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Brutalist architecture in Islamic Countries on the example of the Middle East Technical University Campus in Ankara

Introduction

The 20th century was a period of dynamic changes in architecture. In no other century did so many different trends and styles emerge—some of them global and long-lasting. The reach and significance of others was limited. Brutalism, which developed after World War II, was one of the major architectural trends. It peaked in the 1960s, and its decline came in the next decade. In many countries, the aesthetics of brutalism dominated the projects of residential, commercial, educational, or religious buildings for many years (Fig. 1). After a period of worldwide popularity, there was a sharp departure from brutalism, preceded by a wave of criticism of the trend as hostile, depressing, or even inhuman. This reputation led to destructive actions against the brutalist heritage. Many buildings of high artistic quality have been abandoned, rebuilt or demolished, and others are very much threatened. The reason for this is that brutalism still remains not fully understood, especially in its theoretical aspect, but also in terms of aesthetics. Knowledge about this trend needs to be broadened and verified in some matters. The research presented in this article also serves this purpose.

The study concerns brutalist architecture in Islamic countries, an issue that is very little explored. The general aim of the article is to present the scope of brutalism in this region, as well as to indicate examples of buildings and the most important architects. After its emergence in Europe, brutalism spread quickly all over the world. In the 1960s, it also reached northern Africa and southern Asia, and thus most Islamic countries. Turkey is located approximately in the middle of this area extending from east to west. The first brutalist buildings in this country were erected in its capital, Ankara. In the late 1950s, a new university was established in the city—Middle East Technical University (METU). Its campus and especially the Faculty of Architecture Building are presented in the article as an example of an outstanding brutalist masterpiece.

The scope of the topic included both the theory and practice of brutalist architecture. Due to the nature of the research problem and its complexity, a general method of historical and interpretative research was applied. It was based on comparative analysis of the creative ideas of architects and forms of brutalist buildings. In particular, the concepts guiding architects Altuğ and Behruz Çinici and the main elements of the brutalist doctrine were compared. Individual, unique attributes of the METU Faculty

Fig. 1. Le Corbusier and Lucio Costa, Maison du Brésil in Paris, 1957 (photo by W. Niebrzydowski)

Il. 1. Le Corbusier i Lucio Costa, Maison du Brésil w Paryżu, 1957 (fot. W. Niebrzydowski)
of Architecture Building, which distinguish it from other brutalist buildings, were also indicated. These attributes were largely the result of drawing inspiration from the local architectural tradition, which in itself is also characteristic of brutalism. The author of this article has been researching brutalist architecture around the world for nearly 20 years. The paper is based on in situ research also carried out in Turkish cities such as Istanbul and Ankara. During the research, the author collected a number of data and made photographic documentation of the buildings, including the METU campus.

When reviewing the state of the research field, significant publications should be mentioned. The most important researcher of brutalist architecture was Reyner Banham. Two of his publications are of fundamental importance – the article *The New Brutalism*, which appeared in December 1955 in “The Architectural Review” [1] and the book *The New Brutalism: Ethic or Aesthetic?* [2] published in 1966. Despite the passage of time, the book is the most important study on both brutalist architecture and the doctrine of New Brutalism to this day. In research on brutalist architecture, the publications of its precursors are important. In the 1953 article *House in Soho*, Alison and Peter Smithson used the term “New Brutalism” for the first time [3]. Significant publications on the brutalist part of Le Corbusier’s work were books from the “Oeuvre complete” series [4], [5]. Actually, there are no publications on the study of brutalist architecture in Islamic countries. Information on some brutalist buildings from this region of the world is contained in two extensive (however, of a general nature) books published in recent years – *Atlas of Brutalist Architecture* edited by Virginia McLeod [6] and *SOS Brutalism: A Global Survey* edited by Oliver Elser, Philip Kurz and Peter Cachola Schmal [7]. Some of the Turkish brutalist buildings are mentioned in the book *Turkey: Modern Architectures in History* by Sibel Bozdoğan and Esra Akcan [8]. The socio-political context for the emergence of modern architecture in this cultural area was shown in the article *Tradition and modernity in contemporary architecture of Turkey (Comparative study referring to traditional and international architecture in 1940–1980)* by Naser Hassanzadeh [9].

