FACTA UNIVERSITATIS
Series: Architecture and Civil Engineering Vol. 22, Nº 3, 2024, pp. 255-275
https://doi.org/10.2298/FUACE231106003N

Original Scientific Paper

REGENERATION OF RURAL ARCHITECTURAL HERITAGE: CASE STUDY OF FIVE TRADITIONAL HOUSES IN SIRINIĆKA ŽUPA

UDC 711.3:502.131.1(497.11)

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Abstract. *The architectural legacy of Sirinićka Župa, located in the south part of the Republic of Serbia, at the foot of the Šar mountain, is best known by traditional houses. The uniqueness of the style of old Sirinić houses is attributed to the use of local materials and adaptation to local topography, climate and the morphology of settlements.*
The study recognizes the importance of preserving the authenticity of the residential architectural heritage of Sirinićka Župa and highlights the need to understand the potential of these buildings in order to determine future appropriate interventions More specifically, the research analyses the development of traditional residential architecture in Sirinićka Župa area, focusing on five characteristic and representative house examples – their original design concept and value, present state, and the regeneration direction. Results contribute to the existing body of literature by providing a detailed scientific description of the values of Sirinić houses, as well as the justified regeneration-related interventions derived from delicate approach and impact assessment.

Key words: *traditional houses, Sirinićka Župa, regeneration, sustainable rural development*

Received November 6, 2023 / Revised February 26, 2024 / Accepted March 4, 2024
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1. INTRODUCTION

Over the past few decades, the concept of sustainable development has become increasingly prominent in both scientific and practical contexts. Sustainable development includes three aspects: economic, environmental and social sustainability. In the practical application of sustainability principles in residential architecture in Serbia, the focus is still mainly on the first two elements, while the latter is the least studied and represented. From the architectural aspect, sustainability is reflected in the efficiency of residential structures, observed through all key life cycle phases: construction, exploitation, and renovation or reconstruction [1]. For a successful and sustainable regeneration of architectural heritage, all three elements of sustainability must be met, which is a big challenge due to the complexity of the heritage restoration process. For example, one of the main components of architectural sustainability is reflected in the adaptability of the housing space itself, that is, its ability to meet the complex housing needs of different types of users and provide opportunities for multiple uses [1]. Through design intervention, the architect's leading question is: how to establish a fair correlation between contemporary needs and traditional local culture [2]?

Around the world, there are numerous examples of interventions undertaken within the process of regeneration of traditional family houses and other rural architectural structures. The specificity and the scope of these actions depend on several factors, such as the current state of a building being regenerated, its architectural heritage value, the prescribed measures and degree of protection, modern architectural trends and the demands of future users. Furthermore, cultural heritage includes built structures that have significant cultural, emotional, temporal, historical and economic value to the community. This intrinsic value is a key attribute that positions heritage objects as catalysts for the development of settlements. Apart from their importance to the community, the design of heritage structures and their capacity to attract new ventures are equally important [3].

The traditional (folk) architectural culture was gradually assimilated in the wave of urbanization and the rural regional culture was eroded to varying degrees, mainly manifested in the absence of cultural continuity and environmental protection [4].

At the beginning of the last century, and even earlier, numerous residential buildings were built. However, due to many factors, the importance and the value of these structures became less important. As a result, it has been imperative to undertake efforts to restore these structures [5]. Traditional architecture offers lessons that are the basis for environmentally responsible architecture and the principles of ecologically sustainable development. Traditional architecture as a regional language of architecture, based on the idea of preserving the local and regional uniqueness of architecture, is a powerful inspiration and catalyst for future realizations [6]. During the regeneration of traditional houses, sociological, economic and physical aspects should be taken into account in order to preserve the identity of the place where the houses are located and to continue the transmission of cultural values and heritage to future generations. Applied vernacular building cultures respected the landscape through the visual aspect of available local materials, the shape and size of the building, its decorative details and its relationship with the environment, showing man's ability to adapt to the place and to satisfy his needs [7]. Therefore, with the aim of sustainable development of Sirinićka Župa, it is necessary to pay equal attention to the preservation of its natural, architectural and cultural heritage. This requires careful planning and construction practice. Regeneration is a challenging process that requires knowledge of cultural specifics,

understanding of the characteristics of inherited physical structures and recognition of the possibility of adequate use of architectural objects after implemented interventions [8]. Traditional architectural objects contribute to the preservation of not only material, but also immaterial values of the community and thus provide support for its continuity and continuous development [9]. Therefore, the conservation and regeneration of architectural heritage requires a better understanding of authenticity, instead of limiting it to the preservation of the original appearance and structures. Preserving the intangible aspects of construction techniques and functional way of life in traditional architectural heritage is valuable [10].

2. TRADITIONAL SIRINIĆ HOUSE

Throughout history, the architectural styles of different communities have been defined by their unique characteristics including language, clothing, customs and folklore. These characteristics influenced the materials, technology and environment used by each community, resulting in recognizable local forms and details in their architecture. However, the collapse of cultural boundaries in the twentieth century led to the homogenization of architectural styles, erasing some of these distinctive features [11].

The creation of settlements in the region of Sredačka, Sirinić and Goranska Župa should be viewed in connection with the entire Šar mountain, Kosovo and Metohija, as well as the southern Balkans, where these areas are located in this region. They are located in the southern part of the country, near the northeastern part of the mountain Šara.

The research area is located in the extreme south of the Republic of Serbia, on the northeastern slope of the Šar mountain, encompassing the flowing waters of the Lepenac River, stretches the region known as Sirinićka Župa. It is historical significance dates back to the 13th century when it was first mentioned in the "Serbian Gospel" document. The 1322 "Charter of King Dušan" further solidifies its importance as it describes Sirinić as a parish belonging to the renowned Hilandar monastery. Subsequent Ottoman records make mention of the villages within Sirinić using linguistic forms that closely resemble their present-day names.

