GIVING NEW LIFE TO HISTORIC BUILDINGS

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Abstract

Buildings reflect the social life, culture and technology of the people who constructed them. Architects try to find optimum solutions to the needs of their society; their designs bear the stamp of their era. With changes in living style and technology, old buildings are no longer able to meet the demands of the society they belong to. Historic houses, schools, hospitals and caravanserais need to be updated or adapted to new uses. In order to succeed in the effort to find appropriate uses for old buildings, care should be taken to preserve the original design, the atmosphere and the spirit. Thus it may be possible to sustain the cultural significance and educational value of a rich repertoire of old buildings: public baths, educational, commercial and industrial buildings for future generations.

International principles of conservation provide the basic guidelines for converting old buildings to new uses. According to Venice Charter (1964), the layout and decoration should not be changed. It is important to select a proper use which will not impair the historic fabric. Commercially oriented approaches to revive redundant buildings may result in an excess of interventions- causing grave changes to their spatial organization. It is important to treat the historic fabric sensitively; not to jeopardize or have negative impact on the character of the buildings. Technical services which are linked to the new uses may require some additions to the old structures. These need to be designed in a way that they not to damage the structural system and the outlook of the old buildings.

There is great interest in reviving our architectural heritage; mansions, caravanserais, madrasas, factories are restored to serve as cultural centers or touristic facilities. A research was conducted to evaluate the success of conversion projects carried out in the recent years. The research revealed that although there are several success stories,some reuse projects have additions or conversions which do not fulfill the criteria. Thus, it is important to emphasize that the purpose of conversion projects is to give new life to old buildings; the architects need to respect the basic principles of adapting historic buildings to new uses.

Keywords: Re-use; conversion; restoration; regeneration

1. Introduction

Historic cities have a rich variety of historic buildings related to the old way of living; their residential, commercial and industrial districts reflect the traditions of the local community. The fabric of old cities provide information about the history of the activities which took place in it; the evolution of the city and its social life. The presence of beautiful mansions, madrasas, caravansarays, covered bazaars, fountains, public kitchens and industrial buildings provide an insight into the richness and complexity of the urban life. What remains from old cities is the cultural heritage we have to care for.

Due to physical and functional obsolescence, many historic buildings have lost their original functions. If a building is not used, it is neglected and deteriorates. Restoration and re-use projects have great economic, social and cultural impacts on the city by investing in the historic fabric and revitalizing it with new activities. Due to their importance as cultural objects, worthy of protection, re-use of old buildings requires careful study and treatment of the original fabric, structure and details. If the new use is not appropriate, or if the conversion is done without respect to the original fabric, the interventions can lead to misuse and damage.
2. Basic principles of re-use

The rich repertoire of historic buildings in a city offers the chance to learn about the living styles, commercial activity and traditions which have shaped the built environment. Spaces and their relations are important features which need to be respected while preserving the urban fabric. The importance of a building as a historic asset, with authentic features and spatial qualities determines the extent of intervention which can be applied to it. In selecting new uses, those similar to the original are preferred, due to the reduced scale of interventions necessary and also the sustenance of the character of the building. Interventions which are not suitable for old buildings are formulated by international charters and professional codes. Charter of Venice (1964) provides the general guideline, by stating the purpose and limitations of reuse projects. Article 5 expresses the purpose of reuse and its limitations (ICOMOS, 2001):

“The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted. ”

Building types, their interior designs and special features need to be respected. The principle is “minimum intervention” to the original fabric. Other charters and conventions like the Declaration of Amsterdam (1975), Nairobi Declaration of 1976 (UNESCO 1985), Granada Charter (1985), Burra Charter (ICOMOS, 2001), Faro Convention refer to the revitalization of historic areas and their surroundings. Nairobi Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas regards reuse or rehabilitation of monuments as a means to extend their life span. The charters emphasize the principle that interventions should pay due respect to the original fabric. According to Burra Charter “adaptation should involve minimal change to significant fabric” and it is acceptable only when it “has minimal impact in the cultural significance of the place” (ICOMOS 2001). Reversibility is an important point in the design of reuse projects. After some time, the assigned use may also become redundant and the need may rise to adapt the building to yet another function.

