



INCORPORATION OF CULTURAL FUNCTIONS IN ARCHITECTURAL ADAPTATION FROM TRADITIONAL HISTORIC BUILDINGS INTO ART GALLERIES IN SKOPJE, N. MACEDONIA

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Abstract. *Architectural adaptation and reuse of historic buildings is a process of changing the original function of the historic buildings to another function that can optimize the use of existing historic buildings. Historic buildings contribute to the character and vitality of the cities. They need to be conserved or adaptively reused in order to form the cultural heritage of tomorrow. Architects have a responsibility to future generations to enrich and preserve the historical buildings, to understand the significance of a place and respond to it. Adaptation projects link the past to the present and project into the future. Heritage items are a response to their cultural, social, historical, political, economic and physical environments. Adaptation or reuse offers new uses for historical buildings. The new use needs to be compatible with the building, retain its historic character, but it can still introduce new services, as well as modifications and additions. Specific attention in this research will be given to historic buildings that will have adaptation and reuse in order to efficiently have architectural space distribution in an art gallery context. Priority should be given to the halls with permanent and temporary art collections, collection repositories and adequate public access and architectural space. Preservation of the collection following, a group of demands associated with the preventive preservation of collections, which are equally important, though with more rigorous solutions demanding higher conciliation levels among architects, restorers and art gallery executives: climate conditions, capacity of the architectural space, light conditions, fire control aesthetic and energy-efficiency issues, that will be examined. This research is conducted to gather and evaluate the conditions of the applied architectural adaptation and re-use principles in selected cultural heritage buildings in Skopje. This research has started with an inventory that led to the discovery of the applied principle of adaptive re-use of historic buildings Daut Pasha hammam and Cifte hammam, which had been adapted in art galleries in Skopje, Macedonia. Results of the case studies carried out showed that the level of architectural conservation of heritage objects is moderate and measures of control should be taken to ensure the privileges of the cultural heritage building. As a result of this research, a number of suggestions are made to ensure that adaptive re-use work in the future needs to be conducted according to the adaptive re-use and conservation principles.*

Keywords: *architectural adaptation and reuse; historic buildings.*

1. ARCHITECTURAL ADAPTATION OF HISTORIC BUILDINGS – PROCESS AND ORGANIZATION

Architectural adaptation and conservation is process of planned interventions over historical integrity of architectural built heritage. Decisions about the intervention are critical for conservation-restoration of cultural heritage. The decision is value based in combination of artistic, contextual, and informational values. In a process of architectural adaptation and re-use of historic buildings, architects have responsibility to future generations to preserve historical buildings and to understand the significance of a place. Adaptation projects link the past to the present and project into the future. Adaptation or reuse offers new uses for historical buildings. The new use needs to be compatible with the building, retain its historic character, but it can still introduce new functions. The new use needs to be compatible with the building, retain its historic character and conserve significant fabric, but it can still introduce new services, as well as modifications and additions. The adaptation and reuse of historic buildings is a challenging task for the architect and the investor, which consists of complex tasks and problems that need to be solved in order to make the realization of the transformation of the old functions and objects in new modern functions and conditions.

2. CASE STUDY – RESEARCH OF ARCHITECTURAL ADAPTATION STRATEGIES IN HISTORIC BUILDINGS IN SKOPJE, MACEDONIA

Architectural adaptation strategies of architectural historic buildings with cultural heritage in Skopje, Republic of Macedonia, have been selected as case studies:


- *Daut Pashin Hammam, Skopje, Macedonia*
- *Cifte Hammam, Skopje, Macedonia*
- *Suli Inn, Skopje Old Bazaar, Macedonia*






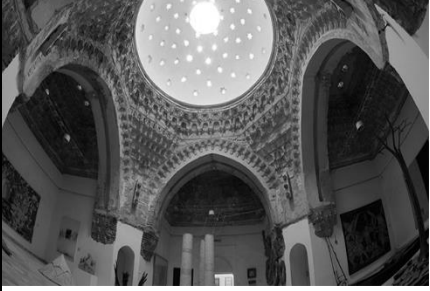

The research has started with an inventory analysis that led to the discovery of adaptation principles of historic buildings in Macedonia. This research consisted of gathering information and analysis of applied adaptation and re-use principles that has been done in architectural adaptation of buildings with cultural heritage from Ottoman period to national art galleries and museums in Skopje Macedonia.