We follow the development of settlements in these Šar parishes from its beginnings in this part of our country since the Neolithic, through the ancient and early Christian periods, the Middle Ages and up to our days. Traces of Pelasgian, Illyrian, Thracian, and in some parts Hellenic, Roman, Slavic and Turkish-Oriental influence and ethnic presence are visible in these parishes [12]. As for the analysis of the traditional Sirinić house, which belongs to the style of the Balkan houses, there are divided opinions. Turkish scholars claim that Balkan houses bear a significant resemblance to homes inspired by the Ottoman Empire, while the Balkan peoples themselves remain true to the unique origins of their homes [13]. Balkan researchers focus on the spatial organization of traditional homes, often referring to Byzantine architecture. Pointing to the oriental influence in Byzantine architecture, it is recognized that the environment was closely connected with Asia Minor and susceptible to external influences from that direction. However, it is also noted that this environment was rich in diverse cultural elements. The houses of the Balkans and the Eastern Mediterranean were developed within the program content of the Byzantine houses, which themselves were a synthesis of Greek, Roman and Asia Minor houses. After the Byzantine palaces, the medieval feudal towers represented the next stage in the development of Balkan houses, with multi-story stone towers

for defense and housing [14]. Residential architecture of the 16th and 17th centuries in Serbia is not new, but an extension of general Byzantine, Slavic and Middle Eastern concepts. Lively activity on the construction of rural villages appeared only in the second half of the 18th century [14]. That was the time of the real renewal, so that a greater number of villages got their final rural structure at that time, which we know today in Šarplanina villages [15]. After a period when wood was mainly used as a material - mostly during the rule of the Turks, there was a more intensive construction of stone houses. After liberation from Turkish rule in 1912, this type of house began to dominate the entire area of the Sirinićka Župa. The walls of houses are usually made of stone, which is known as the oldest natural building material and the most durable if properly installed. The "weaker" side of the stone wall is wider than the long material wall. Local builders were real virtuosos when building the building from crushed stone. The work of these unknown "domestic" craftsmen was usually masonry walls made of quarry stone, without using any binding material. They called this type of construction "dry" construction, "dry stones". On the territory of Serbia, depending on geographical and climatic conditions, availability of building materials, we distinguish three major types of buildings. "Bondučarske kuće" are characteristic for the southern, eastern and central parts of Serbia, generally for those regions that are poor in construction wood. "Brvnara" is typical for mountainous, wooded areas of the country, primarily western Serbia. In the north of the country, the dominant type of house was a house made of wood, or a house built with "ćerpić", and given the lack of other types of building materials [16].

The architecture of folk structures in Sirinićika Župa exhibits a distinct consistency, particularly in the variations of the longitudinal čardak and ajat. These forms can be further simplified to their subvariations, such as corner porches and central porches, or porches on the first floor [17].

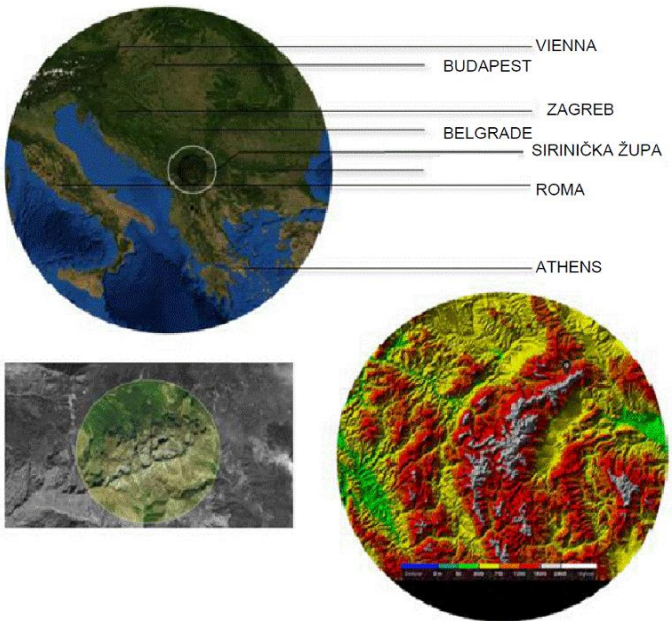
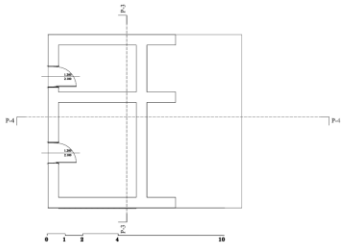


Fig. 1. The geographical position of the Sirinićka Župa in Balkan Peninsula

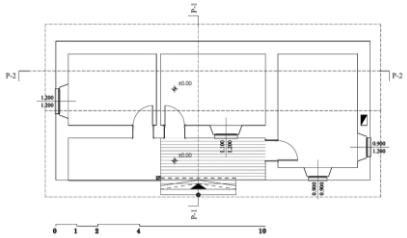
The area of Sirinićka Župa is known for its abundance of well-preserved traditional houses, providing valuable insight into the region's history and culture. After conducting a field research, five traditional houses from the late 19th and early 20th centuries were identified and chosen to represent the region. In order to be considered for regeneration, the selected houses had to meet certain criteria. First, they had to be representative of the traditional architecture in the area. Second, they had to be built during the time when traditional architecture was at its peak. Third, the houses had to be situated in accessible areas with tourism potential. By carefully selecting houses that met these criteria, the regeneration process would make a significant contribution towards preserving the traditional architecture of the region. The examples of analyzed traditional houses belong to Serbian families, that can be proven by surnames of families who own them.

