

Issues in the planning and design of university campuses in Turkey

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Abstract

Universities have crucial importance in producing and transmitting knowledge, and formulating an effective and critical public sphere that meets the public with the university population. Their spatial characteristics of universities also refer to an important position within the urban fabric: with dense students' and academicians' population, they occupy a considerable amount of spaces in cities. Their spatial formations change over time as new buildings are added and student numbers increased.

In that respect, this article seeks to explore how the spatial configurations of university campuses have evolved over time in Turkey. In order to explore the changes in spatial layout of university campuses, especially the organization of public spaces and their relations with the campus buildings, we have narrowed our focus through a chronological reading. Two methods of collecting data are used: First, we reviewed design articles about university campuses in architectural periodicals and online architecture databases. Second, the Five Year Development Plans of Turkish State Planning Organization (DPT 5 Yıllık Planları), have been examined to follow the governmental considerations. In addition, we made interviews with some of the architects who took part in the campus planning process of the cases that are selected for this article. In conclusion, analysis of the spatial configuration of campuses in Turkey reveals some unexpected insights about particular design approaches of universities. The analysis of specific campuses in chronological order shows that it is possible to trace specific campus design tendencies that are peculiar to specific periods.

Keywords

Campus design, Competitions, Youth, Public space, Turkey.

1. Introduction

Universities play complex roles in defining the public realm: on the one hand, in their traditional role they provide specific environments for teaching, learning and research, while on the other hand housing a variety of spaces and cultural and social facilities for students, academicians, staff and the greater urban populations (Gumprecht, 2007). The dominance of young people in their populations cultivates a dynamic public environment in which fun and education intersect on the same ground as where the public realm is produced and shared. Furthermore, the spatial characteristics of universities differ from other districts in the city. Universities occupy a considerable amount of space in cities, hosting green areas with less noise and pollution, as well as slow traffic (Bender, 1998; Gumprecht, 1993). Their spatial formations change over time as new buildings are added and as student numbers increase, or they may spread to different spaces inside the city, expand beyond the original site be added to with new campuses. In this respect, the spatial organization of universities requires a chronological and critical reading in urban design studies.

In the development of universities and their physical imprints, only three countries matter: the United Kingdom, Germany and the United States (Muthesius 2000, 12). The number of studies considering the rest of the world, on the other hand, is rather limited. Starting in the 12th century these countries spearheaded major changes in the development of university profiles, becoming role models for the rest of the world. In the history of campus design, universities have been categorized into three types: city campuses, the American campus model and mega structures (Turner, 1987; Davis and Davis 1990; Hashimhony and Haina, 2006). The world's first universities, established in Bologna and Paris in the 12th century, were founded and firmly embedded in the urban context. They were city universities that were dispersed organically in different locations (Brookliss, 2000, 165). However, from the 19th century onwards, universities in the United States started to be established in green and natural surroundings,

usually on the outskirts of cities. This reflected the changing understanding of the ideal educational institution as an inward-focused learning community with a distinct spatial organization that in time would come to be referred to as a campus. The word "*campus*" first started to be linked to universities in the 18th century, with its origins attributed first to Princeton's University campus, the main space of which was a sort of village green (Turner, 47). This kind of spatial organization was also seen in the University of Virginia, built in 1817 by Thomas Jefferson, where the idea was to create an academic village in which students and academicians could study and concentrate, far from the distractions of city life (Turner, 12). The campus layout was simple, featuring a wide, tree-lined central space surrounded by the professors' rooms and classrooms. The third model, which emerged after World War II, was the mega-structure, designed either as single large buildings, or as a group of interconnected buildings integrating the different functions within a continuous structure (Davis and Davis 1990, 43). Many of the universities established in the late 1960s, such as the Universities of Essex, Scarborough, Simon Fraser (Figure 7) and East Anglia, can be considered early examples of mega structures.

The university campus model is a relatively recent addition to the educational milieu when compared to other countries, and surprisingly, its history in Turkey has received little attention from an architectural history perspective. Although there have been several studies focusing on the institutional changes witnessed in higher education (Tekeli, 2010, Dölen, 2010, Hatiboglu, 1998), there have been very few addressing the physical and spatial development of campuses (Kortan, 1981; Türeyen, 2003). As such, this article explores the spatial principles behind campuses. Rather than presenting an analysis of the architectural styles of universities, the intention here is to take a narrower focus by examining the defining moments in different periods to explore the changes in spatial layout of university campuses. Previous studies (Hashimhony and Haina, 2006; Krushwitz, 2010; Larkham, 2000) discuss-

ing the spatial models of campuses in relation to some basic parameters are important in evaluating campuses as distinct urban forms, as Larkham states. Similar to Larkham, Kruschwitz defines three different forms describing the relationship between campuses and cities, being 1.) integrated urban settings 2.) affiliated urban settings and 3.) self-sufficient settings (Kruschwitz, 2010, 3-4), and then went on to define the spatial compositions of built and un-built environments as 1) compact; 2) spacious; and 3) laminar

In the present study, we make use of some spatial parameters in an evaluation of campus models and compare them with each other through a morphological analysis. The design approach of each campus will be evaluated according to:

1. The spatial compositions of the built and un-built environment
2. The functional zones
3. The formal character of the gathering spaces and their locations
4. The circulation networks

Universities in Turkey are increasing in quantity. *As of 2018*, the total number of public and foundation universities was 206, of which 119 were public institutions. Considering the relationship between universities and cities, Turkey has examples of all three campus models, although self-sufficient campuses have gradually come to dominate over the years. Universities, both new and old, prefer to move to public lands outside the city due to the lack of, or high price of land inside the city (Erkman, 1990). Today, 59 of the 119 state universities in Turkey are considered as single entities, and most of the new universities founded since 2000 have been established on single campuses. Uludağ University, the Izmir Institute of Technology (IYTE), Gaziosmanpaşa University and Karamanoğlu Mehmet Bey University are examples from different periods of universities designed from the outset as single campuses. While Ege University, KTÜ and METU were all originally designed as self-sufficient settings, over the years they have become merged into the surrounding districts, becoming affiliated campuses models within walking distance of the neighboring city districts.

