International Journal of Arts, Humanities and Social Studies
Website: https://www.ijahss.in/
ISSN(*Online*): 2582-3647
Volume 4; Issue 1; Jan-Feb 2022; Page No. 96-106

Open Access | Original Paper

Bosnian Chardaklia House: Smajic Family House In The Starposle Village Near Kakanj

Ahmet Hadrovic
Faculty of Architecture, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

ABSTRACT
In several villages in the municipality of Kakanj (Brnjic, Crnoc, Starposle, for example), a large number of Bosnian chardaklia houses have been preserved to this day. In the horizontal plan, the house is two-lane, with the basement developed only below one tract, thus (the other tract) on the ground floor developed on the ground, and the other tract above the basement, which is partially buried in the ground. For such houses, more or less unkempt terrain is regularly chosen, which, in addition to the benefits of developing a typical house plan, provides other benefits: southern exposure of the main rooms of the house, efficient drainage of rainwater around the house (and thus protection of the basement from moisture). The Smajic family house in the Starposle village near Kakanj is symmetrical in relation to the central vertical plane, which means that its use is planned for one, two and even four independent families that eventually emerge from a single-nucleus family. The Smajic family house is still in relatively good physical condition, where, with certain adaptations, it is possible to live. Namely, when a family in the village builds a new house, this house is used for housing that family until they move into a new house. It is interesting that today, next to each other, stand the houses of three generations of the Smajic family, where each of them witnesses the time of its construction and the way of life of the people.

Keywords: *Starposle, Smajic family, Bosnian chardaklia house.*

***Citation*:** Ahmet Hadrovic (2022). Bosnian Chardaklia House: Smajic Family House In The Starposle Village Near Kakanj. *International Journal of Arts, Humanities and Social Studies*, 4(1), 96-106.

INTRODUCTION

Bosnian čardaklija is one of the most authentic and representative examples of traditional architecture of Bosnia and Herzegovina, which reflects the complex natural and social environment, which with its architectural and spatial solutions, construction and materialization, flexibility and openness for long-term use (once and through four generations). It is home to wealthy people who live in the countryside but are firmly attached to the city through their jobs and overall lifestyle [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12].

The Smajic family house of the in the Starposle village near Kakanj is located on extremely steep terrain with insolation to the northeast (geographical coordinates: 44º13'35.74"N, 18º05'51.23"E, Elevation: 773 m), (Figures 1, 2). The house was built in the early 20th century[1].

[1] The author visited this house 5/28/2016. years. Mr. Safet (Ahmet) Smajic, born 1934.), the heir to the ownership of this house, provided him with help in filming the house and information on the construction of the house and the Smajic family. The house was built by members of the famous master Bašic family from the neighboring village.

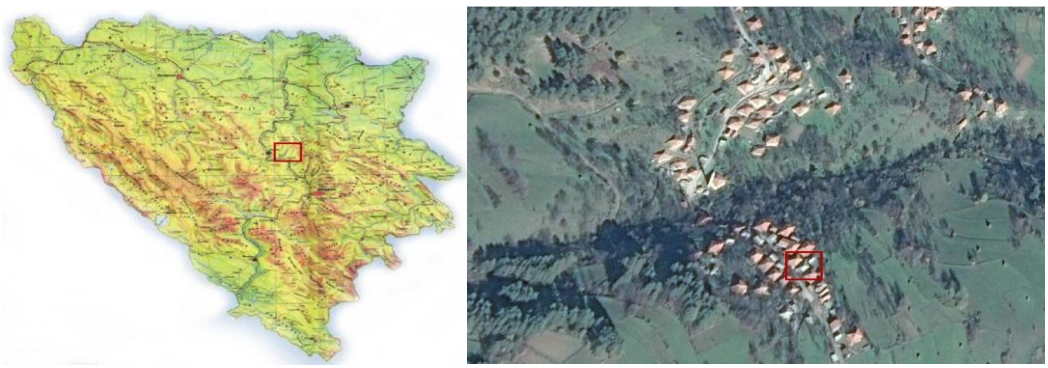


Figure 1: The house of the Smajic family in the Starposle village near Kakanj. Location
Source: https://slidetodoc.com/regionalna-podjela-bosne-i-hercegovine-geografske-regije-bosne/ (left)

Google Earth: Pristupljeno 22.12.2021. (right)

Figure 2: View of the house from the southeast (left) and view of the house from the northwest (right)
Source: Author (5/28/2016)

Spatial-shape characteristics of the house

According to the disposition of horizontal plans, the Smajic family house in the Starposle village near Kakanj belongs to the type of two-tract Bosnian chardaklia house which is developed vertically through the basement, ground floor and first floor (Figure 3). The house has only one sofa (divanhana), on one side of the house, which is similar to the houses in Vareš.

