



*Mukhtar Husain*

## **Ercümend Kalmik Museum**

*Istanbul, Turkey*



**Architect**  
*Ayşe Orbay*

**Client**  
*Ayşe Kalmık*

**Design**  
*1991-1992*

**Completed**  
*1996*

## I. Introduction

This private museum in Ayaspasha, Istanbul, not far from the Dolmabahçe Palace, opened in 1997. It is dedicated to the art and teaching of Ercüment Kalmık (1908–71) and was founded by Ayşe Kalmık, the artist's wife.

The project, designed by architect Ayşe Orbay, consists of the restoration of a late 19<sup>th</sup> century house facing Sarayarkasi Street and the addition of a new building behind it. The old house contains the permanent collection of oil paintings, water-colours, lino-cuts, and drawings, as well as the artist's books, easels, and other artistic tools, while an annex serves as a gallery for temporary exhibitions and other artistic activities. There is a small courtyard between the two buildings, and a stepped garden at the rear of the lot. The two buildings are connected by a bridge at the upper level.

The complex, surrounded by relatively tall apartment blocks, has a total combined floor area of about 400 m<sup>2</sup>.

## II. Contextual Information

### a. *Historical background*

Born in Istanbul in 1908, Ercüment Kalmık studied painting at the Istanbul Academy of Fine Arts (now Mimar Sinan University). In 1939 he went to Paris where he worked with the Cubist painter André Lhote, and took art history courses at the Sorbonne. He returned to Istanbul in 1940. From 1942–48 he was a painting instructor, first in Ankara, then in Istanbul. In 1949 he started teaching at the Istanbul Technical University in the Faculty of Architecture, where he founded the Department of Colour, Form, and Composition (modern basic design) and was its chairman until his death in 1971.

Ayşe Kalmık established the Ayşe and Ercüment Kalmık Foundation in 1991 to expand and develop the fine arts in Turkey begun by her late husband. The foundation has supported many art students since 1993 by sponsoring painting, drawing, and printmaking competitions, and by granting various scholarships.

In city maps dating back to 1926, the building on Sarayarkasi Street, now renovated into the Ercüment Kalmık Museum, was shown as a building on the grounds of the Villa Skarlato. In 1935 the main villa was sold. Eventually it was demolished and the rear part of the property was sold off in small parcels to individuals who built the present large apartment buildings that face the Ayaspasha Mosque Street.

This wooden house has survived in its transformed environment, squeezed between much higher buildings, standing on a strip of land that corresponds to a small fragment of the old garden.

In 1991, Ayşe Kalmık, in consultation with architect Ayşe Orbay, bought the house to establish a museum.

### b. *Local architectural character*

The museum is located on a narrow street, surrounded by modern apartments that dominate the streets of Ayaspasha. The area, designated as a residential zone, permits construction up to 15 metres above (access) street level. Buildings in the vicinity mostly date back to the 1950s and 1960s and have replaced old villas and other structures. The museum building is one of the few reminders of the former urban scale of the area.

c. *Climatic conditions*

During December and January the weather in Istanbul, which is located at 29° East and 43.5° North, is cold, with an average temperature of 5–10°C. It may rain occasionally during this period. April to June are pleasant, while average air and water temperatures for the Istanbul region are as follows (in Centigrade):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Air	5	6	7	12	16	21	23	23	20	16	12	8
Water	9	7	8	11	15	20	23	23	21	17	14	11

d. *Site context*

The museum is approached from nearby Taksim Square via Gumussuyu Road by taking a right turn at the German Consulate, heading down a gradual incline and along Ayaspasha Mosque Street, and then turning left into Sarayarkasi Street (the street behind the Palace), which itself slopes down toward its east end. There is also an access directly off the Mosque Street. The entire neighbourhood today consists of five-storey apartment blocks with the exception of one other old wooden house (in need of restoration) further up the street. The German Consulate building, which once featured prominently on the Istanbul skyline, is now nearly hidden from view from the Bosphorus.

Buildings along the north side of Sarayarkasi Street, in line with the museum, abut the street. On the other side the apartment blocks are set back a few metres to allow for a little shrubbery, but there is no significant landscaping in the area.

