DECORATED FLAT SURFACES AND THE INVENTION OF DESIGN IN ARMENIAN ARCHITECTURE OF THE BAGRATIDS ERA

Armen Yu. KAZARYAN
Research Institute for Theory and History of Architecture and Town Planning, Moscow
State Institute for Art Studies, Moscow

Abstract: The present paper for the first time brings forward the issue of changes which occurred in the medieval Armenian architectural decoration during most important period of the Bagratids era: from early 10th to the first half of the 11th century. These changes are characterized by the penetrating of design principles into fundamentally classical architecture. The onset of this innovation may have been marked by the work of great architect Manuel, the builder of the church on the island of Al't'amar (915–921), and Trdat, the builder of the Argina (970s) and the Ani Cathedrals (last quarter of the 10th century) and the church of Gagkashen in Ani (1001). In the facades’ details of the abovementioned churches, one can find the presence of new ornamented elements – ribbons – flat horizontal belts and window frames. Another novelty was the ornamented flat ceilings and edges of the tented roof of zhamatun (for-church) in the Horomos monastery (1038) and the decoration of the 11th-century khachkars. These examples illustrate even greater freedom and departure from traditional architectural tectonics. In addition to that, architects of Ani have focused on the principles and referencing the forms of classical Greco-Roman antiquity; and on the other hand, it had responded to the innovations of the architecture of the East, in particular medieval Iran, which entered that time a new prosperous stage.

Keywords: Armenian architecture, Ani, Al't'amar church, architect Trdat, decorated surfaces, ornamentation

The present paper for the first time brings forward the issue of changes which occurred in the medieval Armenian architectural decoration during most important period of the Bagratids era: from early 10th to the first half of the 11th century. In Armenia, it was the period of trade development and of the formation of numerous large and small towns. After the Arab occupation and during the revival of the independence, two famous capitals were established. The first of them was the residence city of the Artsruni kings on the island in the lake of Van in 910-s, and the next one was Ani, originally a castle, which has unprec-

1 The study was funded within the Program of Fundamental Researches of the Ministry of Construction of the Russian Federation and the Russian Academy of Architecture and Construction Sciences on 2020; the Research Project 1.2.22.
edented growing from 961, when it became the residence of Bagratuni dynasty. These cities became the centers of creativity in construction technique, art and architecture. Their role in the establishing of the perspectives of Armenian culture was very important during the centuries. Moreover, Ani became the largest Christian city in Armenia and neighboring countries, and it became the factor of the concentration there both economical and creative energy. Therefore, we cannot consider the art and architecture of Ani without wide context of both Christian and Oriental culture.

The major achievements of monumental architecture of Bagratid era were the result of the development of typology and stylistic patterns of the previous period of prosperity of the Armenian architecture which took place in the 7th century, the transition epoch from the Late Antiquity to the Middle Ages. No less significant seems to be the huge creative trend of specific cultural development, partly related to the secular activity in Ani. I’ll try to explore one side of that trend, concerning the invention of design in medieval architecture. Therefore, I need to explain the meaning of the word “design”, which is being used in the article. It is close to its original definition given by Richard Redgrave in the middle of the 19th century, and it is far from the production or industrial design, which is more popular today. And, of course, the boundaries between art and design, as well as between architecture and design, are blurred.

The development of decorative system and carvings in the works of Bagratid Armenia related with the departure from traditional architectural tectonics. It was especially difficult change, because the penetrating of design principles took place into fundamentally classical architecture. However, the roots of incorporation of the motives and principles of design in architecture can be seen in medieval examples, and in even earlier ones.

There were several cases of such invention on the monuments of the 5th–7th-century Armenia, master builders of which were inherited methods of Classical antiquity. The best of all seems the decoration of the western exedra of a large tetraconch church in Mastara (640s). On the representative composition of the cross and constructive inscription, inserted under the archivolt. Its traditional pair of columns was interpreted as rows of pearls, and wide band of festoons have been placed on the blind arch. Both these shapes recall the details of the applied arts works (Fig. 1).

