



Designing for Designers: The Campus and Building of Atatürk University Faculty of Architecture and Design

Çağatay TAKVA¹, Fatih Çağrı AKÇAY^{2,*}

¹ 0000-0002-0494-9972, Atatürk University, Faculty of Architecture and Design, Department of Architecture, Erzurum

² 0000-0002-5320-9719, Gazi University, Faculty of Architecture, Department of Architecture, Ankara

Article Info

Received: 06/06/2023

Accepted: 29/06/2023

Keywords

Faculty Buildings,
Architectural Planning
Process,
Architectural Design
Criteria

Abstract

Education, which aims to impart knowledge, culture, art and various values, is one of the most important actions performed by individuals. In architectural education, which is part of these actions, candidates are expected to develop creative ideas in response to design problems by using components such as function, context, form and structure. Numerous scientific research studies have been conducted on the manner and methods of design education to materialize this expectation. A portion of these research studies highlights the significant role of spatial and formal experience in imparting design knowledge to architectural candidates. In other words, the environments where architectural education takes place are expected to serve as examples of spatial and formal qualities due to their mission of providing formation to future designers. In this regard, this research focuses on the examination of the spatial and formal qualities of a contemporary architectural product. The relevant architectural product is located within Atatürk University, which has a rich history and has been a center for higher education activities in various disciplines for many years. Established in 1957, the university has evolved along with the progress of new scientific fields and in accordance with a 2010 Council of Ministers decision, the Faculty of Architecture and Design was added to its structure. The research aims to identify design criteria related to the "faculty of architecture building typology" and create a micro-scale data source for the future. The experimental section of the research includes evaluations of preliminary project, implementation project and usage stage. Steps such as examining architectural projects, conducting observation studies in the built environment and documenting the current state through photography have been followed. The research findings indicate that changes occur between the preliminary project and the implementation project, current conditions include user interventions, these changes and interventions point to the content of the architectural program.

1. INTRODUCTION

Universities are educational institutions or organizations that represent faculties, departments or fields of knowledge, aiming to advance universal knowledge [1]. The fact that universities attract students from both domestic and international backgrounds indicates their global nature. This collective universal value that universities hold has contributed to the development of education and the dissemination of knowledge to larger audiences over time. Nowadays, research and inquiry-based educational activities carried out at universities not only enhance the appeal and potential of cities but also hold strategic importance in this regard [2,3].

In the context of higher education culture in Turkey, it is known that it started to expand beyond Ankara and Istanbul to Anatolia with the establishment of new universities since the 1950s. Factors such as emerging needs resulting from social change, support for regional development and improvement and the demand for qualified workforce in emerging industrial sectors have played a significant role in the distribution of universities [4]. In this context, university buildings have developed in the use of their own energy and technological tools [5-7].

Atatürk University, which officially opened in 1958, with a large number of attendees, holds the distinction of being the first higher education institution in the Eastern Anatolia region. It began its educational activities with the Faculty of Science-Literature and the Faculty of Agriculture. The primary objective of Atatürk University, given the existing conditions of the time, was to contribute to the region's economy by developing new methods based on agriculture and animal husbandry [8].

Atatürk University campus covers an area of 6.5 million square meters, consisting of 1 million square meters of indoor space. The university land constitutes a significant part of the Erzurum plain, making it the second-largest campus in Turkey and the first planned campus [9]. In 1955, an architectural competition was organized to prepare the campus plan for Atatürk University (Figure 1). The construction process of the campus area took place between 1957 and 1970 [10]. The project that was selected as the winner in the competition has been partially implemented to date. Some faculty buildings, designed in the competition project but not implemented, were redesigned through architectural design competitions conducted by the Ministry of Public Works in the 1960s and 1970s [11].