In this article we focus on specific state universities for which archival data is available, with emphasis on the analysis of campus designs that resulted from competitive tenders. To clarify the various approaches to campus planning, we review planning and design articles relating to university campuses published in architectural periodicals and online architectural databases, including *Mimarlık*, *Arkitekt* and *Arrademento*, as significant resources in this respect, reflecting on the dynamics of the particular eras of campus planning. In addition, the 5-Year Development Plans of the Turkish State Planning Organization (*DPT 5 Yıllık Planları*), and the Report for Strategic Directions for Higher Education in 2007 are examined to identify the governmental decisions that influenced the spatial planning practices of universities. The identified campuses are examined in chronological order according to their dates of establishment, and an analysis is made of the planning principles applied at the time of the first universities.

2. Historical overview of universities in Turkey

The “*Darülfünun*” was the first higher education institution in the Ottoman Empire. Dating back to the 1850s, the *Darülfünun* was planned as a state-sponsored college where students both lived in and studied, and was housed in a gigantic building in the center of İstanbul (İhsanoğlu, 1993, 561). The advent of modern universities in Turkey coincided with the proclamation of Republic in 1923 (Gürüz, 2001). In parallel to the rise in national aspirations among the nation states, the creation of a young generation instilled with the ideologies of the new Republic became the main purpose of higher education (Demir, 2012, 91). *The Higher Education Law* entered into force in 1933, defining universities as places of research and teaching, with İstanbul University being the first university in modern Turkey to introduce the German research institution model.

After World War II, Turkey witnessed a rapid growth in population, and an inevitable increase in literacy rates. Following the arrival of the multi-party system, the Democratic Party came to

power and increased at Turkey's contacts with the West. Aiming to better satisfy the need for highly qualified technical personnel (Şimsek, p.1005), the new government founded four new universities: Ege University, Karadeniz Technical University (KTU), Atatürk University and Middle East Technical University (METU), where new fields of higher education were offered, such as urban planning, architecture and administrative sciences.

The student movements of the 1970s became a major force for change in the organizational and physical structures of Turkey's universities. Student activism increased in the form of occasional boycotts, sit-ins, conference attendance and regular political discussions on university campuses. Eventually, the 1971 military coup brought about a sudden end to political movements within universities, and the Council of Higher Education (Birinci YÖK) became the main coordinating body for the supervision of and intervention in the administration of universities. "Spreading universities to the different regions" to redress the established social and economic imbalance emerged as a theme at the beginning of the 1970s, having first been highlighted in the Higher Education Research Report of the DPT in 1968 (*Yükseköğretim Araştırması Raporu*). The proximity of universities to developing areas in each region was an important criterion for the selection of locations,¹ and based on these considerations, the 10 new universities that were founded at the time were all in smaller cities.

The liberal policies in the 1980s focused particularly on the economy, transportation and higher education, with the aim being to change the face of the country (Şimsek, 966). The re-establishment of the Council of Higher Education was an important outcome of the new government's activities, although the most important change was the unification of the previously-established separate academies and vocational schools within the faculties of new universities.² The Fourth 5-Year Development Plan (1979-1983) set out a policy designed to increase academic collaboration and to reduce the differences in status of different institutions, as many universities were experiencing signifi-

cant problems in creating an appropriate environment for learning, studying and living. Only Yüzüncü Yıl University was founded from scratch, free of the hindrance of preexisting faculties or institutions.

In 1992, a sudden increase was seen in the number of universities, with 21 public universities and two technology institutions opening on a single day – most in the west of Turkey. Unlike the universities of the 1980s, most of those that opened in the 1990s were founded in small or medium sized cities (Toprak, 2012, 12). Enhancing university-industry partnerships in professional research, and providing incentives to the private sector (Sixth 5-Year Development Plan, 1990) were defined as solutions contributing to the establishment of new universities. Furthermore, the Ninth 5-Year Development Plan suggested building techno parks inside or close to universities, which was presented as a way of developing the physical infrastructure of the universities. The opening of such technological institutions was clear evidence to the State's intention to boost industry-based research.

Between 2006 and 2008, 41 new universities were founded as part of the government policy to establish a university in every city, and the pledge that "There will be no city without a university" was reiterated in the 58th Government Plan (2002). According to the policy, universities should play a significant role in the economic development of cities, and so some universities became scientific and technological institutions.³ However, those founded in the smaller cities came to experience serious problems in the creation of an appropriate physical environment, and it became a struggle to complete the physical infrastructure and faculty programs of most new universities. Furthermore, the built environment did not meet the social needs of the campus community. From 2010 to the present day, many universities have been founded in such economically and culturally developed cities as Istanbul, Ankara, Kayseri and Konya (Sargın, 2007). Opening new universities in cities with old and well-established universities has been linked to the policies of the current government

to promote “the construction of techno-cities” promoted in the 9th Higher Education Redevelopment Plan and the Law on Technology Development (*Teknoloji Geliştirme Yasası - 2001*).

Reviewing the cases, it is possible to assume that changes in the history of higher education in Turkey were mostly oriented by state policies. These policies furthermore, were developed in response to the occurrences at national level. The public universities still lack their own strategic governance since they are financially supervised by the government. It is surprising however, to realize that guidelines that would lead physical and environmental improvement in the universities are neither present in the plans. Once developed, such guidelines would open a way for reforms which can be adapted to a variety of situations at several campuses.

2.1. Early campuses between 1950 and 1970s

The first modern universities (İstanbul University, ITU and Ankara University) lacked campuses in their initial forms, having been founded in old buildings in the city centers, as was the case in several European city universities. However, the understanding of

the spatial organization of universities changed in Turkey after World War II, similar to the changes seen around the world. In the 1950s, universities started to cover large expanses of land with the creation of self-contained campuses, with METU, Ege University and KTU in the 1950s being the first campus universities designed according to formal master plans. These institutions prioritized the movement of pedestrians, with campuses designed as self-sufficient settings, isolated from the city, where all the main functions needed by students and academicians in everyday life were located in a single and introverted location.