These guidelines provide the basic frame within which the architects and designers can work while converting a historic building. It is important to know how the interior was decorated, used and presented in the past while planning interventions. The separation of open and semi open spaces, the movement of people in the building, type and arrangement of furniture, the flow of light and light fixtures are important characteristics which make up an interior. If no attention is paid to original features, the new use can change the appreciation of the interior, reducing it to a meaningless box. Care should be taken when enclosing arcades, which were designed to be semi-open spaces.
3. The influence of the building type on re-use

The historic, artistic and symbolic significance of old buildings determines the category of their protection. Monuments of extraordinary importance like imperial palaces and mosques are Grade I monuments and protected with utmost care. Even if they lose their original function, they are maintained for their cultural and artistic value. They are presented to the public as heritage sites. The museum function is perhaps the most suitable for important monuments, which treats them as objects of research and temples of history and art. This kind of cultural and social use respects the symbolic value of the monument and its image within the urban fabric and the silhouette of the city. They are not exposed to risks which might result from new uses requiring additional spaces. Thus they retain their original features; minor modifications are permitted in order to facilitate the movement of visitors and organize some activities like lectures and temporary exhibits.

Due to their significance as historic and artistic patrimony, palaces from the Ottoman period are converted into museums and are open to visitors. The interior arrangement and furniture of some pavilions are preserved and give an idea about how they were used originally. But some spaces are arranged with showcases and objects from the palace collections are presented. It is important not to put too much and irrelevant objects to interiors which are very interesting from historical function. The exhibit within the Arz Odası is not related to the important reception room which was used by the sultan to receive foreign guests.

Ibrahim Pasha Palace (Figures 1-4) is the only surviving vizierial palace in Istanbul (Artan, 1994). Its location on the Hippodrome made it an important ceremonial building from which the sultans watched parades. The residential function of the palace was changed in the seventeenth century; it became a military building and underwent modifications in the late Ottoman period. The restoration in 1980’s revealed the original features which had been blocked by later interventions. Today the building is used as the Turkish Islamic Museum. The vaulted spaces on the ground level house the entrance hall and the exhibition space. Stairs lead to the first floor which has cells on two sides of the courtyard and a big ceremonial hall at the south. Originally, the ceremonial hall had arcades opening to the courtyard. The space is very interesting with its tall red painted timber columns (Fig 3). For the museum function architect Hüsrev Tayla blocked the arcades overlooking the courtyard (Fig 4). He also opened some passages between cells, to ease the movement of visitors. The heating and climate control are important for the conservation of the objects on display. The arcades have been enclosed by glass panes. Modern technology has been installed within the 16th century structure to provide the optimum conditions for the objects.

The underground cisterns are very interesting buildings from the Roman and Byzantine periods. They were used to store water and saved the lives of the citizens during sieges. During the Ottoman era, they were not in function; as a result were neglected and filled with rubble. New buildings were raised over them. During the 19th century one of the major cisterns was used as the workshop of silk weavers (Fig 6). According to the legal system, they belong to the person who owns the parcel they are in. So the Nakilbent Cistern near the Hippodrome has become private property. Some of the major cisterns are the property of the Metropolitan Municipality and are well cared for. The Basilica Cistern near the Hagia Sophia and Şerefiye Cistern (Fig 6) are restored and presented to the public. Concerts or art exhibits are organized within them.
Many of the old buildings need to be maintained and adapted to meet the requirements of changing life style and modern technology. If they are not renovated or updated to meet the comfort level set by current living standards, they are deserted or not used properly and suffer from maltreatment. Sometimes the old function is still part of modern life, but the services provided for the same function are quite different from what the old buildings can offer. So they become redundant. Old hospitals and schools are examples of the drastic changes our age has introduced to health care and teaching facilities. New healing techniques and treatments are far ahead of what the hospitals of the Middle Age or more recent times can provide for the patients. The same is true for madrasas which were the high schools and colleges of their time. The curricula, the number of students which were allowed to madrasas and the heating, lighting systems are quite different from what is expected from similar educational buildings today. So, it has become an important task to preserve the traditional buildings, assigning them proper functions which will not require major changes to their interior organization and spaces.

