

Color and Light in the Azerbaijan Architecture during the Feudalism Period

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ABSTRACT

The national traditions in fine arts, particularly the applied arts, were characterized by a special interest in the variety of colors, color combinations and their interaction with light effects. The depiction of the interiors is characterized by a combination of contrary methods such as naturalism and stylization. An inseparable element of the inner space decoration of traditional Azerbaijan architecture was “shebeke” which is a traditional kind of stain glass. The presence of “shebeke” gives the living space not only a feeling of comfort and intimate character, but also, it saturates it with a light transformed, thus creating a sacred atmosphere. The system of decoration in the traditional architecture of Azerbaijan (both cult and domestic) was impregnated with a deep semantic sense of religious and philosophical character. The ideas of the Beauty of God, cognition of Truth, the search for Paradise and, finally, the protection from Evil – were important notions for the inhabitants of those interiors. The article deals with the theory and history of architecture and the perception of the national traditions by the current generations. The study aims to consider the Azerbaijan architecture of the Feudalism period namely, the 15th through the 19th century. The study concluded that the most important aspect of work with colour used by the Azerbaijan architects was the application of ceramic tiles, while the most important element in the enrichment of coloring of inner space was painting made by tempera on gesso ground or the wooden basis.

Keywords: light, color, Azerbaijan architecture, ceramic tiles, decoration

Feodalizm Dönemi Azerbaycan Mimarisi'nde Renk ve Işık

ÖZET

Güzel sanatlardaki ulusal gelenekler, özellikle uygulamalı sanatlar, renk çeşitliliği, renk kombinasyonları ve bunların ışık efektleri ile etkileşimlerine özel bir ilgi ile karakterize edildi. İç mekanların tasviri, natüralizm ve stilizasyon gibi karşıt yöntemlerin bir kombinasyonu ile karakterizedir. Geleneksel Azerbaycan mimarisinin iç mekan dekorasyonunun ayrılmaz bir unsuru, geleneksel bir leke camı olan “shebeke” idi. “Shebeke” nin varlığı yaşam alanına sadece rahatlık ve samimi bir karakter kazandırmakla kalmaz, aynı zamanda onu dönüştürülmüş bir ışıkla doyurur, böylece kutsal bir atmosfer yaratır. Azerbaycan'ın geleneksel mimarisinde (hem kült hem de yerli) dekorasyon sistemi, derin bir anlambilimsel dini ve felsefi karakter duygusu ile empenye edildi. Tanrı'nın Güzelliği, Gerçeğin bilinci, Cennet arayışı ve nihayetinde Kötülükten korunma fikirleri, bu iç mekan sakinleri için önemli kavramlardı. Makale, mimarlığın teorisi ve tarihi ve ulusal geleneklerin mevcut nesiller tarafından algılanmasıyla ilgilidir. Çalışma, Feodalizm döneminin Azerbaycan mimarisini, yani 15. ile 19. yüzyıl arasında ele almayı amaçlamaktadır. Çalışma, Azerbaycan mimarları tarafından kullanılan renkle çalışmanın en önemli yönünün seramik karoların uygulanması olduğu sonucuna varırken, iç mekan renklendirmesinin zenginleştirilmesindeki en önemli unsur, gesso zeminde veya ahşap bazda sıcaklıkla yapılan boyamadır.

Anahtar Kelimeler: ışık, renk, Azerbaycan mimarisi, seramik, dekorasyon

1. INTRODUCTION

Throughout history the ultimate goal of the creation of any architectural environment has been the creation of a harmonized space which favorably affects the inner state of the human being. In this sense, light and colour, being the elements of the architectural language, provide a wide range of possibilities for the created architectural space. The color harmony is intrinsic to the nature of man, his demands and feeling of comfort. A man has been permanently seeking harmonious combinations in painting and architecture in any natural or artificial environment. Color of any character, be it bright or subdued, contrasted nuanced, is undoubtedly a highly important source for emotional and aesthetic experience. Color helps in revealing the tectonic idea; it marks the

material character of the environment or, conversely, it masks it creating the united, streamlined plastic and spiritual space which merges the various constructive elements in one whole (Keler and Lukhardt ,1961).

An additional factor of the emotional aspect affecting the interior is the work with various lighting effects. Light is undoubtedly a very important mean of expressiveness in architecture. It has a plastic value. Along with colour, it can simplify a perception of architectural masses or spatial forms of the building as a whole and its interior in particular. However, it can also complicate these elements of architecture perception thus creating a specific psycho-physiological effect. Light has an emotional value. The distribution of light and the contrasts of light and shadows create a certain mood. Light can modify a form, it can also change the color. It affects the brightness, intensity, strength of colors and tonality (Friling and Auer, 1973).

