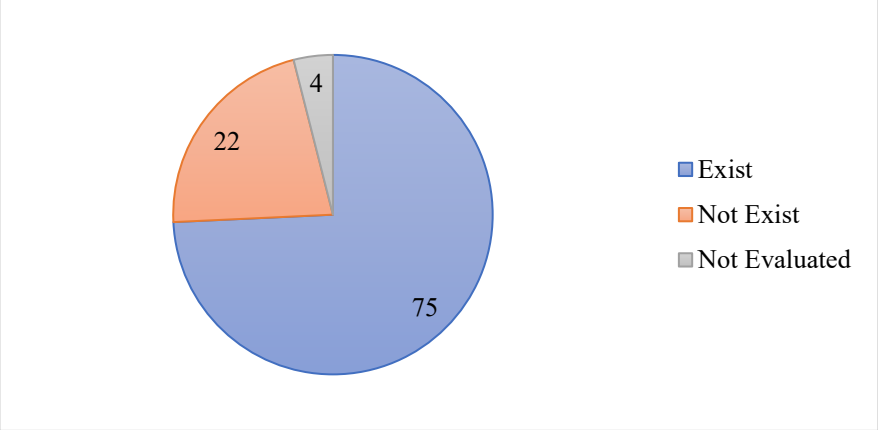

Figure 21. Distribution of Post-Modern Period in Architectural History Courses

3.3.5.6. Turkish Architectural History

This period, which is explained through the concepts of the architect, architecture, architectural history, and built environment, is examined within the scope of Turkish Architecture in the undergraduate architectural education in Turkey. In this context, the topics of this part are related with;

- Turkish Architectural History Before Islam
- Anatolian Seljuks and Beylics Period Architecture
- Early, Classical, and Late Ottoman Architecture
- The architecture of the Republic of Turkey: I. National Architecture and II. National Architecture

Within the scope of these topics, the social structure of these periods, understanding of architecture, building types, architects, and their works are examined. In the figures below, the data on the Turkish Architecture contents in architectural history courses in universities are given. In this figure, universities that deal with at least one of the subjects of Turkish architectural history from the pre-Islamic period to the present are given. From this figure, it is seen that in 14 universities Turkish architectural history is not examined.

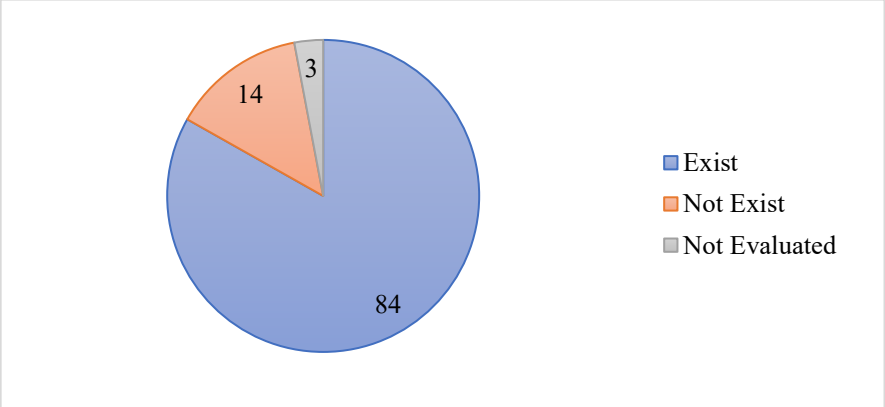

Figure 22. Distribution of Turkish Architectural History Contents in Architectural History Courses

In this context, different numerical data can be observed when examined more comprehensively. For instance, within the scope of architectural history courses in Turkey, Pre-Islamic (Central Asia) Turkish architectural history is taught in 34 of 101 universities and not in 63, while Anatolian Seljuk and Principalities period architectural

history is taught in 77 of 101 universities and not in 21. These data can be seen more legible from the figures below.

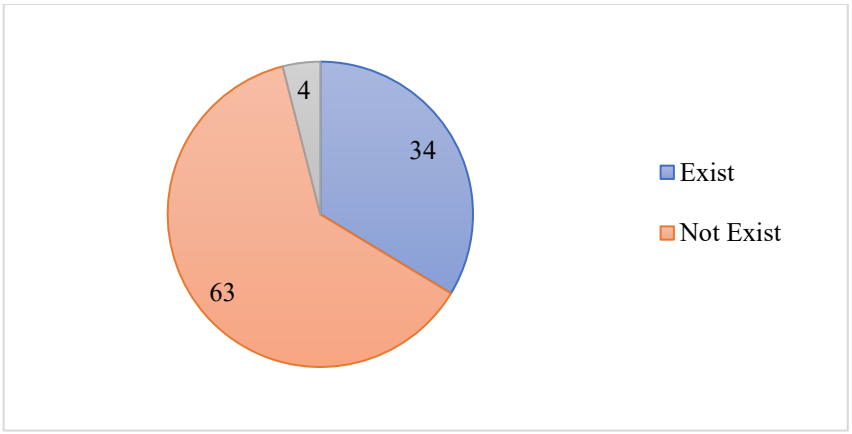

Figure 23. Distribution of Turkish Architectural History Before Islam Contents in Architectural History Courses

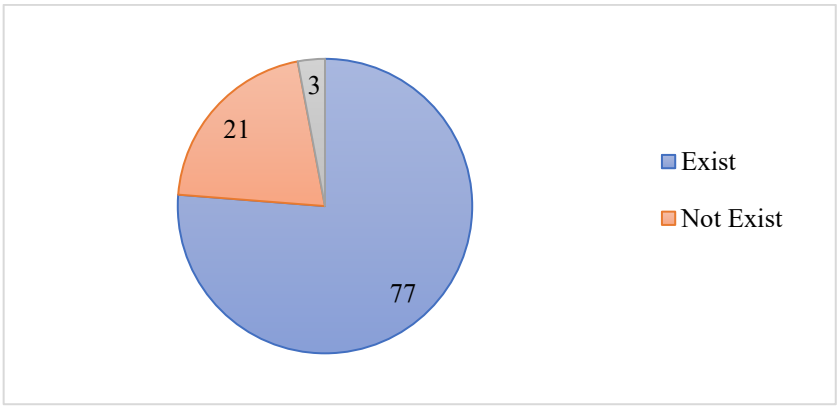

Figure 24. Distribution of Anatolian Seljuks and Beylics Periods Contents History in Architectural History Courses

In addition, when the periods of the Ottoman Empire and the Republic of Turkey are examined, different numerical data are encountered. As in the previous analyses, within the scope of architectural history courses in Turkey, Ottoman Empire Era

architecture is taught in 84 of 101 universities and not in 14, while the Republic of Turkey Period and national architectural approaches are taught in 47 of 101 universities and not in 48.

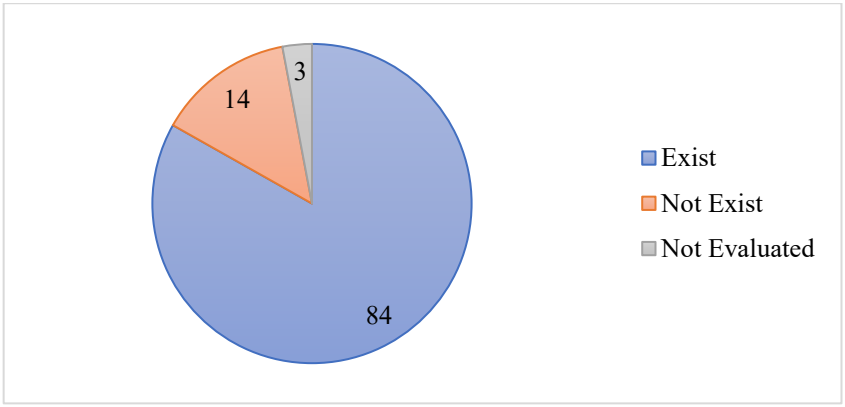

Figure 25. Distribution of Ottoman Empire Period in Architectural History Courses