Results of these case studies carried out show that the level of conservation of heritage buildings is moderate and measures of control should be taken to ensure the privileges of cultural heritage building. As a result of this research, a number of suggestions are made to ensure that adaptive re-use work done in the future need to be conducted as optimum as possible according to the adaptive re-use and conservation principles.

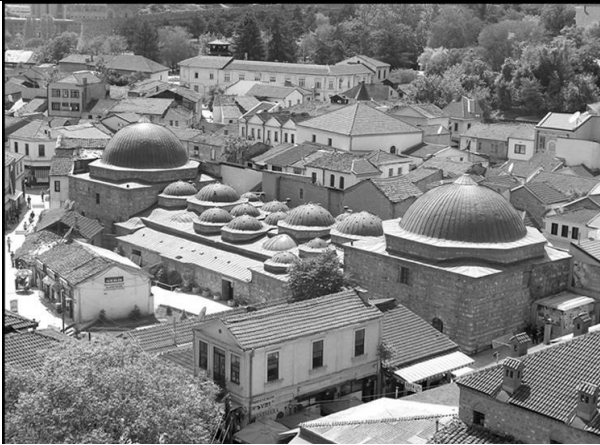



2.1. Case Study Research of Daut Pashin Hammam, Skopje Macedonia





The National Gallery of Macedonia founded in 1948, is one of the oldest art institution of the Republic of Macedonia today, which consists of the exhibition facilities: Daut Pashin Amam, Cifte Amam and Mala Stanica.

<p>2.1 Daut Pashin Hammam, Skopje Macedonia</p>	
<p>Location</p>	<p>Daut Pashin Hammam is located just near the Stone Bridge on the right when standing at the entrance of the Old Bazaar.</p>
<p>Historic Period</p>	<p>It is presumed to have been built in the second half of the 15th century and the founded by the great vizier Daut Pasha who held highest rank in the hierarchy of the Ottoman Empire.</p>
<p>Architectural Type</p>	<p>The hammam belongs to the cifte type of double baths - hammams. It was divided in two parts men's and women's with separate entrances.</p> <p>Daut Pashin Hammam has capacity of twelve rooms. It is covered with a large number of domes with different dimensions with fascinating asymmetric and rhythmical arrangement. The domes have rich decoration which consists of stalactite ornaments. In some of the rooms, decoration in</p>





	<p>the shape of a frieze with stylized flowers carved in low relief can be seen in fragments on the walls. Its dimensions and aesthetic values make it a masterpiece of profane Islamic architecture.</p>
	  
	 
<p>Damages over historic periods</p>	<p>This hamam suffered heavy damages in wars, natural disasters, the earthquake of 1555, the fire set to Skopje by Piccolomini in 1689 and the earthquake of 1963.</p>
<p>Function and Re-use</p>	<p>In the past this building was used as a public bath, and since it's restoration in 1948, it serves as an exhibition facility and Art Gallery. Today's permanent exhibition was formed in 2000 with exhibitions of development of Macedonian visual arts from 14th to 20th century</p>

2.2. Case Study Research of Cifte Hammam, Skopje Macedonia

<p>2.2 Cifte Hammam, Skopje Macedonia</p>		
<p>Location</p>	<p>Cifte Hammam is located in the immediate vicinity of Suli Inn in the Old Bazaar in Skopje</p>	
<p>Historic Period</p>	<p>Cifte Hammam was built in mid-15th century and is the second-largest hammam from this period, built by Isa Bey in 1531.</p>	
<p>Architectural Type</p>	<p>The hammam belongs to the cifte type of double baths - hammams. It was divided in two parts men's and women's with separate entrances.</p> <p>The main rooms are covered with two large domes, while the halvets (bathing cubicles) and other chambers are vaulted with a large number of small domes, today covered with sheet metal.</p> <p>The organization and arrangement of the rooms in both parts is typical and depends on their purpose: the anteroom (meydan or şadrvan) which was intended for relaxation, partially warmed room (kapaluk), bathing space (halvet). Today, the stylized geometric and vegetative ornaments, stalactites and rhombuses rendered with great precision in low relief survive only in fragments in some of the halvets.</p>	
		