The problem of light in architecture is mainly relevant to the inner space. One can mark three ways of creating and regulating the light effects: 1. quantity of light to enter the building (depending on size and number of apertures, 2. distribution of the sources, and 3. the color of light. An architect operates on both natural and artificial lights. The additional light effects can be also created through the use of various decoration materials in composition like glaring marble panels or mirrors. Combined with artificial lighting (like candles), the mirrors can create numerous spatial effects or an atmosphere of mystery, holiness and mysticism. The light of candles, calling to one another in infinite reflections, create an illusion of multiplied space. Also, the character of inner space essentially requires the human eye to have access to the outer world through apertures inside, and takes into consideration the channel between the outer and inner worlds, as well as whether the inner space is open to the landscape outside or secluded from it (Vipper,1985). Also the character of light considerably influences the outer masses of the building too, and the architect should calculate the strength of light, the brightness of reflections, and the depth of shadows, etc. Thus, light and colour, being in certain quantitative and qualitative correlations, are able to create many great characteristics of the architectural environment. In spite of their differences in quality and their influence on the artistic expressiveness of architecture, they are tightly interrelated to each other. Being complementary to each other and joined with other main elements of the architecture language, they give rise to the unified images of man's views.

The Azerbaijan architecture of the feudalism period is known for a long termed development and a great variety of forms. Throughout the ages, the local architecture schools have formed their specificity and therefore have become a bright evidence of the maturity of the national artistic traditions. It is interesting to trace how the problem of colour and light was solved by the architects of Azerbaijan in the period of Mature Feudalism, namely from the 15th through the beginning of the 19th cc.

2.COLOUR AND LIGHT IN CULT ARCHITECTURE OF AZERBAIJAN OF THE PERIOD OF MATURE FEUDALISM

2.1 Religious Architecture of Azerbaijan in the Period of Feudalism

The forming of the local architecture school in Azerbaijan in cities such as Barda, Shamaha, Baylakan, Gyanja and Tabriz was conditioned by the coming into existence of a number of small states from the 9th to the 10th cc. It is this factor which influenced the production of the architectural glazed ceramics, both constructional and monumental. Although the main schools of architecture, namely Nakhchivan, Shirvan-Apsheron and Tabriz, were essentially based on the same features, they differed from each other in some aspects. While the Shirvan-Apsheron school was characterized by the contrast of smooth surface of the stone plates and plastic elaboration of the

architectural elements, the monuments of the Nakhchivan and Tabriz schools were distinguished by their rich ceramic decoration and variety of ways of its application. In fact, the problem of color in the architecture of the medieval Azerbaijan was mainly related to the production of ceramic tiles and their use.

Many famous monuments and genuine masterpieces were created by the Azerbaijan masters striking the contemporaries with the beauty of their ornaments and colors and their tiled facing. The earliest constructions in which the turquoise tiles were used was the mosque Masjidi Jami (1131), in Kazvin, and the ornament decoration of Girmizi Gunbad and Goy Gunbad mausoleums in Maraga, where an organic combination of glazed and burned bricks was used. The true masterpiece of the tiled decoration in architecture of the Near and Middle East is undoubtedly Khanega Pir-Husseyin on Pirsagat River constructed in the end of the 13th c. (1285). The walls, the gravestone and the vault of the entrance zone were totally covered with splendid ceramic facing. A considerable area in that decoration was occupied by epigraphic ornaments in the form of long frieze of about 11 meters. Except for the Coranic phrases, the scholars found poetic verses by Khagani Shirvani and Jalal ad-Din Rumi. (Efendi, 1984, Usseyinov, Bretanitskiy, Salamzade, 1963) The images of animals, birds and fishes were also represented in those compositions. The colours included cobalt, turquoise, green and golden-red tones. There was also a floral pattern lavishly used in these tiles. Leaves of various plants interwove with flowers and branches. The tomb itself was also faced with luster tiles (Figures 1, 2).



Figures 1: Khanega Pir-Husseyin on Pirsagat River, Azerbaijan, Glazed tiles (Kajar Ch., 2003,p.68)

Figures 2: Khanega Pir-Husseyin on Pirsagat River, Azerbaijan, Glazed tiles (Kajar Ch., 2003,p.69)

The tradition of using turquoise glaze abundantly in the architecture monuments of Azerbaijan can be explained by the rich cobalt deposits in the territory of this country. Since the 12th century, the colorful tiles have been widely used in the decoration of the buildings with various functions whether in mosques, tombs, bathes, or palaces.