3.1. House of the Stanišić family

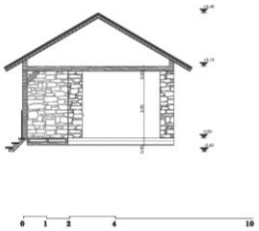
The house of the Stanišić family is located in the village of Sušiće, about eight kilometers north of the municipal center - Štrpce. It was built between 1871 and 1875 According to the type, the house of the Stanišić family belongs to the old Kosovan ground floor with details specific to Sirinićka Župa. The house is characterized by a good disposition in relation to the immediate natural and built environment. The length of the base is 15.50m x 6.60 m. The basic structure consists of massive surrounding stone walls built in the shape of the Cyrillic letter "П", which is the same in other Sirinić houses. The front facade wall of the house is recessed in relation to the sides so that it forms a porch - "čardak". The location of the house on a plot on a sloping ground made it possible to create a basement space, which is accessed separately from the side. The basement was used to keep livestock. From the part of the čardak, you can access three domestic rooms: the main room with a fireplace and two side rooms that were mainly used as sleeping areas. The walls were built with stone from the maidan near the building. The interior of the walls is lined with a mixture of mud and clay. The ceiling construction was made of wood. It was made by placing the attic beams in parallel and resting on one side on the end beam of the brick wall and, on the other side, on the end of the stone wall. Between the attics "kolenci" were placed, i.e. battens wrapped in a bundle of rye straw or hay, which was glued and rolled in mud before being incorporated into the structure of the mezzanine structure, which ensured better thermal insulation. The roof is gable, with a gentle slope of around 25 degrees and dropped eaves around 50 cm wide. The roof covering was made of regularly arranged stone slabs with overlaps, made on site. The roof structure is simple, made by placing rafter supports over the ceiling beams. The load on the roof is evenly distributed. The main facade of the house of the Stanišić family with its accentuated čardak and transverse beams provides a motif that defines the identity of the house and a recognizable architectural expression of the traditional architecture of the Sirinićka Župa.



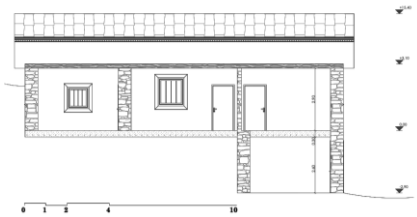
basement



ground floor



section



section

back facade

front facade

Fig. 2 House of the Stanišić family

3.2. House of the Nikolčević family

The house of the Nikolčević family is located in Štrpce, near the church of St. Nicholas. It was built at the very beginning of the 20th century, in 1901. Unlike other houses built in the same period, the house of the Nikolčević family is quite well preserved. The house is positioned on the side border of the plot, while the main yard is next to the public road through the hamlet. The dimensions of the base of the house are 18 x 7 meters. The main facade is oriented towards the south. At the same time, the southern facade is the most open, while the opposite - northern - is closed. The shape, orientation and position on the steep terrain are such that all rooms are well-sunlit in the winter when the sun is low, and during the summer, thanks to the existing canopy, they are protected from direct overheating. The space of the house is vertically organized through two floors - the basement part, which extends along the length of almost half of the house, and the four-part residential floor. The main room is the most prominent, with a side room next to it, i.e. an auxiliary room and two bedrooms. Each of the four rooms is accessed from the common area - covered porch on first floor - "ajat ". At the base of the house, an elongated rectangular čardak occupies a central place. The dimensions of the ajat are 10 x 1.80 meters. This spatial-architectural element also plays a leading role in the design of the front facade, together with a simple wooden fence, associated wooden pillows and columns that are arranged in a regular rhythm. The outer stone walls (built with dry construction) are 60 cm thick, while the inner brick walls are 30 cm thick. The mezzanine construction is wooden with a light earth coating. The roof is hipped, with an inclination of about 3 degrees, covered with tiles that were made and baked near the building itself, "ćeramida". The walls are coated on both sides with smooth plaster made of clay, mud and straw. The ground floor is wooden. The basement part was intended for storage. The darkest part was used to store wine. The basement floor is made of rammed earth, and the inner walls are rough and rough. The room has only one window oriented to the northwest, while the entrance door is positioned on the southern, main facade.

3.3. House of the Nikolić family

The house of the Nikolić family is located in the village Gornja Bitinja, four kilometers northwest of Štrpce. It was built at the end of the 19th century, and its first owner and member of the then influential Sirinić community was named Erdan. Later, he sold the house to Stojko Nikolić, whose ownership it is even today. The main facade is oriented towards the southeast, which allows for good sunlight in the interior during the winter. The space of the house is organized vertically through two floors. The lower, ground floor is partially buried in the ground on the rear, northern side. Unlike the previous two examples (the house of the Stanišić family and the house of the Nikolčević family), the house of Nikolić is much simpler. The base is rectangular with dimensions of 12x6 meters. The ground floor is divided into two parts. The purpose of the smaller part was to keep livestock, while the other larger part was used by the household. The staircase is designed as an external one. On the first floor, it ends in a semi-open space of a small čardak dimensions - 5.8 x 2 meters. On the first floor, in addition to the čardak, there is also one room used for night rest, while all the remaining space is intended for storing food for livestock. All external walls are made of massive stone, and their thickness is 50-60 cm. The thickness of the inner walls ranges from 20-30 cm. It is only that the front facade wall on the first floor was formed as a bond arm. The front facade of the house is plastered with a mixture of mud and clay, while the other three are made of stone in combination with wooden details. The wooden fence of the conservatory is made of modestly

hand-finished vertical boards. The roof of the house is classic, traditional, hipped, with a slope of 30 degrees. On the eastern side, the eaves are overhanging 110 cm, in relation to the plane of the facade wall, while on the other sides this overhang is 80 cm. The covering is made of ćeramida, made near the building.