The property has a front of 10.15 m at the street, which narrows gradually and irregularly to 4.5 m at the rear. The depth of the now-developed lot is 39.20 m, with the rear corner touching the German Consulate compound.

e. *Site topography*

Ground level at Sarayarkasi Street is about +56.25 m, and climbs steeply upwards towards the rear. The side access street (used as a service entrance for the museum) is at +61.95 m, whereas the finished level of the rear garden is five metres above the street in front.

### III. Programme

a. *Conditions of programme formulation*

The old wooden house was acquired because of its architectural qualities with the intention of transforming it into a museum.

A gallery for temporary exhibitions and a space to house activities such as painting courses, workshops, lectures, panel discussions, etc., were also included into the programme.

b. *Objectives*

The museum houses the paintings of Ercüment Kalmik, his books, and artistic equipment in a permanent collection within the (restored) house.

With the new extension at the rear, the foundation also undertakes to: organise a series of exhibitions of his work, and work by his contemporaries as well as his students; show the work of both national

and international young artists; hold regular classes for painting, drawing, and art history; organise art competitions for art students, and publicise the results; publish works about Ercüment Kalmık and his contemporaries; publish selected masters and doctoral dissertations on topics related to fine arts; organise the Ercüment Kalmık Data Centre; organise lectures, conferences, slide shows, panel discussions, and symposia about pertinent art topics; and arrange readings, chamber music concerts, and dance performances.

This facilitates a dialogue among artists from different generations and disciplines that will bridge Turkish art of the recent past with that of the present and future. By fulfilling these objectives the foundation seeks to gain the confidence of Istanbul's art circles and to set a model for future similar ventures.

The foundation had, from its inception, anticipated a planned growth, both structurally and financially, to achieve its objectives. A step by step process is being followed.

#### IV. Description

##### a. *Project data*

The work consisted of the restoration of the old house and the design of an annex behind it. In the final project, the old and the new buildings correspond to the main components of the architectural program: the restored house contains the exhibition space for the permanent collection, the paintings of Ercüment Kalmık; the new building offers a space for temporary exhibitions and other activities. The two exhibition areas are situated on the upper level and are connected by a bridge.

Schedule of Areas (in m<sup>2</sup>)

	Ground Floor	First Floor	Total Covered Area	Total Footprint Area
The Old House	103	103	206	103
Courtyard	----	----	----	36
Bridge	----	5	5	----
Annex: gallery	59	59	118	59
Services	61	----	61	----
Rear garden	----	----	----	131
Total	223	167	390	329

##### b. *Evolution of design concepts*

Over the years the two- or three-storey houses and gardens that once surrounded the old house had disappeared, and the building's relation with its surrounding urban space had drastically changed. In the rear of the building were additions of little architectural significance and an open area left over from the garden of the Villa Skarlato, but too high in relation to the old house.

It was decided to remove the additions that blocked the rear façade, and reorganise the open area behind the house into a garden. A two-level annex has been placed behind the house, leaving a small courtyard at the lower level. The upper levels of the two structures are connected by an almost transparent bridge that embodies the link between past and present.

The visitor, entering from the main door of the old house, proceeds up a marble staircase to visit the museum then passes across the bridge through the gallery, finally reaching the garden. On the ground floor, the original entrance hall of the old house also provides access to the office rooms on the left and to an additional exhibition hall on the right. This hall, the old coach entrance, leads to a paved courtyard over which the bridge can be seen. Across this courtyard, the ground floor of the new building contains a multi-functional room that can serve as an extension of the gallery space above, as an atelier, or as a conference room. Behind this room, the various service spaces are located.

The garden rises in stepped terraces at four distinct levels up to the rear end of the lot and also connects to the service entrance to the West. Although part of the garden had to be excavated, the architect carefully preserved some of the existing trees, the largest of which determined the extent of the annex to the rear.

The walls along the two sides of the lot, made of ashlar and brick-coloured mortar, contrast with the modern character of the annex building but are subdivided into sections by a concrete frame of the same finish as that of the new gallery, giving a tectonic unity to the entire design. They also help isolate the successive spaces – the courtyard, gallery, and rear garden – from the neighbouring structures.