2.2 Religious and Administrative Monuments During the Reign of Sefevî Dynasty

The Blue Mosque in Tabriz (15th c.), the religious complex of Sheyh Safi in Ardabil (16th c.), and Shah-i Maydan in Isfahan (17th c.) are key examples of outstanding monuments of the use of turquoise glaze in their architecture. Before speaking about these monuments, one should necessary recall the ensemble erected in the beginning of the 15th c. in Bursa, the first capital city

of the Osman Empire. These are the Green Mosque and Green Mausoleum (Yashil Masjid and Yashil Turbe) which were considered pearls of the Turkish architecture. Both buildings were lavishly decorated with blue and green glazed tiles. According to the inscriptions on one of the walls in the Mosque, the tiles along with carved wooden doors and whole carved decoration were produced by masters from Tabriz, i.e, the Azerbaijanian (Figures 3, 4).(Miller, 1972, Soustiel, 2000).



Figure 3: Bursa.Yashil Turbe (<https://www.tatilana.com/2016/03/bursa-yesil-turbe-hakkinda-bilgi.html>)



Figure 4: Bursa.Yashil Turbe (<https://www.tatilana.com/2016/03/bursa-yesil-turbe-hakkinda-bilgi.html>)

The Blue mosque (Goy Masjed-e Kabud) was constructed in 1465 by order from shakh Jahan, the governor of Gara-Goyunlu State. The mosque was constructed from brick and covered with glazed tiles of turquoise and cobalt colours. Throughout, the centuries, this mosque has enraptured the admired travellers and scholars (Usseynov, Bretanitskiy, Salamzade,1963). The architectural design of the mosque is marked with well thought-out and compact planning. The length of main facade is 52 meters. The distribution of the individual compartments inside and the window apertures effectively reveal the plastic and color decision of the building. The works on decorating the interiors took 25 years. The dark-blue cobalt prevails in the whole composition. It is combined with milky-white glaze writings (“kufi” and “naskh”) surrounded by bright turquoise of the complicated floral patterns around them. The character of tracery and colour decision of the cupolas of the mosque are quite original. The white stars on the dark-blue background decorated the cupola of the small hall, while the big white flowers spread over greenish-blue background in the large cupola. The blue colour is represented by shades of tones ranging from violet- manganese to turquoise. Along with it, the light green, black and yellow colours were widely applied. Also the technique of scratching the patterns out of the dark-blue and turquoise tiles creates an additional colour effect of reddish lines on the crock itself. It is because of the domination of the dark-blue tone in the whole colour composition of the mosque, that it was given the name Blue (Figures 5, 6).



Figure 5: Tabriz.The Blue mosque (Goy Masjid, Masjed-e Kabud).(Kajar Ch., 2003, p.91)

Figure 6: Tabriz. The Blue mosque (Goy Masjid, Masjed-e Kabud).(Kajar Ch., 2003, p.91)

As we can see from the pictures, there is no doubt that the decoration of the Blue Mosque is a true masterpiece of the architectural ceramic decoration. Its striking characteristic is that all the ornamentation, both separate fragments and large compositions, do not disguise constructive peculiarities of the building. Any decor element -whether a certain pattern, colour or ornamental motive-is correlated and harmonized with the constructive system as a whole. (Efendi R., 1984,38; Usseynov M., Bretanitskiy L., Salamzade A.,1963, 214-219)

As we have already mentioned, the two monuments occupy an outstanding place in the Azerbaijan architecture of the Sefevides period (16th -17th cc.)- the Sefevides memorial complex in Ardabil (beginning of the 16th c.) and Shah square complex in Isfahan (Sheyh Lutfulla Mosque and Masjid-i Shakh) erected in the beginning of the 17th c. during Shakh Abbas I rule. The ancient Azerbaijan city Ardabil became a residence of the local sheikhs in the early 15th c. When the Ardabil sheikhs gained state power in Azerbaijan and Iran in early 16th c. the significance of the city grew much more. It did not become the capital city, but it kept its importance as a family sacred place. A special role was played here by Sheikh Sefi cult complex, which was a necropolis of Sefevides dynasty (1501-1736). Shakh Ismayil I and his son Shakh Tahmasib were the ones to develop this ensemble, and during the 16th c. a large architectural complex surrounding the Sheikh Sefi mausoleum became a place of pilgrimage for Shiites (Usseynov, Bretanitskiy, Salamzade, 1963). Along with the memorial constructions (the mausoleums of Sefevide sheikhs and shakhs) shops, bathes and large gardens were also erected. A large bazaar square was laid out right before the ensemble connected to a large decorated entrance portal (Figure7). There are also a number of portals with stalactite niches between the gardens and the yards of the complex. All the walls around the complex as well as the portals are decorated with glazed bricks and tiles. The buildings are also lavishly decorated either with glazed tiles or glazed bricks or murals. The motives of the ornamental decoration are realistically florally related. Along with traditional geometric and other ornaments, they impart a festive character to the architecture (Figure 8). Sheikh Sefi mausoleum is one of the brightest examples of the tower-type mausoleums in Azerbaijan. The cylindrical building of the mausoleum is decorated with red and glazed bricks laid in a figured order (Figure 9). Within the geometric ornament, multiple writings of the word Allah were formed. An important element of the upper part of the cylinder is a frieze with epigraphic ornament. Letters written with white glaze stand out prominently against a dark-blue background.