A new type of order with the blind arcade decoration started its development from the constructions by Catholicos Nerses (641–661). Excavated details of huge rotunda of his midd-7th-century Zwartnots church give the opportunity to reconstruct outer wall’s rich decoration by monumental blind arcade. Its classical profiled archivolts rested on the capitals of massive half columns, and another one arch, covered by the relief of vine, assist main archivolt above it. If this structure associate with classical arcades, in two decades some improvisations of that theme were possible. As a result, just arches were covered with ornamentation instead of the profile. Pomegranate trees, vine and basket carriage ornaments on the arches on the Talin Cathedral’s exedrae are illustrative (Fig. 2). More indicative are the archivolts of the Irind church’s blind arcade, where relief arches alternates with plane and ornamented ones.

The onset of the innovation on architectural decoration of the next period of prosperity may have been marked by the work of great architect Manuel, the builder of the church on the island of Ałt‘amar (915–921), and Trdat, the builder of the Argina (970s) and the Ani Cathedrals (last quarter of the 10th century) and the church of Gagkashen in Ani (1001). The peculiarities of these monuments, as well as ornamented flat ceilings and the tented roof of zhamatun (for-church) in the Horomos monastery (1038), are on the focus of the study.

The church of the Holy Cross (Surb Xač‘) on the island of Ałt‘amar (915–921), built by an architect and sculptor Manuel and King Gagik Artsruni, was the first church with such a rich sculptural decoration of the façades, and it remained being unique until the 12th century, when several churches with sculptural façades were created in different regions in the Romanesque epoch: in Italy, France and Rus’. Thus, the Holy Cross church of Ałt‘amar stood out for the individuality of its exterior and an approach to work in plastic art among the previous and contemporaneous architectural development.

Vertical divisions of the façades arrived by the presence of niches on the eastern and the western façades and of vertically oriented edges of other sides of the church. According to the opinion of S. Mnac’akanyan, a peculiar faceting of those shapes was designed for the optimal enlightening of the reliefs changing consequently to the sun progress. The segmentation of the surface of the wall with narrow edges and horizontal belts had a great importance for the distribution of reliefs in the frames of certain fields and for the division of scenes without special frames. They could set images of different scales in neighboring fields (Fig. 3).

We have also seen the pediment, which is “broken” both on the top and the lower lines. It was not a complete copy of classical open pediment, but an improvisation of its theme, a hint at the motive. From traditional molds of the cornices the architect Manuel preserved only thin fascia like the base for roofing slabs. Rich and tall sculptures fully changed the customary image of cornices and entire edifice.

The idea of ornamented band was also unusual for previous period’s Armenian churches, and its first representations we may look on the main body of the church of St John Baptist of Khtskonk monastery,
close to Ani (late 9th – early 10th centuries). On its tholobate, organized by an order, flat surfaces of the arches of windows’ niches were decorated by lacework-like ornament. On the exterior of Ałt’amar church two wide and rich decorated bands separates walls into three zones. If the bottom band represents also as a tape lacework-like ornament, the upper one is much more active: it’s a grape-vine frieze, situated little bit bottom of the line of the cornice.

Specific kind of cornices of the Ałt’amar Church together with ornamented and sculptured friezes and rich use of the reliefs permit to imagine this monument as a work much closer to jewelries reliquary in the shape of domed church than to a real building. Shall we raise a following question today: Was there a desire to implement the image of the reliquary church into the composition of the Ałt’amar church? Of course, we don’t have enough literally sources or the witnesses for such thought. But we may efficiently use visual comparison. And the representation of the king Gagik with the model of a church, a small reliquary, discreetly hints at that idea.