All of these three campus designs, among others, resulted from architectural design competitions. Altuğ and Behruz Çinici’s design won first prize in the METU campus planning competition in 1959, while Atatürk University was created on the basis of a winning design (1956) by Enver Tokay, Hayati Tabanlıoğlu, Ayhan Tayman and Behruz Çinici. Perran Doğançacı and her team won the first prize in the Ege University campus planning competition (1959), and Mustafa Polatoğlu and Nihat Güner won the KTU campus design competition (1962). Most campuses were built based on the main spatial designs of the winning projects. These architectural and planning competitions were publicly announced, and the winning projects and jury reports were extensively publicized in architectural journals such as *Mimarlık and Arkitekt*.

All of the above were conceived following the inward focused and self-sufficient settings seen in the campus models of the United States and Western European, with facilities gathered in a single location to create a space devoted not only to learning, but also to living and recreation. In Turkey, the METU campus is the most obvious example of this campus model from this period. The campus is located in the south-west of the city along the Eskişehir Road, five kilometers from the new parliament building. Built on formerly barren land, the site was cleared for landscaping and the construction of buildings (Sargin and Savaş, 2013, 97). In reference to the Kruschwitz definition, the academic zone was *compactly* arranged around

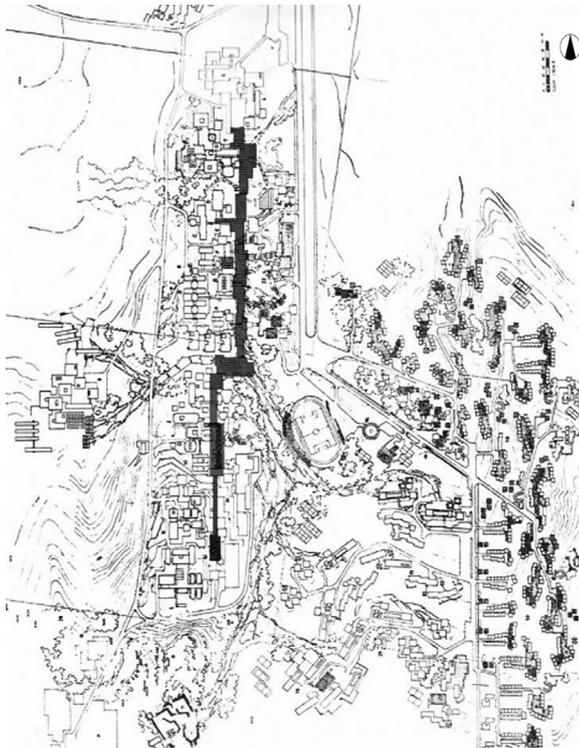


Figure 1. Initial site plan of the METU campus; the alley is marked by grey (Source: *Mimarlık Journal*, vol 43).

a central alley, and the whole configuration as arranged *spaciously*. The alley (pedestrian road) between the faculties was isolated from the vehicular access as a linear, pedestrian-friendly environment. All facilities, including the dorms and faculties, were within a 20-minute walk, and the alley was supported by a variety of landscape elements, such as small pools, lawns, and spaces for sitting and socializing. Open spaces of different sizes were well-defined, mostly around the academic buildings, serving as focal points for social and leisure activities (Figure 1). The main components of the campus were located within three main zones, for the faculties, residences and social amenities. The social amenities included a shopping center, cinema and small market (Çinici and Çinici, 1965). The jury report stated that the two most notable aspects of the project were the utilization of the site in accordance with main conceptual principles of the university committee, and the production of architectural unity (Arkitekt, 1965, V. 3).

The other three campuses were based on similar design principles, including the creation of open spaces close to the faculties, as the most obvious spatial characteristic of the winning projects of later campuses in the 1950s. For example, for the Ataturk University campus design (Figure 2),

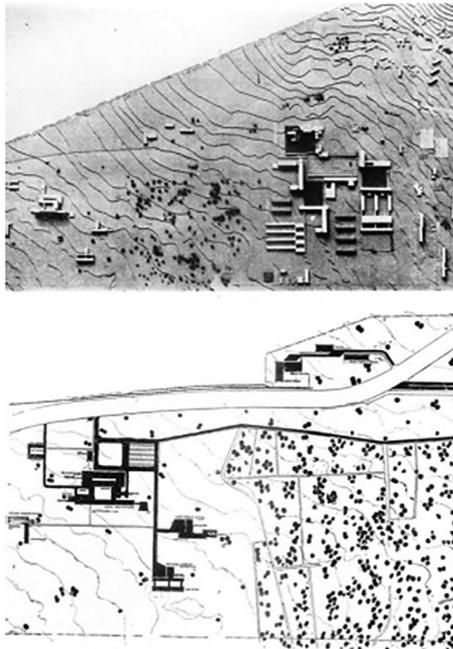


Figure 3. Winning project for Ege University campus by Doğançıl (Source: Arkitekt 3, 1959).

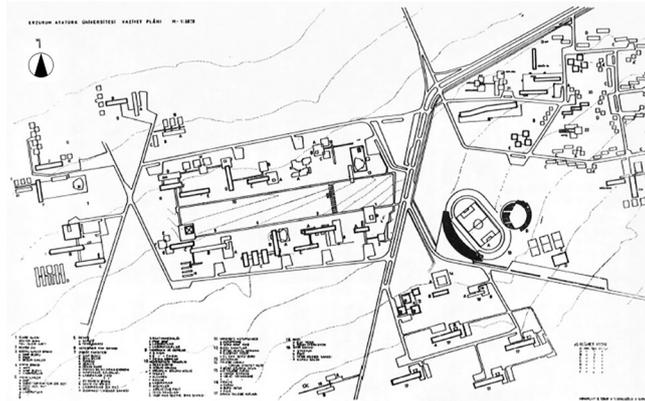


Figure 2. Winning project for Ataturk University campus by Tabanlıoğlu Tayman and Çinici.

mirroring that of METU, a pedestrian alley, free of traffic, was suggested as a linking spine, giving access to the surrounding buildings (Çinici and Çinici, 19). The project featured a monumental alley that was described as a key element in the production of a “the university aura”. The intention was for social interactions in the community to be promoted as a result of informal interactions in the alley, while three different zones were defined, being academic, residential and social, while the main traffic road was structured to intensify the zoning of different functions. The campus has a spacious composition, with buildings located around the edge of the area and along a ring-road system. The physical relationship between the Ataturk Uni-



versity campus and the city, however, was interpreted differently to the other three campuses, being located on a flat area within walking distance of the city center. The winning design showed the central vehicular traffic route extending to the historic city center, providing a “promenade for the city’s residents.” Unlike the other campuses, the intention was for Atatürk University to be integrated into the urban setting.