Figure 7: Ardebil complex Entrance portal. (Kajar Ch., 2003, p.133)



Figure 8: Ardebil complex Mausoleum. Mosque (Kajar Ch., 2003, p.135)

A special consideration should be made to the funeral mosque whose walls of are attached to the mausoleum and are richly decorated with the glazed tiles (Figure 9)



Figure 9: Ardebil complex Mausoleum Mosque.(Kajar Ch., 2003, p.135)

The expressiveness of its facade is based on the spectacular contrast between the main constructive material which is red brick, and the trimming of windows in both storeys where glazed tiles combined with bronze rosettes and inscriptions were used. As a result, an expressive, decoratively rich polychromic composition was formed. The developed architectural elements organically combine with colour decision which as deeply intensified because of active using of marble surfaces with gold and silver along with accessories. The doors were also made of silver. Rich ornamentations on the walls were added to the patterns of marvelous carpets on the floors. It is from this complex that comes the famous carpet “Sheikh Sefi” found in the collection of Victoria and Albert Museum. It is pertinent to mention here that the cult complex of Sheikh Sefi in Ardebil witnesses that the polychromy proper to medieval architecture of Azerbaijan reached here its full development.

In preparation for moving the capital of Sefevides to Isfakhan, shah Abbas I started the wide scaled works on reorganizing the city filling it with mosques, gardens, palaces, bathes,etc. (History of Azerbaijan, 1958, 223-258) The true pearl of the architectural and decorative urban decision in the whole Near Eastern architecture was the Shakh Square (Shakh-i Maydan) -administrative and cult

center of Isfakhan. The most important buildings here are two mosques, namely the Mosque of Sheikh Lutfullah (1602-1619) and Masjid-i Shakh (or Masjid-i Imam, 1630). These constructions, a subject of pride in the monumental art of Azerbaijan and Iran in the Sefevids epoch of mature stage, are marked by splendid decorations that witness the virtuosic skills of Sefevids masters in the art of facing with glazed tiles (Figures 10,11). The "gyolbendlik" composition is situated in the space under cupola of Lutfullah Masjidi (Figures 12,13). It is a large medallion with spiral motives and arabesques in its centre. The medallion is surrounded by 32 cupolas (this is a type of pattern - the cupola "gubpa" is a representation of the beautiful flower bud or sepal) represented in extreme detailed elaboration. As the space under the cupola becomes wider, these cupolas also become larger. The cupolas around the medallion form a united composition giving to the space under the main cupola a highly dynamic character.



Figure 10: Isfakhan. Masjid-i Imam,1630.
(Starodub T.H.,2013, p.111)



Figure 11: Isfakhan. Lutfullah Masjidi.
(Starodub T.H.,2013, p.113)

The decoration of Lutfullah Masjidi has embraced almost all the traditional patterns and compositions proper to the Azerbaijan art throughout the centuries. That's why this monument is called an Encyclopedia of the Azerbaijan Ornamental Art in scholar literature (Figures 10-13) (Aliyeva K., 1999).



Figure 12: Isfakhan. Lutfullah Masjidi Dome
"gubpa" (<https://gracetheglobe.wordpress.com/2013/11/18/the-sheikh-lotfollah-mosque-isfahan-iran/amp/>)



Figure 13: The cupola
pattern. (<https://twitter.com/dusayla/status/972419098335473664>)

An ideal correlation between form and content, the idea and its physical representation, the whole and the part, all seem to be represented here. Everything is interlaced with each other, making one element inseparable from the whole composition. The substance seems to be intangible. It all looks

like an illusion, a visual deception. From the other side, this space is thoroughly calibrated looking completely rational. It seems that an ideal model of the Universe which Mankind has been striving to represent was finally realized.

Masjid-i Imam is a high walled complex made up of praying halls and four madrasah with inner courtyards. A contrast between the static and dynamic architectural masses and dynamic, infinitely growing ornaments strike the viewer. The cupola height is 54 meters. The glazed ceramics seem to wrap all the architectural elements with one ornamental veil. The tiles transform the cupola into a Sun palmette “shamsa” where the laced pattern of grid “band-erumi” (the Rumi or Byzantine bunch) radiates over the concave surface. The medallions of “torendj” (“tourundj”) type are also interlaced with the grid composition. “Tourundj or tuorandj (toreng) is the eastern name for an orange. Oranges were considered a delicacy; they were often presented as a gift. A salver with oranges was normally put in the middle of the table on holidays or hung up the ceiling at a low level. ...the poets compared tourundj to light fitting”. (Aliyeva K. 1999,57) It is important to mark that “shams” (sun) is a traditional element in the decoration of manuscripts in Azerbaijan. It was normally put in the title page of the book. Very often the centre of “shams” was occupied book owner’s name, so the pattern was transformed into some kind of exlibris.