Madrasas were schools of higher education in the Middle Ages and the Ottoman period. They consist of a classroom and 10-20 cells for the students who had scholarships and stayed in the building. Arcades around the courtyards provided spaces for students to read and enjoy the courtyard. The classroom and the cells were arranged around a courtyard (Fig 7). With the change in the educational system, several beautiful madrasas were converted into museums, libraries or hostels for students in the early Republican period. Some of these functions continue; some are changed. Madrasas with open courtyards have limited facilities for accommodating large groups of people. To overcome this, some conversion projects cover the courtyards, changing the architectural concept of the original building. To add a high glass block above the courtyard is an unprecedented intervention (Fig 8). The classroom of this important monument from early Ottoman period suffers from the aggression.

**Figures 5, 6. Cisterns of Binbirdirek and Şerefiye**

**Figures 7, 8.** Istanbul, Rabi Medrese within Süleymaniye Complex; Bursa, Muradiye Medrese
The typology of madrasas fits their use as research institutes and libraries. The Feyzullah Efendi Madrasa (Fig 9) uses the library and the classroom of the madrasa as an expert library facility. The cells are used for the administration and stacks. The arcades of the library section have been closed by glass panes and an office with the desk of the librarian is placed here (Fig 10). The transformation of semi-open spaces into closed rooms is a negative change. Madrasas are also suitable for NGO activities and craft courses. The closing of some open spaces to acquire more usable space presents serious problems in reuse projects. To use madrasas as health centers requires additions; modern physical examination and therapy requires equipment which does not fit into madrasas which have only one classroom; the student cells are small sized rooms. Two madrasas by Architect Sinan, Mihrimah Sultan Madrasa at Üsküdar and Sultan Selim Madrasa at Yenibağçe suffer from the pressures of the new uses. The classroom of Mihrimah Sultan is used for x-ray examinations. The meaning of the spaces are not respected and the planimetry of the building suffers from additions.

The lack of maintenance affects the users and the type of activity in the historic centers. Commercial buildings like caravanserais in historic centers are usually used as warehouses or workshops. Some old and significant buildings like Vezir Han in Istanbul are suffering from neglect and inappropriate uses. The change of ownership and lack of maintenance leads to their treatment as substandard office and workspaces. The users are not always aware of the historic value or the spatial quality of the beautiful arcaded caravansaray courtyards and their potentials for reuse. The government has supported the upgrading of the Bursa commercial center, restoring some of the old hans. Rüstem Pasha Caravanseri in Edirne was converted into a touristic facility by the General Directorate of Pious Foundations (Fig 11). Hürev Pasha Han in Diyarbakır was also renovated and is a very popular place for brunches. There are also shops for souvenirs, books. The courtyard is very lively all through the year. The Cinci Han in Safranbolu and Behram Pasha Han in Sivas are renovated as hotels. The insertion of modern bathrooms, heating and ventilation systems to masonry buildings creates problems. The level of comfort expected from a 16th century building should not be the same as from a 21st century hotel.
A significant type of commercial buildings is the bedesten which was a special structure developed for selling valuable goods like silk and cashmere, jewellery and fine metalwork (Cezar, 1983). Bedestens are located in cities which were on important trade routes. They are square or rectangular in plan, covered by domes or vaults. They had thick masonry walls to be safe against fire; the doors and window shutters were made of iron. In bedestens, the tradesmen did not have big shops, separated by partitions. They kept their valuable goods in trunks and exhibited them on low counters. The doors of the bedesten were locked at night and a guard looked over the building.

In Istanbul, there are three bedestens; two in the Historic Peninsula and one in the Galata section of the town. Of the first two, dating back to the fifteenth century, Cevahir Bedesten was devoted to the shops for jewellery. The second was mainly for shops selling costly textiles. Both bedestens continue their commercial activity within the Grand Bazaar, but their interiors have changed with additions. The surroundings of the Galata Bedesten has changed in time and the building lost its original function. It is still used for commercial purposes, but the nature of the goods sold in the shops have shifted from gold and silk to hardware. The interior space has been divided by walls. It is essential to improve the way the monument is used and presented. The space should be freed of additional partitions; the piers, arches and the totality of the domed interior should be clearly visible by using the interior as a single space with furniture which do not block the view. The bedesten in Edirne is also used inappropriately.