The annex was conceived as a low building, not only to harmonise its mass with that of the old building, but also to achieve a contrast with the overpowering presence of the surrounding structures. It is aligned with the geometry of the old house and detached from the side walls.

The roof structure of the upper level gallery is made up of two concrete barrel vaults inscribed onto a square plan, emphasising its independence from the constraints of the old building and the irregular site, while at the same time effectively terminating the possibility of another floor. The curved shapes of the two barrel vaults are placed parallel to the rear façade of the old house high enough not to block the sight of the roof of the old house from the gallery. The inner surface of these vaults is lit by the daylight that enters from their tympana.

The new building is conceived as a visual expansion of the old house toward the garden, its frame structure filled only by large glass panes. This not only enables a strong spatial continuity between the garden and the house, it also offers the possibility of displaying the art works in an exhibition space that is totally integrated with the exterior. The transparency of the new gallery structure is in sharp contrast to the old house.

Since both old and new buildings are for the display of artwork, the interior spaces and details have been kept simple and unimposing, yet ensure quality and durability.

Restoration of the old house has retained most of its original structure and spatial order. The only transformations on the upper floor are the repositioning of the windows on the back façade and the creation of a wide arched opening between the two main rooms facing the courtyard. Gypsum plaster boards have been used on walls in place of the original plaster on wood lattice.

At the ground floor, the two openings onto the street on either side of the main entrance have been redesigned without imitating earlier details. The interior layout to the left of the grand stairs has been modified to accommodate offices, while the rear (courtyard) façade has been completely restructured. Missing or destroyed wooden elements such as window frames, shutters, or ornamental pieces of the ceiling and façades have been replaced, preserving the original details. Finally in both buildings, new light fixtures specifically designed for the exhibition spaces have been installed.



### *The Old House*

In the process of undergoing restoration, the foundations too have been preserved. The stone walls on both sides have been restored and reinforced against neighbouring structures. Brick pieces recovered from the rear additions have been reused. The existing wooden skeleton has been treated and deteriorated wood members have been replaced with new ones. The air space within the wooden walls has been filled with expanded polystyrene panels to improve insulation. Plaster on inside walls was scraped off, a thin fresh layer was applied to the battens, and gypsum board panels were fixed to minimise surface cracks.

Existing timber on the street façade was treated and coated with a traditional oil-based, rust-coloured coating which, when absorbed by the wood, continues to express its grains and texture while protecting it against humidity.

White marble from Marmara has been retained for flooring at the street entrance and also in the exhibition space on the right side, while the timber floor at the upper level has been restored and polished. The wood ceiling at both levels has been restored and painted white. The roof has also been traditionally restored with its original tiles preserved.

### *The New Works*

The new building rests on reinforced concrete foundations. The gallery has a reinforced concrete frame structure. The upper floor is a reinforced concrete slab whereas the roof consists of two parallel semi-circular concrete barrel vaults. The walls are framed in reinforced concrete with brick or rag stone infill. The connecting bridge over the courtyard has a light steel structure. Glazing on the bridge and in the gallery is set in galvanised iron framing.

The structure of the gallery has been left exposed. Steel has been painted a beige colour. Most interior wall faces are painted white except for the two side (rag stone) walls. The ceiling at the lower level as well as the inner surface of the vaults are painted white. The vaults are externally covered with lead sheeting, while the roof of the bridge is made of galvanised iron sheets. Flooring inside the annex is white Marmara marble.

The courtyard floor is done in rag stone while the rear garden is paved with small pebbles set in concrete. Steps in this garden are formed by precast concrete elements.

### *Building Services and Utilities*

#### *Lighting*

Special care was given to ensure that internal illumination in the exhibition areas was akin to daylight, yielded true colours for all displayed art work, and minimised ultraviolet radiation. Luminaires for the exhibition areas were designed for an indirect but uniform level of internal illumination, and fabricated locally, using special 1'200 mm fluorescent tubes. Halogen lamps have not been used. Standard light fixtures were installed in other areas. No external illumination of the building has been provided. The courtyard is lit simply through the transparent glazing on either side, while low-level lamps have been placed among the plants in the rear garden.

