

**THE ARCHITECTURAL HERITAGE OF THE KUYALNYK ESTUARY****Savytska O. S.,**Candidate of Architecture, Associate Professor,  
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**Abstract:** The article highlights the prerequisites that led to the formation of the resort industry on the territory of Kuyalnitsky estuary and comprehensive development of its recreational potential. The district is characterized by unique natural resources: therapeutic brine and silt muds of the estuary, sources of mineral chloride-sodium water of Kuyalnitsky deposit, vast sandy beaches and air enriched with microelements of sea water and steppe zone. Special attention is paid to the processes of architectural and town-planning formation of the development of the resort from the end of XIX century to the present time. Social objects and architectural monuments are analyzed in detail, which allows a deeper understanding of their role and importance in the historical development of the resort, as well as their contribution to the modern urban planning trends of the region. In addition, the discovery of mineral springs of chloride-sodium water of Kuyalnitsky deposit had an impact on the development of the resort. These springs became additions to the existing healing resources

An important role in the architectural and town-planning formation of Kuyalnitsky resort played architectural objects. Since the end of XIX century unusual buildings appeared here, creating a whole infrastructure to serve the spa guests. During the Soviet period, residential and medical buildings were actively erected, which became a part of the cultural and historical heritage of the region. Modern reconstruction of these buildings and preservation of architectural monuments emphasize the historical originality of the resort.

**Keywords:** Odesa, Kuyalnyk, Kuyalnyk Estuary, Zhevakhova Hill, history, resort, development.

**Problem Statement.** The oldest mud baths in Ukraine is located on the shores of the Kuyalnyk Estuary, near Zhevakhova Hill, and is a unique natural treasure of the south of Ukraine. The resort uses the estuary's peloid, brine, and mineral waters for health treatments and rehabilitation. For a long time, the beneficial properties of Kuyalnyk remained unknown. Initially, the Kuyalnyk Estuary was used for salt mining, as evidenced by the wooden pillars found there. However, in the early 1830s, when the therapeutic properties of Kuyalnyk's mud were confirmed, mud baths were founded on the shore of the estuary. Despite the fact that the resort consisted of simple wooden structures and was not luxurious, it quickly gained popularity among various social classes and attracted visitors from abroad.

Until the 1910s, the main structure of the resort primarily consisted of medical infrastructure. In the early 1910s, a sanatorium was built on the territory of the estuary, and the treatment system was reformed and improved. During World War II, the sanatorium was severely damaged. The

construction of new dormitories occurred only in the 1970s-1980s, and the sanatorium continues to function to this day.

**Analysis of Reference Sources.** The theoretical foundation of this research is based on works, articles, and essays in the field of the history of architectural and urban development of Odesa. The specifics of Odesa's architectural evolution and the formation of its planning structure are discussed in the works of A.O. Lysenko, V.I. Timofeyenko, and V.A. Pilyavsky [7]. Issues related to the preservation of the architectural heritage of the Kuyalnyk resort's development are disclosed in the works of V.P. Netrebsky [5], V.V. Skidan, F.F. Stoyanov [9], F.M. Kremer [2], O.M. Verbytsky, N.K. Tolvinsky [10], and others.

**The Purpose of the Research** is to highlight the architectural and urban development of the Kuyalnyk Estuary area in order to determine ways to solve the current challenges posed by time.

**Main Research Material.** The Kuyalnyk Sanatorium named after Pyrogov is the oldest in the world, unique mud resort located within the city limits, 13 kilometers from the center of Odesa, at the foot of Zhevakhova Hill on the right bank of the Kuyalnyk Estuary (Fig.1).

Kuyalnyk Sanatorium belongs to Balneological Mud Resorts, a type of resort where mineral waters and therapeutic muds are used as primary therapeutic factors. According to some researchers, the name of the resort is associated with the high concentration of salt in the water of the estuary (from the Turkic word «kuyanlyk», meaning dense). Historically, the current Odesa estuaries were called «Salt Lakes ».