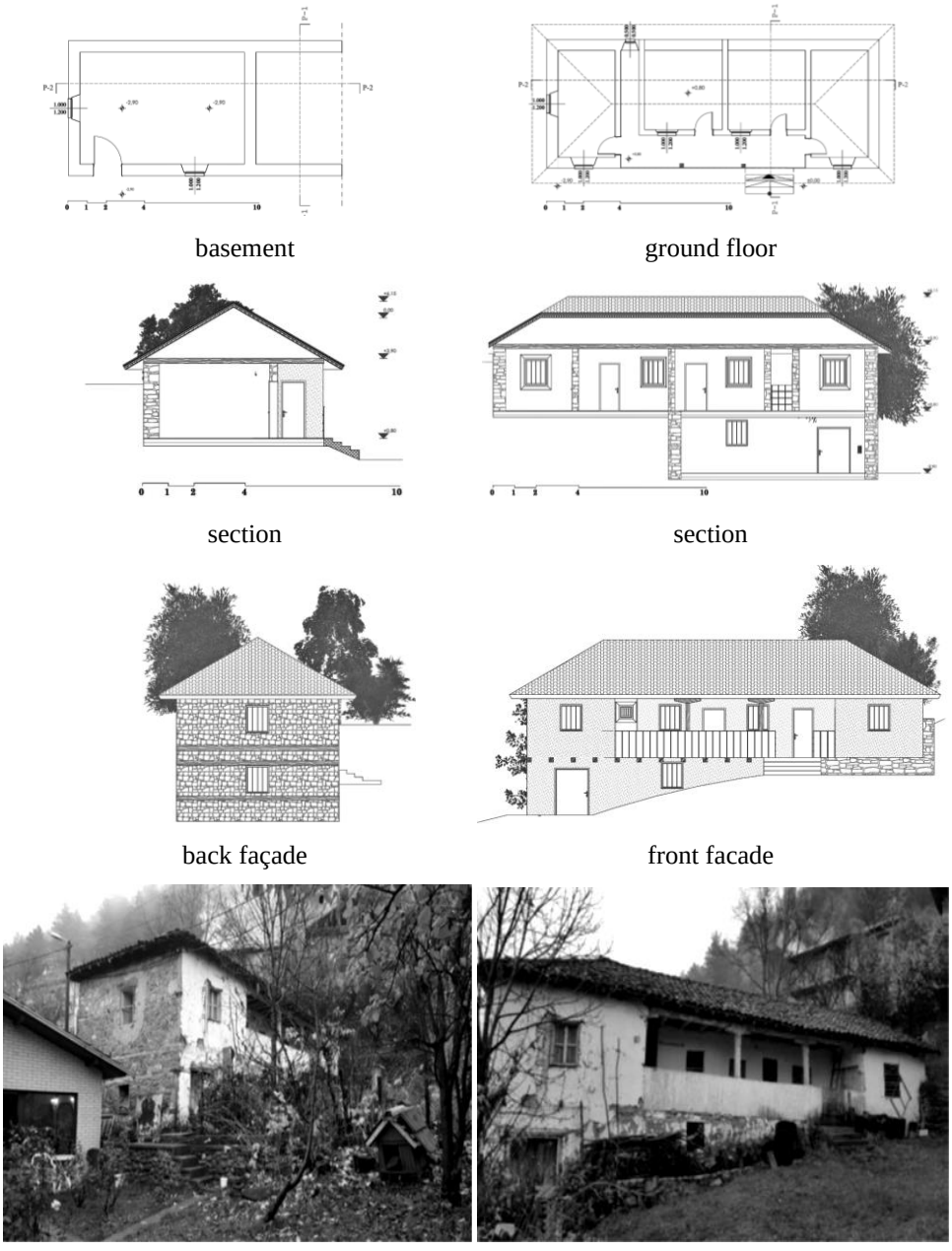
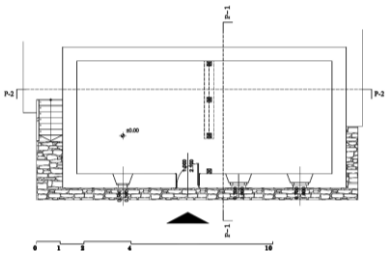
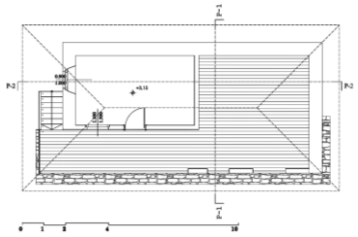


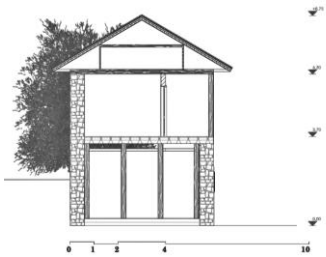
Fig. 3 The house of the Nikolčević family



ground floor

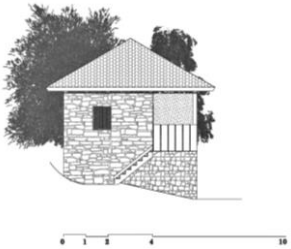


first floor

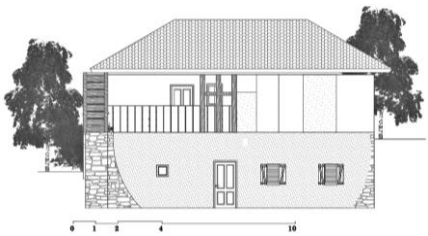


section

section



back façade



front facade

Fig. 4 The house of the Nikolić family

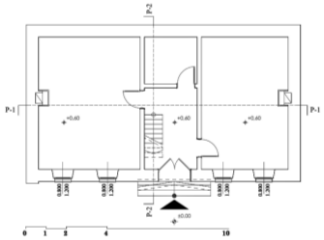
3.4. House of Mladenović-Kovačević family

The house of the Mladenović family is located in the village of Berevce, two kilometers north of the center of Štrpce. It was built by local craftsmen, in 1924. Compared to the other four houses, the house of the Mladenović-Kovačević family is functionally the most complex. The rectangular dimensions of 13.5 x 7.7 meters are repeated throughout the ground floor and first floor. It is interesting that the house of the Mladenović family does not have a front yard, but only the back, because it is placed on the regulation line. The area of the house is accessed directly from the street. The plot on which the house is located is sloping, so its rear side is buried in the ground. The entrance (front) facade is oriented towards the southeast. The organization of the space of this type of Sirinić house is determined by the plot itself. On the ground floor, there are four rooms that belong to the living-economic block. The main room is a room with a fireplace, followed by a storage room (in the buried part of the house), a work room that had the double function as a kitchen and a workshop and a corridor where the staircase, leading to the first floor, is located. There is a sleeping area on the first floor, which consists of five rooms. Each of these rooms is accessed from the čadrak" area. The čardak of the house of the Mladenović - Kovačević family has a complex base consisting of the main (wider) and two narrow side arms. In summer, the wider part of the veranda was used as a living area during the day and even as an open bedroom during warm summer nights. With its details in the processing of the wooden pillars and the fence, the veranda gives a striking expression to the entire house and emphasizes the unique combination of two traditional design variants (a more reduced form from the beginning of the 20th century and ornamental motifs of a slightly older date).