#### *Alarm System and Generator*

The entire complex has been protected by a burglary and a fire-alarm system. A stand-by generator

has also been installed to ensure continuous lighting and working of alarm systems in case of power failure.

#### *Water Supply/Drainage*

An old well in the rear garden has been retained and is in use. Its circular-shaped wall is noticeable at the lower level of the annex. Additional water is available from the city.

Drainage from toilets and kitchenettes as well as rain-water is connected into the city network.

#### *Heating and Cooling*

A plant room is tucked away at the rear end of the lower level, now under the rear garden. A tall brick chimney rises prominently upwards. Fan-coil units have been provided at discreet locations. Piping, ductwork, and electrical conduits are concealed in the ceiling void at both levels.

#### *Construction Technology*

The entire work on site, including restoration and new construction was done by directly engaging a team of master craftsmen and workmen on a daily-wage basis, without a contractor. Ayse Orbay, the architect, provided the design input and also ensured co-ordination and quality through daily visits to the site, discussing problems and resolving matters of procedure and details as they arose. She was assisted in construction and financial management by Hasan Cansever.

A team of specialist consultants selected by Ayse provided relevant input during the three years it took to complete the project. The time period seems rather long for such a small project, but is normal for restoration works involving intricate structural components and woodwork. The period was further elongated due to difficult access for construction materials, equipment, and other site constraints. Concrete had to be shovel-mixed, as it was not possible to get a cement mixer into the site.

The quality of workmanship available today for decorative woodwork is inferior to that available 100 years ago. Some techniques in restoration, both for woodwork and masonry, were discovered by trial and error, even though the craftsmen on the site were perhaps the best trained men available in Turkey today.

It is worth noting that Ayse Kalmik personally oversaw the project, and handed it over to the foundation only upon its completion. She respected and allowed the guidelines set by Ayse Orbay to be strictly followed both in concept and detail. Besides being extremely supportive of her design and construction team throughout, Ayse Kalmik did not set any financial ceiling on the work, and bore all expenses as advised and as they became necessary.

#### *d. Origin of technology, materials, labour force, professionals*

All construction material, equipment, labour, craftsmen, and professionals, including the architect and all specialist consultants were from Istanbul. Only some electronic equipment such as the burglary and fire-alarm systems, the stand-by generator and the heating/cooling system were entirely or partially imported.

## V. Construction Schedule and Costs

### a. History of project

Commission	May 1991
Design	June 1991 – June 1992
Construction	March 1993 – May 1996
Occupancy	May 1996
Public Opening	February 1997

### b. Total costs and main sources of financing

	Amount (in million TLR)	Exchange Rate	Amount (in USD)	Date
Cost of Land	778	3'890	200'000	12.4.91
<i>Analysis of Actual Costs</i>		<i>Average 76'700</i>		<i>01.3.93 to 12.6.97</i>
Infrastructure	5'369		70'000	
Labour	8'053		105'000	
Materials	11'888		155'000	
Landscaping	2'684		35'000	
Professional Fees	767		10'000	
Other	9'587		125'000	
Total Cost (without land)	38'350	144'000	500'000	12.6.97

#### Actual Cost per square metre

Restoration of Old House	USD	248'640
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#### Cost of new construction

Annex building	USD	108'360
Furnishing	USD	108'000
Landscaping	USD	35'000
Total cost	USD	251'360
Total Project Cost	USD	500'000
Area of Old House		206 m <sup>2</sup>
Cost of restoration	USD	1'207 per m <sup>2</sup>
Area of Annex		184 m <sup>2</sup>
Net Cost	USD	589 per m <sup>2</sup>

Financing was entirely through Mrs. Ayse Kalmik's personal resources. Upon completion, however, the complex was handed over to the Ayse and Ercumend Kalmik Foundation, which is responsible for its operation and upkeep.

