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ARTICLE

Bosnian Chardaklia House: Abazovic Family House in Donja Koprivna Near Cazin

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ABSTRACT

In the wide range of vernacular architecture in Bosnia and Herzegovina, the Bosnian chardaklia house is one of those achievements that with its spatial organization, materialization and external appearance most vividly reflects the nature of Bosnian people, the nature of his family and worldview. This house is an objectified history of man and his family, at the same time as modern a museum whose content testifies to the past and predicts the future. The Bosnian chardaklia house, especially the one realized in the area of Central Bosnia, stands out by the fact that its disposition at the time of the original construction perceives the future, sometimes four generations of the human generation that follows each other. It is a building designed in the way of the functioning of a living organism, so by its nature it is an example of understanding flexibility in architecture and the forerunner of modern understanding of bioclimatic, that is, sustainable architecture. The Abazovic family house is located in the Donja Koprivna village, about 6 km away from the center of Cazin (geographical coordinates: 44°59' 32.13" N, 15°58' 48.15" E, Elevation: 396 m). The house was built (1937) by Bajram Abazovic (1892-?), a native of Buzim, who was appointed local imam in Donja Koprivna. It is interesting that this house was "transferred" from the Hodzici village near Krzalic, where it was built and used for several years.

1. Introduction

The Bosnian chardaklia house is, above all, the house of rich people in the countryside. On the one hand, it is firmly rooted in the tradition of folk architecture, but it also has elements of the city house as a transitional form from purely folk architecture to the solution of the town hall where the influences of other, often geographically

distant cultures and solutions are visible [1-5].

The house he designed and built, in which he lives in the complexity of his overall being, is the most concrete objectified image of a man, his family and the immediate and wider community in which he lives. By getting to know the Bosnian chardaklia house, we will also get to know those dimensions of the being of the Bosnian man that have not been directly written about [6-11].

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The Bosnian chardaklia house in the area of Bosnian Krajina is specific in that it is at the same time a habitat for man and his "treasure" (bosnian: "blago"), i.e. cattle. This fact largely determined its disposition, that is, the manner of its use. One of the consequences of the house designed in this way is the space of the "vodnica" ("water storage") arranged as a storage room for water (upstairs) and toilet, always located above the laystall next to the barn (on the ground floor). The existence of toilets inside the house is a rare occurrence in the disposition of the Bosnian chardaklia house (and even city houses) in other parts of Bosnia and Herzegovina from the time of its original origin [1].

The Abazovic family house is located in the Donja Koprivna village, about 6 km away from the center of Cazin (geographical coordinates: 44°59′ 32.13″ N, 15°58′ 48.15″ E, Elevation: 396 m), (Figure 1). The house was built (1937) by Bajram Abazovic (1892-?), a native of Buzim, who was appointed local imam in Donja Koprivna [®].

It is interesting that this house was "transferred" from the Hodzici village near Krzalic, where it was built and used for several years ^②.





Figure 1. Geographical position of Cazin in Bosnia and Herzegovina (left) and location of the Abazovic family house in Donja Koprivna near Cazin (right)

Source: https://slidetodoc.com/regionalna-podjela-bosne-i-hercegovine-geografske-regije-bosne/ (left)
Google Earth: Accessed 3/10/2022 (right)

2. Spatial and Design Characteristics of the House

According to the horizontal plan of the ground floor, the Abazovic house is two-tract, while on the level of the first floor the house has a plan of a three-tract house [1]. The house is developed vertically through the ground floor and first floor, with the floor along the entire contour of the outer walls of the ground floor cantilevered into

the space (Figure 2). The house has all the characteristics of a chardaklia house in Bosnian Krajina: ground floor arranged as a barn (where the "treasure"/"blago" is kept) ³, floor with several rooms-chardaks, sofa ("divanhana") and space with toilets cantilevered into the space (usually above the manure barn), high voluminous shingled roof (Figures 2, 7-16). On the ground floor of the house is the entrance havat for living space on the first floor and a stable for cattle. To the left of the entrance to the house is (traditionally for the Krajina house) a woodshed area, while in its hinterland is a manure house (Figures 3, 6). The first floor is a living space to which a wooden staircase with a railing gives a particularly festive look (Figures 12-16). In this house, this is especially emphasized by the "divanhana", which (apart from the usual floor overhang) has an accentuated cantilever access to the open space, a polygonal contour of its floor plan and accentuated transparent and light exterior walls (Figures 2-5).