*The development of brutalism in Islamic countries*

Brutalism in Islamic countries began to develop in the 1960s, and most buildings in this style were built in the 1970s. Anthony Vidler wrote that during this period, Latin America and South Asia became the centre of aesthetics, but also of the ethics of brutalism in the world: *And if we seek the continuation of the original “ethic” of Brutalism, we can look to the developing nations in Latin America and South Asia to find programmatic and constructional integrity joined to abstract monumental form* [10].

In North Africa, two relevant examples of brutalist buildings in Islamic countries are hotels. Hotel du Lac in Tunis was completed in 1973 and immediately became the city’s landmark. Architect Raffaele Contigiani designed the form of an inverted ziggurat in which large overhangs of subsequent floors stand out (Fig. 2). Hotel les Gorges du Dadès in Boumalne Dadès (1974) had a completely different form with raw aesthetics and clear references to vernacular architecture. Architects Abdeslem Faraoui and Patrice de Mazières mixed local mud and cement to get a texture of concrete similar to traditional Berber mud-brick houses.

![Fig. 2. Raffaele Contigiani, Hotel du Lac in Tunis, 1970–1973 (photo by S. Krasowski)](image-url)
In South Asia, examples of two Iranian museum buildings can be given. Ferdowsi Museum in Tus was designed by internationally known Iranian architect Houshang Seyhoun and completed in 1968 [11]. The very massive, sculptural form of the concrete museum brings to mind the buildings of ancient Persia. Architect Kamran Diba built Tehran Museum of Contemporary Art in 1977 using a wide variety of materials. Concrete, stone and sheet metal expose their raw textures. Arched, tapering roofs dominate in the complex form of the building. An outstanding example is the house in Karachi in Pakistan designed by Yasmeen Lari and built in 1977. The building clearly shows the inspiration of Le Corbusier’s Maisons Jaoul.

A number of university buildings were also built in brutalist style in Islamic countries. In Africa, Morocco stands out in this respect. Architects Henri Tastemain and Eliane Castelnau worked here for many years. In the 1960s and 1970s, they designed a series of buildings in which they used local solutions and advantages of concrete [12]. Among them were the Faculty of Sciences Dhar El Mehraz in Fes and the Institute for Journalism in Rabat. From Asia, the example of the monumental Pahlavi University in Shiraz (Iran, 1960–1979) should be given. Minoru Yamasaki together with Iranian architect Mohammad Reza Moghtader situated a complex of buildings on a hill creating a very picturesque composition. They used both concrete and local brick laid in a traditional way. Muzharul Islam was an eminent figure of brutalist architecture working in Bangladesh, but also in other countries [13]. He completed his post-graduation under Paul Rudolph at Yale University and collaborated with Louis I. Kahn. One of his most brilliant works is Jahangirnagar University in Savar Upazila designed in the late 1960s.

The next part of the research is based on the analysis of the Turkish university, therefore the development of brutalism in this country should be briefly characterized. Turkey is a very specific Islamic country as it is located both in Europe and Asia. Domestic and Western influences have been mixing here for centuries. This phenomenon intensified in the 20th century after the establishment of the Republic of Turkey. After World War II, Turkish architecture began to change rapidly, also drawing on the latest international trends. Brutalism had developed in particular in the two largest cities, Istanbul and Ankara. In addition to the METU Campus, which will be presented in detail later, other significant buildings were built in this style in Ankara. Among them was the Etimesgut Mosque (1967). Its architect Cengiz Bektas criticized the banal forms of post-war mosques and proposed a very avant-garde project. Indeed, the aesthetics and composition of the building are far from traditional architecture. The massive walls are almost windowless and [...] in place of a dome is a flat roof and the squat minaret is not a separate part of the mosque, but incorporated into the overall form of the building [14].