It is difficult to comment upon the cost of construction work, particularly the restoration of the house. However, the net cost per square metre for construction of the annex building falls within the range for construction work in Turkey today (i.e. USD 400–800 per m<sup>2</sup>).



e. *Maintenance costs*

	Million TLR	USD
Income		
Bank interest	20'000	80'000
Rests	1'800	7'200
Donations	4'800	19'200
Museum Income	1	4
Total Income	26'601	106'404
Expenses (in accordance with the foundation's mission)		
Scholarship	500	2'000
Awards	500	2'000
General Expenses	13'800	55'200
Other Expenses		
Salaries etc.	6'800	27'200
Utilities and Services	1'535	6'140
Taxes and Fees	1	4
Total Expenses	23'136	92'544
Net Income	3'465	13'860

## VI. Technical Assessment

a. *Functional assessment*

The architect's respect for the old building is clearly revealed in the new doors on both sides of the main entrance: without reverting to an imitation of historical details, these new doors blend elegantly with other openings, recalling the main entrance as well as the shutters of the upper windows.

The annex can be seen as a geometrical expansion of the old house, translating its wooden frame into a concrete structure filled by large glass panes that are divided by simple mullions, in the best modernist tradition. The transparency of the new building and the connecting bridge allows the visitor to feel the strong geometrical relation established with the old building in the plan. This geometry is an important choice made by the architect because the irregular shape of the site could have suggested a completely different organisation. But, taking her cue from the plan of the old house, Ayse Orbay has expanded its internal geometry to create a new building that is not a ghost of the old one but rather a respectful descendant.

The new building – a perfect square – is slightly narrower than the site itself, but since it is open all around, the enclosure walls of the garden become the end walls of the exhibition space. On one side, the space created between the plan of the gallery and the garden wall is used to situate the stairs that lead to a multiple-use room and service areas below. On the other side, the conflict between the two geometries is left undisguised but, in the central courtyard, the orthogonal lines are re-established by a flower bed elevated on four slender concrete columns.

The constraints imposed by the high masses of the neighbouring buildings are considerable. Ayse Orbay has chosen to ignore the architectural order set by these questionable structures and block their negative influence as much as possible at the periphery of the site.

From the outset she considered it essential to rehabilitate the immediate environment of the old house, that is, to provide the house with an open space that would not only let it breathe, but also enrich it architecturally. Thus the reorganisation of the open space behind it has emerged as a major component of the architectural design. The new building is seen as an opportunity to define that space and its relation with the old house.

*b. Climatic performance*

The old house has a tiled roof and a wooden ceiling under its gable, whereas the annex has barrel vaults covered by a layer of insulation material protected by lead sheeting. The wooden walls of the house have been filled with polystyrene panels. Both buildings are thus effectively insulated from external weather conditions.

The courtyard between the old and the new buildings as well as the elongated rear garden permit air to move easily through, across, and out of these two buildings when the windows are open. During the winter and summer, however, the windows are kept shut to facilitate central air-conditioning.

*Lighting*

The rather large glass panels of the annex facing the courtyard as well as the rear garden, the semi-circular glass panels at the vaults, and the virtually transparent glazed connecting bridge all play an important role in allowing daylight to penetrate into this building.

Although windows are kept shut in the front rooms of the old house to protect the artwork from the southeastern (morning) sun, the repositioned windows facing the courtyard at the upper level, the doorway leading onto the bridge, and the full glazing on this side at the lower level allow daylight penetration at both levels. This transparency has a cheerful impact on the character of the exhibit areas in both buildings.

*Acoustics*

The floor area in both buildings is quite limited. The number of visitors to the museum at any one time on an average day does not create a noise problem, in spite of the wooden floor in the old house. The gallery in the annex, and the studios at its lower level, are used for small chamber music concerts. In such an informal manner, the building acoustics serve well for small gatherings.

*c. Choice of materials, level of technology*

The architecture of the interior spaces, and the details have been kept very simple. In the old wooden building, the original spatial order and architectural details have been largely preserved. Neutral and well-lit exhibition surfaces have been achieved with the help of the white colour and diffused, indirect but uniform lighting. In the annex the artworks are displayed in exhibition spaces that are visually integrated with the exterior (the courtyard and the garden), and hence are perceived within that spatial realm. Composed of a simple roof, supporting elements, and glass surfaces devoid of ornamentation, the new building acquires a visually permeable character in a delicate, architecturally unimposing manner. The few components of this annex such as reinforced concrete columns, beams and vaults, stone and mortar masonry walls, white marble flooring, steel frames for glazing are all designed to be plain, while keeping quality and durability in mind.

