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### Bosnian Chardaklia House: The Colic Family's House in Vares

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#### Abstract

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The Colic family's house is located at Nikovac Street no. 8 in Vares. Together with several houses on this street and houses in Matijevici and Benici streets, this house contributes to the ambience of this part of Vares where the values of the construction of the indigenous bosnian chardaklia house are still preserved.

The house was built in the mid-19th century, within the well-known Vares Colic family, which had its own sawmill for cutting and processing wood. The house belongs to the type of three-tracks bosnian house with one divanhan. From the time of its construction to the present day, several renovations have been made on the house, both in the layout and materialization and in the furnishing of its interior. The house is still in use today, but occasionally.

#### Introduction

The Colic family's house is located at Nikovac Street no. 8 in Vares (Figure 1). Together with several houses on this street and houses in Matijevici and Benici streets, this house contributes to the ambience of this part of Vares where the values of the construction of the indigenous bosnian chardaklia house are still preserved (The Author has visited the property on several occasions. He was interviewed (09/03/2016) by one of the heirs to the property of this facility, Mrs. Smiljka (born Colic) Brdjanovic, a professor of mathematics in pensions, residing on Benici Street in Vares.) (Figure 2.).



Figure 1: The Colic family house in Vares; Location (Geographical coordinates: 44°09'55.53"N; 18°19'43.80" E; Elevation: 861 m; Source: Google Earth. Accessed: 03/01/2020.)



Figure 2: Examples of a bosnian chardaklia house in Vares; Source: Author (04/16/2016)

The bosnian chardaklia house is one of the most authentic and representative examples of traditional architecture of Bosnia and Herzegovina, reflecting the complex natural and social environment of that person with its architectural and spatial solutions, construction and materialization, flexibility and openness for long-term use (once and through four generations), both by the client and its immediate creator [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]. It is the home of wealthy people who live in the countryside but are firmly attached to the city with their jobs and overall lifestyles. Unlike the oriental-type city house in Bosnia and Herzegovina [10], which, due to the fact that the "city", was exposed to socio-cultural influences by other (oriental) civilizations, the bosnian chardaklia house is an expression of an authentic natural and social environment of Bosnia and Herzegovina. As Bosnia and Herzegovina is a complex multireligious, multiethnic and multicultural society, the bosnian chardaklia house emerges as a common denominator for all these differences, often to such an extent that one does not notice from which of these identities the house in question belongs. Valuable examples of this house can be found in the three largest ethnic groups -Muslims (Bosniaks), Catholics (Croats) and Orthodox (Serbs) [2, 3, 4].

The bosnian chardaklia house evolved from the house of cattlemen, that is, from the dwellings of seasonal mountain settlements (katuns) which can more or less (today) be found on the mountains of the Dinaric massif (Bosnia and Herzegovina, Serbia, Montenegro). One of the basic features of the bosnian chardaklia house is its spatial development vertically, in the basement-ground-floor-first floor (chardaks) scheme.

In addition to this fundamental feature, over time, several types of bosnian chardaklia house became known, which can be linked to the specificity of the natural and social environment of Bosnia and Herzegovina [11]:

- a) Two-tracts (2 Tr),
- b) Three-tracts houses (3 Tr),
- c) Central House Solution (CHS).

### **Spatial-Shape Characteristics of A House**

The Colic family's house in Vares, according to the layout of its horizontal plan, is a type of three-tracts bosnian chardaklia house, and vertically it was developed through the basement, ground floor and first floor (Figure 3) [11].



Figure 3: The Colic family house in Vares

The house was initially designed to have two independent living units within a unique physical structure. One residential unit was developed on the ground floor and the other upstairs (Figure 4).

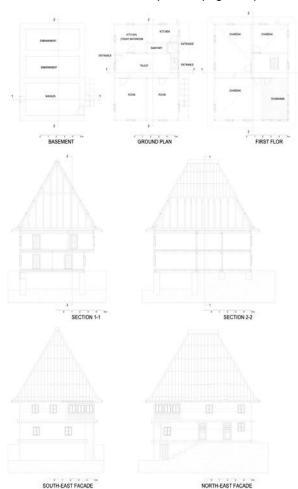


Figure 4: Colic family house in Nikovac street no. 8, Vares; Disposition

The ground floor residential unit has two entrances, one on the southwest and the other on the northeast. The ground floor residential unit consists of four rooms: a living room in the central tract of the horizontal plan of the house, two rooms in the second

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tract of the house and a kitchen and a sanitary block in the third tract of the house.