Notwithstanding the Ałt’amar, the churches of Ani have had another stylistic development, and the largest of them — another scale. Impressive cathedral was built during the time of the city’s extension and the construction of its second line of fortifications known as the Smbat’s walls, named after the Shahanshah Smbat II Bagratuni (977–990). Smbat commissioned the construction of a new cathedral to architect Trdat, who had already distinguished himself in the 970s with erection of the cathedral in Argina, nearby Ani. Unfortunately, the Argina cathedral was blown up in the 1950s, but according to the old photographs it was a domed-hall type church with strong pylons attached to the longitudinal walls. The supports were formed with vertical partitions and were crowned by new type lavish capitals.

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capitals shortly became the specific character of the Ani architectural school constructions. Their form recalls the rows above each other of the images of scrolls, or might be imitated balusters. Any case, using this kind of structural elements was a step opposed to traditional types of capitals and imposts. It seems to be the direct use of design in the architectural creativity. Not less innovative was the north-western pylon’s one division, covered by carving ornamentation. (Fig. 4)

The Cathedral of Ani was created by Trdat in a more grandiose manner and it was based on a different architectural type — a cross-domed church with four separate pillars (Fig. 5). Trdat transformed its constructive structure and stylistic features of so much that the Cathedral approached in its expressiveness the Gothic cathedrals of Europe built two centuries later. Alike the reflections by British traveler Henry Lynch and by Russian art historian Nikolai Okunev, Josef Strzygowski concluded that the Cathedral of Ani in its type lies on the verge between Armenian and Roman-Gothic architecture. So, this monument became an important key for his main thesis of the book “Architecture of Armenia and the Europe” of 1918.

The large in a cross section pillars of the cathedral consists of many narrow pilasters, which is against the idea of a cross-shaped columns, turning its plan into a diagonally unfolded square, and it is to this form the Gothic builders will later turn their attention. The principle of the framework structure is also applied here. The central emplacement of the dome on a tall cylindrical drum and pendentives provides

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7 As a motive of balusters see: P. Donabédian, “L'éclatante couronne...”, 2018–2019, 112, Fig. 40, etc.
9 J. Strzygowski, Die Baukunst der Armenier und Europa, Bd. 1–2, Wien, 1918, 187.
the interior with remarkable harmony. These pure forms and smooth vaults of the arms and corner zones are opposed to the vertical dynamic rhythm of the supports and arches. It is by the character of the vaults that the image of the Ani Cathedral's interior differs from Gothic cathedrals.

Exterior of the Cathedral of Ani is executed differently, and that is why the impression from the inner space is so powerful. The main volume, rectangular in plan (21.9×34.3 m), is equipped with a multistage base with unusually high and flat steps. Traditional paired facade niches do not violate the smooth surface of the perfectly lined planes of these facades. Rich decorative elements encircling the church with light but energetic rhythm do not affect its monumental appearance as well. Here, for the first time, the concept of the blind arcade's decoration was implemented throughout the entire volume of the Cathedral, this principle had been previously realized only in round temples (e.g. Zvartnots).

We can see how Trdat appreciated flat and smooth surfaces: the blind arcade with thin and elegant forms closely echo ancient order and looks like a cobweb, which does not interfere with the perception of the wall surface (Fig. 6). Protruding and sculpturally treated portals are the only contrasting elements. They have been executed in the form of a so-called perspective portal. The same theme of the perspective opening is carried out on some windows, including the oculus at the top of the western wall, it is where the adorned rose-window is in the Gothic cathedrals (Fig. 7).

The frame of the oculus on the Ani Cathedral has a poor structure of smooth concentric rings. This kind of graphical solution has no functional explanation and does not have architectural predecessors, it is made as a form of design inserted on the tall western façade. Similarly, most archivolts and window decorations have graphical solution on the smooth surfaces, which little jut out from the flatness of wall. For the first time large flat surfaces of squinches of the niches covered with carpet-like ornaments (Fig. 8). The dome of the cathedral that collapsed in the Middle Ages was decorated with the blind arcade as well. Since the mid 19th century the drawings of the reconstruction of the drum have been published. According to the investigations of the last years, wide ornamented frieze was situated between the blind arcade and the cornice, as it has been suggested by Charles Texier, the first investigator of the Cathedral.