Fragments of various pottery found on the estuary's shores date back to the 6th–2nd centuries BCE. In the Soviet era, the remnants of a city, the foundation of which is attributed to the early 1st millennium BCE, were discovered on the territory of the Kuyalnyk settlement.

At one time, the Khadzhibey and Kuyalnyk estuaries were river mouths – Maly and Velukiy Kuyalnyk – which formed bays of the Black Sea. Over time, deposits of river and sea sand created the Peresyp, transforming the bays into estuaries. The salty waters of the estuary condensed into brine, a concentrated saline solution. The distinctiveness of the Odesa group of estuaries also lies in the layers of silt mud that formed at the bottom, containing numerous mineral particles and organic substances.



Fig. 1. Monument to Andreevsky (authors – architect I. Tolvinsky, sculptor B. Eduards)

Kuyalnyk is one of the oldest mud therapy resorts in Ukraine. Kuyalnyk's sulfide-silt mud is recognized as the standard for its therapeutic properties. It helps reduce inflammation, strengthens the immune system, and restores the functions of damaged organs and body systems. The brine of the estuary also has healing properties, while Kuyalnyk mineral water is beneficial for gastrointestinal disorders.

The early salt miners and «chumaks» (salt transporters), who distributed the salt from the Kuyalnyk Estuary across Russia in past centuries, inadvertently experienced the healing effects of the brine and mud. Rumors and legends about miraculous cures began to spread, drawing sick people and doctors to the shores of the Kuyalnyk Estuary.

In 1833, Dr. Erast Stepanovych Andreevsky initiated the construction of the first clinic at the Kuyalnyk Estuary. The city purchased land from Prince Zhevakhov, and soon the sanatorium's construction began. Over time, the resort developed, and a summer cottage village was built for those coming for treatment. Despite difficulties, at the end of the 19th century, the resort began to actively recover thanks to the physician A. Bertenzen. The limited infrastructure led to the creation of a railway, which expanded the resort's treatment options (Fig.1).

In 1892, according to the design of M. Tolvinsky, one of the most mechanized treatment facilities of that time was built, which caused the growth of the resort's popularity.



Fig. 2. New city mud baths



Fig. 3. Church of St. Panteleimon and public school



Fig. 4. Andreevsky railway station In the foreground are barracks for the poor, built in the 1880s

The construction of the Church of St. Panteleimon and the public school marked the beginning of further development of charitable healthcare institutions (Fig.2). In the guidebooks of the early 20th century, two hospital buildings are mentioned. The public school building has a rectangular layout and adjoins the southern façade of the Church of St. Panteleimon. Together, these two buildings form an «L» shape structure. Since these buildings serve different purposes, it is reasonable to conduct their architectural analysis separately [4]. The church has a traditional volumetric-spatial composition, which is a characteristic of regional temple architecture. Its prismatic structure is covered by a cross vault. The church was once crowned with five thin onion domes on high drums. The eastern side features a semicircular altar covered by a conch, while on the opposite side, there is a small narthex ending in a *zakomara* (semicircular gable). At the turn of the 20th and 21st centuries, a two-story bell tower with a pyramidal octagonal spire was added to the western side of the narthex. The façades of the church are designed in the «Neo-Russian» style. The modern look of the church is inferior to the original in expressiveness and sophistication of architectural forms [4] (Fig.3).

The public school building is a one-story prismatic structure with a hipped roof. The interior spaces are organized around a central corridor. The façades have rectangular window openings with pilasters, horizontal divisions with windowsill ledges, and dentils along the cornice. Originally, the building was adorned with *kokoshniks* and a pyramidal spire, but these elements have been lost. The interiors have also not been preserved. From the 1970s to the 1980s, the building was used as a kindergarten and is now the residence of the church rector. In comparing the two structures, it is evident that the building of the school is secondary to the church. Despite some losses in the building's authenticity during the Soviet era, both structures continue to form a harmonious architectural tandem, representing a successful realization of a unified architectural concept.