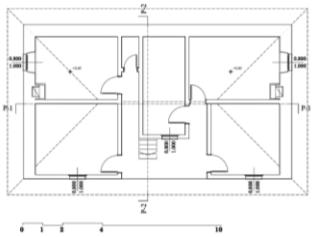
The outer walls are made of massive stone. Their thickness on the ground floor is 60 cm, and on the first floor is 20 cm. Partition walls are bonded, with adobe filling, which is also a good thermal insulator. The facade is covered with a mixture of mud and straw, and then coated with lime. The roof is hipped, formed at an angle of 30 degrees, with overhanging eaves up to 30 cm wide. The covering is a roof tile, ćeramida.

3.5. House of the Kecić family

The house of the Kecić family was built in 1913, in the center of the old part of Štrpce. It is considered to be one of the most beautiful examples of traditional residential architecture of Sirinićka Župa. Like most of the old Sirinić houses, the house of the Kecić family was built on a slope, which conditioned its spatial organization and form. The building has two floors. There are two rooms on the ground floor - the "kuća" and the "kleća", and, on the first floor, there is a living room, two bedrooms, a barn and a veranda, that stretches the entire length of the building. The connection between the two floors is achieved by an inclined ramp, which represents a unique solution in the context of traditional Sirinić architecture. In the living room, on the first floor, there is a built-in fireplace, and there are niches on its left and right sides. All ground and two-story external walls are made of crushed stone. Mud was used as a binder. The other walls are wooden bonded, with adobe filling. The mezzanine structural assembly (still preserved in its original form today) is made of wood. The roof has a slight slope, around 25 degrees, accentuated by a roof "badža" and dropped eaves, 80 cm wide.

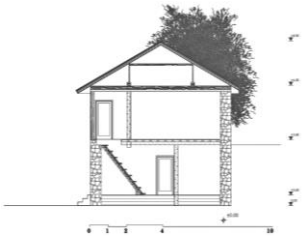


ground floor



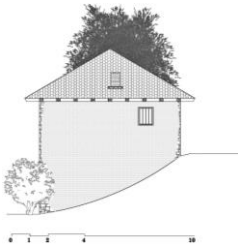
first floor

section



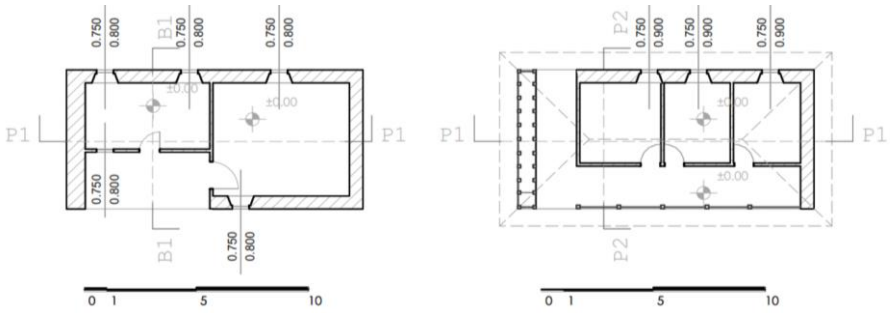
section

back façade



front facade

Fig. 5 House of the Mladenović - Kovačević family



ground floor first floor

section section

back facade front facade

Fig. 6 House of the Kecić family

4. Architectural Regeneration of Traditional Houses: Characterization of Interventions

When it comes to creating or modifying physical structures, building design plays a fundamental role in reshaping the spatial environment to meet human needs, cultural influences, current demands and economic considerations [18]. The primary goal is to preserve the character and cultural significance of the building while incorporating functional elements that are in line with current trends, meeting human requirements [18].

Taking into account the current challenges that Sirinićka Župa is facing, the recommendations presented in the research paper are rooted in the aim of preserving the authenticity of the processed architectural heritage to the greatest extent possible. The following excerpt provides suggestions for the restoration of five detached houses. Three alternative approaches are proposed for each house:

1. interventions of minimal need,
2. medium-sized interventions,
3. radical solutions.

All selected instances have the following attributes in common:

- They are in a relatively satisfactory condition, suitable for restoration, whose priority is the preservation of the original characteristics,
- They were built in a similar period of time, either at the end of the 19th century or at the beginning of the 20th century,
- They exhibit a similar architectural style.

The minimally necessary proposed interventions for five studied traditional houses in Sirinićka Župa, refer to preservation of their primary function as permanent single-family dwellings. These interventions include:

- Repair of fences and reconstruction of access paths to houses;
- Performing static analysis to strengthen the basic structure of houses in accordance with modern standards;
- Introduction of modern water, sewage and electrical installations;
- Replacement of worn-out veranda components with the new ones, made of the same wooden material and identical design;
- Integration of an additional layer of environmentally friendly thermal insulation into the thermal envelope of the building, without changing its original appearance;
- Restoration of facades with originally used materials while adhering to the original aesthetics;
- Restoration of worn-out elements of the roof structure and its covering;
- Repair of window frames and doors and application of outer layers to improve insulation properties; and replacement of the final layers of materials in the interior space, in accordance with the original materials.

4.1. Proposal for the regeneration of the house of the Stanišić family

In addition to the most frequently mentioned interventions, the necessary measures for the restoration of the house of the Stanišić family in the village Sušiće would be the installation of a bathroom. In addition to that, special attention should be paid to the renovation of the roof, which is currently covered with stone slabs. It is essential to find a qualified manufacturer capable of producing and installing stone slabs that match the original quality and shape. It is planned to convert the house into a *Museum of Folk Heritage* of Sirinićka Župa. Each existing room will be repurposed as an exhibition space dedicated to a specific aspect of heritage. Within this plan, it is necessary to build a toilet for employees and visitors in the existing dimensions, preferably on the lower floor. Furthermore, the intended area with an internal glass partition should be allocated for an office and potentially a tourist information point. It is of crucial importance to preserve the authenticity of the building after the restoration, which implies the implementation of extensive conservation works.