		
		
<p>Damages over historic periods</p>	<p>Cifte Hamam was damaged several times: in the earthquake which struck the Skopje region in 1555, and during the great fire in the 17th century when the structure was damaged.</p> <p>Its full conservation began after the earthquake of 1963, when the bath suffered more extensive damage. Due to the fact that it was solidly built, the hammam mainly preserved its original appearance.</p>	
<p>Function and Re-use</p>	<p>Cifte Hamam in 1916 had a function of a storage space. Today it is the site of the National Art Gallery in Macedonia.</p> <p>In the past this building was used as a public bath, and since it's restoration in 2002 Cifte Hammam was reopened as a National Gallery, with exhibition area measured of 1056 sq.m.</p>	
<p>Preservation Project</p>	<p>New preservation project has started in Cifte Hammam from 2018, which included basic project for remediation of damages from moisture, protection from storm water, ventilation system of interior, protection of UV radiation and repair of the roof construction, conversion of the premises into functional exhibition space, repair of lighting installation. All of the preservation activities of the facility had to be carried out according to the standards and norms from the Conservation approval for repair from the Institute for protection of cultural heritage.</p>	

2.3 Case Study Research of Suli Inn, Skopje Macedonia

<p>2.3 Suli Inn, Skopje Macedonia</p>		
<p>Location</p>	<p>Located at the heart of the Old Bazaar in Skopje</p>	
<p>Historic Period</p>	<p>Suli Inn was built in the 15th century by Isa-bey</p>	
<p>Architectural Type</p>	<p>Suli Inn belongs to the type of two-storey inns with an open square courtyard, surrounded with a porch supported by massive square columns. There are twenty-seven rooms on the ground floor, and thirty rooms with chimneys to keep the visitors warm on the upper floor which served for overnight stay of the travelers. It is built with stone and brick in opus-cloisonné style. Suli Inn represents an important work of profane Ottoman architecture.</p>	
		
<p>Damages over historic periods</p>	<p>In its history, the inn was damaged several times: in the earthquake of 1555 and in the fire of 1689 when the Austrian general Piccolomini set the city of Skopje on fire, and when it was heavily damaged; after these disasters, the inn was reconstructed. In the earthquake of 1963 it was almost completely destroyed, but after its conservation and restoration, it acquired its present-day appearance.</p>	
<p>Function and Re-use</p>	<p>It lost its function in the late 19th century; in the period that followed, it served as a warehouse and the site of several craft shops. Today in Suli Inn is located Faculty of Fine Arts, the Gallery of Contemporary Art, as well as of the Old Bazaar opened in 1983 which holds various ceramic works and artworks with motives of the old town, as a unit of the Skopje City Museum.</p>	

3. STRATEGIES AND CHALLENGES OF CONNECTING HISTORICAL BUILDINGS WITH THE NEW FUNCTION TO NATIONAL ART GALLERIES AND MUSEUMS IN MACEDONIA

The architectural buildings that are being constructed in particular historical period were built with specific materials and building technologies that followed their function, according to the requirements for their specific function. However, with the development of technology and materials, new approaches in construction materials and building technologies, became more superior and their application has become with more contemporary approach.

Old historic buildings need to be restored according to the technical regulations in terms of cultural heritage regulations, structural stability, seismic analysis of the building, acoustics, thermal protection, moisture protection and fire performance of modern electrical installations, Internet, multimedia presentations. Some of these requests cannot be provided in the historical buildings with the application of the old building techniques.

In the application of new modern interventions in the historical buildings, it is important to be careful and precise not to apply irreconcilable and irreplaceable damages, especially in architectural style, dimensions and silhouette of the form, ambient environment, constructive stability or other harmful interventions.