In 1892, a hospital was built at the Kuyalnyk Estuary according to Tolvinsky's design. The project included a central garden surrounded by covered connecting galleries that linked four groups of pavilions. Each pavilion could be expanded if necessary to accommodate additional baths. The pavilions were divided into sections for men and women, including brine and mud baths. The hospital was divided into classes: the first-class pavilions faced the estuary, while the second-class pavilions were on the opposite side. Each section had its own separate entrance and exit. The rectangular layout of the pavilions simplified the building's structure and facilitated the convenient delivery of baths to the sections, as the mud baths were aligned with the machinery room [5].

The fundamental volumetric and planning solution of the hospital was carefully developed. The idea of pavilion planning was first proposed by N.K. Tolvinsky in a competition project for a city hospital. Tolvinsky's design, submitted under the motto «Red Cross», took second place [5], but was not implemented. The architect did not abandon the idea of pavilioned planning; instead, he refined it and applied it in the development of the project for the estuary treatment facility [2] (Fig.5, Fig.6).

During the development of the Kuyalnyk Hospital project, the architect paid great attention to functionality. For instance, he designed a ramp at the main entrance for patients who could not climb the stairs. In the rooms with mud baths, windows were placed at a height of approximately 1.25 meters to prevent drafts from affecting patients in the baths. An additional partition with frosted glass was installed behind the vestibule in the inner corridor of the first-class brine bath section for the same purpose [10]. The hospital building impressed its contemporaries with its originality in architectural forms and the inclusion of details from various historical styles, such as Gothic, Russian, and Moorish [4]. The treatment facility was eclectic in its architectural style, with all the architectural details carved from stone. Architect Tolvinsky successfully combined building materials (limestone and brick) with various historical styles, which served as its architectural prototypes. Initially, the facades were not plastered, and the roofs were covered with flat Marseille tiles.

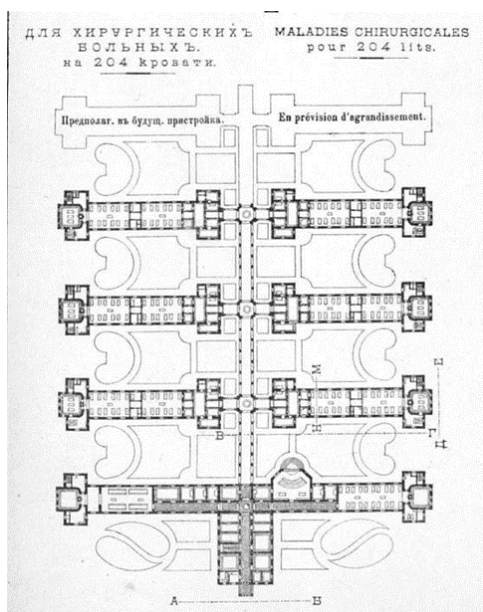


Fig. 5. Competition project for the municipal hospital, surgical department, architect N.K. Tolvinsky

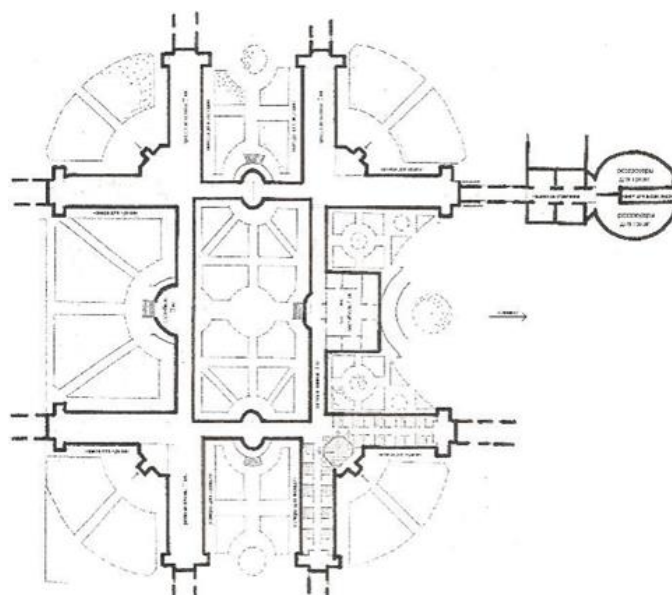


Fig. 6. Plan diagram of the estuarine treatment facility at Kuyalnyk Estuary, architect N.K. Tolvinsky