In the recent years some of the deserted or misused bedestens are restored and given new functions. In Tokat, the bedesten and the adjoining covered bazaars house the local museum. In Sarajevo, the bedesten which dates from the sixteenth century was converted into the city museum (Fig 13,14). Bedestens usually have four gates, linking them to the streets around it. For security reasons, after the conversion, only one of the gates is used.
The caravanserais on the main roads have a different typology than the city inns. They had to accommodate large caravans loaded with goods. For this reason, they have large halls covered by vaults or timber roofs. Some of the ones dating from the Seljuk period are being restored and used for touristic purposes. Their large halls are suitable for meetings and exhibits. Ekmekcioğlu Caravanserai in Edirne is an early seventeenth century inn, originally built on the outskirts of the city (Fig 15,16). The city has grown and now the caravanserai is at a central position. The inn has a large courtyard surrounded by high walls. The covered section consists of two big halls linked by a large entrance hall. During the 20th century, the large halls of the inn were used for storing grain. Recently, the inn is restored and used for exhibitions and conventions. The spacious halls with raised stone benches and fireplaces provide an insight into the conditions under which the travellers made their trips in the Ottoman period. Evliya Çelebi mentions the high roof over the entrance hall. This spectacular feature had been lost and is now reconstructed. The timber roof trusses covering the halls are very interesting (Fig 17,18).

The imperial caravanserais in Istanbul have sections to accommodate the travellers. In the nineteenth century the caravanserai of Bayezıt II Complex (Yüksel, 1983) was converted into a library by Sultan Abdülhamid II (Fig 19). The neighboring public kitchen was annexed to the library in the early years of the Turkish Republic. Recently the library was renovated (Tabanlıoğlu, 2016). The caravanserai serves as the reading room of the Library (Fig 20).
Historic hospitals are interesting in offering information about the treatment of patients in the Medieval and more recent times. They had a pharmacy and a kitchen for cooking diet food for the patients. A bath was attached, so the hygiene was an important issue. Hospitals were founded by the sultans and their family members. Only a few survive from the Seljuk period. They are located in major cities, like Kayseri, Amasya and Divriği. Since they are rare examples of a building type, they are preserved as museums. The conversion into a museum provides the chance for a good presentation of the architectural features and the historical information.

The hospital of Bayezıt II in Edirne dates from the fifteenth century. The hospital incorporates sections for day-patients who were examined and got medicine. The section for mentally ill patients is organized around a hexagonal courtyard with a pool in the center. The high dome covering the courtyard attracts the eye (Fig 21). Evliya Çelebi mentions the musicians playing for the mentally ill people and the nice smell of flowers coming in from the windows. The hospital was restored and given to the university established in Edirne in late 20th century. With its interesting architectural features and exhibits, it is an attractive place to visit (Fig 22).

Figures 21,22. Hospital of Bayezıt II in Edirne, now a museum

Figures 23,24. Bey Hamam in Thessaloniki and Davut Pasha Hamam in Skopje
It is important for reuse projects to cherish the original features of historic buildings. The major architectural elements of an old building should not be curtailed by additions or installations. The sizes and arrangement of original spaces sometimes pose difficulties. The old Turkish baths (hamams) have very interesting interior features but it is not easy to convert a Turkish bath. Since the beginning of the twentieth century, the ownership of many baths has been transferred from waqf administration to individuals. The cost of maintenance and repair becomes a burden to the new owners. Only a few are still in use as baths. Their big sizes and masonry structures require care with specialized skills.