Four spacious rooms in the residential floor with a characteristic solution of the bathroom, give this house a particularly rich look. It reflects the high housing needs and rich housing culture of its owners (Figures 15, 16). Some elements of the construction of the house have the values of some archaic solutions. Thus, the foundation walls were reduced to single stones over which the foundation beams (wedding dresses) of the house go (Figures 2, 6).

This solution has its thoughtful values in the bioclimatic approach to construction. Namely, the space between the ground and the basement floor is closed with dry ferns in winter (and becomes a warm, protected zone of closed air that protects the basement space from low outside temperatures) while in summer this space is open (and thus provides the necessary basement ventilation).

The basement walls are made of massive chestnut logs, while the basement walls are made in the bondruk system of a wooden skeleton with a braided filling filled with earth (Figures 3, 4). The ground plan-floor and floor-attic structure is made of wooden beams (chestnut wood) with a floor of thick, hand-hewn wooden planks (Figures 8, 9).

The roof is relatively high and markedly voluminous in relation to the overall volume of the house. It was constructively solved as "horns with a crucifix" ("rogovi sa raspinjacom"). The cover is made of wooden shingles (Figures 2-5).

① The author visited this house on 7/25/2016.

② The author received this information from Mrs. Esmira Farah Budimlic during her second visit to this house (9/17/2016).

③ The name "treasure" (bosnian: "blago") refers to livestock, which in the conditions of life in the Bosnian Krajina has always been a primordial wealth-treasure (blago).

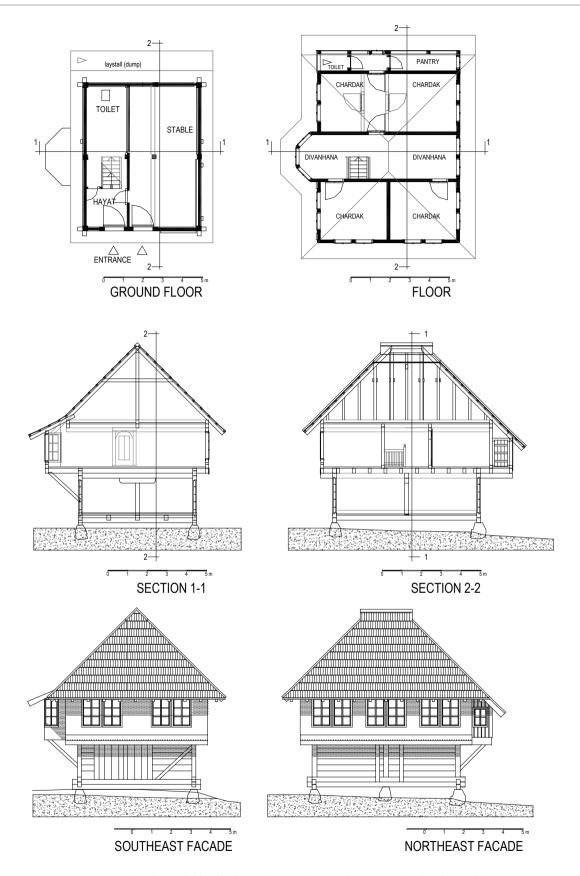


Figure 2. Abazovic family house in Donja Koprivna near Cazin. Disposition

Source: Author (drawing, 2016)



Figure 3. Abazovic family house in Donja Koprivna near Cazin. View of the house from the southeast, entrance facade. The unity of modesty and wealth

Source: Lejla Hadrovic (7/25/2016)



Figure 4. View of the house from the northeast. Spatial-constructive assembly

Source: Author (7/25/2016)



Figure 5. View of the house from the northwest. House in nature and nature in the house

Source: Author (7/25/2016)



Figure 6. Archaic solutions of house elements with universal and timeless values

Source: Author (7/25/2016)



Figure 7. The entrance for people to the apartment and the entrance for cattle in the barn stand next to each other. This is a materialized picture of the life philosophy of man in the Bosnian Krajina