The four towers at the four corners of the connecting galleries, topped with iron minarets, according to the architect, had a decorative function and «united the grouping of pavilions into a single whole» [7]. The shapes of the minarets resembled domes of Muslim India [2]. The interiors of the hospital's main rooms, according to the descriptions of contemporaries, were done in Renaissance style [4]. The walls of the first-class vestibule were adorned with stucco, the floor was covered with Marseille tiles featuring mosaics and borders, while in other administrative building rooms, the floors were made of oak parquet. In 1903, a park was established on the hospital grounds, an artificial lake was dug, a water pipeline was laid to the estuary, and the laying of granite paving stones was completed [10] (Fig.7).



Fig. 7. Mud baths

In the 1960s, the architectural and planning workshop of the Odesa branch of «Giprograd» developed a layout project for the residential area on Zhevakhova Hill and the Kuyalnyk resort. The team of architects, including G.V. Topuz, V.M. Ochakovsky, N.I. Gerasimovskaya, I.V. Podolyansky, and L.K. Medyanova, planned to start construction of the new district in 1964 and complete it by 1970.

The project envisioned transport highways dividing the 400-hectare territory into eight microdistricts. The total area of buildings to be constructed was 820,000 square meters, designed to house approximately 100,000 people. The plateau of Zhevakhova Hill was planned to be built up with 9- and 15–16-story buildings. Tower-type houses were intended for small families. The ground floors of these buildings were to include commercial and public spaces for the residents. In addition, the plans included building a community center, a movie theater, an administrative building, a hotel, a store, creating a park, and laying a boulevard between the Kuyalnyk and Khadzhibey estuaries. The project also included expanding bus and tram lines [11]. The reconstruction project for the Kuyalnyk resort included the construction of four dormitories with 450 beds each, an administrative-reception building, two summer dormitories with 200 beds each, a 16-story hotel with 1,000 beds and a restaurant, as well as a campground with 200 spaces. The project also included building a club, a covered cinema, a canteen, an ice cream cafe, a summer theater, pump rooms, an indoor swimming pool, and a boat station. On the eastern shore, a new sanatorium complex for 5,000 people was planned. The project for the residential area on Zhevakhova Hill and the new «Kuyalnyk-2» sanatorium was never realized due to insufficient funding. However, construction began at the old resort site, leading to the destruction of some of the older buildings. According to the master plan for resort development, by 1984 «Kuyalnyk» was expected to become an international-class resort.

After the war, the resort was restored, with the hospital's reconstruction beginning in 1950. Later, in the 1960s, under the guidance of architects Milgram and Gerasimovsky, the resort received its modern look. In the 1970s, construction of new 16-story buildings began at Kuyalnyk. According to the project, the health resort was to accommodate up to 50 thousand people annually.

By the 1970s, three out of the four planned sixteen-story dormitory buildings were constructed, along with a polyclinic and a resort hall that included a cinema (currently, this building houses the Palace of Culture). The summer theater was dismantled, and next to the Palace of Culture, a new Kuyalnyk mineral water plant was built in the 1960s. From the roof overlooking the estuary and other buildings, one can see the old Pyrogov mud bath building and a mysterious metal pyramid. This pyramid contains a public therapeutic pool filled with warm saline water from the estuary. The pyramid's futuristic design, along with the sixteen-story dormitories, stands as a monument to Soviet modernism [11, 12].