The Ege University campus is located just outside the Bornova district of İzmir, and was designed as two separate zones, with the hospital and medical faculty buildings in the west part isolated from the academic facilities and library building in the east part. The campus has a laminar arrangement, with buildings and open spaces located around a grid road system, intensified with secondary roads. The major educational precincts are arranged as enclaves, and are connected to each other by long pedestrian access routes and vehicular roads. Open spaces in the form of quadrangles and plazas were established close to the faculty buildings (*Arkitekt*, 1959, V.3, 109). As stated in the jury report, the plazas were kept to a human scale and the faculty buildings were directly connected to other important spaces, such as the dining area and library (Figure 3). The inner courts of faculty

buildings reflected the social character of the design, prioritizing student interaction and communication in public spaces (Kayın and Özkaban, 2013, 241).

The campus of KTU has laminar composition, similar to that of the Ege campus. The KTU campus sits on two hillsides, with student dormitories arranged on one and the academic facilities on the other. Like the other three campuses, walking distances have been maintained, and the main circulation is based on a linear vehicular road that extends to main gate and connects to the sports hall and faculties (Figure 4). Open terraces built around the academic buildings are the main gathering points, as “public spaces that students can get around and hang out” (*Mimarlık*, 1965, 31-32). Unlike the alley in the METU campus, the terraces in KTU are intended to be visible and accessible from the vehicular access road and the main gate.

The current layouts of these four campuses (Figure 5) reveal that the main spatial principles of the initial plans, including the main zones, vehicular access roads and singular public spaces around the academic units have been maintained as originally planned, other than for the new additions. The educational buildings, residences and techno-cities in four

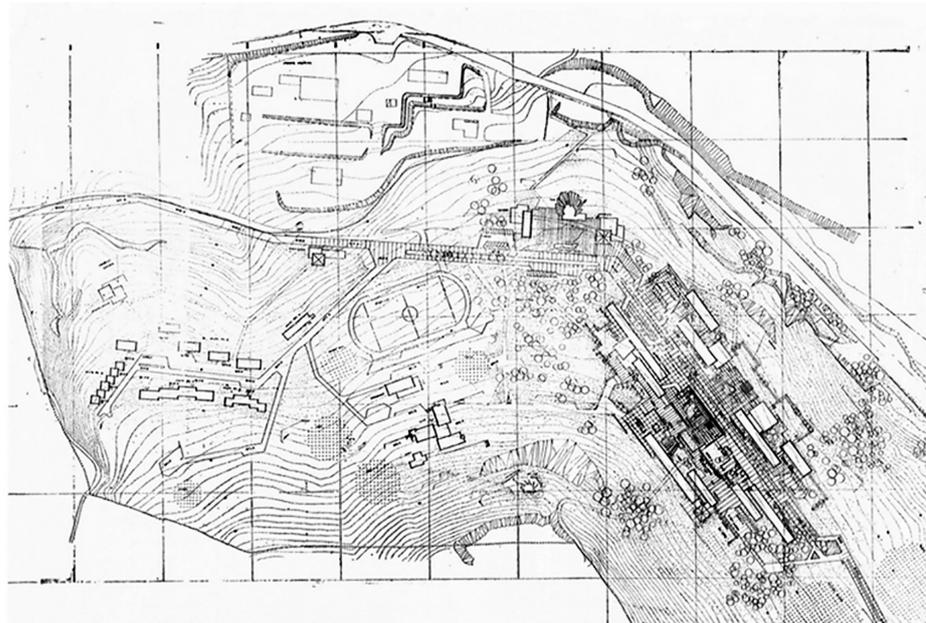


Figure 4. Winning project for Karadeniz Teknik University campus by Güner and Polatoğlu (Source *Mimarlık* 1, 1971).