The first building in Istanbul showing some brutalist features was the Sheraton Hotel (1959–1968). Designed by the architectural studio AHE Mimarlık and Rolf Gutbrod, it was also the first skyscraper (94 m high) in the city [8, pp. 184, 185]. Its structure and form are based on a grid of lines intersecting at 30 and 60 degrees. It gives the building a lot of expression and dynamics (Fig. 3). The contrast between large glazing and the texture of concrete is also important. Concrete walls of the ground floor are decorated with reliefs characteristic of brutalism. The architects who contributed to the popularization of the brutalist trend in Istanbul were Günay Çilingiroğlu and Muhlis Tunca. In 1972, they erected Istanbul Advertisement Building. It has an exposed reinforced concrete structure on which vertical solids are suspended. Its segmented mass structure is one of the new characteristics which created the new aesthetic expression of the period [15]. Despite its novelty and power, the building respects its historical surroundings, for example, moving away to highlight one of the neighbouring historic buildings. The influences of Japanese metabolism are also visible in another work of Çilingiroğlu and Tunca – Tercüman Newspaper Office Building (1974). In its monumental form, eight service towers stand out, which are also the main structural elements. They carry massive cantilevered blocks – overhanging 7 m forward. With its structural expression, this building stands in line with the boldest works of brutalism in the world. With regard to university facilities, the concrete building of Bahçeşehir Universi-
international jury announced Turkish architect Turgut Cansever as the winner. However, in 1960, the political situation in Turkey suddenly changed. The new METU authorities stopped Cansever’s project under the pretence of reconsidering the campus location. Almost immediately a second competition for the METU master plan was opened, which relocated the site of the campus. The new building land was much lower in elevation than the previous hilltop and closer to the centre of Ankara. This was the final competition and was won by a husband and wife team of young architects – Behruz and Altuğ Çinici.

Although the Çinicis were at the beginning of their careers, they decided to enter the contest without a well-established architect as a team leader. While working on the METU Campus competition, the Çinicis moved from İstanbul to a hotel in Ankara. In this way, they had the opportunity to personally analyse the planned area. They decided that their concept should make use of specific site conditions, especially its landscaping possibilities. At this point it should be emphasized how similar the views held by the Çinicis were to those of the creators of the New Brutalism, i.e. Alison and Peter Smithson. It is visible both in a contextual approach to design and a critical attitude to the main direction of the development of modern architecture. The Çinicis and the Smithsons opposed older architects, practitioners of the International Style. According to the Smithsons, the modern architect should objectively and broadly analyse the conditions of the situation and reflect them in the project. In this way, each situation, each site must be treated as unique. And therefore, all design solutions are unique. Many architects influenced by the Smithsons’ programme attached great importance to the social, historical, and geographical context as well as local materials and construction methods. In contrast to the universal nature of International Style in brutalist architecture, we can point to its regional character. At the core of this phenomenon was the interest in vernacular architecture and the idea of As Found based on taking into account the specificity of each place.

It can be stated that the Çinicis followed the main rules of the New Brutalism. They noticed the uniqueness of the campus place and also drew inspirations from the traditional architecture of Turkey. The METU campus was divided into three parts: the academic centre in the north, dormitories in the south, and sports facilities between them. This division corresponded directly to the topography of the area. The spatial arrangement of the academic centre was also unique (Fig. 5). The buildings were organized along a linear, broad pedestrian boulevard – [...] a meandering paved pedestrian axis planted with ponds and gardens [6, p. 441]. The Çinicis called it the allée and compared to Divan Yolu, one of the main historical streets running along the ridge of Istanbul’s peninsula. In addition, as the inspiration for the composition of academic and administration buildings, they pointed to the organization of the imperial mosque complexes of Istanbul [19, p. 134]. The allée was not only the main way of pedestrian communication, but also a space of contacts and social interactions of campus users (Fig. 6). New Brutalists also created similar multi-functional linear spaces. Good examples

**Middle East Technical University Campus**

The new university in Ankara was founded on November 15, 1956. As Ayşen Savaş wrote, the goal of the Middle East High Institute of Technology [...] was to contribute to the development of Turkey and the surrounding countries in the Middle East [...] by creating a skilled workforce in the natural and social sciences, becoming a model for the new modern society [17]. The first master plan of the university campus was created under the supervision of George Holmes Perkins – a famous American urban planner [8, p. 116]. Thomas Godfrey, William E. Cox, and Jaakko Kaikkonen also contributed to the development of the plan submitted to METU’s Board of Trustees [18, p. 3]. The Perkins team chose the place for the METU Campus on the hill on the edge of the town. The planners [...] envisioned the site as a new “acropolis” out of which a new managerial elite and a national planning agency would emerge [19, p. 124]. In 1959, based on the Perkins plan, a competition was organized to select architects who would develop the next stages of the campus project. The