It is difficult to find the solution to satisfy the requirements for the proper presentation of the historic baths and the demands of the owners. In the conversion process, many of their interior fixtures are lost. The sequence of spaces is changed or it becomes difficult to perceive the relationship between rooms. Commercial uses such as in the Büyük Hamam at Üsküdar or Hoca Paşa Hamam at Sirkeci harm the historic buildings, visually and physically. The original spaces are changed dramatically by the loss of original elements. Use of hamams for art exhibits can be a solution in some cases because the spaces and art combined offers a new experience, without endangering the original fabric. In the Bey Hamam of Thessaloniki, the exhibits are temporary and take place in the dressing hall. The architecture is not damaged (Fig 23). The interiors are very impressive with their original functional elements and muqarnas decoration from the fifteenth century. In the Davut Pasha Hamam of Skopje, the new use is appropriate but some of the interventions were not sympathetic to the original fabric. The entrance to the art gallery is provided from the water tank at the back. The raised platforms and the wash basins of the hot section are removed to let visitors to move freely (Fig 24).

Industrial buildings used by traditional societies consisted of water and wind-mills, oil presses, looms for cotton and silk weaving, tanneries, brick kilns, powder and cannon factories. Only a small number of old mills are still in function. They are restored in order to illustrate how the mechanism worked in the old days. Some of the water mills are still working and the flour produced in the traditional way is used to make wholemeal bread. Some of the traditional arts are revived and thus the old olive oil presses or brick kilns are working again. But the leather processing system has changed in the nineteenth century, therefore these old workshops need to be used and presented with a new function.

In the Ottoman era, the activities of the military demanded the production of arms and ammunition. The cannon was a revolutionary equipment in warfare and contributed to the victories of the armies. The first cannon factory in Istanbul was established outside the walls of Galata in the second half of the fifteenth century. Due to use of the strong fires to melt metal, there was risk of fire and the cannon workshops suffered from explosions and fire several times. The present buildings at Tophane district are mainly from sixteenth and eighteenth century (Fig 25). The foundries are built on the slope and raised about 10 meters from the coast. The cannons produced here were lowered down by sledges and transported to the coast.

The Cannon Foundry at Tophane lost its function in the late Ottoman period. It became part of the military museum in 1955. There was an intention to convert it into a cannon museum but the funding could not be provided. The surviving buildings of the foundry were handed over to Mimar Sinan University to be used as a cultural center (Güngören-Gönen, 1995). The big foundry, the single domed building and the adjoining cisterns are used as exhibition spaces (Fig 27,28). The new use is ideal for a historic building but there is no information about the cannon production which took place at this place.

Figures 25, 26. Tophane-i Amire, the Imperial Cannon Foundry in Istanbul
Electric, gas, match, spirit, cotton factories, railway stations were introduced to the Ottoman Empire in the 19th century, through contacts and trade with Europe. These industrial plants were in use until mid 20th century but the changes in technology made most of them obsolete. The factories are now given new functions in order to integrate them into the urban life around them. Their big spaces provide possibility to create social and cultural centers which can attract many people and provide public services which are not available in the neighborhood. The insertion of functions like exhibition halls, a library, seminar rooms, museum are appreciated.

During the Ottoman period, Bursa was an important center for silk production. With the industrialization in Europe, a new technology was developed for silk production. This was transferred to Bursa and new factories were erected. These were active until the second half of the 20th century (Aydin, 2007). Due to its low cost, Turkey imported silk from the Far East and this brought the activity of silk weaving to an end. The silk factories were neglected and some collapsed. The Imperial Silk Factory established in 1852 is one of the major buildings related to silk industry in Bursa. It produced good quality silk thread for Hereke Factory until 1920’s. Recently it
was restored to house a vocational school. The use of the main building with masonry walls and timber floors as studios and workshops (Fig 29, 30) is an appropriate conversion.

**Conclusion**

Adaptive re-use of cultural heritage is a wide field of work requiring a sensitive approach to old buildings. The basic principles for re-use should be coupled with artistic creativity in order to enrich the lives of the inhabitants living around. The cultural and scientific activities fit perfectly into historic buildings. Young and the senior members of the society should be able to enjoy the beauty, atmosphere of historic buildings by participating in the activities- lectures, concerts, exhibitions- taking place within these significant buildings. The spaces should be also available just for leisure, enjoying the space by spending time there reading a book.

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