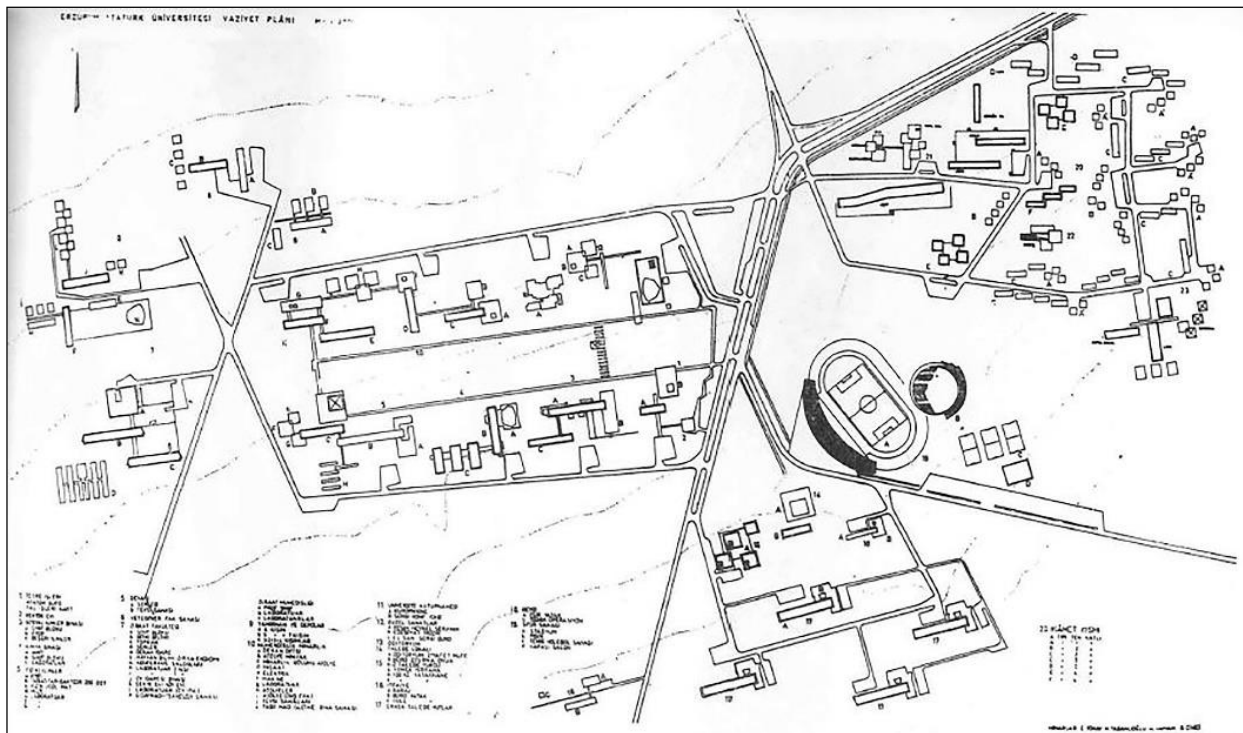


Figure 1. The project that won first prize in the architectural competition for Atatürk University Campus in 1955 [12]

2. THE CAMPUS AND BUILDING OF ATATÜRK UNIVERSITY FACULTY OF ARCHITECTURE AND DESIGN

Architecture is a dynamic profession that is open to innovation and constantly evolving [13]. Architectural education follows a mixed model that combines traditional lectures with studio-based work. With the increasing number of universities, the number of architecture departments is also on the rise [14]. The names of the faculties that embrace architecture departments may vary depending on the university, such as Faculty of Architecture, Faculty of Engineering and Architecture, Faculty of Architecture and Design, or Faculty of Fine Arts and Architecture.

Atatürk University Faculty of Architecture and Design officially started its educational activities with the Landscape Architecture Department in 2011 [15]. The Faculty of Architecture and Design is located in the horizontally developing region of Atatürk University. The campus of the faculty is situated in close proximity to Atatürk University Research Hospital and Erzurum City Hospital, where there is intense

vehicular and pedestrian circulation. When viewed from a larger scale, the campus is located in the central area defined by the eastern edge of the city. The Faculty of Architecture and Design is constructed west of the initial boundaries of the campus (Figure 2).