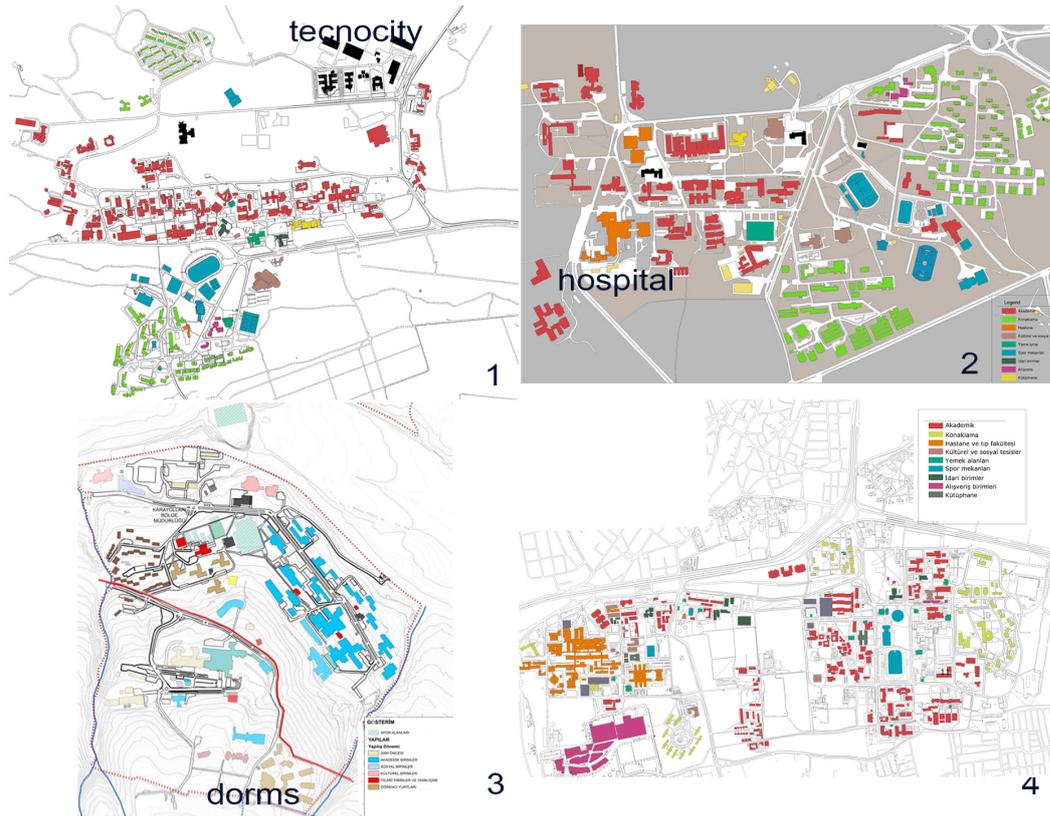


Figure 5. The current layouts of these four campuses after new buildings added. These images are coloured by the author.

campuses face inward, and while the academic units are fragmented and clustered around open spaces, the dormitories generally appear to be independent buildings. The techno-city in METU and the dormitory units in KTU have been located far from the main campus, and are somewhat isolated. Similar to the METU techno city, the hospital units in the southern part of the Ataturk University campus are isolated from the main campus, and are accessible via a second campus entrance. The other key change in the current design of these campuses is the dormitory access. In all of the universities other than METU, the dormitories are surrounded by fences with security points.

In the 1970s, the architectural competitions for the design of university campuses influenced the organization of the new campuses of already existing universities. The Ayazağa campus of ITU, the campus of Diyarbakır Ziya Gökalp University and Bursa University campus were all designed as grids in which different facilities were connected under one structure. Taking a similar approach to the new ITU campus, the campus of Diyarbakır Ziya Gökalp Uni-

versity was designed as mono-structure grid, in which all buildings were under one roof. Such a spatial layout resembles more those of post-war university campuses, such as Simon Fraser University in Canada. The main principle was production of inner courtyards between different facilities to promote the interactions between them.

The Diyarbakır University campus (Figure 6) is located 3 kilometers from central Diyarbakır on the Dicle Plain, and was planned as self-sufficient setting. According to Kruschwitz's defini-

A - ACADEMIC UNITS
B - HOSPITAL AND FACULTY OF MEDICINE
C - ADMINISTRATIVE FACILITIES
D - STUDENT RESIDENCE AREA



Figure 6. Project for Diyarbakır Ziya Gökalp campus by Kemal Ahmet Aru; image is coloured by the author (Source: Arkitekt, 342).

tion, the university features four zones (educational, administrative, residential and hospital), clustered in compact form. The gathering spaces take the form of inner courtyards, directly connected under one huge roof to promote connections across the university. The compact form encourages walking and

reduces vehicle trips between essential functions, as one of the most practical aspects of the campus design, allowing students to move quickly between buildings in breaks between lectures.

2.2. Campuses in the 1980s

During the 1980s, an extensive re-organization of higher education took place, with certain provisions resulting in changes to the physical and academic organization of the nation's universities. Surprisingly, very little has been published about the design of campuses in the 1980s (Bilgin, 2006; Erkovan, 2013), with one of the few exceptions being a study of Gaziantep University (Figure 7), which was designed by a team of Enis Kortan and founded in 1982.

The campus, which lies 5 kilometers outside Gaziantep city center, was designed in a compact form. All buildings are located within a 1 km radius, with the vehicular access roads mark the edge of the area, with the aim being to ease pedestrian circulation. The campus is divided into three zones (Figure 9): the academic zone, the central zone and the residence zone (Bilgin, 2006, 103). The academic buildings are grouped around the central facilities, with sizes in proportion to the human scale at street level. The University's central buildings are aligned with the main pedestrian axis and divide the campus into two parts. In contrast to the layouts of previous campuses, the main gathering area is a plaza in a central location, designed to host such ceremonial events as semester openings and graduation marches. This differs from the design approaches of the previous period that prioritized the design of open spaces at different scales to encourage student interaction close to the academic facilities. Here, the centralized ceremonial square, surrounded entirely by administrative buildings, evokes a sense of control and authority in students.

It can be seen from the current campus plan of Gaziantep University that the organization of the architectural program suggested previously by Enis Kortan materialized, to a certain extent (Figure 8). The social and administrative functions are arranged in a central

- 1 - CEREMONIAL PLAZA
- 2 - ADMINISTRATION
- 3 - MAIN AUDITORIUM
- 4 - FORUM
- 5 - CAFETERIA
- 6 - LIBRARY
- 7 - SPORTING ACTIVITIES
- 8 - SHOPPING
- 9 - HEALTH CENTER
- 10 - STUDENT'S HOUSING
- 11 - ACADEMIC STAFF'S HOUSING

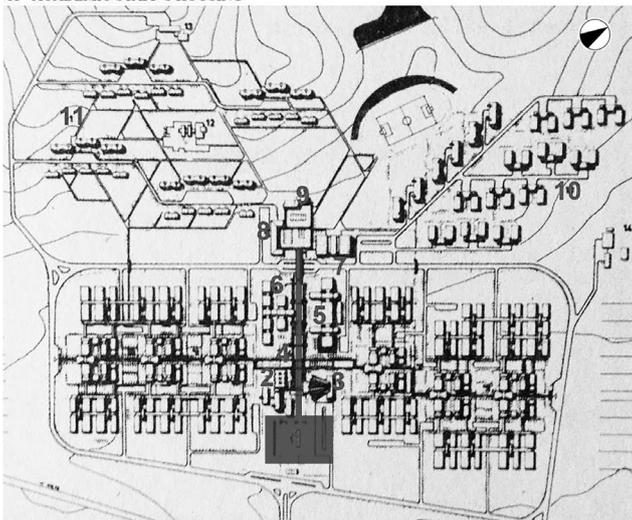


Figure 7. Proposal of Enis Kortan for the master plan of Gaziantep University; the central main axis and the central plaza is marked by grey (Source: Kortan, 1981).