Apart from “shams”, there is one more pattern, traditional for the manuscripts, applied in Masjid-i Imam. It is the cartouche, or “ketebe” which is the vertically framed piece of page with inscriptions inside (generally, the sufi poems, or the glorification of Allah or the governor). The cartouche can also be just a small floral ornamentation, or rosettes, etc. “Islimi”, the floral motives, “gyolbendlik”, “afshan”, “khatayi”, “tourundj”, “shams”, “gubpa”, the epigraphic ornament, etc. are practically the basic elements in the ornament system in the culture of the Medieval Azerbaijan. They are gathered into a united, infinitely circulating scheme where one element is impossible without the others, a scheme where all the details harmonically fit into one logic sequence. It is well known that Ali Riza Abbasi, a famous calligrapher and master of miniature painting and a true cultic figure in Fine Arts of the Sefevides epoch, actively participated in the works on decoration of Isfahan architecture monuments, mainly the Lutfullah mosque and Ali Gapi palace. Ali Riza Abbasi participated steadily in various projects and spheres of handicraft production. This provoked the idea that there was some common system of decoration consisting of ornamental motives, equally applied in all the kinds of creativity including miniature, book illumination, objects of applied arts and architectural decor. Such a system had not been formed suddenly or in one geographical point. It had been forming for centuries acquiring some new patterns and losing old ones. Anyway it was undoubtedly related to the leading world outlook and to the philosophical and religious trends. It was a united system of notions, a common language of creativity from devoted individuals who were educated and progressive in their philosophical and theological views. From another perspective, the expressiveness of the architectural forms can be obtained without using any specific colouring methods. Masonry or brickwork itself, the structure, the planning, the distribution of the light apertures which direct the light under certain angle and in a certain way promoted the creation of a space full of harmony and positive energy. Juma-Mosque in Gala fortress (the Shirvan-Apsheron school) which dates back to the 14th c. is a bright example of what we said above. Even in its actual ruined condition, the space of this mosque amazes the viewer with its grandeur and solemnity (Figures 14,15).



Figure14: Juma Mosque in Gala fortress (the Shirvan-Apsheron school).Foto:D.Vahabova



Figure15: Juma Mosque in Gala fortress (the Shirvan-Apsheron school).Foto:D.Vahabova

3. COLOR AND LIGHT IN RESIDENTIAL ARCHITECTURE OF AZERBAIJAN IN THE PERIOD OF MATURE FEUDALISM

3.1 Residential Architecture of Azerbaijan in the Feudaalism Period

We can judge the traditional living interior of the Azerbaijan houses only from the 18th c., onwards. It is obvious that the architectural traditions don't rise suddenly. The traditional forms had been elaborated and completed over the ages until they reached a common standard. The plastic treatment of walls, the form and size of the windows and doorways, the measurement of lighting or darkening of space, the colour preferences the texture and quality of construction material etc., had been formed through long periods of time until they finally became a part of the sub consciousness and natural norm of living.

There are many research studies on certain periods of the Azerbaijan architecture and some monuments as well. The theme of residential interiors in the medieval period has been scarcely researched, whereas the problem of light and colour has never been discussed. As we have already noted, the systematic data concerning the inhabited architecture in Azerbaijan dates back to the 18th c. The information concerning the development of the dwellings in earlier times is quite scarce this can be a proof that the dwellings which survived till the present time basically reflect the main typology of the previously inhabited architecture that existed before. It should also be added that the really invaluable source of information on the reconstruction of the interior of the traditional dwellings of Azerbaijan are mainly pieces of fine art, paintings and graphics. They reflect the true picture of traditional Azerbaijan daily life of the past in a more or less schematic way. Also, the written materials, such as the memoirs, descriptions, reports of travellers who visited Azerbaijan in different periods can be considered a very good source of information. The earliest examples of housing interiors of Azerbaijan architecture of the feudalism period are fine art pieces, such as Azerbaijan miniature of the 16th c. created in Tabriz. Examples of the interiors of the houses can be seen in the composition representing the episode in the poem "Hamse" by Nizami. These are also, for example, the sheets "Shirin's suicide" (The Royal Turkoman "Hamse" by Nizami, 1505, Tabriz, watercolour, paper) and "Hosrow listens to Barbad playing the lute" ("Hamse" by Nizami, 1539-1543, Tabriz, Mirza Ali, watercolour, paper) (Figure 16,17). Avoiding the detailed analysis of these compositions, one would like to mark a number of features characterizing the interior of the palaces of that time represented in the miniatures. Here we see an

image of the two-storeyed structure of the space consisted of colored screens decorated with geometric patterns. The lower part of the walls is decorated with geometric patterns imitating some kind of border, while the upper part of the walls is covered with stylized floral ornamentation or figured composition (in our case it is an image of Paradise with walking gazelles). There are niches in the walls containing the china ware, use of the architectural ornament, imitation of the glazed tiles. All this attracts the attention to the perfect correlation of the colour combinations. In spite of the obvious conventional character of the language in these examples (which is typical for the medieval eastern miniature as a whole), one can surely assume the existence of a certain prototype for such an interior. Many details similar to what can be seen in other pieces of architectural monuments and applied arts survive.