Modern scholar Artak Ghulyan analyzed one photograph, taken in the end of the 19th century, from the Armenian historical museum (Yerevan), which depicts ornamental blocks compiled near the northern portal. Among them are fragments of small columns, possibly belonging to the drum, as well as blocks with large carved rosettes. Combining them together, the scholar assumed that that is how frieze of the drum
could have been arranged. I saw a similar ornamented block on the roof of the Cathedral to the east of the
dome; it left no doubt that all of these stones belonged to a frieze above the arcade of the drum\textsuperscript{10} (Fig. 9, 10).

The decoration of this frieze relates with the Classical Greek jewelry works. Some ancient diadems
could have been a prototype for the frieze above the cathedral’s dome.

Quite soon after the erection of the Ani Cathedral, on the construction of the round church of Gagkashen
Trdat returned to the more traditional nature of the dome pillars, rejecting perspective doorways and re-
placing them with a Hellenistic type of a portal. Some examples, like Gagkashen, have ornamented door-
frame, which seems an elegant belt attached to the wall. On the church of Marmashen monastery this
effect is more impressive thanks the decorative character of the modified ancient ornament (Fig. 11).

In Gagkashen, and some later works, the changes in the interpretation of the arcade were made – it
more and more started to resemble an architectural order (Fig. 12). Hereby, from the point of view of
typology, constructive system, or artistic features, the Cathedral of Ani stands out alone among other
architectural monuments as an absolute masterpiece. Even creative solutions realized in the Cathedral
of Ani in aggregate did not appear in any later church, some shapes were developed in a new features
of monuments of same and the next epoch. Particularly, the tholobate of the Ani Cathedral served as a
model for the construction of several large Armenian churches of the 13th–14th centuries, both at Ani
and other places. The details of the arcades and the friezes are more simple, and the decorations are
more geometric, the ornamental details became recall of a lacework. Another novelty of the Bagratid
epoch was the ornamented flat ceilings and faceted tented roof, which were created in the interior of a
multy-columned hall of the \textit{zhamatun} (for-church) in the Horomos monastery (1038).

The huge trapezoidal stone panels of the central roof (tight-fitting blocks, about 3.90 m tall) are cov-
ered with ornaments and reliefs forming a soaring pyramid, the top of which is completed with a profiled
cornice. An octagonal oculus is used as a base for the high octagonal rotunda which can barely be seen
below, except however from inside. The unknown architect of Horomos, who, undoubtedly, served at the
court of Yovhannès-Smbat, interpreted the idea of tabernacle in an original way, using eight huge stone
slabs; and he covered them with a large \textit{khachkars} (stone crosses, usually installed for the sake of recall-

\textsuperscript{10} А. Ю. Казарян, “Новые данные о куполах храмов Ани. Часть первая. Кафедральный собор зодче-
го Трдата”, \textit{Вопросы всеобщей истории архитектуры} / A. Yu. Kazaryan, “New data on the cupolas
of Ani’s churches. Part first. The cathedral by an architect Trdat” / \textit{Questions of the history of world
ing the promise of salvation inherent to the Crucifixion)\textsuperscript{11}, the Tree of Life, a relief composition representing the Church, and a carpet ornament of classical pseudo-meander (Fig. 13). So, those motives were joined in a single combination originating, mainly, from the idea of the Resurrection, especially important in Christian burial space and in the ante-ecclesial building.\textsuperscript{12} The vertical division of the space is peculiar within Armenian ecclesiastical architecture in that no other related buildings show such a marked difference between registers and structural parts. And if in ecclesiastical architecture the building-up of space towards the central dome was carried out smoothly and cadenced, in the Horomos zhamatun flat or relatively flat ceilings were juxtaposed to walls and arches (Fig. 14).