Figure 8. Current plan of Gaziantep University (Source: Gökçek, 2009).

area surrounded by the academic facilities; however, the main axis that concludes with a social center, which was designed with the purpose of stimulating social interaction, ended up being a weak and insignificant road. In short, the buildings are separated by a long axis, while the vast open areas in the design serve no social purpose at all.

In the 1990s, most of the new universities were constructed far away from the city centers. Pamukkale University, Mustafa Kemal University, Niğde University and IYTE were built on large, empty tracts of land outside the urban fabric. An analysis of the campus plans from the 1990s reveals an important factor in their spatial organization: in the 1980s it was common to construct a central square that was surrounded with administrative functions, and this would influence the campus model to such an extent that in 1992, most campuses built from scratch mimicked this centralized structure.⁴ While some designs featured a centralized ceremonial plaza for the hosting of formal gatherings, others were designed with administrative functions at the core of the campus. In such spatial arrangements, the academic units and residences are pushed out to the campus periphery.

Mersin University's main campus in Çiftlikköy was designed in accordance with a centralized structure concept.⁵ The priorities of the University administrators for the planning of the campus were typical, calling for harmony with the topography, separation of pedestrian roads from vehicular access roads, the arrangement of buildings in physical proximity to each other, and pedestrian walkways forming the spine of the campus. In the compact campus design, the faculties are linked by a curvilinear spine, while the administrative buildings are concentrated at a central location (Figure 9). Functions have been defined in three zones: academic, social/administrative and residential. Geometrically located at the very heart of the campus is a square that was intended to serve as a gathering space, featuring a variety of social facilities such as a cinema and a market, although it functions more as ceremonial space for formal gatherings, with the rectorate building. The university

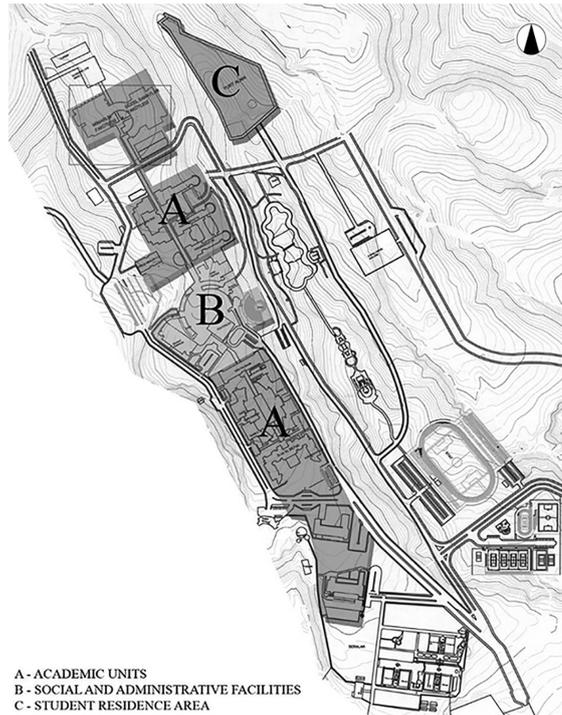


Figure 9. The project for Mersin Çiftlikköy campus. The image is derived from Mersin University archive and modified by the author.

has maintained Şahinbaş's main spatial principles and has adopted a holistic approach for the later additions. For example, in the original plan, Şahinbaş proposed a connection between the dormitory units and main axis through social units and a pool that would be constructed later.

2.3. Campuses in the 2000s

Around the world, identifying an overarching approach in campus planning after the turn of the millennium is challenging. The most prominent trend in campus design has been the construction of landmark individual buildings that transform campuses into architectural showpieces (Coulson et al., 2010, Deplazes, 2007). The campuses of such institutions as Princeton, Yale, the University of Cincinnati, MIT and the University of Chicago all sought out famous architects for the construction of landmark buildings. The Simmon Hall dormitory of Steven Holl at MIT, and the Educaatorium by Rem Koolhaas at Utrecht University stand as examples of such projects intending to support the identification of the university as a brand institution. With a vision in which campuses are viewed as outdoor museums of archi-

ecture, priority has been given to the symbolic meaning of buildings, while campus has transformed into a mere background that holds all the units together.

The current approach to campus planning in Turkey has witnessed a major departure from that of the 2000s. The production of campuses as integrated urban settlements to allow integration with the social and physical fabric of city has become an important aspect of campus design. The Adana Science and Technology University (2011 - *Adana Bilim ve Teknoloji Üniversitesi*) was planned as a city university. Despite these trends, there is still a tendency among some universities to construct their campuses as a single entity far from the center. For example, Muş Alpaslan University, Ardahan University, Yalova University, Yıldırım Beyazıt University (Ankara) and Türk-Alman University (İstanbul) all promote the concept of seclusion and isolation from the city. "From the university in the city to a campus university" has emerged as a popular slogan in the introductory pages of university promotional material. Some older universities have moved away from the inner city due to the inadequacies of the existing buildings and the growing student populations. For example, Marmara University, one of Turkey's most successful higher education institutions, planned to sell its land in the city of Istanbul and move into a new more peripheral unified site located outside the city.

Campus planning and design have gained importance in this period, with a group of architects committing themselves to the development of campus plans. Many plans and discussions related to such projects can be found in the Arkitera and Arkiv databases.

The campuses of Abdullah Gül University in Kayseri and Adana Science and Technology University in Adana were built following architectural competitions, having been designed as integrated city campuses, and these examples allow an understanding of how universities explore the idea of publicness in their spatial organization. In contrast to the previous periods, campuses are today idealized as

spaces that bring the public together with the university population. It was considered as public spaces of the cities and some social and cultural activities were planned in the university campus programs.

