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The Aga Khan Award for Architecture

## ARCHITECT'S RECORD

**CONFIDENTIAL**

### I. IDENTIFICATION

Project Title: DEMİR HOUSES-BODRUM

Street Address: Demir, Bodrum

City: Muğla | Postal Code: | Country: Turkey

Telephone: 6147 1463 | Facsimile: | Telex:

### II. PERSONS RESPONSIBLE

**A. Architect/Planner**

Name: Turgut Cansever LTD./ Architects: Emine Öğün, Mehmet Öğün, Feyza Cansever
Consultant: Turgut Cansever

Mailing Address: ~~Rumeli Han No:88/5 D:9 Beyoğlu~~

City: İstanbul | Postal Code: 80080 | Country: Turkey

Telephone: 144 43 11 | Facsimile: 145 35 39 | Telex: -

**B. Client**

Name: TUYAKO-Turistik Yatırımlar Adi Komandit Şti.

Mailing Address: Rumeli Han No:88/5 D:9 Beyoğlu

City: İstanbul | Postal Code: 80080 | Country: Turkey

Telephone: 144 43 11 | Facsimile: 145 35 39 | Telex: -

**C. Consultants** (e.g. Engineers, Economists, Sociologists, Historians, etc.)

Name: Pertev Erdi (Electrical Engineer) * Müjdat Sayın (Mechanical Engineer)

Mailing Address: Söğütlüçeşme Cad. No:118/2 * Altıyol, Karadut Sok. No:35/8 ,Kadıköy

City: İstanbul | Postal Code: | Country: Turkey

Telephone: 3389634-3383756 | Facsimile: - | Telex: -

**D. Master Craftsman/Contractor**

Name: Necati Çelik

Mailing Address: Çarşı Mah. Çukurbahçe Sok. No:7

City: Bodrum, Muğla | Postal Code: | Country: Turkey

Telephone: 6141-2366 | Facsimile: | Telex:

Please cite other project affiliates overleaf



*Demir Holiday Village, Bodrum, Turkey*

## III. USE

A. Specify type(s) of use: RESORT RESİDENCES

B. User(s) or Occupant(s)

1. Occupation/Profession: Lawyers, engineers, architects, physicians

2. Income Level (check one): ____ High ____ Medium ____ Low X Mixed

C. Specify any change(s) between planned and actual use:

-None-

## IV. PROJECT TIMETABLE

(Please specify year and month)

A. Design: Commencement Feb.1984 Completion 1986

B. Construction: Commencement Nov.1984 Completion 1987

C. Date of Project Occupancy June 1987

## V. PROJECT ECONOMICS

(Please specify amount, currency and date of transaction)

| | Amount | Currency | Date |
|---|---|---|---|
| A. Total Initial Budget | The project finance is developed from the marketing incomes of houses, managed by TUYAKO , land and houseowner | | |
| B. Cost of Land | 106,543,000,- | TL | 1986/1987 |
| C. Analysis of Actual Costs | | | |
| 1. Infrastructure | 55,000,000 | | |
| 2. Labour | 123,000,000 | | |
| 3. Materials | 200,000,000 | | |
| 4. Landscaping | 30,000,000 | | |
| 5. Professional Fees | 18,000,000 | | |
| 6. Other ..... | -None- | | |
| D. Total Actual Costs (without land) | 426,000,000 | | |
| E. Actual Cost per sq.m. | 169,000 | | |

F. Cost Comparison

Please indicate how the costs of this project relate to typical building costs in the country (check one):

____ Average ____ Above Average X Below Average

G. Sources of Funds

1. Please indicate the percentage of funds that came from:

%100 Private Sources None Public Sources

2. If funding was public, what percentage was from:

None Local Sources None National Sources None International Sources

Please continue overleaf

## VI. CONSTRUCTION DETAILS

A. Site and Building Area (please indicate in square metres)

1. Total Site Area 27.000 m² (for which we prepared the situation plans of scale 1:500)

2. Total Ground Floor Area 1507 m²

3. Total Combined Floor Area 2510 m² (built until 1987, after which we completed the construction of 1062 m² until 1991)
(including basement(s), ground floor(s) and all upper floors)

B. Construction and Technology

Describe the structural system and the basic method of construction. For restoration projects, please describe the techniques used in the conservation of the original structure.

We used 50 cm thick stone masonry walls, combined horizontally with reinforced concrete elements, "hatıl" and the openings were crossed with light wooden beams with dimensions as 5,5x16x420 cm. All buildings are binded once again on terrace level with a horizontal reinforced concrete element again, named "Kumbila".

C. Description of Materials
(please also indicate if locally produced or imported and whether fabricated on-site or elsewhere)

1. Foundations 25 cm high continous reinforced concrete foundations were produced on which 50 cm stone walls were built underground approximately 50-100 cm high.