The proposal for the regeneration of the house of the Stanišić family (Fig. 2), as a part of a **medium-sized** project, refers to its conversion into the Museum of Traditional Heritage of Sirinićka Župa. Each of the existing rooms would be converted into an exhibition space dedicated to a specific segment of the heritage. In this variant, it would be necessary to create a toilet for employees and visitors within the framework of the existing dimensions (preferably on the lower floor), as well as to separate a space with an internal glass partition that could have the function of an office and, optionally, a tourist point. The authenticity of the building after the intervention would have to remain at a high level, which means carrying out conservation works at a full scale.

The old house of the Stanišić family would retain its original purpose of individual housing after a **radical intervention** (which primarily integrates the mentioned minimum interventions). Changing the functional organization would mean removing the dividing walls between three rooms of smaller square footage, in order to get a more spacious living room with a kitchen area, a bedroom and a new bathroom. In this variant, the dimensions of the window openings would be increased or new openings would be formed in order to improve visual and lighting comfort. Between the two floors, a warm connection could be established by the lateral extension of the space for vertical communications using modern transparent materials.

This newly formed space would be connected to the conservatory space, which should also be provided with heat, at least during the winter season. On the facades and in the interior, it would be allowed to combine traditional - classic and modern building materials. By improving the relationship between the yard - čardak - technical facilities, the possibility of establishing a circular connection between zones opens up, as well as much greater flexibility and adaptability of the interior space of the house.

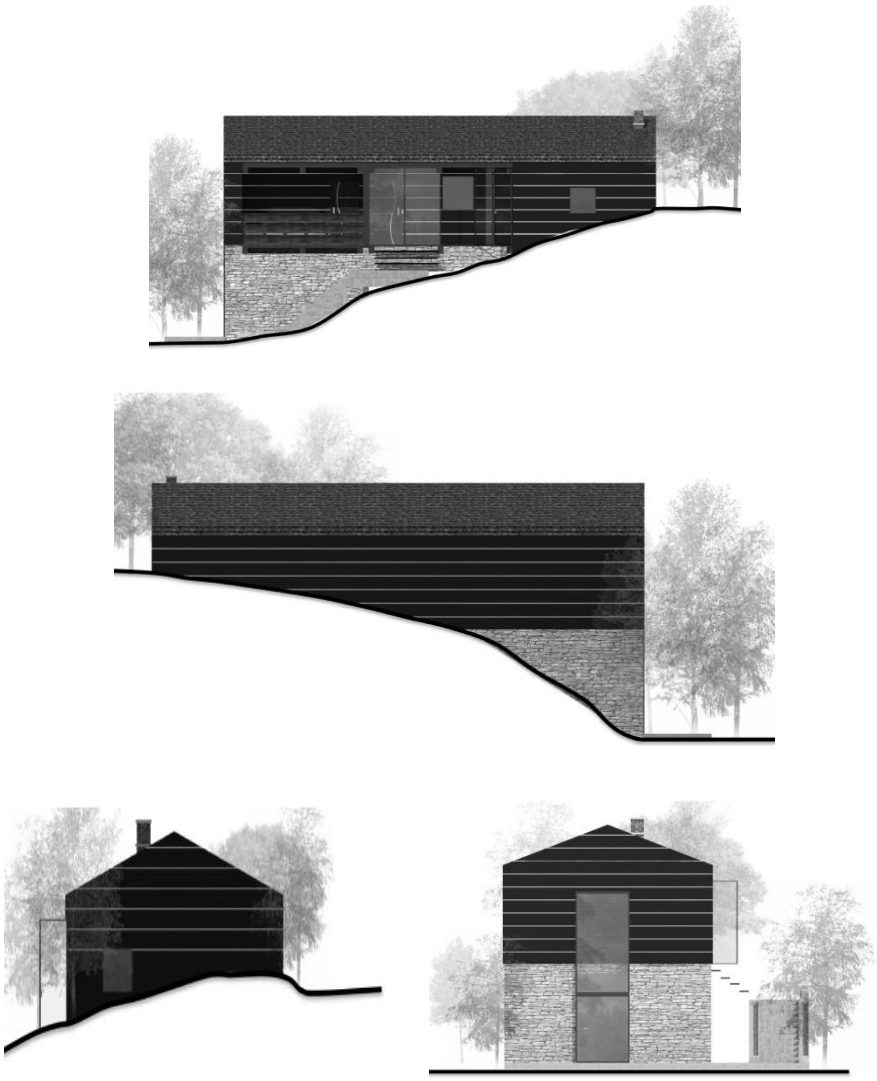


Fig. 7 Proposal for the regeneration of the house of the Stanišić family

4.2. Proposal for the regeneration of the house of the Nikolčević family

Bearing in mind that the house of the Nikolčević family (Fig. 3) is located near the old center of Štrpce**, radical interventions** on this building would refer primarily to the change of purpose from residential to hospitality. Apart from the **minimal interventions** involved, this would also mean (at least partially) the removal of internal dividing walls in order to open up the space and create toilets for guests and employees of the restaurant. The elements of the veranda remain unchanged. The lower floor could be used as a separate thematic part of the restaurant, an aperitif bar, a coffee bar or an auxiliary space that would be connected to the kitchen area on the upper floor by internal communication. In order to create a terrace for

guests to stay in the open air, the terrain could also be subjected to more significant works and thus obtain sufficiently large flat surfaces.