Figure 2. Aerial photograph of Faculty of Architecture and Design, city center and campus boundaries

Within the faculty, following the establishment of Department of Landscape Architecture, Department of Urban and Regional Planning was established in 2012, and Department of Architecture and Department of Interior Architecture were established in 2013. Through academic staff recruitment and the development of academic and physical infrastructure, Department of Urban and Regional Planning and Department of Architecture started admitting students in 2012 and 2013, respectively. As of January 2022, Department of Landscape Architecture offers undergraduate, master's, and doctoral programs; Department of Urban and Regional Planning offers undergraduate and master's programs (interdisciplinary); Department of Architecture offers undergraduate and master's programs; Department of Interior Architecture offers undergraduate education [15].

Since October 2017, the educational activities of these mentioned departments have been carried out in the newly constructed western campus [15]. The faculty building where these departments are located currently has separate entrances for students, staff, the dean's office, and the Biodiversity Science Museum (Figure 3).



Figure 3. The location of Faculty of Architecture and Design at Atatürk University

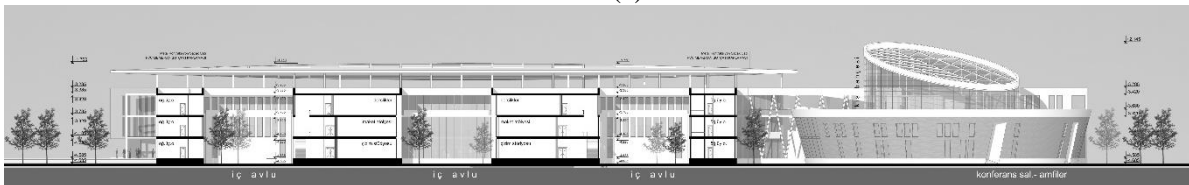
3. ARCHITECTURAL PLANNING PROCESS OF THE FACULTY OF ARCHITECTURE AND DESIGN

The campus and building of the Faculty of Architecture and Design at Atatürk University were obtained through a direct procurement method. It can be determined that the project, supervised by Department of Atatürk University Construction Works, underwent various transformations from the conceptual stage to the implementation stage. However, current conditions reveal that there have been spatial and formal interventions in the context of relationships between user and space.

In preliminary architectural design, enclosed volume consists of dean's office block, conference hall block, and 4 educational blocks. The educational blocks include classrooms and studios along with academic staff offices. Each educational block consists of two wings. The blocks where the dean's office and conference hall are located have been designed and integrated into the main mass, providing transitions. The south-facing open area where student and dean's office entrances are located is designed as a square. Extensive ground and green area arrangements have been made in this square. There is a water feature in the border zone of the square. In addition to these, an amphitheater and a greenhouse section are planned to support social activities in the square. In the direction of the square, a triangular geometrical canopy (entrance canopy) with a dominant formal language, defining the student entrance point, has been designed. Gaps of different sizes have been created on this entrance canopy to enhance permeability. The vertical elements carrying the canopy exhibit a distribution that avoids uniformity. Underneath the canopy (entrance canopy), there is a console that makes the entrance point more defined. This space is designed as a semi-open area and supported by structural elements. A water feature is also planned under the console mass. On the other hand, a bridge connecting two facades has been designed under the canopy (entrance canopy) to link them together (Figure 4).



(a)



(b)



(c)



Figure 4. Preliminary architectural design of the Faculty of Architecture and Design: (a) perspective view of student and dean's entrance, (b) section, (c-d-e) elevations [16]

In the implementation project, some changes can be observed compared to the preliminary architectural design. The number of educational blocks, which was initially planned as 4, has been reduced to 3 in the implementation project. The overall interior space planning has been preserved from the preliminary design to the implementation project. However, the wings containing academic staff rooms in the blocks have been extended by 1 module. In the preliminary design, there was no elevator in the dean's office block but in the implementation project, a panoramic elevator has been added next to the staircase to provide vertical circulation. The dimensions of the upper canopy located at the square have been reduced. The arrangement of the structural elements supporting this canopy has also been modified. Changes in proportions and gap ratios have occurred due to the reduction in dimensions. Transformations have also been made in the spaces under the canopy. The bridge and cantilever mass connecting the two facades have been removed in the implementation project. The green areas in the campus have been extensively revised. Water elements, the amphitheater and the greenhouse have been completely eliminated.