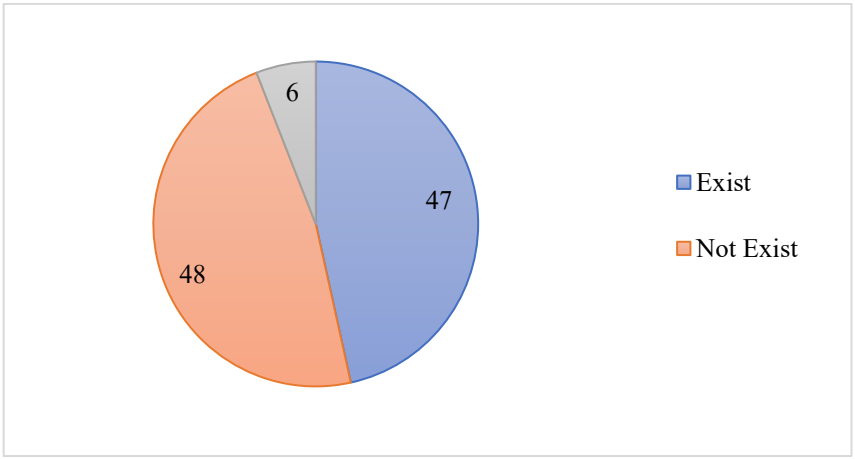

Figure 26. Distribution of the Republic of Turkey Period in Architectural History Courses

3.3.5.7. History of Civilization and History of Art

In this part of the research, the numerical analyses of the History of Civilization and History of Art Courses in undergraduate architectural education in Turkey are examined. In this context within the scope of the History of Civilization courses, major events, ideas in human history are examined over different cultures, peoples, and civilizations. At the end of the semester, students obtain points of view of the world that we live in. In this regard, when analyses from the info packages, it is seen that that History of Civilization courses contents are in 6 of 101 universities.

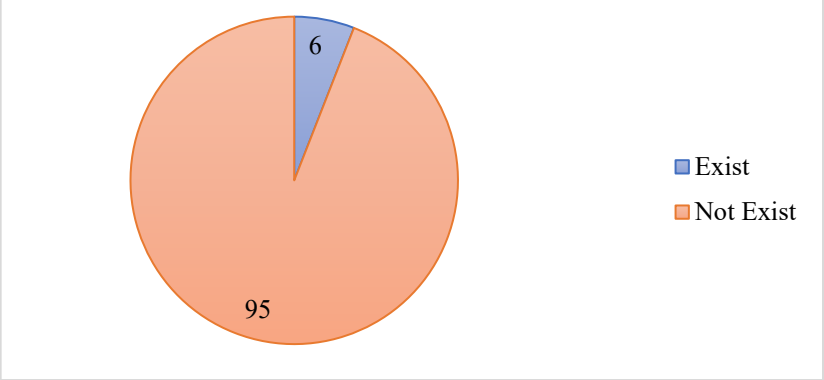

Figure 27. Distribution of History of Civilization Subject in Architectural History Courses

On the other hand, when examining the History of Art courses, different numerical data are encountered. The subjects examined within the scope of art history courses are concepts related to art history, art activities in different civilizations, artworks, and artists of various periods, stylistic differences in art. Within the scope of this course, the student gains the ability to read and evaluate art and architectural elements together. When examined in this context, it has been observed that 22 of 101 schools in Turkey offer art history courses.

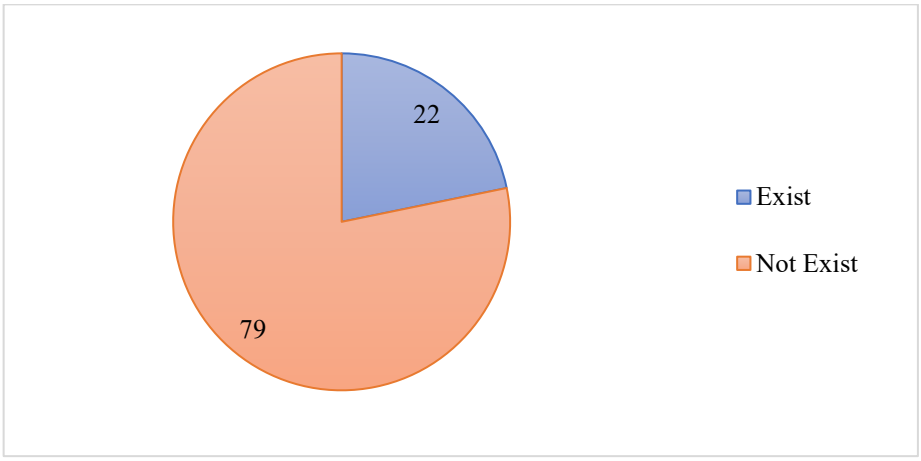

Figure 28. Distribution of History of Art in Architectural History Courses

CHAPTER 4

ASSESSMENT OF ARCHITECTURAL HISTORY COURSES OVER QUANTITATIVE AND QUALITATIVE DATA IN TURKEY

Within the scope of the thesis research, as mentioned before, architectural history courses are one the most important parts of architectural education, since it has been a bridge between past and present and it transfers the retrospective architectural, social, and cultural data directly to today. When examined in this context, it is seen that the qualified constructions that are designed today emerge with the contribution of accumulations from the past. For this reason, to establish a healthy architectural environment, it is necessary to aim for sufficient architectural history education. When examined in this regard, in the light of the previous analyzes, it is observed that there is no co-movement or consistency in architectural history courses in undergraduate education in Turkey. Based on the previous analysis, it was determined that these differences are seen in the courses' credits and hours, the distribution of the courses to the semesters, the courses' scope and contents, the language of education, and the courses' resources. Therefore, in this part of the thesis, the situation assessment is examined through the reflections of these differences on architectural education and architectural history courses in Turkey. In this context, the assessments surveyed in this part are discussed under 3 different headings for a more comprehensive analysis.

In this part, where each assessment is supported by numerical data, in the first title, architectural history courses are discussed on national and local credits, weekly course hours, and the distribution of courses on semesters. In other words, within the scope of this part, the main purpose is to evaluate and present the consequences of the diverse numerical parameters and percentage distribution of the undergraduate architectural history courses over national and ECTS credits, courses' hours, weekly and semester distributions in Turkey.

Afterward, under the second title of the Chapter, assessments of architectural history courses contents will be examined from different perspectives. In this context, the assessments in this part will be discussed over the subjects;

- From Prehistoric to Medieval Era
- From Medieval to the End of the Renaissance
- Renaissance& Industrial Revolution
- Post-Modern Period
- Turkish Architectural History
- Turkish Architecture Before Islam
- Period of Seljuks and Beylics
- Republic of Turkey Period
- Ottoman Empire Period
- History of Civilization and Art History

With this regard, the main purpose of this part of the Chapter is to evaluate and present the consequences of the imbalances in the architectural history courses' content distribution in undergraduate education courses in Turkey in a cause-and-effect relationship, through previous analyses.

After the assessments over the architectural history courses' crediting, hours, semester, and course contents, in the last chapter of this part, the evaluations will be examined through the educational language and sourcebooks. In this context, the main purpose of this part of the research is, initially, to present the statistical distributions of the Turkish and English language of education on architectural history courses, and secondly, the present the main sourcebooks in the undergraduate architectural history courses in Turkey, what kind of architectural history narrative these sources, and which sourcebooks overlap with the undergraduate architectural history courses in Turkey in terms of content and order.

As a result, in the context of this Chapter of the research, the assessments of architectural history courses in undergraduate architectural education in Turkey, which is discussed under 3 different headings, have been examined from different aspects. In this context, within the framework of the information that is presented in this part, a multilayered knowledge base on today's architectural history undergraduate courses has been presented.

4.1. Assessment Of Architectural History Courses Through Crediting, Weekly Hours, And Semester Distribution

Architectural history courses, which are an important element of architectural education, demonstrate various approaches in architectural departments in Turkey. These discrepancies were detected both quantitatively and qualitatively. The quantitative difference is largely related to course credits, spread over semesters, weekly, or semester course hours. In this perspective, and in reference to the previous analyses, this part of the research will discuss how the quantitative differences in architectural history courses are reflected in architectural education in a cause-and-effect relationship. In this context, first of all, the difference seen in Local and ECTS credits in the 4-year education period of architectural history courses and how this is reflected in architectural education will be discussed.