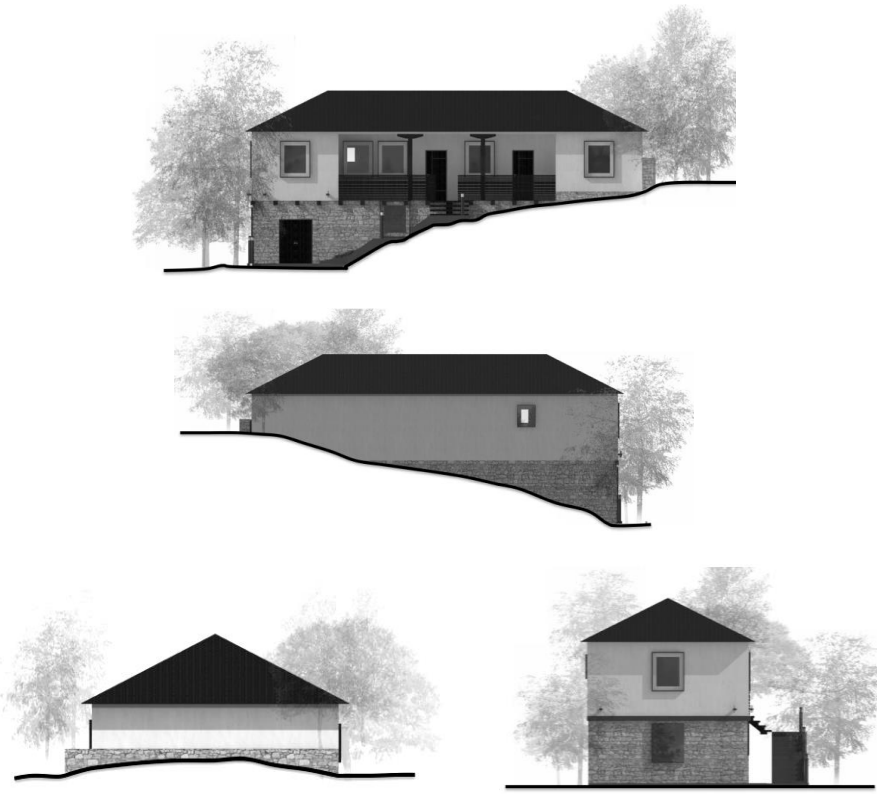


Fig. 8 Proposal for the regeneration of the house of the Nikolčević family

4.3. Proposal for the regeneration of the house of the Nikolić family

The proposal for a **medium-sized** renovation of the house of the Nikolić family in Gornja Bitinja (Fig. 4) envisages the preservation of the original purpose of the building, with the implementation of the mentioned minimally necessary interventions. Additionally, this solution would include the removal of the partition wall between the two rooms on the ground floor in order to improve the possibility of organizing a living area with a kitchen and a newly introduced bathroom. The floor would be organized as a night zone. In addition to the existing room, on this floor, by partitioning the semi-open space that was once used for the storage of fodder, an additional bedroom with an accompanying bathroom would be obtained. By closing the side wall of the house (preferably with transparent systems), the external staircase connecting the two floors would be transformed into an internal one, which would improve the comfort, functionality and connection of different parts of the house.

In another **moderately demanding variant,** the house of the Nikolić family would be turned into an ethno house. In this case, the reconstruction would entail the demolition of

the partition wall between the rooms in order to obtain a larger space that can be used as a hospitality area for visitors and there would be no other significant changes.

Special attention during the regeneration should be paid to the external decoration of the otherwise spacious plot. A sufficiently large area of free space opens up additional possibilities, such as adding extensions or forming modernly interpreted "duplicates" of the house on the same plot. Building on these potentials of the location, the **radical** regeneration of the house of the Nikolić family could include the conversion of the space for permanent residence into a space for tourist accommodation.

Fig. 9 Proposal for the regeneration of the house of the Mladenović-Kovačević family

4.4. Proposal for the regeneration of the house of the Mladenović-Kovačević family

As a part of **the medium-demanding** regeneration of the house of the Mladenović - Kovačević family (Fig. 5), the following interventions would be found, apart from the minimally required ones: the introduction of a bathroom in the space of the house, preferably on both floors; the introduction of modern materials that would be skillfully harmonized with the originally applied classical materials, primarily in the positions of the roof, windows and doors on the envelope; and conservatory čardak.

Since it is located near the Ski Center - Brezovica, the house of the Mladenović - Kovačević family would be transformed into a tourist and hospitality facility through **radical regeneration**. Accordingly, on the ground floor of the reconstructed entrance zone, there would be a wooden trellis and a new built-in space for storing ski equipment, and two existing rooms would be converted into a kitchen after the interventions, i.e. a shared living room with accompanying toilets. Four bedrooms upstairs would be equipped with individual bathrooms. The veranda would be extended to the level of the newly introduced canopy and then glazed.

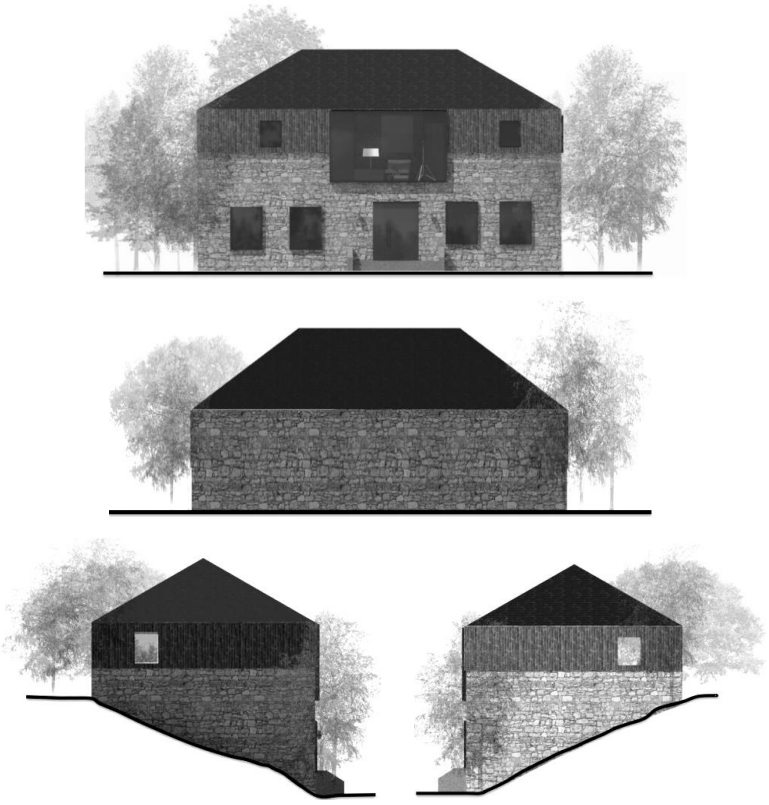


Fig. 10 Proposal for the regeneration of the house of the Mladenović-Kovačević family

4.5. Proposal for the regeneration of the house of the Kecić family

A **medium-demanding** solution for the regeneration of the house of the Kecić family (Fig. 6) would mean turning it into a catering facility that would extend through both floors. The new sanitary facilities would be adapted to the changed function and adapted to a larger number of users. Internal partitions on both floors would be maximally reduced, and the basic structure (especially the mezzanine) would be additionally secured. The exterior arrangement would be adapted to the new function, with the formation of a terrace for a larger number of people to stay in front of the house. A set of minimally necessary interventions is added to the medium-demanding solution proposal.