When the usage process is studied, the main revision should be defined as the transformation of the block originally implemented as the conference hall into the Biodiversity Science Museum. Accordingly, a new entrance point has been defined for this mass, and the function of the bridge that connects it to the faculty building has been terminated (Figure 5). The gap created as a result of reducing the 4 educational blocks in the preliminary design to 3 in the implementation project has been transformed into a parking area during the usage process. The water elements, amphitheater, greenhouse, etc., within the campus have been replaced with predominantly paved surfaces, converting them into vehicular roads. In terms of environmental landscaping, paved surfaces have been applied instead of the amphitheater and greenhouse. A water element that enhances the visual aesthetics has been constructed in the area where the amphitheater was located. The gaps in the upper canopy (entrance canopy) have been enclosed with glass and steel structural elements due to adverse effects of inclement weather conditions (Table 1).



Figure 5. The bridge between the faculty and conference hall block

Table 1. Comparison of preliminary and implemented projects [16]

Architectural component / Modification	Preliminary Project / Implemented Project
<p>* Dimensions and position of the canopy</p>	
<p>* Solidity/gap ratio of the canopy</p> <p>* Structural configuration of the canopy</p>	
<p>* Spatial organization beneath the canopy</p>	

Table 1. (Continued) Comparison of preliminary and implemented projects [16]

<p>* Facade configuration of the Dean's Office Block</p>	
<p>* Square and amphitheater layout</p>	
<p>* Pedestrian walkways / vehicle roads / Green space layout</p>	
	

Table 1. (Continued) Comparison of preliminary and implemented projects [16]

<p>* Number of blocks * Parking area layout</p>	 
<p>* The facade layout of the education blocks</p>	 

All of the data presented in this research reveals that spatial and formal transformations are primarily driven by sub-processes. These transformations mainly arise from the preliminary preparation phase (cost estimation) and architectural programming process. Particularly, it can be said that programs developed independently of local conditions can inevitably lead to emergence of weak functions and architectural elements in the usage stage. The current situation highlights the necessity of incorporating contemporary typologies, environmental references and societal, political, scientific, socio-cultural indicators into architectural programs.

4. CONCLUSION

This research is structured around campus buildings that are continuously and intensively developed in parallel with their rapidly increasing numbers in Turkey. The research focuses on the architectural planning process through an exemplary environment, aiming for the continuous and qualitative improvement of the related national building stock, which expands rapidly. Therefore, one of the most important conditions for achieving unique, functional, sustainable and aesthetic artificial environments is the optimal execution of each sequential stage in the architectural planning process. It is considered that the inclusion of a campus and building belonging to a faculty of architecture and design in the selected sample, as well as its relevance to a contemporary period, enhances the significance and importance of the study. It is expected that this environment, serving as a pioneering example for future designers, will undergo the architectural planning process consisting of programming, design, implementation and usage sub-stages in a precise and complete manner. The findings of the study can be summarized as follows:

- The site is located in an accessible position in terms of vehicle and transportation circulation. Considering the city center and the boundaries of the main campus, it can be concluded that the site selection was appropriate.
- The removal of an education block in the implemented process, which was initially included in the preliminary architectural project, signifies the programming stage activities. The conversion of the gap into a parking area during the usage stage as a result of this revision also emerges as another parameter within the scope of the programming stage.
- A similar situation applies to the mass initially planned as a conference hall block in the preliminary architectural project but converted into a museum during the usage stage. The relevant function that was encoded in the architectural program, did not find its realization during the usage stage. Consequently, deformations occurred in the circulation scheme, including the termination of its relation with the main mass and the creation of a new entrance point.
- The structural and dimensional changes in the entrance canopy and the surrounding arrangements (greenhouses, open spaces, green areas, vehicle and transportation roads, etc.) from the preliminary architectural project to the implementation project are considered to be related to budget capacity and/or design stage. The issue arises from the high cost of the mentioned components in the preliminary architectural project, as well as their compatibility with Erzurum's continental climate. Therefore, the closure of the gaps on the entrance canopy during the usage stage is significant in this regard.
- It can be said that the majority of design indicators, which represent the actions of the sub-stages, are reflected through formal/spatial qualities.