Figure 16: “Shirin's suicide” (The Royal Turkoman “Hamse” by Nizami, 1505, Tabriz). (Kajar Ch., 2003, p.147)



Figure 17: “Hosrow listens to Barbad playing the lute” (“Hamse” by Nizami, 1539-1543, Mirza Ali, Tabriz). (Kajar Ch., 2003, p.130)

An important resource for reconstruction of traditional interior in the Azerbaijan habitation are the drawings of Russian artists G.Gagarin and V.V. Vereshagin, who visited Azerbaijan between 1830s and 1860s. In a number of examples, one can see features such as the traditional Azerbaijan stain-glass “shebeke” serving as a facade wall, the deep niches distributed in two storeys called “takhcha” and “jamukhadan” and totally covered with murals, the moulding and carving in plaster and also the murals decorating the ceiling. The floor of the hall is covered with a carpet. Apart from these details, one can see a fiery place- “bukhari” which was not only a plastically architectural accent but also, being covered with ornamental paintings, it is an essential colour addition to the general decorative concept of the interior (Figure 18)

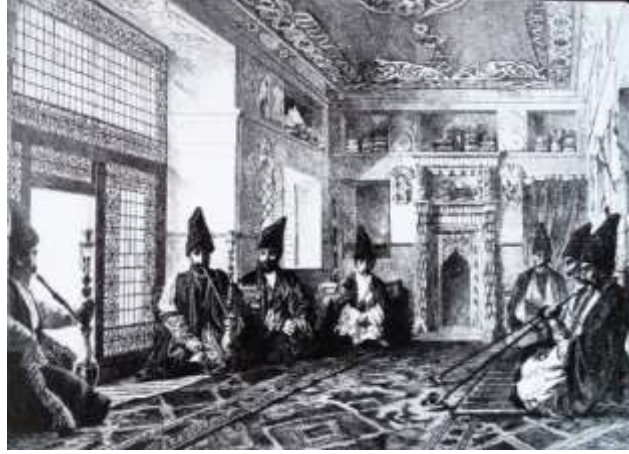


Figure 18: G.Gagarin. Hall in house in Shusha.1830.(Kajar Ch., 2003, p.191)

Splendid decoration similar to the interiors described above characterizes the main hall in Sardar's palace in Irevan from the beginning of the 18th c. till the 19th c. Niches in the form of pointed arches in upper storey were filled with official portraits of the rulers from Kajar dynasty painted by Mirza Kadim Irevani. The full-length portraits were interchanged with compositions of hunting scenes. The figured compositions were separated from each other with depiction of pilasters, with masterly imitated marble texture. The middle frieze in the form of stalactites rested upon the exquisite arcade. Apart from paintings - both figurative and decorative - the hall was adorned with mirror stalactite vaults, consoles and "shebeke".

3.2 Residential Architecture in Sheki

3.2.1 Sheki Khans Palace and Shekikhanovs House

Sheki Khans Palace (Summer residency, 1762) and Shekikhanovs House (Winter residency, 18th c.) represent a semantically meaningful picture of paradisaic monuments of domestic and palace architecture (Usseynov, Bretanitskiy, Salamzade, 1963, Salamzade, Mammad-zade, 1987). Their interiors are composed of many elements: the stain-glass "shebeke" substituting the facade wall, the painted plafond with elements of plaster moulding, the masterly imitation of marble and wooden architectural details in painting, the treatment of low level as a bordure, the wide use of mirrors on the ceilings and in the upper corners (in the form of stalactite), the application of the "shebeke" not only on the facade wall but also in the doors and screens inside, and strategic use of traditional ornaments characteristic of applied arts (like "islimi", "rumi", "afshan", and the floral ornament which organically combines naturalism with the conventional character of language). The main facade of the Sheki khans palace reproduces the inner planning structure of the building (Figure 19). The middle halls, the side rooms and antechambers between the halls and the rooms are clearly distinguished in the facade composition. The front wall is almost totally substituted with stain glass windows transmitting abundant colored light. Geometric ornament of the windows-"shebeke" with small pieces of glass of various colours interchange with the carpet-like geometric ornament in the piers between the windows. As a whole, the composition of the facade is characterized by a combination of three elements: the ornamented wall, the laced "shebeke" and the spatial portals with stalactite vaults.