The proposal for **a radical intervention** involves turning the house into a tourist facility - a dispersed hotel. In addition to the minimal proposed interventions, this would also mean increasing the dimensions of the window openings, removing the barn on the first floor in order to obtain additional space for accommodation units, introducing a sufficient number of sanitary units, improving the sound protection of the partition elements and joining the original sloping ramp to the thermal envelope by glazing. The use of modern materials would also be possible in the interior. It is also proposed to frame these variants and replace the windows and doors with modern systems. In the hotel rooms, which should reflect the skillful combination of antiquity and modern functionality, only necessary pieces of furniture made of natural materials, in the spirit of an old house, with handmade details in bright colors.

When it comes to the house of the Kecić family in Štrpce, the range of minimal interventions could additionally include the removal of the partition wall between the two rooms on the ground floor - the kuća and the kleća - in order to obtain a better quality space in which the living room would be located with a kitchen and a bathroom, as well as replacing the sloping ramp with a staircase that would join the thermal envelope with glazing.

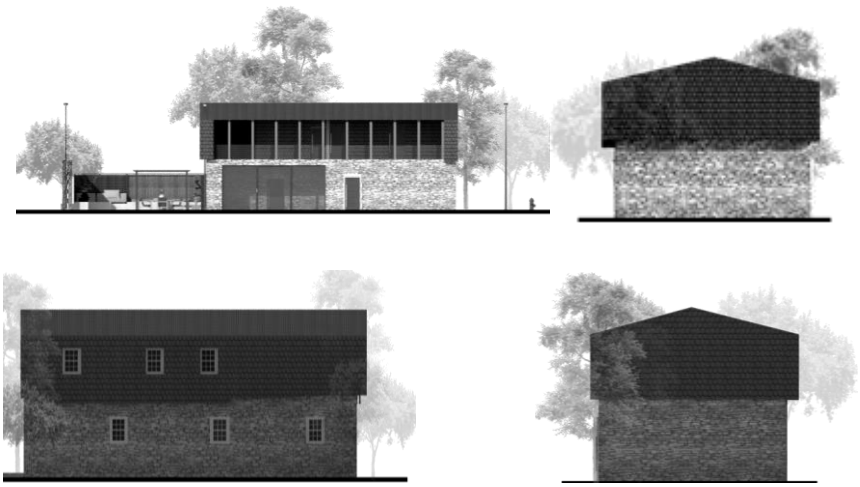


Fig. 11 Proposal for the regeneration of the house of the Kecić family

5. CONCLUSION

Vernacular/traditional architecture is the collective result of human behavior of changing the environment in diachronic evolution [19]. The regeneration of traditional Sirinić houses contributes to local rural socio-cultural and economic sustainability, preservation of heritage as a universal, collective good, further improvement of the ecological quality of housing units and their adaptation to current standards. In order to start this process of multiple benefits, it is necessary to develop awareness of the importance and potential of traditional built structures in the first place. Over the centuries, in all civilizations, a certain point of balance has been reached, where the peak of cultural development was translated into improved systems adapted to local conditions. This resulted in an increased and more logical use of available materials. Traditional built structures should be considered a strength, i.e., the "main economic benefit", due to the potential of conversion into tourist facilities. [20]. After that, specific local regulations and strategies need to be developed, adopted and implemented with the participation of local stakeholders (residents, homeowners and potential new end-users), investors, professionals and researchers. In the end, it is important to ensure adequate maintenance of regenerated houses because it is a prerequisite for the continued existence of the revived architectural heritage of Sirinićka Župa. The preservation of distinctive local environment and the life within the settlements and buildings is essential for sustainability in the locale. Different levels of values that are rooted in local rural communities, such as architectural, ethnological, historical and cultural, emphasize the importance of those communities. As such, it is vital to promote the purposeful use and regeneration of the architectural heritage as an integral component of new residential and tourist capacity.

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REGENERACIJA SEOSKOG ARHITEKTONSKOG NASLEĐA: STUDIJA SLUČAJA PET TRADICIONALNIH KUĆA U SIRINIĆKOJ ŽUPI

Arhitektonsko nasleđe Sirinićke Župe, smešteno u južnom delu Republike Srbije, podno Šarske planine, najpoznatije je po tradicionalnim kućama. Jedinstvenost stila starih sirinićkih kuća pripisuje se upotrebi lokalnih materijala i prilagođavanju lokalnoj topografiji, klimi i morfologiji naselja. Studija prepoznaje značaj čuvanja autentičnosti stambenog arhitektonskog nasleđa Sirinićke Župe i ističe potrebu za razumevanjem potencijala ovih građevina radi određivanja budućih odgovarajućih intervencija. Konkretnije, istraživanje analizira razvoj tradicionalne stambene arhitekture u području Sirinićke Župe, fokusirajući se na pet karakterističnih i reprezentativnih primeraka kuća - njihov originalni koncept i vrednost, trenutno stanje i pravac regeneracije. Rezultati doprinose postojećem korpusu literature pružanjem detaljnog naučnog opisa vrednosti sirinićkih kuća, kao i opravdanih intervencija u vezi sa regeneracijom koje proizilaze iz delikatnog pristupa i procene uticaja.

Ključne reči: *tradicionalne kuće, Sirinićka Župa, regeneracija, održivi razvoj sela*