Within this context, the following implications can be drawn for the future:

- It is crucial to design the program in accordance with the intended building type, user type and number of users.
- User requirements should be accurately and comprehensively incorporated into the program.
- Local data and budget limitations should be taken into consideration during the design stage.

ACKNOWLEDGEMENTS

We would like to express our gratitude to Assoc. Prof. Dr. Fatma Zehra Çakıcı, the Head of the Department of Architecture, and Asst. Prof. Dr. Murat Kurt for sharing valuable information and documents about Atatürk University and the Faculty of Architecture and Design.

REFERENCES

- [1] Rashdall, H. (1895). *The Universities of Europe in the Middle Ages: Salerno. Bologna. Paris* (Vol. 1). Clarendon Press.
- [2] Saklı, A. R. (2017). *Recep Tayyip Erdoğan Üniversitesi öğrenci ve akademisyenleri ile Rize halkının karşılıklı algı ve beklentileri*. Recep Tayyip Erdoğan Üniversitesi Yayınları.
- [3] İlerisoy, Z. Y., & Soyluk, A. (2021). The analysis of architectural design competitions within the scope of earthquake resistant design. *Gazi University Journal of Science Part B: Art Humanities Design and Planning*, 9(1), 1-17.
- [4] Alan, G. A. E. (2016). Türkiye’de yeni nesil üniversiteler. *Maltepe Üniversitesi İletişim Fakültesi Dergisi*, 3(2), 105-118.
- [5] Takva, Ç., Çalışkan, B. N., & Çakıcı, F. Z. (2022). Net Positive Energy Buildings in Architectural Context. *Journal of Asian Scientific Research*, 12(3), 135-145.
- [6] Schakib-Ekbatan, K., Çakıcı, F. Z., Schweiker, M., & Wagner, A. (2015). Does the occupant behavior match the energy concept of the building?—Analysis of a German naturally ventilated office building. *Building and Environment*, 84, 142-150.
- [7] Çakıcı, F. Z., & Örmecioglu, H. T. (2017). Education and space for mobile lives: A joint studio experiment in Ayvalık. *Journal of Human Sciences*, 14(3), 2839-2847.
- [8] Namal, Y., & Karakuzu, H. (2016). Türkiye’de Üniversite Açma Politikasına Bir Örnek: Doğu Üniversitesi Fikrinden Atatürk Üniversitesi’ne. *Tarih Okulu Dergisi*, 9(27), 481-517.
- [9] URL-1: Atatürk Üniversitesi Tarihçesi, https://tr.wikipedia.org/wiki/Atat%C3%BCrk_%C3%9Cniversitesi [Last Accessed: 01 April 2023].
- [10] Kulözü N., & Bulut A. D. (2013). Erzurum Atatürk Üniversitesi Kampüsü, *Docomomo_tr IX Türkiye Mimarlığında Modernizmin Yerel Açılımları*, 6-8 Aralık, Türkiye, s. 36.
- [11] URL-2: Atatürk Üniversitesi kampüs yapılarının yarışma projeleriyle elde edilmesi, <http://www.mimarlarodasiankara.org/yarismalardizini/> [Last Accessed: 01 April 2023].
- [12] Erzurum Atatürk Üniversitesi kampüsü, *Mimarlık*, 1955/15, Mimarlar Odası Arşivi.
- [13] Lökçe, S. (2002). Mimarlık eğitim programları: Mimari tasarım ve teknoloji ile bütünleşme. *Gazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi*, 17(3), 1-16.
- [14] Karaman, Ö. Y., & Üçkaya, N. B. (2015). Eğitim mekanlarında akustik konfor: Dokuz Eylül Üniversitesi Mimarlık Fakültesi Örneği. *Megaron*, 10(4), 503-521.
- [15] URL-3: Atatürk Üniversitesi Mimarlık ve Tasarım Fakültesi tarihçesi, http://www.sp.gov.tr/upload/xSPRapor/files/7cqUi+Ataturk_16_FR.pdf [Last Accessed: 01 April 2023].
- [16] Erzurum Atatürk Üniversitesi Yapı İşleri Daire Başkanlığı (2022). Images of the preliminary project and implementation project of the Faculty of Architecture and Design.

* Images, unless otherwise specified, belong to the archive of the article authors.