Source: Author (7/25/2016)



Figure 8. The space of the former barn on the ground floor



Figure 9. Toilet in the corner of the ground floor



Figure 10. Hyat on the ground floor with a staircase to the first floor. To the left of the staircase is the passage to the toilet

Source: Author (7/25/2016)



Figure 11. View from the barn towards the hayat with a staircase to the first floor

Source: Author (7/25/2016)

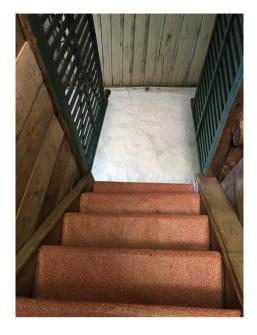


Figure 12. View from the staircase to the sofa (divanhana) area

Source: Author (7/25/2016)



Figure 13. Divanhana space with staircase

Source: Author (7/25/2016)



Figure 14. Doxate protruding part of the divanhana



Figure 15. Arrangement of the chardak (above the hayat) Source: Author (7/25/2016)



Figure 16. Arrangement of the chardak on the southeast corner of the floor

3. Construction and Materialization

The walls of the ground floor of the house are made of hand-hewn chestnut logs, while the walls of the first floor are made of wooden skeleton (bondruk) with wooden wicker filling filled with unbeaten earth with the addition of straw and chaff (Figures 3-10, 17). The ground plan-floor and floor-attic structure is made of chestnut wood beams, with a floor made of massive wooden planks ^[12] (Figures 18-20). The roof is four-pitched, of medium slope (45°), with wooden shingles as a cover (Figure 21).



Figure 17. The Abazovic family house in Donja Koprivna near Cazin. Legibility of all elements of the house (lifestyle, construction, materialization ...)

Source: Author (7/25/2016)





Figure 18. Ground floor (stable) space with structural assembly



Figure 19. Ground-floor structure



Figure 20. Massive columns and beams of the ground-floor structure are made of chestnut wood

Source: Author (7/25/2016)



Figure 21. Roof construction

Source: Author (7/25/2016)

4. Surface Treatment

In the Bosnian chardaklia house, the applied natural materials give each element of construction an honest expression, in accordance with the complex of properties that each material possesses, from physical-mechanical to aesthetic-expressive. Rarely is paint used as a coating in any building element to make a "better impression" than one that leaves the material in its natural expression.

Interior surface treatment. The main building materials used in the Bosnian chardaklia house are: stone, wood and earth (such as adobe, charge in the walls of wooden skeleton and wicker and in mezzanine structures). These are elementary materials that we find in nature, so their application in creating the spatial-constructive structure of the house has an extremely strong aesthetic and psychological effect that establishes a direct and intimate relationship between observers from the side and the house. And the materials that man gets by a certain intervention on natural materials (lime, brick, tile, ceramic "pots" for lining kilns ...) are not much "away" from their natural sources, so they also seem intimate, tailored to man. All interior surfaces of the Bosnian chardaklia house, walls, floors and ceilings can be made of only one of these natural materials, but mostly combinations of materials are used in accordance with their properties and place of application in the spatial structure of construction and their availability in nature.

The use of stone in the construction of the Abazovic family house in Donja Koprivna near Cazin is, at first glance, hardly noticeable, but it is extremely interesting and convincing: large pieces of stone are used as foundation feet on which wooden log walls on the ground floor rely (Figure 2). It could be said that wood is the material that gives the house of the Abazovic family such a recognizable architectural physiognomy. The noble properties of wood are most pronounced in the treatment of ceilings, floors and elements of the opening. In some cases, individual parts of wood surfaces are surface treated with lime milk, as protection against the harmful effects of moisture from condensation (in place of thermal bridges), (Figure 26).

Lime deposits about 1 cm thick are possible on some wall surfaces (Figure 22). Rugs of different levels of cost are added to the primary treatment of floor surfaces: fur of domestic animals, coarse cloth of goat hair, woven strips of wool or cloth ("waist", "rot" – bosnian: "struke", "zātke", "trulje"), more modest carpets made by joining woolen strips), more or less expensive woolen carpets ("Bosnian carpets" – "cilim"), and expensive carpets whose origin is in some of the countries of the East

(Figures 36, 37).