Fig. 4. Bahçeşehir University Building at Kemeraltı Cd. 24 in İstanbul (photo by W. Niebrzydowski)

Il. 4. Bahçeşehir University Building przy Kemeraltı Cd. 24 w Stambule (fot. W. Niebrzydowski)
are street-decks in the Smithsons’ project of Golden Lane Estate in London (1952) or Park Hill Estate in Sheffield designed by Jack Lynn and Ivor Smith (1957–1961). Banham wrote: *Street deck was intended to function socially and psychologically in the manner of the street which – in working class areas in Britain – is the main public forum of communication, the traditional playground for children, and the only public space available for mass meetings and large-scale sociability* [2, p. 42]. Many years later, it can be said that the concept of boulevard has worked well in the METU Campus [20, p. 79]. Students readily use the opportunities offered by the allee and the adjacent green spaces. They can get together, learn, or rest in a short distance from the academic buildings.

The first building erected on the METU Campus was the Faculty of Architecture Building. It was also designed by the Çinics. Construction of the building started in April 1961 and finished in September 1963 [21]. It should be emphasized that, for the conditions of that time, it proceeded quickly, especially when taking into account that the building itself was a very difficult enterprise. In retrospect, the first university building turned out to be the most significant architectural work on the METU Campus and in the Çinics’ career. Moreover, the building is the most outstanding example of brutalism in Turkey [22]. Features typical of brutalist architecture are visible in the general arrangement of the building structure, its entire form, individual elements, and even small details. There are many indications that the Çinics also followed some ideas of the New Brutalism, although they never admitted it [7, p. 202–205].

The building is large and its plan is complex. It consists of several parts arranged on an orthogonal grid – perpendicular geometry is the main compositional principle. Two of these parts are pavilions separated from the main structure – one houses the auditorium (Fig. 7) and the other the museum. The museum presenting the archaeological artefacts found in excavations realized in the METU lands is one of many references to history and tradition. The form of the Faculty of Architecture Building can be consid-
Altuğ and Behruz Çinici designed strong rhythms on the façades. An example of such a solution is the western façade with balconies covered by sun-breakers (Fig. 8). Brutalist architects often utilized various types of sun-breakers, also referred to as brise soleils. Thanks to them, the architects managed to achieve spatial façades instead of flat walls. The expressive tectonics of the façades also gave light and shade effects. In the Faculty of Architecture Building, both kinds of façades, spatial and flat, were combined to create strong contrasts in the form.

The Çinics approved of the brutalist idea of the sincerity of the material. They exposed the raw textures of brick, stone, wood, and concrete. All concrete surfaces have the imprint of the wooden formwork (Fig. 9). Most brutalists,
at least in the early stages of the style, rejected the aesthetics of the machine as a false one. They appreciated craft building methods. Some architectural critics wrote that prefabricated buildings have little artistic value. But how different is the erection of an entire building from concrete placed on the site itself! Here is the very essence of a hand-made article [24, p. 64]. Showing the way in which the building was built, the subsequent stages of the construction process was a symbol of truth. Therefore, in the monolithic concrete walls of the METU Faculty of Architecture Building, the joints of the formwork were visible, as were the unmasked holes of the removed formwork assembly rods. However, it should be emphasized that the Çinicis did not allow texture defects.

The brutalist idea of the unique solution to a unique situation was realized not only in the METU Campus plan but also in the Faculty of Architecture Building. It is particularly evident in references to the local architectural tradition. The Çinicis were of the opinion that the first building of the biggest Turkish university located in the capital city should present an indigenous character. Both Le Corbusier and the New Brutalists were fascinated by vernacular architecture. There is no doubt that in the 1950s they wanted to create a new style adapted to contemporary reality and to design modern buildings avoiding direct imitation of past styles. However, they believed that there are objective, eternal, deep-rooted architectural values. They sought them primarily in the vernacular architecture. In later years, brutalist architects drew more direct formal inspiration from traditional architecture. They often combined motifs of native architecture with brutalist forms and elements. The Çinicis were probably inspired by the adobe houses of old Anatolia. They had primitive cubic forms with flat roofs and grey walls. A kind of primality is also a feature of the Faculty of Architecture Building. This is expressed by simplified geometry and lack of cantilevers. The arrangement of the blocks into a megastructure, on the other hand, evokes associations with prehistoric cities excavated in southern Anatolia. There are also much more explicit references to tradition, such as the courtyards with water fountains and the arched wooden doors.