The basement is developed in only one tract of the house, and serves as a „large pantry"– storage („magaza"), where the main foodstuffs that are used most of the year are stored: potatoes, onions, pumpkins, carrots, cheese, cream, various types of fruit products ... Being partially buried in the ground and with thick stone walls, the basement space has a constant temperature throughout the year.

The ground floor of the house is developed on two tracts. One tract is on the ground - it is the space of the „house"(„kuća"), the main „living room" with an open fireplace and a space for preparing food with a toilet („hatula" and „banjica"). In the original design of the house, the space of the „house"(„kuća") in the vertical plan passed into the open space („dimluk") which was crucial for maintaining the wooden roof structure and wooden cover due to their permanent smoking with smoke from the open fireplace. Over time, the space of the „house" („kuća") was closed by a ceiling structure towards the first floor, which resulted in the replacement of the wooden roof covering (shingles) with corrugated salon panels (Figures 3, 9).

The first floor of the house has been developed into two tracts, the useful area of which (after reconstruction) includes the space above the part of the „house" („kuća") on the ground floor where the smokestack used to be. In one half of the house, the first floor is accessed by a wooden staircase (basamaci) which, in front of the entrance to the first floor, is extended by a small divanhan with a niche for ritual washing - abdesthana (Figures 3, 4, 5).

The roof is made with a wooden construction, including the original roof covering. The volume of the attic was accessed through a „shutter" („kapak" – „horizontal door") placed in the plane of the ceiling structure of the attic, located in the space of the sofa (divanhana). Some dairy products (smoked cheese), dried meat and nuts were kept in the attic.

After one reconstruction closed the chimney („dimluk") above the „house" on the ground floor, two chimneys were made located in the center of gravity of the foundation of the house to which were connected masonry furnaces for space heating, and whose leads ended in the attic (Figures 3, 6, 19).