2. Principal Structural Members Stone walls (50 cm), reinforced concrete binding elements, wooden beams.

3. Infill Particians inside brick walls.

4. Rendering of Facades or Exterior Finishes Exterior facades were mostly left as they are showing the crude wall texture. A few houses had an exterior wall of brick., which was plastered and painted by pinkish yellowish pastel colors.

5. Floors Ground floor-unglazed tiles, local white-grey Mylassa Marble;upper floor bedrooms-wooden coverings.

6. Ceilings Wooden beams are left open but painted with a dark brown paint showing the texture, in two houses they have been painted white and various colors.

7. Roofing On the wooden beams crossing the openings upon which wooden covering, water insulation a thick layer (8 cm) of light cement for heat insulation and the main water insulation were placed.

8. Other elements (please specify) Precast opening frames, rain water drainage elements, fireplace elements.

D. Type of Labour Force (please indicate percentage)

Few Skilled Workers Mostly Unskilled Workers

E. Origin of Labour Force

Mostly Domestic - Foreign

Please continue overleaf

## VII. GENERAL GEOGRAPHY AND CLIMATE

Please describe the local climatic and geographic characteristics and the extent to which these have been taken into consideration in the design process.

Demir is situated in the south west Anatolian region of Turkey where the Aegean Sea meets the Mediterranean.

The mountains, covered with rich pine forests, run to the sea in slopes and valleys of citrus and olive groves.

The broken coastline is made of peninsulas, gulfs, bays and islands.

The sunny days span a nine month period and april to december, eight months of the year are suitable for outdoor living. Rainy season lasts four months and there are 240 sunny days.

## VIII. EVOLUTION OF DESIGN CONCEPTS

Please describe the history of the project, from its conception to its final construction and actual use.

Demir Houses were realised in a small valley surrounded by national pine forests. The valley is on the north of Bodrum peninsula and can be seen on the map of Piri Reis, of 16th century, named as 'Temur Beg Farm'. It is told that Temurlenque's soldiers were in the area.

At the beginning of 1970's, we had started the project with Prof. Tuğrul Akçura with the aim to realise an example for new settlements in Turkey.

After solving various problems and after the sad death of Prof. Akçura, we prepared the new master plan in 1984, trying to change the limitations of regulations to realise our aims.

Pysical planning approaches developed in the West, badly transposed to muslim countries as reflections of technocratic dominations, of primitive and lifeless equilateralism had made urban design contributions impossible in Turkey. The sterile and polluted regulations were to be followed descarding any reality of the design process. Main problems as such were the regulations for road standards which dictate pedestrian ways 6 meters in width, vehicle roads 12 meters, the rule to place each unit with the same distance in between, to build only one unit in each garden and the conservation measure specially enforced in Bodrum for building only two storey houses.

To overcome these limitations, using a legal possibility of shared ownership, we designed plots with dimensions ranging from approximately 5.000 to 20.000 sqm. where each plot was accepted as an architectural entity, as if it is a horizontal apartment block and each garden and house had a share as a ratio of areas. This option provided us with the flexibility to place houses according to local realities and kept vehicle traffic on a main artery, while limiting the so called pedestrian ways of 6 m. to service roads passing by each plot, within which we designed walkways to reach each garden. Thus, it was possible to plan the plots with the traditional urban planning standards. Moreover, planing the plot as an architectural entity made it possible to place more than one unit in each garden to be used as an extra room or for visitors. Last of all, the planners in the ministry accepted a special rule for our master plan, which was to build five percent of the total construction area in three storeys and to build another five percent as one storey, which enabled us to design the silouhette.

Following the design and approval of the master plan, we designed different types of houses of which those implemented are ranging from 62 to 158 sqm. and 20 sqm. bungalows, choose materials to constitute architectural unity, developed technical and artisanal standards, established principles of neigbour relations, use of sun, shade, intimacy, scenery and prepared the regulation to organise the future relation between users.

The construction works started in late Autumn in 1984 with five houses which were followed by thirteen houses started in summer 1985. The construction of the other houses started in coming years in small groups and most are mainly used in summer as resort houses.

To realise our aim to implement the cultural stylistic example of local architecture of thick stone walls, we started the construction with local peasants who knew stone masonry techniques. We established a carpentry workshop to produce wooden beams, floor, ceiling coverings, the windows and doors, shutters, wardrobes. The electrical, sanitary installations, tile and marble pavements, terrace insulations, painting works were done either by local contractors or by those we knew from İstanbul. The pavements outside were done by both skilled and unskilled peasants. The precast elements and the reinforced concrete parts were produced by the peasants after we taught them how to do so.

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## IX. PROJECT SIGNIFICANCE AND IMPACT

In what way is this project important ? Please describe the aspects of the project which represent a particular achievement (for example the technical, economic, or social achievement, or its response to culture, climate, etc.).

While preparing the master plan for 50 hectars, approximately 22 hectars on the central axe and the coastline where the slope is very moderate, were allocated to resort hotels, social, sportive facilities. The slopes on both sides of the valley were envisaged for residential units, occupying 28 hectars and providing 80.000 sqm. floor area, among which two plots were selected to be realised as a pilot project for developments in Demir and for residential developments in Turkey.