In the 1990s, the health resort system underwent major changes due to the collapse of the Soviet Union. This led not only to a change in the number and locations of sanatoriums but also to the near-total destruction of the management system overseeing them. Over 2,500 health resorts were transferred to the newly independent republics, significantly impacting the situation at Kuyalnyk. Most of the buildings on the resort grounds are now in ruins or in a state of disrepair. Only two of the three high-rise buildings are still in operation, while the third stands abandoned, presenting a haunting sight to visitors.

The old hospital building now presents a sad image. The facade facing the estuary is deteriorating, and the opposite side is similarly damaged, with parts of it covered in unsightly «boar» tiles. Many of the architectural details carved from stone have been lost and replaced by unattractive concrete elements (Fig.8, Fig.9).

Today, Kuyalnyk is a large complex of sanatorium-resort facilities. It still operates a general mud bath and a resort polyclinic, which houses the main medical-diagnostic base of the resort, as well as the resort's Palace of Culture.



Fig. 8. Inner courtyard of the Kuyalnyk mud bath facility, current condition



Fig. 9. Kuyalnyk Sanatorium, view from Zhevakhova Hill, current condition

**Conclusions and Prospects for Further Research.** Kuyalnik is a unique place with significant potential for sustainable urban development. The sandy beaches of the Kuyalnik estuary, surrounded by steppe vegetation, additionally contribute to the formation of a healthy microclimate. The air, saturated with microelements of sea water and steppe flora, creates unique conditions for recreation. The main factor is the preservation of cultural heritage by introducing innovative architectural solutions. Rapid development, restoration of historical buildings and the creation of new structures in compliance with environmental standards can turn Kuyalnik into one of the key resorts not only in Ukraine, but also in Europe. Thus, the heritage of Kuyalnik, its resort traditions and unique natural resources are the basis for the creation of a modern and innovative resort complex that will attract the attention of tourists, Odessans and investors.

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## АРХІТЕКТУРНА СПАДЩИНА КУЛЯНИЦЬКОГО ЛИМАНУ

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**Анотація.** У статті висвітлюються передумови, що зумовили формування курортної галузі на території Куяльницького лиману та комплексне освоєння його рекреаційного потенціалу. Район характеризується унікальними природними ресурсами: лікувальна ропа та мулові грязі лиману, джерела мінеральної хлоридно-натрієвої води Куяльницького родовища, великі піщані пляжі та повітря, збагачене мікроелементами морської води та степової зони. Особливу увагу приділено процесам архітектурно-містобудівного формування розвитку курорту з кінця XIX століття до теперішнього часу.

Аналізуються соціальні об'єкти та пам'ятки архітектури, що дозволяє глибше зрозуміти їх роль та значення в історичному розвитку курорту, а також їхній внесок у сучасні містобудівні тенденції регіону. Крім того, на розвиток курорту вплинуло відкриття мінеральних джерел хлоридно-натрієвої води Куяльницького родовища. Ці джерела стали доповненням до наявних лікувальних ресурсів. Важливу роль у архітектурно-містобудівному формуванні Куяльницького курорту відіграли архітектурні об'єкти. З кінця XIX століття тут з'явилися незвичайні будинки, що створили цілу інфраструктуру для обслуговування гостей курорту. У радянський період активно зводилися житлові та лікувальні корпуси, які стали частиною культурно-історичної спадщини регіону. Сучасна реконструкція цих будівель та збереження архітектурних пам'яток наголошують на історичній самотності курорту. Піщані пляжі Куяльницького лиману, оточені степовою рослинністю, додатково сприяють формуванню оздоровчого мікроклімату. Повітря, насичене мікроелементами морської води та степової флори, створює унікальні умови для відпочинку.

Таким чином, багатство та унікальність ресурсів створили умови для формування Куяльницького курорту, який, зберігаючи свою історичну цінність, продовжує сприяти розвитку рекреаційної галузі.

**Ключові слова:** Одеса, Куяльник, Куяльницький лиман, Жевахова гора, історія, курорт, розвиток.