Exterior surface treatment. Similar to the interior, in the exterior we most often encounter materials in their natural expression: stone, wood and earth.

Contrast is one of the most important ways of expressing oneself in composing the architectural physiognomy of the Abazovic family house in Donja Koprivna near Cazin. Stone, as a heavy material that carries pressure and is resistant to the weather, is used to build foundations that carry the complete structure of the house, in contrast to the ground floor walls of wooden logs and floors whose lightness is further underlined by perforations (once numerous) windows. The whitewashed walls of the floor volume contrast with the dark color of the wood from which the divanhana was made. The dark color of the wooden logs contrasts with the white surfaces of the painted walls. The dark volume of the shingled roof is in contrast to the white volume of the main body of the house... (Figures 3-5).



Figure 22. Surface treatment of the divanhana space Source: Author (7/25/2016)



Figure 23. Massive wooden floors in the divanhana Source: Author (7/25/2016)



Figure 24. Wooden ceiling in a large chardak

Source: Author (7/25/2016)



Figure 25. Wooden ceiling in the chardak above the hayat Source: Author (7/25/2016)



Figure 26. Wooden ceiling in the chardak at the southeast corner of the floor

Source: Author (7/25/2016)

5. Doors and Windows

At the Abazovic family house, three groups of doors can be seen: the door to the basement (stable), the main entrance door, and the door inside the architectural space (Figures 27-30). In the classic solutions of the Bosnian chardaklia house, all the doors, both on the outer walls and the one inside the house, are made of wood.

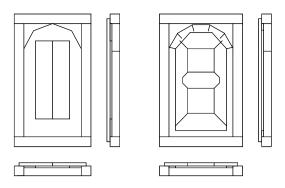


Figure 27. Archaic door design

Source: Author (drawing, 2016)

At the same time, the doors on this type of house are identical throughout Bosnia and Herzegovina. Differences occur in the performance of doors in recent times (since the mid-20th century), where their creators are educated craftsmen-masters, who, through the design of doors wanted to show their uniqueness in the market (Figures 29, 30). The door at the entrance to the basement is massive and rustic, mostly single-leaf. Regardless of the material from which the basement wall is made, the door has a frame, a door frame made of massive, more or less finely worked wooden logs, and a wing made of hewn boards about 5 cm thick. The planks on the door leaf are interconnected on the inside by two or three rungs, and sometimes by a beehive connecting the rungs (Figures 27, 28). The door hinges are made of wrought iron, and are placed, most often, so that the door leaf cannot be removed. The dimensions of the door are "on the scale of a man", sometimes such (80 cm × 120 cm) that a man must walk when passing through them (Figure 3). In richer houses, a more or less accentuated arch of wood is made on the door frame, which also emphasizes the door (Figure 27).



Figure 28. Archaic design of the front door to the residential part of the house and the barn

Source: Author (7/25/2016)



Figure 29. Door on the chardak located in the southeast corner of the floor

Source: Author (7/25/2016)



Figure 30. Door on the chardak above the hayat Source: Author (7/25/2016)

At the Bosnian chardaklia house we meet a wide range of different window design solutions. In general, the design of windows corresponds to the purpose of the room where they are installed. Similar to the design of doors, in the design of windows we find the same solution throughout Bosnia and Herzegovina, where some regional specifics can be observed. The most common solution is a double-leaf, single window with three panes on each wing (Figure 31). The dimensions of such windows range from

 $60 \text{ cm} \times 80 \text{ cm}$ to $100 \text{ cm} \times 130 \text{ cm}$.

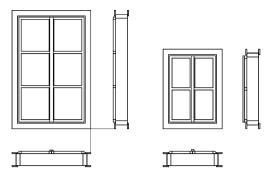


Figure 31. Window design

Source: Author (7/25/2016)

At the Abazovic family house in Donja Koprivna near Cazin, we find solutions for "merging" two relatively small double-leaf windows into one "large window". This is a transitional solution towards "big windows" (Figures 32-35).