It is complex and difficult task, to reuse an old historical building, than to build a new architectural building. Modern methods of conservation and protection on historical buildings are applied in Macedonia. Architectural conservation measures were applied in terms of the damage caused to the historical buildings from the earthquake in Skopje in 1963 year. With local assistance and support to the international community in a quality way, many damaged historical objects are being restored.

Strategies of architectural adaptation of historic buildings into art galleries in Macedonia are:

- Preservation of museum and art collections
- Climate conditions
- Building conditions
- Light conditions
- Fire control
- Aesthetic factors,
- Energy-efficiency issues

During the renovation, modern seismic construction techniques and application of modern materials and techniques were used. Adaptation and reuse of historical buildings in Skopje became foundation for their functional adaptation and conversion of their new functional units and organization.

Hammams and Inns are among the most beautiful architectural buildings from the Ottoman cultural heritage in Skopje. Hammams were historic buildings used as public baths in the past. Their adaptation and reuse give them new function into art galleries with permanent and occasional artistic exhibitions. Inns were reused into buildings with cultural and educational function.

It is very important to consider the aspects of the new museological uses from a pre-existing architecture with adaptation of an old historical building, as well as how to display the collection that needs to be preserved.

Museum conception has specific needs that need to be met for the institution to connect with its collection, research, exhibit and educational functions. Therefore, specific attention should be paid for the areas that need to be modified in order to preserve and show the historic value of the building.

- Space distribution – efficient architectural space distribution into context of an art gallery: priority should be given to halls with permanent and temporary collections and adequate public space

-Capacity of the floor construction - the weight of the displayed elements, collection pieces and visiting tourists can exceed bearing capacity of the floors. Structures must be reinforced and they will need intervention on the building.

-Preservation of the collection – priority should be given in preventive preservation of collection, and achieving adequate conditions according to the regulations for preservation of cultural heritage and preservation of museum collections

-Lighting conditions – many collections elements require pale lighting for their preservation. Therefore, some of the original large windows of historic buildings need to have prevention of excessive natural sun light in the museum collection.

-Fire control devices – required infrastructure need to be implemented in order to prevent the impact fire can have on the architectural structure. These plans include evacuation plan and protection of the collections with their classification.

-Climate conditions – museum collections demand specific kind of preservation: relative humidity and temperature. The required equipment for ensuring the museum climate conditions is very expensive, as well as its energy and maintenance costs.

4. BENEFITS OF ARCHITECTURAL ADAPTATION AND RE-USE OF HISTORIC BUILDINGS

Adaptation, conservation and reuse of historical buildings in historical core of the city are important task for every civil society. Old historic architectural buildings bring the spirit of the particular place, called “genus loci”, connecting the present function and use, in order to connect the history to the future. Adaptive re-use values are remarkable into keeping the memory and authenticity of the place, because the building has significant meaning in cultural and personal memories over time and history.

Historic buildings contribute to the character and vitality of the cities. They need to be conserved or adaptively reused in order to form the cultural heritage of tomorrow. The selection of appropriate new function is an important factor in determining the success of adaptive re-use of historic buildings.

Benefits of architectural adaptation and re-use of historic buildings in Skopje’s Old Bazaar are:

- *Preservation and conservation of historic place*
- *Benefits of keeping the authenticity of historic core of the city*
- *Connecting the art in the city with historic place*
- *Connection between historic buildings in carshija*

Programming a new use for a historic property should be a creative exploration of the relationship between the definition of future needs and historic context.

Adaptation and reuse of old historic buildings into modern and contemporary function – art galleries, has an economic and functional basis. If their function continues according to these principles, it will provide economic basis for the realization of the future functional units in the building.

The application of the Cost-benefit analysis should show which of these conditions and techniques can be realized in the old buildings by defining the positive and negative strains of the application of certain modern requirements and needs. Adaptation and reuse of historic buildings should preserve and conserve the most important character defining features that will be the connection between the past and the future in a unique architectural design with new modern function.

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