For example, Abdullah Gül University was planned as two city campuses that would be integrated with public environments for the use of not only the students, but also the city residents. Founded in 2010, the young university is spread across two campuses – the Sümer Campus and the Mimar Sinan Campus – of which the former is settled on the former site of the Sümer Textile Factory Complex that was built in 1933.⁶ The factory played a key role in the development of Kayseri and the Turkish national economy, and was built as an industrial setting that featured all necessary components for the workers' lives. When planning the campus, the old buildings and open spaces were retained, preserving the original spatial principles, with only the new educational functions redefined. The academic and administrative buildings are clustered in compact form around a central courtyard, while the residences of the workers in the original plan were defined as student dormitories in a separate area.

The Mimar Sinan Campus plan was designed by Alişan Çırakoğlu (Figure 10). Located at the periphery of the city the intention was to promote interaction between the university population and the city residents. The campus serves as "a bridge that connects two edges: nature and the city; science and life; technology and art" (Interview notes, 2014). The campus was originally conceived as being open to public and easily accessible. In addition to a planned public transportation network between the city and the campus, a variety of recreational, cultural and social facilities help create a sense of openness to the outside world. With its two campuses, the university was intended to serve as a public space for the city.

The Mimar Sinan Campus has laminar composition in an affiliated urban setting, with a layout formed through the juxtaposition of two zones. The first is the bridge that contains the cultural and social facilities – the library, science

center, rectorate, museum, convention center, main cafeteria and a mosque – while the second is a Z-shaped alley that connects to the academic units. The bridge, elevated over an artificial water source, is an open space designed for pedestrian circulation, while vehicular circulation is pushed out to the periphery of the campus to minimize interactions with the pedestrians. The campus is planned as an urban park, featuring extensive green areas where society and the campus community mingle. Another important aspect of the project is the design of multifunctional open spaces in the form of courtyards and quads, dispersed across different parts of the campus. When combined, these aspects both promote the social encounters and cultivate a campus life experience that is accompanied by nature. This reflects an architectural perception that idealizes the campus as a space of living, beyond the research and education.

By the 2000s, the design of landmark buildings on campuses had emerged as an alternative to the creation of long-term campus development plans. Most of the universities favored a single iconic building, designed and constructed by a famous architect, examples of which can be found in other parts of the world. These buildings are thought to contribute to attracting new students and providing recognition, rather than supporting the educational content. The library building of Uşak University, the main laboratory building of Namık Kemal University (Tekirdağ) and the hospital emergency building of Ege University are examples of this.

The library building of Uşak University (2006), designed by Ahmet Tercan, was nominated for a 2014 National Architecture Award, and has been the subject of various debates in the local press. Although there is no information about the spatial organization of the campus or its facilities on the university web page, the library building has generated headlines in the local press. Referring to its library, the university introduces itself with the pre-eminent campus design. The new Emergency Hospital building of Ege University may well be similarly evaluated. After the demolition of the old building, a new monumental structure was created with black translucent

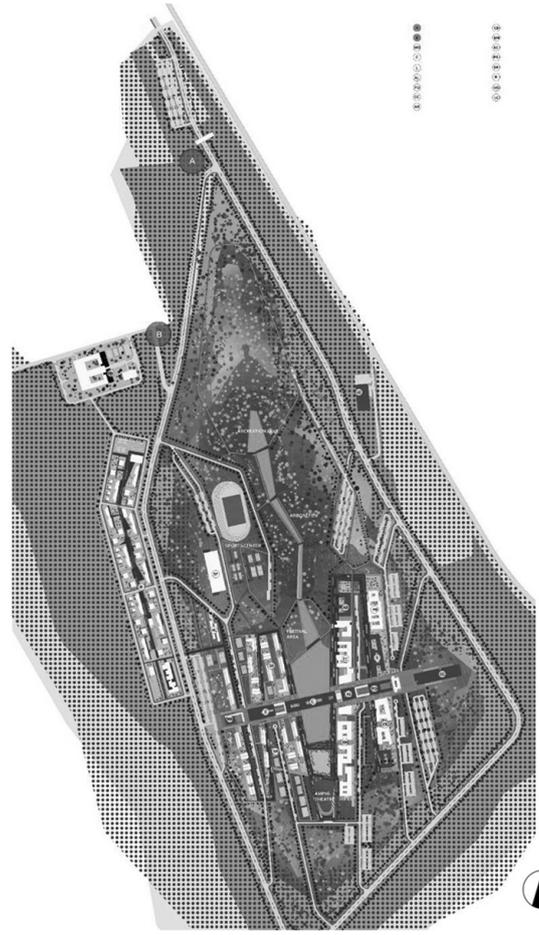


Figure 10. The proposal of Alişan Çırakoğlu for Mimar Sinan campus of Abdullah Gül University.

glass cladding to the façade. The building, close to the city, has a distinct and remarkable appearance with its bright massive form.

3. Conclusion

This article focuses on understanding of design and campus planning in Turkey with the purpose of exploration of spatial strategies of campuses that are built in different periods. This paper aims to evaluate the basic spatial principles of campus as a single entity and explore if there are changes in spatial layout of university campuses, the organization of built environment and their relations with the urban fabric through a chronological reading. In order to make a critical evaluation about different campus models, this paper uses some morphological parameters questioning 1.) spatial compositions of the built and un-built environment 2.) functional zones 3. Formal character of gathering spaces and their locations 4.) circulation networks.

Analysis of the spatial configuration of campuses in Turkey reveals some unexpected insights about particular planning approaches of universities: This provided unexpected information about campuses: the chronological evaluation gave some insights about spatial considerations of specific eras. It is observable that campuses reflect specific spatial understanding of their period. In that respect, we reviewed the campus projects in reference to three important periods in Turkey. For example, campuses that were built between 1950s and 1970s focus on design of public spaces to create social environments for university population. By 1980s, it is possible to observe a change in the spatial compositions of the campuses. Most of the campuses were evolved around the idea of centralized structure. In the 2000s, the change in the campus planning is related with the location of campuses in cities. With the purpose of involvement with social and physical fabric of city, universities have prioritized becoming public spaces of the cities. Additionally, specific physical approach of each period, that determines the relations between built environment and open spaces, is also mimicked by some other campuses in the same period.