Figure 19: Sheki Khans Palace. General view. Foto:D.Vahabova

The interiors of the Palace of Sheki Khans are marked by an extraordinary wealth of colours. The colour decision is based here upon the use of local pure tones with considerable addition of the golden colour. The wall paintings of that period were made with tempera over gesso ground causing the effect of solid enamel (Figures 20, 21).



Figure 20: Sheki khans Palace. Shebeke.Foto:D.Vahabova



Figure 21: Sheki khans Palace. Wall murals.Foto:D.Vahabova

Many kinds of folk applied arts are synthesized in the palace decoration. The palace interiors are filled with paintings, carving over plaster and wood, stalactite friezes, and the mystifying light transformed with varicolored “shebeke” with carpets. Evidence from contemporaries proved that carpets in the official halls and rooms are an exact reproduction of the design of the ceilings. To confirm this, one should pay attention to the interior of one of the halls in Amini imaret in Kazvin (19th c.) (Figures 22,23).



Figure 22. Amini imaret in Kazvin (19th c.). (Kajar Ch., 2003, p.198)

Figure 23. Amini Imaret in Kazvin(19th c.) Detail of ceiling. (Kajar Ch., 2003, p.232)

The decoration of the interiors in winter Khan residency -the so- called Shekikhanovs House, is analogical to the decoration in the palace. The mirror stalactite cornice at the junction of the ceiling and the walls reflects the paintings in the ceiling and walls and the colored light from “shebeke” windows and creates a sparkle of colours over the walls, ceiling and floor. The mirror elements surely enrich the hall space with additional colour and light effects actually becoming an additional source of light (Figures 24, 25, 26) The features marked above can be observed in dwellings in many regions of Azerbaijan as they are directly related to them. Along with flat roof houses, a typology of cupola house - the so-called “gyumbezli ev”- existed in many cities such as Gyanja and Ordubad .The interior expressiveness in such houses was expressed not only through the painting in cupola and frieze over the perimeter of the room, but also through the distribution of the light sources in the cupolas.



Figure 24: Shekikhanovs house, Mirror ceiling. Foto:D.Vahabova

Figure 25: Shekikhanovs house, Mirror stalactites. Foto:D.Vahabova



Figure 26: Shekikhanovs house. Fireplace “Bukhari”. Foto:D.Vahabova

3.2.2 Upper Caravan-Saray

In some types of constructions, the interiors were decorated using expressive possibilities of construction materials such as limestone, brick and cobble-stone, along with an arrangement of sources of natural light. An interesting example of this is Upper Caravan-Saray in Sheki which dates back to the 17th c. (Figure 27).



Figure 27: Sheki. Upper caravan – saray. Foto:D.Vahabova

This is a big rectangular building with inner courtyard of totally 6000 square meters. There are more than 300 rooms in it. The rooms here have two-sided access to the outside: some windows are open to the street, while others are open to the common “ayvan” (balcony) which encircles the building over perimeter around the inner courtyard. In spite of these possibilities of lightning, the rooms are of considerably darken character. Undoubtedly this is the result of the thickness of the walls and quite small sizes of the windows. The measure of lighting in Caravan-Saray rooms directly depended on weather conditions and the time of day (Figures 28, 29).



Figure 28: Sheki. Upper Caravan-Saray.Foto:D.Vahabova

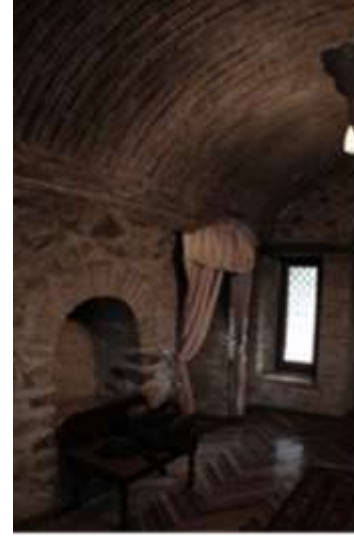


Figure 29: Sheki. Upper Caravan - Saray.Foto:D.Vahabova

It is appropriate to mention here that the one-sided sequence of living rooms open to the “ayvan” is characteristic of the planning of the traditional Azerbaijan dwellings. Along with blind walls of the side facades facing the street and some other features (thickness of walls, size of apertures, character of window frames, etc.) the local master tended to have minimal lighting of the living rooms. That might be considered a typological feature of domestic architecture. One may assume that such a solution is optimal for the conditions of hot climate.