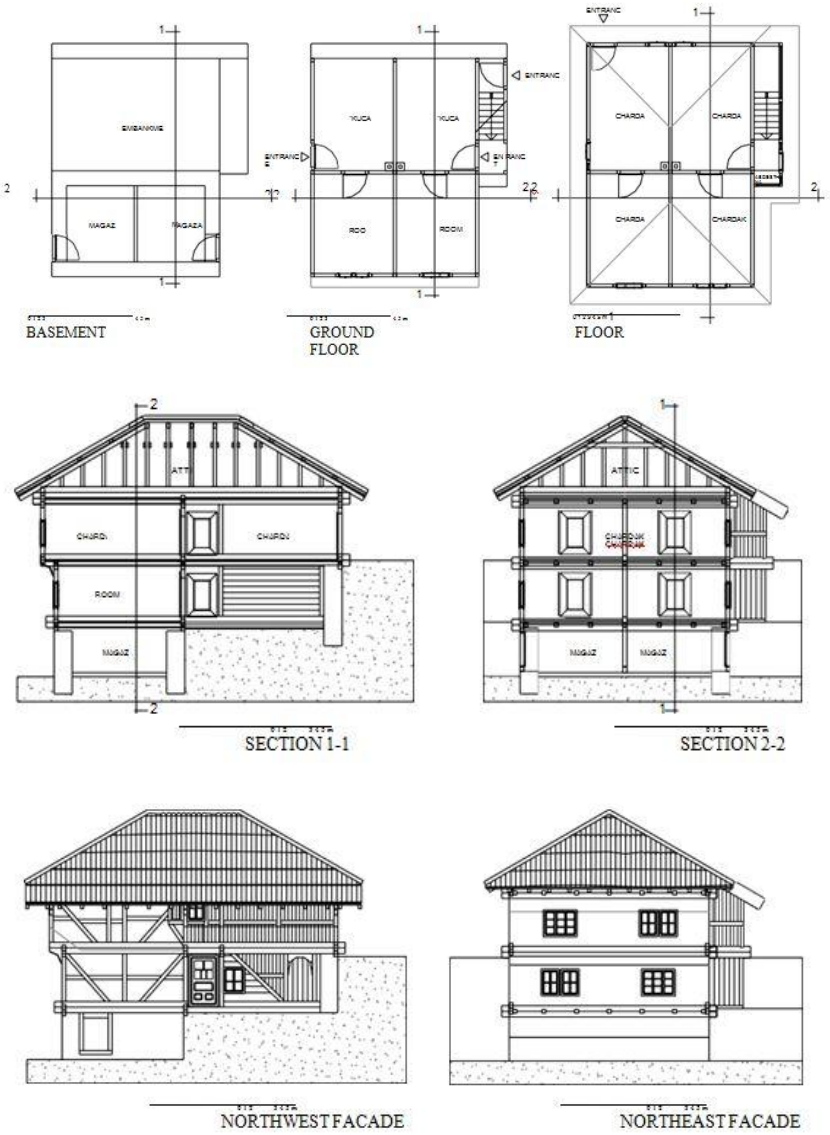


Figure 3: Smajić family house in the Starposle village near Kakanj. Disposition
Source: Author (drawing, 2016)3

Figure 4: Cantilever overhang of the floor over the contour of the ground floor (left) and sofa (Right)
Source: Author (5/28/2016)

Figure 5: Abdesthana on the divanhana
Source: Author (5/28/2016)

Figure 6: In the corner of the "house" ("kuća") where the fireplace was originally, a later reconstruction included a chimney that was built only to the attic space to smoke the roof structure (dry-smoked meat, cheese ...)
Source: Author (5/28/2016)

Construction and materialization

In the design of the Smajic family house in the Starposle village near Kakanj, in its construction and materialization, natural materials from the immediate natural environment were used: stone, wood and earth. The perimeter walls of the basement are made of stone (80 cm thick), (Figures 7, 8), and the walls of the ground floor and first floor are made of wooden skeleton (bondruk) with brick filling and part of wooden wicker plastered with clay mortar with accessories straw and chaff (Figures 7, 17). The walls on the ground floor, in the tract on the ground, are made of horizontally placed hewn wooden logs (Figure 7), which is a common case of construction and materialization in Bosnian chardaklia houses developed type.

The ground floor-floor and floor-attic ceilings are made of hewn wooden beams with thick wooden planks (floors, about 7 cm thick). In this house there was no additional ceiling covering („šiše") with earth filling with the addition of straw and chaff which had the function of acoustic insulation, and in the ceiling construction of the chardaks-attic also the function of thermal insulation (Figures 9, 19, 20).

The roof structure and cover are made of wood [13]. Over time, after the cessation of the use of the house in the original way (the use of an open fireplace), the wooden cover (shingles) was replaced by corrugated salonite boards. The final treatment of the interior and exterior wall surfaces was made of clay mortar with the addition of straw and chaff (Figures 8, 9, 16).

Figure 7: Structural assembly and materialization of the house as a whole (left) and external walls in the part of the ground floor made of hewn logs. Exterior walls on the floor made of wicker with clay filling
Source: Author (5/28/2016)

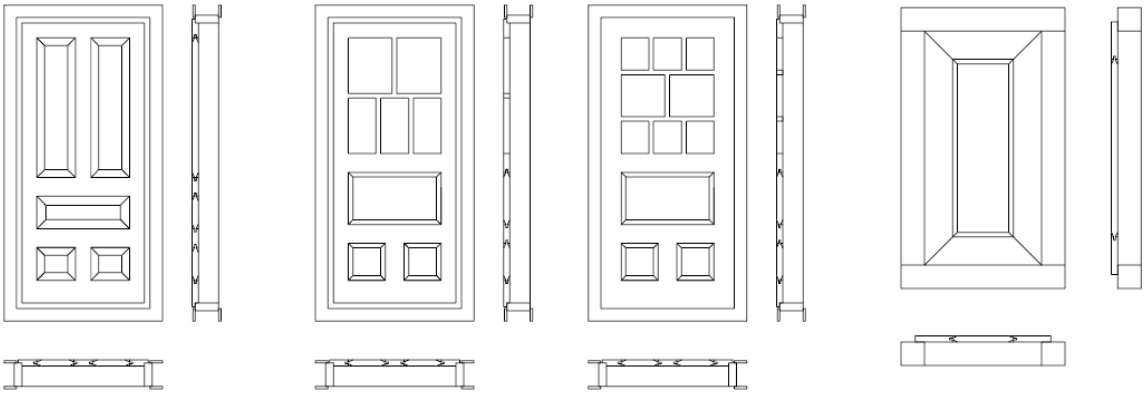
Figure 8: Mezzanine structure ground floor (in the space of the "house"/"kuće"). The wall of the "house"/"kuće" towards the ground has an unusual perfection of construction (left). Wooden beams-wedding dresses at the transition from the ground floor to the first floor (right)
Source: Author (5/28/2016)