On the ground floor, in its third tract, is the kitchen of the upstairs apartment unit and the entrance with a staircase leading upstairs (Figure 5).







Figure 5: Colic family's house in Vares. Kitchen of a residential unit developed on the ground floor

The basement is developed just below one tract of the ground floor contour. The basement has only one door and one window, and inside it is separated for the needs of two residential units.

The upstairs housing unit, with the kitchen on the ground floor, has three rooms, a spacious, glazed divanhana and an entrance hall with a staircase (Figure 6).





Figure 6: Left: ground floor kitchen unit; Right: kitchen of a residential unit on the first floor

The rooms offer wide views around, especially from the divanhana and chardak (rooms), which are oriented southeast, towards the slope on the left bank of the Stavnja river, which is covered with coniferous forest (Figure 7).





Figure 7: Left: divanhana (as a living room); Right: a view from the divanhana space of the house surroundings

The entire space of the house, irrespective of its antiquity and use in discontinuity, exudes transparency, perfect order and cleanliness (Figures 8, 9, 10, 11, and 12).

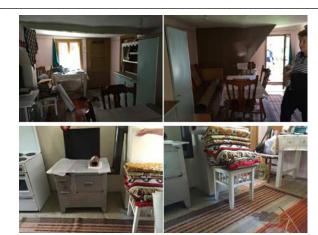


Figure 8: Living room of a ground floor residential unit





Figure 9: Ground floor unit rooms





Figure 10: Ground floor-first floor staircase



Figure 11: Left: divanhana space seen from the upstairs access staircase; Right: divanhana view from the stairs

#### **Construction and Materialization**

The construction and materialization of the Colic family's house in Vares is the language that articulates its overall architectural and spatial concept [12]. All the materials used in the construction and finishing of the final surfaces of the architectural

envelop of the house were taken from the immediate natural environment, and with the overall design of the house, this house is an example of traditional bioclimatic architecture. The basement walls are made of roughly worked stone (70-80 cm thick) and plastered with coarse mortar and lime milk painted white (Figure 3). The walls of the floors are made of wooden skeleton (bondruk) with a fill of adobe-blocs (ćerpič). The interior and exterior wall surfaces are plastered and stained with white lime milk (Figure 3). The roof is voluminous, high and (originally) covered with shingles. Later (in the 1970s), the wooden cover was replaced by corrugated salonite panels (Figure 3), after the use of an open hearth in the central tract of the house from where smoke protected all the wooden elements of the roof structure and cover [13, 14].

The basement-ground floor and ground floor-first floor construction (Figure 12, left) is made of wooden beams at a distance of 90 cm, with thick wooden planks (about 7 cm thick) at the same time as the floor covering above and the ceiling. After the use of the central tract with open hearth and the closing of the "house" ("kuća") space on the ground floor to the air space (upstairs and roof area), the role of smoke from the open hearth as a protection of the timber of the roof structure and in the envelopment of rooms oriented to the central tract was eliminated.



Figure 12: Left: ground floor-first floor structure (in the kitchen of the ground floor unit); Right: first floor-garret (divanhana ceiling)

To ensure the stability of wood in a ceiling structure, especially in rooms where moisture is generated in large quantities (kitchen), the wooden elements of the structure are painted with greater resistance to the diffusion of water vapor (which functioned as a modern "steam dam"), (Figure 12, left). For a similar reason, doors and windows were painted (Figures 13 and Figure 14).



Figure 13: Doors on the chardak (high craft and artistic value)



Figure 14: Different window design

The ceiling construction of upstairs rooms, according to the garret space, is more complex. There, the wooden beams on their upper side were placed under the ceiling of thick boards, and at a certain height of the beam the ceiling ("šiše") and finely trimmed boards. Between the garret floor and the ceiling of the floor was inserted a stuffed loam with straw and chaff that had the function of thermal insulation (Figure 12, right).