The tent-like structure of the pointed roof also demonstrates new forms of decoration. Completely covered by reliefs and ornaments, large stone panels haven't visual borders between them, because the numbers of big balls present surround the panels and keep vertical joints masked. In result, we can get to see the common inseparable picture of whole pyramid. The full surface ornamentation, which had not been practiced in earlier Armenian architecture, probably originated from the East. In this connection, we need to recall the art of Iran, first of all, where the idea of coating surfaces with ornaments had been cultivated. The increase of architectural production in Iran in the late tenth and the early eleventh centuries had an impact on the builders of the monument in Horomos, where the architect’s familiarly with eastern trends is apparent. Probably, such trends, reflected in the Eastern Christian art, was changed the decoration of the front wall of the altar elevation of Armenian churches. The first examples of different kind of that wall decoration with ornamented panels we may look in the main church of Marmashen monastery (1029) and on the drawings of unpreserved panels of St John church of Horomos, by T. Toramanian\textsuperscript{13}.

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In addition, based on the tradition of the bloomed cross representation, the art of khachkar flourished from the end of the 10th century to the way of more rich and mostly of carpet-like ornamentation: on the western façade of the Cathedral, on the wall of the Redeemer church in Ani, and some from Khtskonk and from Horomos monastery: 1) into the central roof of zhamatun and 2) on the eastern multi-arched wall (dated probably just after 1038) of the mausoleum of Princess Ruzukan (1215) (Fig. 15).

At all stages of these changes the main role belonged to the Anian, that is, metropolitan school of Armenian architecture. On the one hand, it had been developing the achievements of Armenian architecture of the 7th century, at the same time focused on the principles and referencing the forms of classical Greco-Roman antiquity; and on the other hand, it had responded to the innovations of the architecture of the East, in particular medieval Iran. All these trends were reflected into the flat surfaces decoration, the field which hardly developed before the architectural flourishing of the Bagratid era. At the same time, rich and carpet-like ornamentation, which has been presented on both the flat surfaces of architectural constructions and the memorial khachkars, could be inspired from the tradition of the applied art as well. The art of khachkar itself seems an evidence of the junction of architecture, sculpture and carving craft (as a kind of the applied art). So, the art of khachkar should be understood as a bridge between decorative art and monumental architecture.

14 P. Donabédian, "L’éclatante couronne...", 2018–2019, 206–207, Fig. 25–27.
ILLUSTRATIONS

1: Mastara. Church of St Hovhannes, 640s, fragment of the western exedra.
Мастара. Црква Светог Хованаса, 640-их година, фрагмент западног екседре.

2: Talin Cathedral, 670s, fragment of the blind arcade of the northern exedra.
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3: Alt'amar, the Holy Cross church, 915–921, South-Western corner (photo: Armen Kazaryan).
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4: Argina Cathedral, 970s, the block from the north-western pylon (photo: Armen Kazaryan).
Катедрала Аргина, 970-их година, блок од северозападног пилона (фото: Армен Казарјан).

5: Ani Cathedral, last quarter of the 10th century, the interior (photo: Armen Kazaryan).
Катедрала Ани, последња четвртина 10. века, унутрашњост (фото: Армен Казарјан).

6: Ani Cathedral, the southern façade (photo: Armen Kazaryan).
Катедрала Ани, јужна фасада (фото: Армен Казарјан).

7: Ani Cathedral, the oculus of the western wall (photo: Armen Kazaryan).
Катедрала Ани, окулус западног зида (фото: Армен Казарјан).

8: Ani Cathedral, the niche of the eastern façade (photo: Armen Kazaryan).
Катедрала Ани, ниша источне фасаде (фото: Армен Казарјан).

9: Ani Cathedral, carved detail from the frieze of the tholobate (photo: Armen Kazaryan).
Катедрала Ани, резбарени детаљ са фриза толобата (фото: Армен Казарјан).