Course credit is the rate given for each of the courses taken by students during their university education. These credits are calculated for students to gain the appropriate vocational education qualification at the university. Students who complete the credit given per course can successfully complete their university education. In other words, course credits are the primary criterion in graduation requirements. As stated previously, there are two types of course credit systems in university education in Turkey. The first is local credit, while the second is ECTS credit. In this context, a course's local credit comprises all of the course's weekly theoretical lecture hours and half of the course's weekly laboratory, workshop, or studio hours. Considered within the framework of architectural history courses, these courses are given in the classroom and within the scope of theoretical course hours in most architectural departments in Turkey. In other words, the weekly course hours of the architectural history courses are directly proportionate to the local credit.

Although this situation is not valid for all universities, it can be said that it is valid for 90% of them. ECTS credit, which is another determinant, is a value that expresses all of the work (theoretical course, practice, seminar, individual study, exams, homework, etc.) that a student must do to complete a course. In summary, local credit is used for active lecture hours in the classroom, while ECTS credit is used for both the classroom and the out-of-class process. In addition, ECTS credits also allow for an assessment at

international standards. According to standards in Turkey, a student must provide at least 120-150 local credits and at least 240 ECTS to graduate from the department of architecture. When we look at the area covered by the history of architecture within this numerical standard, we encounter a lot of different data. In terms of local credits of the courses, it is observed that during the four years of education its weight change between 4 and 24 credits. When evaluated in percentile, the proportional equivalent of these numbers varies between 3.3% and 20% during the four-year architectural education. In the figure below the number of universities according to local credits (blue columns) and the ratio of total architectural history courses credits in 4 years of architectural education (orange line) is presented. From this figure, it is seen that the total local credits of the architectural history courses are mostly 8 credits (29 universities), 9 credits (14 universities), and 12 credits (9 universities). When evaluated in this context, the weight of more than half of the architectural history education, which is compulsory within the scope of architectural undergraduate education in Turkey, in 120 local credits changes between 6.6% and 10%. This ratio shows that architectural history courses, which are one of the most important elements of architectural education, take up very little space in the local credit framework. In addition, it is observed that there is no consistency or co-movement among universities in the context of local crediting.

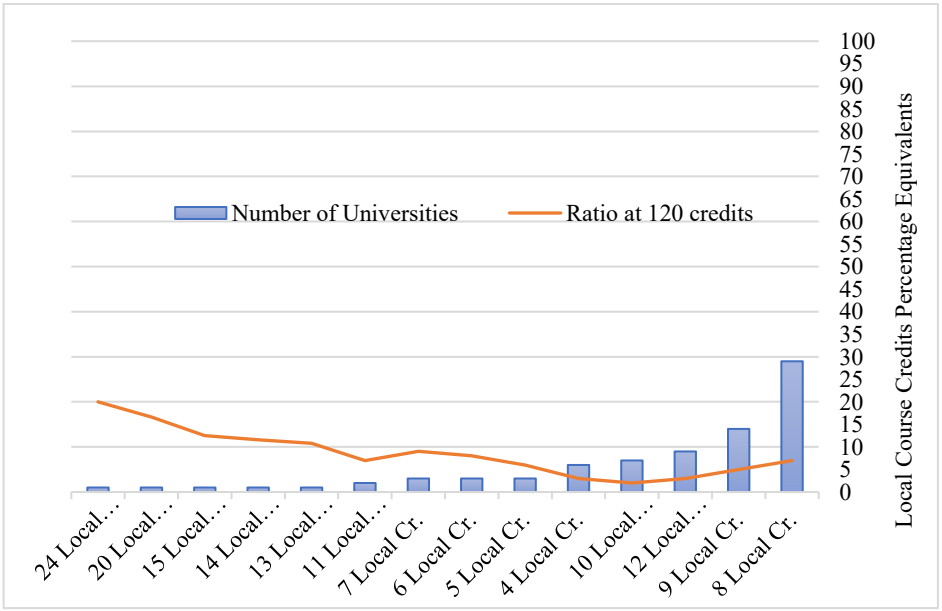

Figure 29. The Local Credit Percentages of Architectural History Courses with University Numbers

These differences observed in local credits are also seen in ECTS credits. When analyzed within this framework, TOBB university is the one with 32 ECTS, which occupies the most percentage of total ECTS credits. In other words, 13.3% of the total ECTS in 4-year architectural education at TOBB University is covered by the History of Architecture courses. Also, the ratio of architectural history courses ECTS credits during 4 years of architectural education to 240 ECTS varies between 13.3% and 1.6%. This means that there is architectural history education covering 4 ECTS in 240 ECTS undergraduate architecture education. When evaluated in general terms, these numerical values are minor in the context of architectural history, which is very critical and significant in architectural education. In the figure below, the differences in ECTS credits are presented more clearly.

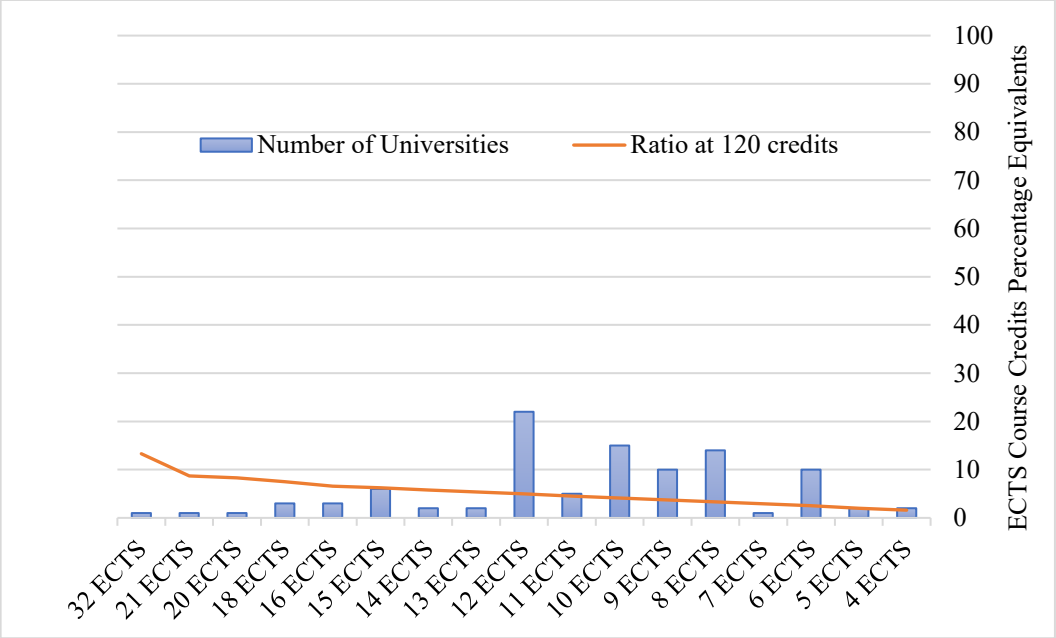

Figure 30. The ECTS Credit Percentages of Architectural History Courses with University Numbers

When evaluated within this framework, there are many numerical differences in the crediting of architectural history courses within the scope of undergraduate architectural education in Turkey. These differences also give information about the weight of architectural history courses in undergraduate architectural education. In this

context, when evaluated in the light of the data gathered, architectural history course credits take up a short place in the total education credits. Considering the crediting system, which determines the quality of the courses, the importance of architectural history courses in Turkey remains in the background compared to other courses. However, according to CoHE and NQF-HETR, architectural history is one of the most important elements of architectural education. In this case, there is a conflict between architectural history course crediting and qualifications framework.