The interior of the building was kept in pure brutalist aesthetics. Raw concrete is an absolutely dominant material. Even the built-in furniture was made of it. The architects exposed wires and pipes and used bulbs without any lampshades for lighting. It should be restated that the sincere presentation of common materials, structural elements (Fig. 10) and ordinary technical solutions without any aestheticization was also a feature of the New Brutalism. The apotheosis of ordinariness was already known from the first Smithsons’ building. Considering post-war austerity in England, they emphasized: In a society that had nothing. You reached for what there was, previously unthought of things [25, p. 40]. In Turkey in the early 1960s, conditions were also difficult.

After the construction of the Faculty of Architecture Building […] the campus project was divided into phases, which were annually planned according to the budget availability of the respective year [26]. Many subsequent university buildings were also designed by Altuğ and Beh-ruz Çinici. In the period up to 1980, the following buildings were erected according to their projects: Faculty of Economics and Administrative Sciences, Faculty of Arts and Sciences, Faculty of Education, Faculty of Engineering, Main Sports Hall (Fig. 11). Most of them presented the brutalist character to a greater or lesser extent. However, none of them reached the artistic level of the first one. Influences of Japanese brutalism, especially the works of Kenzo Tange, can be seen in the Main Sports Hall. This building can be considered the second after the Faculty of Architecture Building in terms of METU’s brutalist heritage. Façades of the hall are dominated by the rhythm of the structural elements. The observer is strongly affect-
ed by their large scale, sculptural form and raw concrete texture. Researcher Atilla Yücel points to the influence of many different architects on other buildings [27, p. 140], which contributed ultimately to the heterogeneous architecture of the METU Campus.

Conclusions

Brutalism made its way from the West to Islamic countries at the same time as it did to other parts of the world. It was brought to this region by the Western masters – Le Corbusier, Louis I. Kahn, and Minoru Yamasaki. However, it should be emphasized that brutalist architecture was developed and transformed in Islamic countries by local architects. Some of them first collaborated with foreign architects. An example was Mohammad Reza Moghtader who worked with Minoru Yamasaki. Native architects used solutions characteristic of the brutalist trend, but also introduced their individual concepts and elements. They often drew inspiration from vernacular architecture. Therefore, a very interesting feature of brutalist architecture in Islamic countries is its duality. On the one hand, it is characterized by consistency – specific aesthetic effects, most commonly used materials, or repetition of certain solutions and formal elements. On the other hand, many different tendencies developed in it, caused not only by the individuality of the architects but also by the references to local conditions. Among the most important architects of this trend are Abdeslem Faraoui, Kamran Diba, Houshang Seyhoun, Muzharul Islam, Günay Çilingiroğlu, Muhlis Tunca, Behruz and Altuğ Çinici.

Buildings with various functions, especially prestigious buildings, were erected in a brutalist style in Islamic countries. However, compared to other parts of the world, there are few religious buildings. There are not many multi-families. However, compared to other parts of the world, there are few religious buildings. There are not many multi-family buildings and housing estates either. It should be noted that earlier buildings erected in Islamic countries generally had simpler forms. However, the forms of buildings constructed in the last phase of brutalism were very expressive and dramatized.

One of the most significant works of brutalism in Islamic countries is the METU Campus in Ankara. 60 years since its foundation, the campus is a group of stylistically diverse buildings. However, it remains a unique complex with the largest number of brutalist buildings erected in one place in Turkey. In this respect, the campus also stands out in comparison with all other Islamic countries. Although it was built first, the Faculty of Architecture Building presents the highest architectural value among the METU buildings. The design ideas of architects Altuğ and Behruz Çinici were very avant-garde at that time and, fortunately, were consistently implemented.