#### **Doors and Windows**

Since the Colic family's house in Vareš has undergone several reconstructions and renovations since its construction (mid 19<sup>th</sup> century), it has also reflected on the design of doors on individual premises. This is most evident in the area of the former "house" ("kuća") with an open hearth, which over time has become the space of the modern living room. There, all doors of traditional design were replaced with doors of newer design (Figure 15).



Figure 15: Newer door design (second half of 20th century)

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The basement and kitchen (ground floor) doors are preserved in their original design, with the wood being protected by color (Figure 16).



Figure 16: Archaic (but very successful) door design

The upstairs doors (chardak spaces) have been preserved in their original design, and because of their great craft and artistic value, the wood has been retained in its natural expression (Figure 13).

All the windows on the house are preserved in their original design, with their wooden elements painted in color, protective and aesthetic treatment (Figure 14).

# Surface Treatment and Equipment of Space

The floors are mostly made of treated solid wooden flooring to which a rug and woven rug ("ponjave") was added, depending on the representativeness of the space (Figures 17, 18, 19, 20, and 21). It does not intentionally cover the entire floor area (leaving wooden flooring visible), which at the same time emphasizes the "cleanliness" of the wooden floor and the artistic value of the floor coverings [13, 14].



Figure 17: Left and center: Wooden flooring and rough carpet in the ground floor part of the living room. Right: bosnian rug in one of the upstairs rooms

All the exterior surfaces of the exterior walls of the house are made of lime mortar and painted with white lime milk (Figure 3). All interior wall surfaces are made of lime plaster and finely painted with stain colors of different shades (Figures 6, 7, 8, and Figures 18, 19, 21, and 22). Painting the wall surfaces of the living room and rooms (that is, giving up white lime milk) was considered "modernism". In some rooms (kitchens on the ground floor and chardakas upstairs) the final

treatment of the wall surfaces with white lime milk was retained (Figure 5, and Figure 10).



Figure 18: Handicrafts as decoration of space equipment; Left: nightstand in the room; Right: the door to one of the ground floor flats

After reconstruction and renovation, the floors in the kitchens were made of ceramic tiles (Figure 5), while the basement floor remained in the ground.

Elements of interior furnishings are, in all, an expression of the Colic family's aspiration to be a "contemporary european family" where some furniture elements directly show this (Figure 19), while others reflect a contemporary attitude towards domestic tradition (Figure 18, right and Figures 20, 21, and 22).



Figure 19: Elements of space equipment; Left: pendulum clock and "Singer" sewing machine; Right: european chair and bosnian rug in one of the rooms on the ground floor



Figure 20: Arrangement of one room upstairs



Figure 21: Old wooden table ("hastal") and chair ("štokrlja") in the living room (ground floor)



Figure 22: Image of Jesus Christ in one of the rooms (ground floor)

## The Present Condition and Purpose of The House. Perspectives

The Colic family's house in Vares, although built more than 150 years ago, still have a preserved physical corpus today and all the essential features of the original solution of the bosnian chardaklia house. Some of the specifics of the house, especially those related to surface treatment and equipment of the space, are related to the catholic faith of its owners, so they are more valuable for insight into the complex mosaic of the bosnian chardaklia house.

The house has immense historical, architectural and ambient values and it would be necessary and extremely important to include it on the list of national monuments of Bosnia and Herzegovina.

#### **Bioclimatic Principles of Building Design**

The Colic family's house in Vares is an example of traditional bioclimatic architecture of Bosnia and Herzegovina. The principles of bioclimatic architecture are reflected in the following [14, 15]:

- 1. The building is located on a hilly terrain with southern exposure,
- 2. The basement is partly buried in the terrain, ensuring its storage function with a constant temperature (during all seasons),
- 3. Natural materials used on site are used in all construction elements, with a location in the facility that corresponds to their best features,

- 4. The spatial concept of the building enables it to be used as a single and two-family house (flexibility of architecture),
- 5. Continuous use of the house from the time of its construction (mid 19th century) to the present, with certain reconstructions and adaptations, is the best way to preserve the cultural and historical heritage in the way of its "active protection".

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