Continuing the assessments on numerical data, another important difference is observed in architectural history course hours. Under normal circumstances, a student who receives an undergraduate education in architecture in Turkey allocates between 6000 and 7200 hours of architectural lessons, both inside and outside the classroom, during his/her 4-year education life. This time is also called Courses Works Load. The time spent in the classroom of this hour varies between 3000 and 3600 hours. In other words, during the 4-year architectural education period, a student spends between 3000 and 3600 hours teaching at school. When examined in terms of architectural history courses, it is observed that the time allocated to architectural history education in 4-year architectural education is between 108 hours and 1372 hours. Due to the lack of information in some universities, these data were obtained from 88 departments of architecture. When evaluated within this framework, Harran University (38.1%) spends the most time on architectural history, while Atatürk University (3%) spends the least time. In Figure 29, the percentage distribution of course hours within 3600 hours is presented more comprehensively, together with the number of universities. As can be seen from this figure, there is no common approach in the time allocated for the lectures of architectural history courses in 4-year architectural education. In other words, architectural history courses in prehistoric times until today were given at different time intervals in almost every university. While this situation can be considered normal at low percentages, it is seen that there is an imbalance of 1200 hours in today's situation. In other words, while architectural history courses can be covered very comprehensively in some universities, they can be covered more incompletely due to limited course hours.

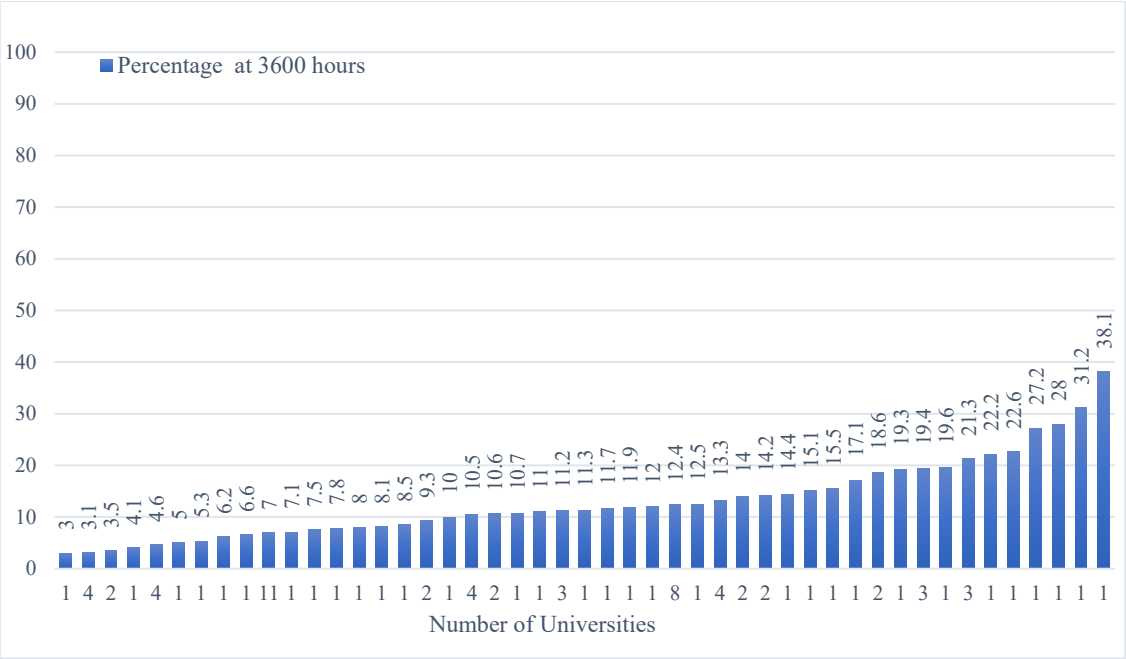

Figure 31. Architectural History Courses Percentages during 4 Years Architectural Education

Lastly, the quantitative data assessments in this part are discussed through the distribution of architectural history courses over semesters. When examined within this framework, the area covered by architectural history courses in 8-term architectural education varies between 2-8 terms. While the number of universities with 8 semesters of architectural history education is 1, the number of universities with 2 semesters of architectural history education is 15. On contrary to the previous numerical data, there is a common approach among universities in the distribution of architectural history courses over periods. This similarity is seen mostly in the architectural history courses that lasted for 3 and 4 semesters. In this context, architectural history courses continuing for 3 semesters amount to 38% in 8 semesters of architectural education, while architectural history courses continuing for 4 semesters correspond to 37%. In this case, it is also determined that the architectural history courses in architecture undergraduate education in Turkey generally last 3 to 4 terms. When evaluated within this framework, Architectural History courses' weight as a percentage is lesser than the Architectural Design and Building Science courses, which are also compulsory in undergraduate architectural education. Considering that the time slots covered by the history of

architecture continue from the existence of humanity to the present, architectural history courses that continue for 8 semesters will be more beneficial for students, to graduate with a more comprehensive and detailed knowledge of architectural history.

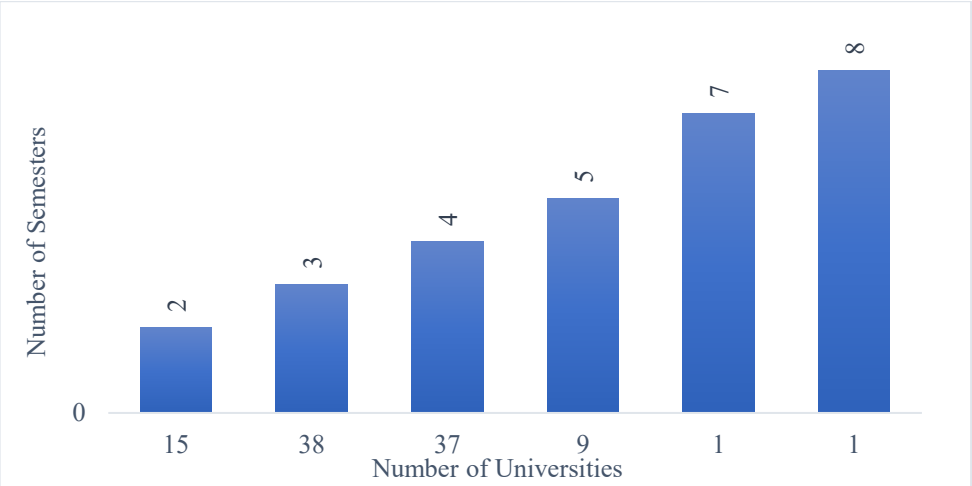

Figure 32. The Periodical Distribution of Architectural History Courses

Consequently, in this part of the research, the assessments of architectural history courses through numerical data in undergraduate architectural education in Turkey are discussed. Therefore, the main purpose of this part of Chapter 4 is to assess the architectural history courses through quantitative data and in a cause-effect relationship. In this context, these assessments are mainly examined over the local and ECTS course credits, the course hours, and the distribution of the courses to semesters. As a result of the assessment established over the previous analyses and numerical data, it is determined that the quantitative determinants (credits, semesters, hours) in architectural history courses were weakly related both with each other and at the level of architectural departments. Therefore, it causes an unbalance in architectural history education in undergraduate architecture education, Furthermore, this result falls apart with the NQF-HETR by CoHe. In this context, as a result of the assessments through crediting, weekly hours, and semester distribution, the inconsistent distributions of the quantitative parameters in the architectural history courses are presented.