The form and spatial arrangement of the METU Faculty of Architecture Building reflect the most important features and elements of the brutalist trend: massiveness and heaviness, sincerity of materials, articulation of solids and elements forming a building, exposing internal functions in an architectural form, emphasizing the importance of movement and elements of pedestrian circulation, dominance of concrete. There are also individual solutions in the building, usually less common in brutalist architecture. The building has a calm, balanced formal expression, while other works of this trend were often very strong and dominant. The building continues its perpendicular geometry without any oblique elements or curvatures. There are no cantilevers or service towers in the form. The Çinics drew on the vernacular architecture of Anatolia, sometimes in a very direct way. It should be emphasized that the building is one of the few in the world where the influence of the New Brutalism is clearly visible. The Çinics undoubtedly shared the ideas propagated by the Smithsons, including As Found, objectivity to reality, and apotheosis of ordinariness.

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References

Abstract

Brutalist architecture in Islamic Countries on the example of the Middle East Technical University Campus in Ankara

This article discusses brutalist architecture in Islamic countries. The brutalist trend developed after World War II. After its emergence in Europe, it spread quickly all over the world. In the 1960s, brutalism reached northern Africa and southern Asia, and thus most Islamic countries. The aim of the article is to present the scope of this trend, as well as to indicate examples of buildings and the most significant architects in this part of the world. Turkey turned out to be a particularly important country in the aspect of the conducted research. Detailed analyses concern the campus of Middle East Technical University in Ankara, especially the Faculty of Architecture Building. The building was designed by Altuğ and Behruz Çinici, a husband and wife team of architects, and completed in 1963. It is one of the first and one of the most representative examples of brutalism in Islamic countries. Due to the nature of the research problem and its complexity, a general method of historical and interpretative research was applied. It was based on comparative analysis of the creative ideas of architects and forms of brutalist buildings. In particular, the concepts guiding architects Altuğ and Behruz Çinici and the main elements of the brutalist doctrine were compared. The author also relied on his in situ research carried out in Turkey.

The METU Faculty of Architecture Building reflects the most important features and elements of the trend including sincerity of materials, massiveness and heaviness, articulation of internal functions, concrete gargoyles and sun-breakers. However, the architects also applied a number of individual, unique solutions, inspired mainly by vernacular architecture. One of the most important conclusions is that the Çinici's followed some ideas of the New Brutalism, an architectural theory created in England by Alison and Peter Smithson.

Key words: theory of 20th century architecture, brutalism, Islamic countries, Altuğ Çinici, Behruz Çinici

Streszczenie

Architektura brutalistyczna w krajach islamskich na przykładzie kamпусu Middle East Technical University w Ankarze

Przedmiotem badań omówionych w artykule jest architektura brutalistyczna w krajach islamskich. Nurt brutalistyczny rozwijał się po II wojnie światowej. Po ukazaniu się w Europie szybko rozprzestrzenił się na cały świat. W latach 60. XX w. brutalizm dotarł do północnej Afryki i południowej Azji, a tym samym do większości krajów islamskich. Celem artykułu jest przedstawienie zasięgu nurtu Brutalizmu w krajach islamskich. Nacechowany innowacyjnością i niezwykłymi cechami, Brutalizm w krajach islamskich był jednym z najbardziej zrozumiałych nurtów architektury w krajach islamskich.

Ze względu na charakter problemu badawczego i jego złożoność zastosowano metodę badań historyczno-interpretacyjnych. Oparta została ona na analizie porównawczej idei twórczych architektów i form brutalistycznych budynków. W szczególności porównano koncepcje, którymi kierowali się architekci Altuğ i Behruz Çinici, oraz główne założenia doktryny brutalizmu. Autor opierał się także na swoich badaniach w kontekście przeprowadzonych w Turcji.

Budynek Wydziału Architektury METU odwierciedla najważniejsze cechy i elementy nurtu, w tym szerszość materiałów, masywność i ciężkość, artystyczną wewnętrzność i potencjielowe gargoyle i słońce z konkretem. Jednakże architekci zastosowali także wiele indywidualnych, unikatowych rozwiązań, inspirowanych przede wszystkim architekturą wernakularną. Jednym z najważniejszych wniosków płynących z przedstawionych analiz jest to, że Çinici inspirowali się wielema ideami Nowego Brutalizmu, teorii architektonicznej stworzonej w Anglii przez Alison i Petera Smithsonów.

Słowa kluczowe: teoria architektury XX w., brutalizm, kraje islamskie, Altuğ Çinici, Behruz Çinici