The aim was to implement and evaluate a series of architectural, technical, social, legal and administrative problems related to a settlement as architectural stylistic characteristics, form expressions, effects of climate on architecture, urban design, material and technology selection, urban design considerations as distances, relationships of houses, the relation of individual and group of buildings with nature, landscape, the participation of users plot and type choices on the development of the environment and finally the management problems of the settlement.

At the south Aegean coast, in a region where the antique Carian culture flourished, the regional architecture of Bodrum developed as a synthesis of Islamic North African and Ottoman cultures, using elements of ottoman residential architecture, while adapting them climate. The solutions thus developed have been adopted as the cultural stylistic technical example for our design approach in Demir.

For the first time following a period of refusing tradition, besides a few individual attempts, 50cm. thick, traditional, stylistically local stone walls were introduced once again as construction technology, solving the problem of summer heat. Light wooden beams were used crossing openings to constitute first and second floors and ceilings. This choice, exactly like the traditional solution, brought about resistance to earthquake vibrations which are strong in the region.

Designing windows, doors and wooden shutters, it was decided that they should be of two wings which should fit into the space within the stone wall in order to protect them from the effect of wind, as a result of which they were standardised to be elements in a system of standards.

While building standard type houses with standard elements, the flexibilities of the master plan enabled us to plan the plots with traditional urban planing methods. Thus we designed each plot as an entity, situating each house individually, one after the other, considering the type of house choosen by the customer, considering topography, the trees, rocks, bushes in the garden, the sun, shade, the relationships with neighbours, scenery, all in the context of future developments.

Consequently, we were able to change the positioning of type houses, we were able to rearrange facade openings, we designed each garden individually and we asked the workers to make changes in wall and pavement textures while being loyal to stylistic aims which included them in the creative activity resulting with the richness of individual contribution providing us to overcome the uniformity of modern western standardisation.

While designing the silouhette, we used the new possibility of building three storey towers, which were traditional elements in local urban texture, on points were topography changes and by situating one storey houses at points where scenery was necessary for neigbours and to obtain cavities of greenery with in the urban texture.

During the design of the settlement, local, climatic and topographic conditions were considered as important determinants providing basic principles of urban planning. Trees were protected, used with care as architectonic elements of landscape besides providing shade. To situate houses on the slopes of valley, provided them with a view towards the mountains and the sea. All houses were open to sea breeze coming from the north in hot summer days and the arrangement of openings were organised so that cross ventilation of indoors was also possible.

All of these technical, climatic, geographic determinants of design were not accepted and used as independent or seperate factors, but as a part of the 'whole' which is the unity of cultural, psychic, bio-social, material strada of existance and all were implemented not as only local and actual but also as elements of today and future.

The houses, scattered in infinite space as if randomly but with the explained considerations, standart elements as precast window frames, standardised openings, rows of main and infill stones, pavements established the ornamentalistic unity of the settlement. Thus, nature and built environment became two complementry elements of our world. The settlement with its ornamentalistic order became civilised and so the buildings obtained the right to existance.

Please continue overleaf

## X. PRESENTATION REQUIREMENTS

A. The materials described below are the minimum requirements for project presentation. These materials will be used in the preparation of standardised presentations to be constituted by the Award office and reviewed by the Master Jury. Subsequently, they will form part of the permanent Award archives and may be made available for public consultation.

The submission materials should be clearly identified and should not be bound or mounted. For slides and photographs, a list of captions should be provided for each image; the name(s) of photographer(s) and date(s) of photography should also be specified.

1. Map indicating location of project in city, community, neighbourhood, or landscape.
2. Ten (10) photographs; preferred and maximum size for A4 presentation (18 x 24 centimetres).
3. Twenty (20) slides; 24 x 36 millimetres.
4. Drawings; preferred and maximum size for A3 format presentation (29,7 x 42 centimetres).
   Site, Roof, and Massing Plans;
   Floor Plan(s);
   Elevations;
   Sections.
5. Curriculum Vitae, or Firm's Prospectus.

B. The submission of additional materials is encouraged. Please specify any appended materials not listed above.

C. Please indicate other sources of information on the project(s), e.g. publications, personal contacts, etc.

Please note: The submission of this Record is a prerequisite to candidacy for the Award. All information contained in and submitted with the Record will be kept strictly confidential until announcement of the Award is made. Subsequently, such material may be made available by the Aga Khan Award for Architecture and you hereby grant the Aga Khan Award for Architecture a non-exclusive licence for the duration of the legal term of copyright (and all rights in the nature of copyright) in the Material submitted to reproduce the Material or licence the reproduction of the same throughout the world.

Signature _____

Name (please print) Emine Öğün–Mehmet Öğün–Feyza Cansever/ Turgut Cansever Date 1 July 1991

All materials should be forwarded to:

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*Demir Holiday Village, Bodrum, Turkey*