4.2. Assessment Of Architectural History Courses Through Scope and Contents

In this part of the research, the architectural history courses contents, which are the other discrepancies that are seen in architectural history education in Turkey, will be discussed from different perspectives. For this purpose, firstly, the courses flow and weekly topics of each of the 353 architectural history courses in 101 universities were examined (The course contents were used if there is no weekly course flow). In the light of the information obtained from the courses' info packages, it has been determined that the architectural history courses in undergraduate architectural education in Turkey are shaped by 5 subjects including Western and European architectural history, Turkish Architectural History, the history of civilization, history of art, and the World (China, Japan, India, etc.) architectural history. Among these subjects, the history of Western architecture and the history of Turkish architecture are seen mostly, while the history of civilization and art history are seen as lesser. In addition, it has been determined that the Western and European architectural history and Turkish architectural history courses mostly have a chronological narrative order. In other words, these courses are taught in a linear history flow, divided into time intervals, from prehistoric times to the present. However, these time intervals may show different approaches in each university. For instance, prehistoric era, ancient and medieval architecture can be taught separately in a university, while in another university these three can be taught together. In addition, this chronological course flow is not seen in art history and civilization history. These courses are mostly handled with separate topics. When considered in a general context, architectural history courses in Turkey are shaped over 5 different subjects. While European, Western, and Turkish architectural history is taught in chronological order, the World's architectural history, art history, and civilization history are handled independently. In the figure below, the scope and chronological order of architectural history courses are presented more comprehensively. (Note: The time slots given in this figure may vary for each university. This method is preferred to express courses contents in the most comprehensive and explanatory way)

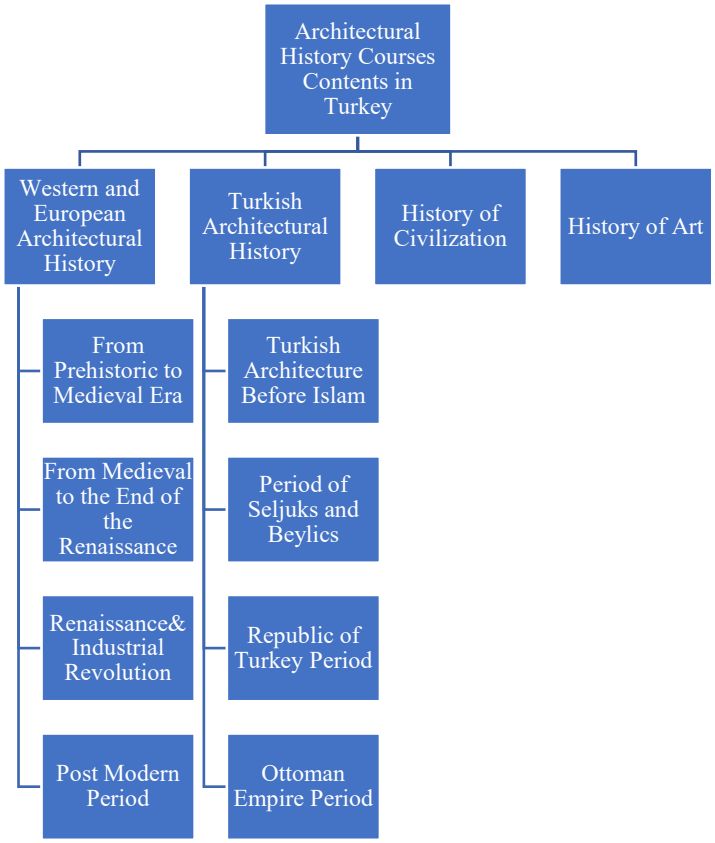

Figure 33. Architectural History Courses Content Diagram

In this context, in this part of the thesis, the place and weight of the architectural history course topics in the table above will be discussed in architectural undergraduate education. While the topics discussed in the previous section enable the evaluation of architectural history courses in undergraduate architecture education in Turkey through quantitative data, the topics examined in this section enable the scope and weight of architectural history courses to be determined in architectural education. In this regard, the topics discussed in this part have progressed in the same order as the headings in Figure 31, to examine them in a holistic framework. Therefore, the first assessment in this part begins with an examination of the weight of architectural history topics from Prehistoric to the Medieval Era.

There have been many ages in the process from the existence of humanity to the present day. The characteristics of these ages are different from each other and each of them has important events in itself. In this context, within the scope of undergraduate architecture education in Turkey, the subjects examined from the Prehistoric to Medieval

era (Until 4th Century) are related to Ancient Egypt, Mesopotamian architecture, Anatolian Civilizations, Aegean Civilizations Hittite, Ancient Greek architecture, Hellenistic, Etruscan, and Roman Architecture, and Byzantine period. Within the scope of the architectural history courses that involve this duration, the built environment, and the main elements that shaped it as climate, geographical conditions, belief, management style, etc., the architectural approaches and construction techniques, social and cultural issues related to architecture are examined. For example, the pyramids built in Ancient Egypt, the Temples built in Ancient Greece, or the Roman Period structures and the relations between these building types are one of the topics of this course. In light of the previous analyses, it is observed that this time slot is taught in the architectural history courses of 97 out of 101 undergraduate architectural departments in Turkey. That is, roughly, 97% of 41714 architecture students graduate with knowledge of architectural history from prehistoric times to the Medieval Era. This numerical data has a good ratio within the percentile. In addition, similar numerical data is also seen in the period from the Medieval era to the end of the Renaissance (4th-17th Centuries). When examining the number of universities' architectural history courses that discuss this period, it is seen that the ratio is 96%. In other words, the vast majority of undergraduate architecture students in Turkey learn about early Christian Architecture, Byzantine, Romanesque, Gothic, Renaissance, Baroque architecture, the built environment, social and cultural relations, defense, and religious structures in these periods. For instance, if it is considered within the framework of Byzantine architecture, a student has information about Byzantine structures from Africa to Anatolia, the spread of Christianity in this region, and the effects of religion on architecture in settlements, Byzantine Empire defense structures, imperial structures, and residential structures.

However, the same numerical data is not valid for the periods from Renaissance to the Industrial Revolution and the Industrial Revolution & Modern Period in the scope of architectural history courses. When considered in terms of the Renaissance and Industrial Revolution periods, it is seen that 90% of the architecture departments in Turkey are given architectural history education. This means that 4000 out of an average of 40.00 students graduate without having knowledge of architectural history about this period. It is a worrying situation that this period, in which very important developments in the name of humanity and architecture took place, occupies relatively less space in architectural history courses. For the Industrial Revolution & Modern period, this ratio decreased to %85. When looking at the architectural history of the Post-Modern period,

which is the next period right after, it is seen that this rate has decreased to 75%. In the figure below, the weight of the European & Western Architectural history subjects in the scope of architectural education in Turkey is presented more comprehensively.

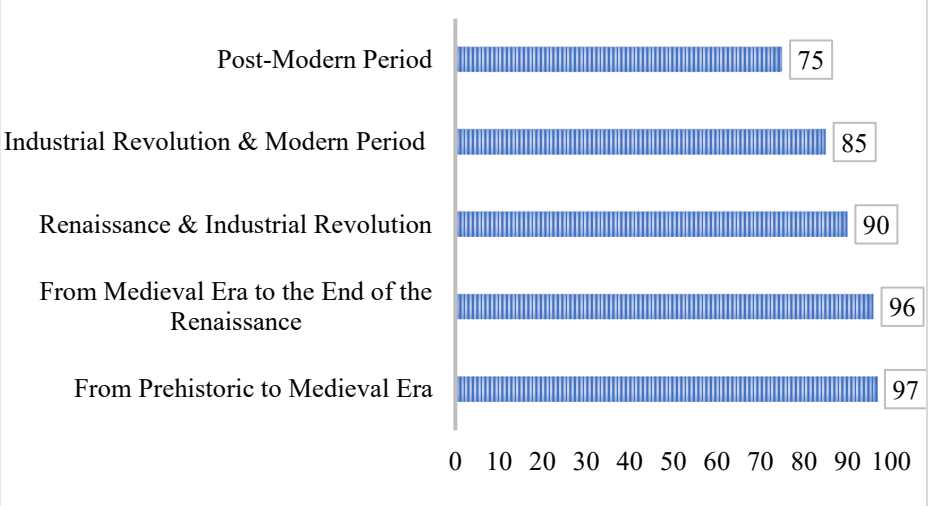

Figure 34. Weight of the Architectural History Courses in Percentage

In this case, at least 15% of students who receive architectural education will graduate without learning critical subjects including Industrial developments, the birth and development of Modern Architecture in the 19th century, Modernism and housing architecture, the birth of Post-Modernism, Postmodern criticism, Robert Venturi, Charles Moore, and Philip Johnson's ideas on Postmodernism, etc. that constitute the present architecture and building environment. In addition, these subjects are not taught equally in every university. As mentioned in the previous part of the Chapter, architectural history courses distributions over semesters and weekly hours may vary. Therefore, the weight of these subjects in semesters also varies. In other words, while these subjects are examined more comprehensively in some of the universities, in others they can be examined through basic examples. This situation can also be associated with the lack of common course hours in the context of architectural education in all universities. As a result of this, in the context of architectural history courses, unbalanced information distribution is observed, and this situation can affect the quality of architectural education negatively.