Figure 32. Windows establish the unity of two worlds, internal (personal) and external (public)

Source: Author (7/25/2016)



Figure 33. By connecting windows, their functionality and aesthetic-psychological impression of a person is enhanced, both inside the space and in the open space when looking at the object

Source: Author (7/25/2016)



Figure 34. View through the windows on the divanhana Source: Author (7/25/2016)



Figure 35. View through a chardak window on the southeast corner of the floor

Source: Author (7/25/2016)

6. Space Equipment

The basic impression that one gets by looking at the space of the Bosnian chardaklia house is that it is "empty". It is his "emptiness" that makes him "bigger" and richer than he is. This impression is especially expressed in the classic solutions of the Bosnian chardaklia house where, for example, its entire interior can be seen from the space of the "kuća", from the gallery space in the air space of the "kuća" or from the attic space. A similar impression was obtained by looking at the staircase space from the perspective of the divanhana and from the perspective of the "kuća" (Figure 12).

The key elements of the equipment of the classic solutions of the Bosnian chardaklia house are open fireplace, brick stoves with ceramic "pots", open or closed niches in the walls ("dulafi"), baths (stone or wood) in the corners of the room, wooden shelves (shelves), large wooden boxes for storing flour (sometimes called "barns" – "hambari"), wooden boxes for storing formal clothes and valuables for women (sehara), especially decorated bathrooms (hamadzici), swings for small children ("bešika"), round, low dining table ("sinija"), dishes (metal, ceramic and wooden) that are visibly displayed on the shelves and walls of the room. "Furniture" (sofas, armchairs, showcases ...) also appears in the house of the Abazovic family, which is already the influence of "Western culture" (Figures 36, 37).



Figure 36. Kitchen cabinet ("cupboard" – "kredenac") in the divanhana area

Source: Author (7/25/2016)



Figure 37. Showcase in the chardak above the hayat Source: Author (7/25/2016)

7. Today's Condition and Purpose of the House

The Abazovic family house in Donja Koprivna near Cazin is still in relatively good physical condition. In order to preserve its physical structure, it is necessary to urgently make a new roof covering, which would "conserve" the building until its activation at full housing capacity or some new purpose ^④.

The "danger" for the survival of this house (and Bosnian chardaklia houses in general) is the issue of inheritance, when the house, due to the large number of heirs (as a result of its age), practically becomes "everyone's and nobody's".





Figure 39. Original motifs of embroidery (from the Abazovic family house) in a contemporary art composition (Works by Esmira Farah Budimlic exhibited in the Art Gallery Farah in Cazin)

④ One of the heirs of this building is the famous and versatile artist EsmiraFarah Budimlic-Dzafic. The artist is aware of the cultural-historical and architectural-artistic values of this building and it is expected that she will take measures to protect and preserve it.





Figure 40. The Abazovic family house in Donja Koprivna near Cazin is a common motif in the artist's paintings. The photo shows the work of Esmira Farah Budimlic on display at the Art Gallery Farah in Cazin

8. Conclusions

The Abazovic family house in Donja Koprivna near Cazin is an example of a traditional Bosnian house of čardaklija and an example of bioclimatic architecture. In accordance with the natural and social environment, this house is an example of a more modest version of the Bosnian house čardaklija which is smaller than the more developed type of this house and without semi-open spaces - sofa (specific solutions uncovered terrace on the first floor). Here is a divanhana enclosed space with the function of a hall.

Features of the bioclimatic architecture of this house

can be read in:

- Construction and materialization of the facility, where traditional methods of construction are used in many years of experience and the use of all materials from the immediate natural environment. In this way, this house looks like a "natural environment created by man" [13-15],
- Ensuring comfort in the house (in all seasons) is achieved by adequate design of the house, materialization of its envelope and the use of energy from the immediate environment (firewood, beeswax candles or sheep fat before introducing electricity into the house);
- Recycling of generated waste in the house. All residues of human food are given to domestic animals, while other types of waste are used as firewood (wood residues in the manufacture of household tools, for example);
- Use of rainwater to maintain the hygiene of people and the premises and laundry;
- Thanks to the relatively stable physical structure of the house, it is now used as a holiday home for people who live and work in the city. The "embodied spiritual energy of houses" (memories of childhood, parents and relatives, precious events) relaxes people and makes them especially confident in their devotion to their ancestors.

Conflict of Interest

There is no conflict of interest.

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