Universities built within the period between 1950s and 1970s are important cases because they are first campus universities and they have self-contained campuses that all facilities locate in a single setting. The architects that design four campuses in this period give a special emphasis to the design of public spaces. Public spaces in the form of alley, court yard or green areas, where students could socialize and relax, are located near to academic facilities. Some are green, inciting people to sit or lie down while others are designed right next to classes with a purpose to increase students' chance to socialize via spontaneous encounters between classes. In addition, open spaces rather than buildings structured the spatial layout of the campuses. Especially, METU and Ege University campuses are examples of campus design that prioritize student interaction. Also, the campuses of 1950s are located at outside of cities to create an academ-

ic world where students and academicians study far from the distractions of city life. Only, Atatürk University campus is close enough to Erzurum to access the students' needs in city.

During 1970s, there was a change in spatial formation of campuses. The university campuses that were designed in this period had mono-functional and huge gridal forms. Ayazağa campus of ITU, campus of Diyarbakır Ziya Gökalp University and Bursa University campus were designed according to such design approaches. All buildings were joined under big structures to promote interaction across the university. Yet, the design of open spaces near to academic facilities was important in this period as seen in the campuses of 1950s. Specific physical approach of each period, that determines the relations between built environment and open spaces, is also mimicked by some other campuses in the later period.

However, we see that such kind of spatial understanding change into new spatial configuration in 1980s. The buildings in the campus were rather arranged in a centralized order. The governance of universities with a new central institution, HEI, reflected its imprints on the spatial organization of universities. The idea of previous period, prioritized allocation of public spaces in different parts of the campus totally disappeared. Instead of well-designed open spaces bonding the various facilities in different parts of the campus, locating one central monumental square next to administrative functions was the main design theme in this era. Gaziantep University and Mersin University campuses are examples to this. Changes in the spatial organization of open spaces in relation to built environment have left campuses with a different proposal for the public life inside the campus. And it is possible to claim that favoring a centralized structure can be taken as a reflection of changes in Turkish political system following the military coup of 1980.

During 2000s, universities that were discussed in this paper gave special emphasis to produce their campuses either as inner-city settlements or campuses in the peripheries of cities. The purpose was clear: to provide involve-

ment with social and physical fabric of city. For example, Mimar Sinan campus of Abdullah Gül University (Kayseri) and Adana Science and Technology University (Adana) were designed as urban parks that connect the campus community with the public. A variety of recreational, cultural and social facilities are designed in purpose of providing access from outside world into the university. Campus is designed not only for the campus community but also for the city population. Entrance controls are relatively vague; buildings are rather planned to incite people to access easily.

Despite the spatial varieties of different campuses, it is possible to explore some distinct features of the campus design in Turkey. The first is their distances from the urban fabric. Most of the campuses designed outside the cities aim to create self-contained and introverted environments. In other words, the idea is to produce knowledge “in the midst of the nature for a maximum quietness and concentration” (Christiaanse 2007, 46). Picturesque sceneries that unite the buildings along the green sites supported such kind of withdrawal from distractions of city life and concentration for studying. Such kind of isolation from city life required self-contained settings with all necessary functions for everyday practices. Another common feature of campus design is based on for the production of communities and their public spaces. As the space for academic community, campus reflected the embodiment of creating a total environment like a city. In that respect, creating a variety of public spaces in the campus was important to building an academic community, the early campuses of 1950s are examples of this understanding.

As a consequence, it is difficult to generalize these approaches as overarching concepts of those eras. The needs and expectations to shape the campus design process are not one; they are various and many. Deciding the campus location and its proximity to the city, the relation between the campus buildings and the organization of the overall pattern are driven by a complex interplay of interests, needs and expect-

tations both of the state and the universities. However, it is important to consider how the change in the spatial organization in a campus setting influences the development of public life. Understanding the outcomes of design tendencies of campus projects that are peculiar to specific periods might help focusing on the production of lively student life in new campus projects.

Endnotes

¹ The specific criteria for the selection of sites are presented in the report: “being a focal point for service, student population, the adequate infrastructure for the development of a campus settlement and a supportive socio-cultural environment” (Sargin, 2007).

² Some higher education institutions were brought under the roof of nine new public universities. While the Mimar Sinan, Marmara, Yıldız Technical, Trakya and Akdeniz Universities were reconstituted through mergers of different schools and academies, Gazi University was converted from the Gazi Education Teacher Training Institute. Furthermore, many faculties of Ege University became affiliated to Dokuz Eylül University.

³ The Bursa Technical University, Erzurum Technical University, Abdullah Gül Üniversitesi, Adana Science and Technology University and Turkish-German University were seen specifically as research institutions, where the intention was to promote collaborations with technology-based organizations (Toprak, 2012).

⁴ During this period, 23 public universities were founded, although the campus plans of some universities are unavailable even on the university websites. An analysis of 11 campus maps (Dokuz Eylül University – Tinaztepe campus, Abant İzzet Baysal University, Adnan Menderes University, Afyon Kocatepe University, Dumlupınar University, Gaziosmanpaşa University – Çiftlikkoy campus, İztech, Sütçü İmam University, Kocaeli University – Umuttepe campus and Niğde University) reveals that they were designed around the idea of a centralized structure.

⁵ The campus was launched after a project competition in the 1990s. A competition was held in which only

three invitees took part in 1995; Turgut Cansever, Kaya Arıkoğlu and Erkut Şahinbaş. The main principles of the conceptual project of Şahinbaş were adopted for the current campus project.

⁶ The master plan was designed by Burak Asil İskender and Nilüfer Baturuoğlu Yöney. A new building with administrative functions that was designed by Emre Arolat won the National Architectural Award in 2016.

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