On the other hand, these unstable statistical data and results in the Western and European Architectural history courses are also observed in Turkish architectural history. In this context, to draw a perspective, before the assessments, it may be beneficial to examine the Turkish architectural history subjects and how they are taught in the undergraduate architectural history courses in Turkey. Turkish architectural history, which is one of the subjects of architectural history in Turkey, differs from the history of European and Western architectural history in terms of the way of teaching. The first of these differences are related to the chronological narrative of architectural history. As it is known, historical ages have not been experienced similar all over the world. In each country, the social, cultural, geographical, and architectural features of a region have been affected differently from historical ages and developments. To explain by example, the Medieval architecture in the Western Roman Empire and the Medieval architecture in Anatolia had not the same characteristics. Or the Renaissance period structures in Europe have different characteristics from in the Ottoman Empire. This is directly related to the culture, climate, geography, material, social, cultural, or religion. In other words, Western and Turkish architectures may show different architectural orders in the same age. Therefore, in some of the curriculums, Western and Turkish architectural histories can be taught independently of each other in undergraduate architectural history courses in Turkey. However, it doesn't mean that Western and Turkish architecture are non-associative with each other. When the architectural works of the Anatolian Seljuk and Ottoman periods are examined, it is seen that Turks had architectural communication with the Byzantines and Western countries. Zeki Sönmez's book "Anadolu Türk İslam Mimarisinde Sanatçılar" gives the names and nationalities of the architects and masters that worked in Anatolian Turkish buildings in the Medieval Era. Likewise, similar sources exist for the Ottoman Empire Period. With this architectural exchange, there had been architectural and stylistic interactions in those periods. As a result of this situation, in some of the other universities, Turkish architectural history is taught together with Western architectural history. This situation may vary according to the approach of the academician to the subject and the preference of the university. In this case, as a result, Turkish architectural history can be taught in two different ways as separately or in connection with European and Western architectural history. In this context, when we examine the Turkish architectural history subjects in undergraduate architectural history courses, we encounter 4 different subjects. These subjects are respectively; Turkish Architectural History Before Islam, Anatolian Seljuks and Beylics Period Architecture,

Early, Classical, and Late Ottoman Architecture, and architecture of the Republic of Turkey: I. National Architecture and II. It is National Architecture.

In this regard, the assessments in this section first started with the total weight of Turkish Architectural history. According to the previous analyses, any of the above 4 subjects of Turkish architecture are not examined in the14 universities in Turkey. Since 3 of the universities' curriculums could not be reached due to lack of information, it is detected that the history of Turkish architecture was studied in 84 universities in total. In other words, in the 14 architectural departments, there is no mention of a Turkish architectural process of approximately 2000 years. In this case, considering that most of the students who study architecture in Turkey continue their architectural profession in Turkey after graduation, this condition is quite worrisome. Afterward, when the weight of each subject of Turkish architectural history is examined in these 84 universities, the more critical numbers are encountered.

The pre-Islamic Turkish architecture, which is part of the Turkish Architectural History courses at universities, contains the subjects as the architectural and spatial understandings of the Hun, Göktürk, and Uyghur Empires and the daily life habits in these cultures. In addition, within the scope of this subject, the Central Asian influence and nomadic lifestyle among Turks and in Turkish architecture give us information about social, cultural, and architectural relations between different cultures. In this context, this period is one of the significant parts of Turkish architectural history courses, as it provides information about permanent settlement Turkish architecture. In this context, when examining the weight of this subject within the scope of architectural history courses, it is seen that only 34 of 97 universities contain this period. In other words, the architectural characteristics of this period do not exist in the architectural history course contents of 63 universities.

Afterward, when examining the weight of the Anatolian Seljuks and Beylics Periods Contents in Architectural History Courses, the new numerical distribution in universities is encountered. In the light of quantitative analysis, it is seen that only 77 of 98 universities contain the subjects of this period in the architectural history courses contents. When examined in this context, important structures including Han, Caravanserais, Madrasahs, Mausoleums, etc. which were built during the 1000-year Anatolian Medieval by the Anatolian Seljuks and other Turkish Beylics period, and their architectural features are not taught in 21 of 101 universities in Turkey. Another critical point here is that these building types both emerged with the architectural interaction of

Turkish, Byzantine, Armenians, and Persian cultures and were only seen in Anatolia. Therefore, for a student who studying architecture in Turkey to graduate without learning the architecture of this period means that to graduate with a lack of local history and architectural knowledge. This also contradicts the qualifications framework of NQF-HETR.

Finally, when discussing the weight of the architectural history of the Ottoman Empire and the Republic of Turkey period, it is seen that these subjects are not included in the architectural history courses of lots of universities. While these numbers are 84 for the Ottoman Empire period, it is 47 for the Turkish Republic period. In other words, while the Ottoman period architecture is not included in the undergraduate architectural history courses of 14 of 101 universities, the architecture of the Republic of Turkey is not included in 48 universities. In the figure below, the ratio of Turkish architectural history course subjects in percentile is presented in more detail.

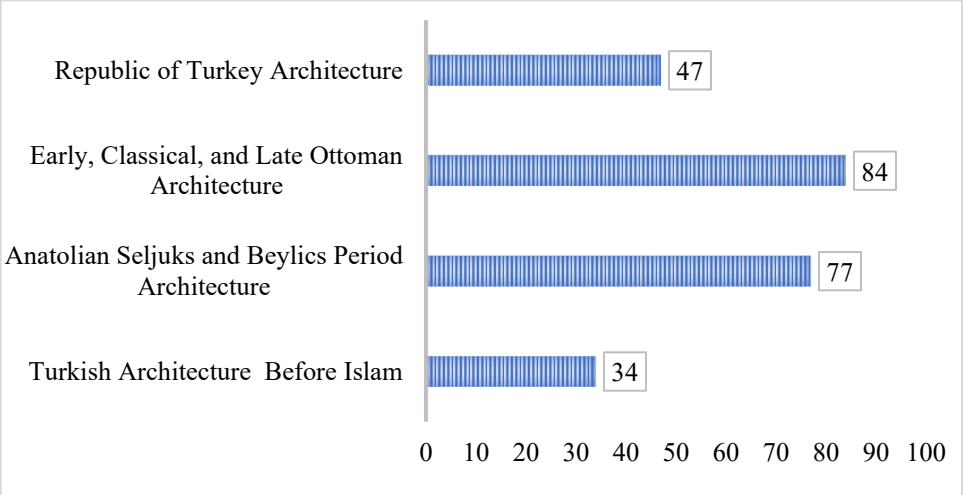

Figure 35. The Percentages of the Turkish Architectural History Subjects

As can be seen from this figure, the Ottoman Empire period is the most encountered (%84) in the curriculum of architectural history courses in the subjects of Turkish architectural history. However, it has been observed that even Ottoman Empire Architecture has never been taught in 14 universities. In addition, when examining the period of the Republic of Turkey, which is the up-to-date subject of Turkish architectural

history, it is seen that 48 universities do not teach the architecture of this period. When evaluated within this framework, it has been presented that the subjects of Turkish architectural history courses also have an unbalanced distribution within the scope of architecture courses in Turkey. Discussing from the perspective of Turkish Architectural History subjects, in which each subject is significant in itself, this diversity in the contents contradicts the 1st and 2nd, and 7th articles of NQF-HETR.