Figure 9: In the ground floor-floor structure, in the space of the "house"/"kuća", the boundary of the original structure and the subsequent closing of the opening above the open fireplace is clearly visible.
Source: Author (5/28/2016)

Doors and windows

The doors and windows of the Smajic family's house in the Starposle village near Kakanj are made of wood. The design of some doors is archaic (as we find in other chardaklia houses throughout Bosnia and Herzegovina), (Figures 10-

14), while the design of some doors follows newer patterns (where, apparently, the original doors have been replaced by newer doors).



Slika 10: Lepeza različitog dizajna vrata
Source: Author (drawing, 2016)

Figure 11: Basement door (on magaza)
Source: Author (5/28/2016)

(A) (B)

(C)

Figure 12: Entrance door to the "house"/ "kuća" space.
Source: Author (5/28/2016)

Figure 13: "Mechanism" of closing the front door
Source: Author (5/28/2016)

Figure 14: Door at the entrance to the room from the "house"/"kuća" space (left) and door detail (right)
Source: Author (5/28/2016)

The width of the wooden window sill follows the thickness of the wall. The windows are double-leafed and triple-leafed with several panes filled with single glazing (Figures 15-18).

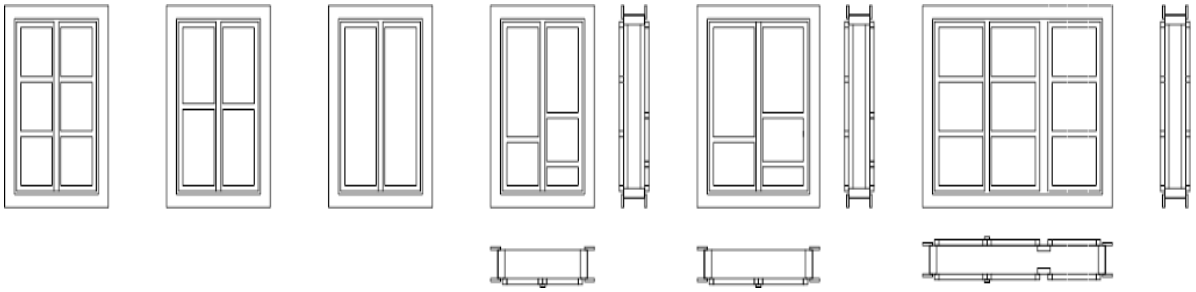


Figure 15: Fan of different window designs
Source: Author (drawing, 2016)

Figure 16: Double windows (chardak on the first floor)
Source: Author (5/28/2016)

Figure 17: Double windows on the ground floor room, outside view (left) and inside view (right)
Source: Author (5/28/2016)

Figure 18: View through the window in the room to the Brnjic village (located on the other side of the valley)
Source: Author (5/28/2016.)

Surface treatment and space equipment

The interior and exterior surfaces of the walls are plastered and painted with lime milk (Figure 19). The white walls, both inside and outside, are in a particularly pleasant contrast to the natural color of the wood. As already mentioned, all ceilings are made of wood. The original ceilings have been preserved in all rooms of the house (Figures 8, 19, 20).

Floor coverings in all rooms on the ground floor and first floor were made of wooden floors (Figure 21), which were usually covered with bosnian woolen carpets. The carpets in a way emphasized the main part of the floor surface with the highest concentration of functions. The floor in the "house"/"kuća" ("living room"), given that it is on the ground and given the function of a "house"/"kuća" with an open fireplace, is made of stone slabs laid in the sand (Figure 6).

Figure 19: The clear height of the room (on the ground floor) is relatively large. In the corner there was a stove for heating the room that was connected and a chimney built in the corner of the "house"/"kuća"
Source: Author (5/28/2016)

It is interesting that in the ceiling construction on the ground floor there were „shutters" („kapak") that could be opened so that the heated air from the rooms on the ground floor (which had brick stoves) passed into the rooms (balconies) on the first floor to heat these spaces, without the need to burn brick kilns in these rooms (Figure 20).