3.3 Shirvanshakhs Palace in Baku

The interest in the expressive possibilities of the construction material (masonry first of all) and the arrangement of separate plastic volumes in one composition are especially typical of Shirvan-Apsheron school of architecture. Within the context of this research study is pertinent to pay attention to one of the masterpieces of the Near Eastern architecture Shirvanshakhs Palace in Baku constructed during the 15th c. This is a complex ensemble which consists of a number of buildings and erected in plot of complicated configurations with drops of ground level (Usseynov M., Bretanitskiy L., Salamzade A.,1963,187-280). The palace building is a two-storeyed construction with a very complicated planning. There are totally more than 50 rooms on both levels similarly arranged in free style. The order of rooms is similar on both floors. The southern and eastern halls dominate the plan. Their importance is stressed by the original corner light bay which enters through windows open to a perfect panorama (Figure 30). Both halls are connected to the main one and so are the two-lighted windows of the upper floor in the Apsheron dwellings. The presence of such bays was undoubtedly related to the desire of the masters to provide light to the main hall as much as possible. It is important that in day time the majority of the palace rooms on the second floor get enough light in spite of the thickness of the walls (Figure 31).



Figure 30: Shirvanshakhs Palace. Eastern hall.
Foto:D.Vahabova



Figure 31: Shirvanshakhs Palace. Main hall.
Foto:D.Vahabova

The inner treatment of the walls is extremely laconic. The architectural divisions indicating the scale of the building are marked in relief. Solemnity of the palace view is emphasized by the absence of decoration and ascetic character of masonry stressed with loophole shaped apertures. The palace as a whole looks like a fortress. The individual volumes are characterized by perfect proportions and high quality masonry. Nevertheless, it is obvious that such a laconic, somehow sterile stony interior was vivified by the presence of carpets, mutacas, lighting fittings and other attributes of traditional handcrafts which effectively set off the beauty of masonry with their bright colors. It is important to emphasize that the distribution of light sources on the walls and cupolas play a most significant role in the artistic expressiveness of these interiors.

4. DISCUSSION

Light and colour are very important factors for aesthetic expressiveness of the outer and inner architectural space. They interact with each other intensifying the expressive possibilities of each other. The Azerbaijan architects actively applied the colour and light effects both in cult and residential architecture. The decoration system in the traditional architecture of Azerbaijan, both cult and residential, is saturated with deep semantic sense of religious and philosophical character. The ideas of the Beauty of God, the cognition of Truth, the search for Paradise and, finally, the protection from Evil, are important notions for the inhabitants of those interiors.

The most important means of work with colour used by the Azerbaijan architects was the application of ceramic tiles. The dominant colours were cobalt, blue, and green which created the corresponding color of the whole construction. The ceramic tiles were generally applied in brick constructions. The expressive possibilities of the material were used in various ways: full facing of the surface, using the traditional patterns including epigraphic ornament, and the contrast between the ornamental zones and brickwork. The ceramic tiles were mainly used in religious constructions. The most important element in enriching the coloring of the inner space was painting made by tempera on gesso ground or the wooden basis. Along with traditional ornamental motives, depiction of plants and birds was very common. It was a combination of opposing methods such as naturalism and stylization. The paintings were basically made in the interiors of domestic architecture.

An inseparable element of the inner space decoration of traditional Azerbaijan architecture was “shebeke” which is a traditional kind of stain glass assembled from a wooden frame or grid and

pieces of glass of various colors (especially the Venetian glass of the old times) in the form of specific geometric ornament. The presence of “shebeke” gives the living space a feeling of comfort and intimate character and saturates it with a light transformed thus creating a sacred atmosphere. The traditional type of dwellings in Azerbaijan are those houses with “ayvan” (a balcony, veranda, or a corridor) with considerably darkened interiors. All the rooms of the house were mainly open to the «ayvan». The side of the house open to the street was normally closed with blind walls or small window apertures draped with thick curtains. The main elements of expressiveness in cult and residential architecture in certain regions (the Shirvan-Apsheron school) are masonry and light coming through the window apertures. The elements of applied arts undoubtedly gave colour variety to such interiors. A special example in this context is the cupola house typology.

The important instruments used to create the colour composition of both religious and residential interiors are: textiles (carpets, embroidery, patterned clothes), jewellery, lamps, door handles, bells and pendants in the doorways, and lastly copper and silver weapons which are often encrusted with enamel and precious stones.

5. CONCLUSION

We can conclude from this research study that a great importance was attached to the color and light decision of the interior and exterior in religious and residential architecture of Azerbaijan during period of feudalism. The architectural monuments that have reached us tell us about the great aesthetic taste of the architects of that time. Obviously, the masters used harmonious color combinations in the architectural decoration of the building, and managed skilfully the sources of lighting in its interior. Indeed they did not only produce great artistic flair, but also exhibited knowledge of the psycho physical impact of color and light on the human being.

The study of the architectural heritage of the past is very important for specialists in the field of architecture and particularly in the field of education of young architects and designers. Modern architect and designer should apply knowledge, skills and practical achievements of the past masters to give modern architecture a unique color and richness.

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