Finally, at the end of this part, the scope and weight of the History of Art and History of Civilization courses in undergraduate architectural education in Turkey are examined. In this context, while the art history courses in the architectural history curriculum of 22 of 101 universities examine the subjects; the concept of art, art approaches in different civilizations, artworks, and artists of various periods, stylistic differences in art. On the other hand, when evaluating the History of Civilization courses, it is seen that only 6 of the101 universities include the subject of this course. In this context, it has been detected that History of Civilization courses, which examine the civilizations from the birth of humanity to the present, are the least found courses in the architectural history curricula. In this context, it has been observed that the weights of the History of Art (%22) and History of Civilization (%6) courses in the architectural history courses in undergraduate education in Turkey are the two lowest in percentages. This is also related to the fact that these two courses are not a direct subject of architectural history. However, the existence of these two courses expands the scope of architectural history courses and enables them to gain a vision of the history of art, culture, and civilizations. Therefore, it is beneficial to increase these two courses in the architectural education curriculum in terms of giving an architecture student knowledge and vision of related issues.

Consequently, within the scope of this part of the research, it is aimed to present the detailed evaluation of the distribution and weight of the architectural history course contents in undergraduate architectural education in Turkey. For this purpose, in the light of the situation analyses, it has been detected that the architectural history course contents have an unbalanced distribution in universities. This distribution is presented below, respectively.

- %97 of universities taught Architectural History from Prehistoric to Medieval
- %96 of universities taught the Architectural History from Medieval to End of the Renaissance

- %90of Universities taught Architectural History of Renaissance and Industrial Revolution Period
- %85 of universities taught Architectural History of Industrial Revolution and Modern Period
- %75 of universities taught Architectural History of Post-Modern Period
- %84 of universities taught Turkish Architectural History
- %34 of universities taught Turkish Architectural History Before Islam
- %77 of universities taught Turkish Architectural History of Seljuks and Beylics Period
- %84 of universities taught Turkish Architectural History of Ottoman Empire Period
- %47 of universities taught Republic of Turkey period Architectural History
- %6 of universities taught History of Civilization
- %22 of universities taught History of Art

In this context, according to architectural education in Turkey, students graduate with insufficient knowledge in the field of architectural history. This situation contradicts the 1st, 2nd, and 7th articles under the Knowledge heading of NQF-HETR prepared by CoHE. In other words, the requirements of NQF-HETR cannot be met within the framework of architectural history education, and as a result, a healthy architectural education environment cannot be established. In this case, it may be useful to reorganize architectural education in the field of architectural history for an equal distribution of knowledge. In this way, an architecture student in Turkey can graduate with a sufficient level of architectural history knowledge, both locally, nationally, and internationally.

4.3. Assessment Of Architectural History Courses Through Courses Languages and Source Books

In this part of the research, the architectural history courses contents will be evaluated from the perspective of educational languages and sourcebooks. As mentioned in the previous parts, architectural education in Turkey is given in both Turkish and

English. While some universities only provide education in Turkish or English, some universities provide education in both languages. However, this situation, which causes differences only based on the language of courses, does not affect the courses' contents or scope of the education or sourcebooks in universities. For example, if it is researched through Istanbul Technical University, the course credits, hours, contents, and sourcebooks are the same in both Turkish and English undergraduate architectural education. In this context, the importance of English language education shows itself in the context of globality. At present undergraduate architectural education, when the numerical data of these two education languages are examined, it is determined that 81 architecture undergraduate programs provide education in Turkish, while 31 architecture undergraduate programs are taught in English. In other words, 28% of the undergraduate architecture departments in Turkey offer international education in the context of language. Also, according to the percentage ratio of 2017, %5.5 of architectural students are a foreigner (Tuna 2017). The equivalent of this rate in today's 41717 is approximately 2300 students.

However, another element that provides the following of universality in architectural education is sourcebooks (Özkan 2010, 122). The sourcebooks preferred in the courses provide critical information about how a course structure is shaped, how the books approach and examine the related subjects, and how they contribute the vision to the education. In this context, it is deeply important to examine the sourcebooks that are used in undergraduate architectural history courses in Turkey to understand the structure of architectural education. In this regard, the sourcebooks of each of the 353 architectural history courses in 101 universities are examined through the information packages of the courses. However, the information packages of approximately 32% of the 353 courses were deficient or empty. Therefore, the evaluations in this part are examined through the remaining 68%.

In this regard, the sourcebooks examined in this part are the books most frequently encountered in the architectural history syllabuses of universities. According to the research conducted on 68% of 353 architecture courses, the most common books in architectural history courses in Turkey are;

- A Global History of Architecture (Ching, Francis D.K., Jarzombek, Mark., Prakash, Vikramaditya)
- A History of Architecture Settings and Rituals (Kostof, Spiro)

- Understanding architecture: Its Elements, History, and Meaning (Roth, Leland M)
- A World History of Architecture (Marian Moffet, Michael Fazio, and Lawrence Wodehouse)
- Mimarlık Tarihi Ders Notları I, (Mutlu, Belkıs)
- Türk Sanatı (Aslanapa, Oktay)

Regardless of the language of the architectural history courses at the universities, these are the most observed books in the courses' curriculums. When examined in this context, the book A Global History of Architecture, written by Francis, Jarzombek, and Prakash, examines the subjects of architectural history in a chronological narrative without geographical or regional distinction. This chronological process in the book, consists of 18 different titles, starting with the architecture of 3500 BC and ending with the architecture of the Post-Modern period in the 1950s. Each chronological period in the book consists of sub-titles in itself, and in each sub-title, the architectural, social, and cultural relations in different regions of the world are discussed holistically and interrelated. In this regard, the book's approach to architecture is not only based on specific centres but also includes a comprehensive approach. This is a highly accomplished approach in terms of both providing comprehensive architectural knowledge and revealing the architectural relationships that were experienced in the same period in different regions. In this context, the fact that such a sourcebook can also be a solution to the problem of the diverse content distributions in undergraduate architectural history courses in Turkey.

Continuing in this context, another most frequently encountered sourcebook is A History of Architecture Settings and Rituals by Spiro Kostof. As in the previous book by Ching, Jarzombek, and Prakash, a holistic approach to architecture and architectural history is also observed in this book. This holistic view in the book examines the built environment and architecture in the context of social and cultural relations and evaluates them in a correlated composition. In other words, these two books demonstrate to the architects and architectural historians that architecture should be considered as an expression of the socioeconomic, social, and cultural environment in which it exists (Özkan 2010, 123).

Another most encountered sourcebook, written by Leland, M. Roth, and Amanda C. Roth Clark, is Understanding architecture: Its Elements, History, and Meaning. In this

book, the history of architecture is discussed in two separate parts. In the first part of the book, architecture and architectural concepts are discussed through the subjects including building, building functions, sound, memory, nature elements. Afterward, in the second part, the architecture and build environment is examined under the headings of Greek Architecture, Roman Architecture, Indian Architecture, Christian Architecture, Islamic Architecture, Renaissance Architecture, Baroque and Rococo Architecture, Chinese Architecture, etc. In this context, unlike the previous two sourcebooks, the architectural history narrative in this book has been based on certain classifications and according to regions, and periods. The same architectural history narrative is also seen in the another most frequently used sourcebook, A World History of Architecture written by Marian Moffet, Michael Fazio, and Lawrence Wodehouse. In this book, as in the previous one, architectural works and built environment is evaluated in chronological order by regions and periods under the headings of Chinese, Japanese, Asian, Indian, and Islamic architecture. In other words, the architectural history was examined and evaluated as European and Western-centred countries and other regions.

When evaluated in this framework, in Turkey, the undergraduate architectural history courses structures show similar order with the books 'Understanding architecture: Its Elements, History, and Meaning' and 'A World History Of Architecture.' In other words, the subjects of the courses in Turkey have been shaped in chronological order and are western centered. This situation is especially seen in the scope of architectural history courses from the Medieval Era to the Present. While the pre-medieval period is studied through cultures and civilizations, the period from the Medieval era is studied through Byzantium Empire, Roman Empire, European Architecture, and American built environment. Also, in this order, the history of Turkish architecture is handled in two different ways. While one of them is taught the history of Turkish architecture through Central Asia, Anatolia, and Turkey, the other is taught the history of Turkish Architecture together with Islamic Architecture. Teaching the history of Turkish Architecture with Islamic architecture is mostly seen in the western-based architectural history sourcebooks.