*d. Ageing and maintenance*

Today's urban environment, with its myriad problems, pollution, acid rain, leakages from recent-day

plumbing and drainage pipes, and rising watertable in the ground are but a few of the contemporary causes of rapid deterioration in old buildings.

The old house, now about 100 years old, having been professionally restored, renovated, and given a new life and use, should, easily survive another 100 years. This is the beauty of the Turkish wooden house, a complex, sophisticated structural system developed over centuries, having perfect, waste-free and trouble-free details using simple but potentially lasting materials.

Two apparent problems were noted in the old house, and deserve attention: the paint work as well as the timber boards of the wooden ceiling in the old house have cracked and fine cracks were also noted at several joints in the gypsum board wall panels.

It is possible that the main cause behind both is the same. Presumably this building has never been centrally heated in the past. The timber was a bit damp. Moreover, during construction, the walls and ceilings were opened up to treat the timber, to lay electrical conduits, heating/cooling pipes, and ducts. This led to further moisture absorption. At the end of the first winter, the timber has dried, shrunk, and at places also moved slightly, thus causing cracks in the boards, gaps between boards and between gypsum panels, and peeling of the white paint on the ceiling.

It may be advisable to reconsider the use of white paint on the ceiling boards. Although the use of a light-coloured surface is understandable as a neutral and reflective backdrop for artwork, a light stain or other coating on the wood may be a longer-term solution. After filling the cracks, a fresh coat of paint on the gypsum boards should cover the cracks for some years.

The new building is basic, purely functional, lacking any applied decoration, and therefore also largely maintenance-free. Ironically the only things that may need replacement are likely to be the high-tech systems such as fire-alarms, burglar alarms, and the closed-circuit television monitoring system. These too will be victims of obsolescence rather than ageing in the true sense.

## **VII. Users**

### *a. Beneficiaries of the programme*

This is the only art museum in Istanbul which has an art gallery attached to it. In fact the museum has an outreach programme as part of its mission statement. Besides the permanent exhibition of Ercüment Kalmık's works, there is a steadily growing educational programme that strives to interact with the art community at junior and senior levels, with art students and those interested in related reading and research, and to promote artistic awareness in its broadest sense.

### *b. Response to project*

The foundation, which owns, operates, and maintains this museum is completely satisfied, both with the restoration and conversion of the old house into a museum and with the new construction which enables the foundation to pursue effectively various activities listed in its mission statement. Although the space available here is insufficient to accommodate all planned activities, the foundation appreciates the scale and ambience of the whole complex as envisioned by Ayşe Kalmık, and achieved by architect Ayşe Orbay. Present income from interest on endowments and gallery proceeds does not fully meet all programme objectives, but it is expected that the complex will become financially self-sustaining in another one to two years.

Although not in the heart of Istanbul's tourist district, the Museum does have a wide appeal to the local art community and has been successful in attracting a steady stream of daily visitors as well as a

healthy response at exhibition openings, art classes, lectures, and recitals. A measure of the interest generated at the time of its official opening in February 1997 can be made from the amount of news coverage it received in the press at the time, as well as the number of times it has been in the news over the past year.

#### **VIII. Persons involved**

Ayşe Kalmık  
Client and Original Sponsor  
Ayşe Orbay  
Architect and Restorer  
Hasan Cansever  
Construction Manager  
Niyazi Parlar  
Civil Engineer  
Hulki Aksoy  
Mechanical Engineer  
Bilgin Toku  
Electrical Engineer  
Sazi and Osman Sirel  
Illumination design  
Deniz Aslan  
Selection of Plants  
Mehmet Mete  
Master Craftsman (mason)  
Ali Mete  
Master Craftsman  
Mehmet Dincer  
Carpenter  
İbrahim Uzunoğlu  
Metal-work  
Ali Osman Kayıcı  
Lead roofing  
Aydin Kasap and Sami Marhan  
Plumbers  
Saban Karakoyun  
Marble-mason  
Mehmet M. Adakan  
President of the Foundation  
Zeynep Rona  
Director of the Foundation and of the Museum

**Mukhtar Husain**

**May 1998**