Slika 20: Kapak u međukatnoj konstrukciji prizemlje-kat čijim se otvaranjem propuštao vrući zrak i donje prostorije (koja se grije) u gornju prostoriju (koja se ne grije)
Source: Author (5/28/2016)

Figure 21: Wooden flooring in the room
Source: Author (5/28/2016)

Figure 22: In the space of the "house"/"kuća" there is still a low dining table (blue), although the house has not been inhabited for a long time
Source: Author (5/28/2016)

The present condition and purpose of the house Perspectives

The Smajic family house in the Starposle village near Kakanj has not been „actively" used for housing for more than three decades. The second generation of the Smajic family is already building „their" house after this house. The Smajic family house has preserved elements of physical structure, and with a little work and resources it can be brought to a modern way of living. This house is under the constant supervision of the Smajic family, who see it as the origin of their existence, as a distant ancestor, whose vitality and existence in the new rural structure of the Starposle village means the vitality of the family. The Smajic family house presented here brings self-confidence and optimism to the life of the latest

generation of the Smajic family.

CONCLUSION

The house of the Smajić family in the Starposle village near Kakanj is an example of traditional bioclimatic architecture of Bosnia and Herzegovina. The principles of bioclimatic architecture are reflected in the following [12, 15]:

1) The construction is located on a sloping terrain (which ensures efficient drainage of rainwater around the house),
2) The basement is partly buried in the ground, ensuring its storage function at a more or less constant temperature (during all seasons) [14],
3) Natural building materials are used in all building elements, and the place in the building corresponds to their best characteristics,
4) Disposition of construction (horizontal and vertical plan) ensures the function of the central space with an open fireplace as a space that provides natural ventilation of the building (good cryptoclimate) and protection of all elements of the building made of wood from aggressive insects and moisture [14],
5) Heating of individual rooms and loggias is provided by masonry stoves, on wood as firewood, whereby the smoke generated in them is discharged into the central space („dimluk"), which to some extent additionally heats the rooms („heat recovery") and protects wooden elements of the physical structure of the building,
6) The spatial concept of the building allows it to be used as a house for one, two, three and even four families (flexibility of architecture).

REFERENCES

1. Cvijic, J. (1922.), *Balkansko poluostrvo i jugoslovenske zemlje*, Beograd, p. 317
2. Klaic, V. (1990), *Povijest Bosne*, fototip izdanja iz 1882. god., Svjetlost, Sarajevo, p. 345.
3. Imamovic, M. (1997), *Historija Bosnjaka*, Bosnjačka zajednica kulture Preporod, Sarajevo, p. 636
4. Malcolm, N. (2011), *Bosna, kratka povijest*, Buybook, Biblioteka Memorija, Sarajevo, p.29
5. Grozdanic, S. (1976), *Uvod u arapsko-islamsku estetiku*, Prilozi za orijentalnu filologiju, XXIV/1974. god., Orijentalni institut, Sarajevo, p. 56
6. Karanovic, M. (1927.), *O tipovima kuca u Bosni*, Drzavna stamparija, Sarajevo, p. 4-213
7. Soldo, S. (1932.), *Tipovi kuca i zgrada u predjasnjoj Bosni i Hercegovini*, Drzavna stamparija Kraljevine Jugoslavije Beograd, p. 22
8. Deroko, A. (1964.), *Narodna arhitektura, knj. II*, Naucna knjiga, Beograd, p. 28, 69
9. Kadic, Dr M. (1967.), *Starinska seoska kuca u BiH*, Veselin Maslesa, Sarajevo, p. 124
10. Hadrovic, A. (2007), *Defining Architecrural Space on the Model of the Oriental Style City House in Bosnia and Herzegovina*, Serbia, *Montenegro, Kosovo and Macedonia*, Booksurge, LLC, North Charleston, SC, USA, p. 59
11. Hadrovic, A. (2017), *Bosanska kuca cardaklija/ Bosnian chardaklia house*, Sarajevo, Arhitektonski fakultet u Sarajevu, Sarajevo, p. 1179-1214
12. Hadrovic, A. (2014), *Water and man in autoshthonous symbiosis in Bosnia and Herzegovina*, Avicena, Sarajevo, p. 1
13. Hadrovic, A. (2009), *Structural Systems in Architecture*, Booksurge, LLC, North Charleston, SC, USA, p. 138, 145
14. Hadrovic, A. (2010), *Architectural Physics*, Sarajevo, Faculty of Architecture University of Sarajevo, Sarajevo, p. 321
15. Hadrovic, A. (2008), *Bioclimatic Architecture, searching for a path to the Heaven*, North Charlston, SC, USA, Booksurge, p. 45, 46, 136