In addition to these sourcebooks, local architectural history books are also a critical part of undergraduate architectural history education in Turkey. When analyzed within this framework, the book 'Mimarlık Tarihi Ders Notları I' written by Belkıs Mutlu and the book 'Türk Sanatı' written by Oktay Aslanapa are the most encountered local sourcebooks in architectural history courses. In the book written by Belkıs Mutlu, the

history of architecture is examined under 5 different headings and in chronological order, through a Western and European-centred architectural approach. While the first two chapters in the book focus on architecture in Egypt, Mesopotamia, and Civilizations, the remaining 3 chapters deal with a Western and European-centred architectural history narrative. When evaluated within this framework, the architectural history narrative in this book shows similarities with the Western and European-based sourcebooks.

Finally, when examining the architectural history narrative in the book 'Türk Sanatı' by Aslanapa, a different content order is observed from the other sourcebooks. Within the scope of this book, Turkish Architecture, and Art were examined under the subjects of; Turkish Art Before Islam, Turkish Art After Islam, Anatolian Turkish Art, BEYLİCS Period, Ottoman Period, and Mimar Sinan Period through the built environment and architectural works The content of Turkish Art and Architecture before Islam, Turkish Art, Architecture in the Ottoman Empire period, and Mimar Sinan, which are one of the subjects of Turkish architectural history discussed in this book, coincide with the content of Turkish architectural history courses in Turkey.

In addition to the reference books assessed above, the other sourcebooks by Doğan Hasol, Doğan Kuban, Metin Sözen, and Semavi Eyice are also frequently encountered. As a result, within the scope of architectural history courses in undergraduate architectural education in Turkey, various sourcebooks, both Western and Turkish, are used. While some of these books have a holistic viewpoint and discuss the architectural history on cultural relations and sharing, some have an architectural history narrative that is examined through the Western and European based. When evaluated in this context, it has been observed that the Western and European architectural history narrative overlaps with the scope of architectural history courses in Turkey. In other words, although various sourcebooks are used in architectural history courses in Turkey, Western and European-based architectural history narrative is dominant. This situation is related to the articulation of architectural education in Turkey from Europe and America in the 19th Century. The influence of European academics on architectural education at that time is still alive at Present.

CHAPTER 5

CONCLUSION

The architectural profession, which is the art of designing the built environment, structure, and space, is given in universities in Turkey as part of undergraduate education. This education, which lasts 4 years in Turkey, consists of compulsory core courses associated with design, building science, and architectural history, as well as elective courses in related subjects. The scope and framework of this education in Turkey are determined by CoHE and MIAK institutions and their educational charters. Both institutions articulated their architectural education charters from the International Union of Architects(UIA) and RIBA. While UIA is a non-governmental organization that represent world's architects, RIBA is an onether organization that represent architects mainly in United Kingdom. In this context, NQF-HETR, prepared by CoHE, determines the qualifications of architectural education, MIAK accredits architecture departments in Turkey. According to the NQF-HETR charter, to graduate from the department of architecture in Turkey, a student must have ;

- Theoretical and factual knowledge in the field of architecture and planning in the local, regional, national, and global context,
- Knowledge and understanding of the place and importance of the field of architecture in the historical, geographical, social, and cultural context
- The knowledge and understanding of the necessary scientific, technological, aesthetic, artistic, historical, and cultural infrastructure in the field of architecture.

In these articles, which are in the same scope as the 3.2., 4.2.1., and 4.2.3. articles in the architectural education statute prepared by UIA in 2017, the scope and qualifications of the architectural history courses in architectural education are presented. Considered within this framework, for an architectural student to graduate and become

an architect in Turkey, firstly, the scope of the compulsory courses in design, building science, and architectural history in architectural education must meet the above conditions. However, it has been observed that these conditions are not fully met in Architectural History courses in terms of courses contents, weekly and hourly distributions, crediting, and sourcebooks. But, since the architectural relationship with the past is provided through architectural history, these courses are one of the most critical elements of architectural education. Since the act of architecture has existed, making use of the past and even obtaining "authentic styles" by transferring form has always been a common technique (Tanyeli 1988, 61). So, at present, the built environment has developed through the transfer of architectural knowledge from the existence of humanity. Furthermore, in a culture where the history of architecture is not thoroughly understood, it is unavoidable that the built environment will be poorly designed (Erkasalan 2001, 50). Therefore, for a healthy architectural environment, comprehensive knowledge of architectural history is essential. In this regard, within the scope of this thesis study, the causes and consequences of multi-layered discrepancies and inconsistencies observed in architectural history courses in undergraduate architectural education in Turkey are examined, analyzed, and evaluated. For this purpose, the research subject is examined in 3 stages:

- The first stage: The historical background and the main actors that determine the boundaries and scope of architectural education and architectural history courses in Turkey
- The second stage: The scope of the undergraduate architectural history courses at present on quantitative analyses
- The third stage: The evaluations of architectural history courses on various criteria by previous analyses.

The first stage, which involves Chapter 1 and Chapter 2, the historical background and the main actors that determine the boundaries and framework of architectural education and architectural history courses in Turkey are examined. In this part of the research, the discrepancies observed in the architectural history courses with the historical background of the architectural education, and the main actors that determine the scope of architectural education in Turkey are examined. In this regard, it is revealed that different education Ecoles from the universities, whose number has increased over time,

cause several educational approaches in the scope of the architectural history courses, and even today the reflection of this situation continues. Also, another important research topic in this part is the institutions and their charters that determine the scope of architectural education in Turkey. In this way, the scope and qualifications of the architectural education in Turkey and the architectural history courses in this education are presented and it has been revealed that the scopes of the courses do not meet the criteria given in the charters.

In the second stage, which corresponds the Chapter 2, within the framework of the previous information, numerical data and situation analysis of architectural history courses are researched. In this context, the scope and weight of the discrepancies in the crediting, course hours, weekly and semester distribution, and the course contents observed in architectural history courses have been presented. In other words, if it is discussed through the course contents, the distribution of the architectural history courses' subjects in 101 universities in Turkey is presented with tables and figures based on numerical data. In other words, it has been found out which architectural history subjects are studied more or remain in the background. In this way, the imbalances observed in both standards and course contents in undergraduate education in the history of architecture in Turkey and their weight in 101 universities were revealed through numerical data, tables and figures. According the analyses, it is detected that the architectural history courses quantitative standards percentage equivalent have no common point and the each of data analyses shows different numerical outcomes.

Finally, in the third stage of the thesis research, which correspond to the Chapter 4, evaluations of the previous analyses are presented. In this context, architectural history courses analyses, the differences in standards and courses' contents and the revealed of multi-layered differences in architectural education in Turkey is presented through:

- Standards (Course Credits, hour, week, and semester distribution)
- Architectural history course contents and scopes
- Architectural history resource books

In this regard, it is revealed that the objective of graduating architects with a common knowledge level within the framework of the educational standards has not been met in the context of the architectural history courses in undergraduate education in Turkey. In other words, architectural history courses do not show integrity in terms of

both standards, course scopes, and sourcebooks. This situation negatively affects both the quality of architectural education and the built environment. Considering that architecture consists of stratified information, deficiencies in the knowledge of architectural history may cause the spread of structures that are out of context in the built environment, and thus a poorly qualified architecture.

Consequently, within the light of this study, the causes and consequences of these discrepancies in architectural history courses have been revealed. In this context, in order to enable the architectural history courses to be assessed within the framework of education defined by UIA and NQF-HETR, first of all, the scope and criteria of architectural education in the charters in Turkey should be rearranged. More specified criteria in the course scope will be more determinant. Additionally, enlightening, common, and compulsory sourcebooks for architectural history courses help better integrated and common-aimed architectural education environments. In this way, architecture students will be able to graduate with common knowledge of architectural history on a local, national and global scale, as stated in the NQF-HETR. Finally, architectural history should be taught holistically and contextually through societies and cultures, rather than a chronological and regionally varying narrative. With this course narrative, it will be possible to convey to the student more comprehensively and thoroughly how architecture emerged, formed, changed, and influenced from the origin of humanity to the Present.

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