10: Ani Cathedral, the reconstruction by A. Ghulyan, 2005 (A.Ю. Казарјан. “Нове подаци о куполама храмова Ани. Часть первая. Кафедралный собор зодчего Трдата”, Вопросы всеобщей истории архитектуры / А.Ю. Казарјан. “Нови подаци о куполама Анијевих цркава. Први део. Катедрала архитекте Трдата” / Питања опште историје архитектуре 10 (Москва), 2018, слика 8).

11: Marmashen monastery, the main church, 1029, fragment of the portal (photo: Armen Kazaryan).
Манастир Мармашен, главна црква, 1029, фрагмент портала (фото: Армен Казарјан).

12: Khtskonk monastery, church of St Sargis, 1024, fragment of the main volume (photo: Armen Kazaryan).
Манастир Кхтсконк, црква Светог Саргиса, 1024, фрагмент главне свеске (фото: Армен Казарјан).

13: Horomos monastery, zhamatun, 1038, the central tent (photo: Armen Kazaryan).
Манастир Хоромос, Зхаматун, 1038, централни шатор (фото: Армен Казарјан).

14: Horomos monastery, zhamatun, 1038, the ceiling of peripheral sections (photo: Armen Kazaryan).
Манастир Хоромос, Зхаматун, 1038, плафон ободних делова (фото: Армен Казарјан).

15: Horomos monastery, the mausoleum of Ruzukan, shortly after 1038, fragment of the eastern wall (photo: Armen Kazaryan).
Манастир Хоромос, маузолеј Рузукан, нешто после 1038. године, фрагмент источног зида (фото: Армен Казарјан).

LITERATURE


аРмен Ј. Казарјан
УКРАШЕНЕ РАВНЕ ПОВРШИНЕ И ИЗУМ ДИЈАЈНА У ЈЕРМЕНСКОЈ АРХИТЕКТУРИ У ДОБА БАГРАТИДА

Резиме: Овај рад по први пут износи питање промена које су се догодиле у средњовековној јерменској архитектонској декорацији током најважнијег периода ере Багратида: од почетка 10. до прве половине 11. века. Ове промене карактерише прорек принципа дизајна у фундаментално класичну архитекту- ру. Било је неколико случајева таквих појава на јерменским споменицима из периода од 5. до 7. века, чији су мајстори градитељи користили наслеђене методе класичне антике. Почетак ове иновације могао је бити обележен радом великог архитекте Манојла, градитеља цркве на острву Ахтамар (915–921) и Трдата, градитеља Аргине (970-их), катедрале града Ани (последња четвртина 10. века) и цркве Гагкашен у Анију (1001). Од традиционалних форми венаца, архитекта Манојло је сачувао само танку траку као основу за кровне плоче. Богате и високе скулптуре у потпуности су промениле уобичајену слику венаца и читавог здања. Специфични венци цркве Ахтамар заједно са украшеним и извајаним фризовима и богата употреба рељефа чине да се овај споменик по форми декорације сматра ближим богато украшеном реликвијару у облику цркве са куполом, него стварној грађевини. Главни волумен катедрале Ани опремљен је вишестепеним базом са необично високим и равним степеницама. Традиционалне упарене фасадне нише не нарушују глатку површину савршено обложених равни ових фасада. Богати украсни елементи који цркву окружују лаганим, али енергичним ритмом не утичу и на њен монументални изглед.

Још једна новост су били украшени равни сводови и ивице шаторастог крова Жаматуна (за цркву) у манастиру Оромос (1038), као и украс хачкара из 11. века. Ови примери илуструју још већу слободу и одступање од традиционалне архитектонске тектонике. Поред тога, архитекти из Анија фокусирали су се на принципе и евокацију облика класичне грчко-римске антике, одговарајући, с друге стране, на иновације у архитектури Истока, посебно средишњовековног Ирана, који је у то време ушао у нову просперитетну fazu.

Клаучне речи: Јерменска архитектура, Ани, црква Ахтамар, архитекта Трдат, украшене површине, орна- ментика