ROCK ARCHITECTURE OF MOUNTAINOUS CRIMEA: MAIN PERIODS OF DEVELOPMENT

The History of Ancient and Medieval Chersonesos and the History of Taurica are so inextricably interwined that the solution of one of the problems of the development of South-Western Crimean towns promotes to comprehension of the destiny of the whole region and vice versa. One of such problems is the History of the so-called «cave towns» (cleaver rocks). Among them there are such unique medieval monuments as Bakla, Chufut-Kale, Tepe-Kermen, Kyz-Kermen, Kachi-Kaljon, Mangup, Eski-Kermen and some monasteries situated in the nearest neighbourhood or which are independent complexes (Shuldan, Chilter-Marmara, Chilter-Koba, the Complex of Inkerman monasteries; Fig. 1).

«Cave towns» differ in size and status, historic destiny but one peculiarity unites them - man-made caves cut in bedrock alongside with the remnants of overland buildings.

The first mentioning about Crimean man-made caves are dated back to the end of the 14\textsuperscript{th} century. Monk Matthew in his «Description of Theodorycity» informs about palaces and monastic cells \(^1\).

Later, in the second half of the second half of the 16\textsuperscript{th} - 17\textsuperscript{th} century they are mentioned several times (Blez de Viziner\(^2\), Martin Bronevski\(^3\), clergyman Jacob\(^4\), Evlia Chelebi\(^5\) and some other authors\(^6\).

Since the end of the 16\textsuperscript{th} century there has been two trends in the historiography of Crimean roc architecture. The representatives of the first one think that the appearance of cave structures is connected with some of the peoples who lived in the Crimea (Gablitz\(^7\), Sumarokov\(^8\), Dubois de

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\(^1\) Bauer G. Metropolii Chersona, Sugdei, Goti i Zichii po dannim prosopographicheskogo lexicona vremen Paleologov// АДСВ. 1995. Вып. 27. С. 74 - 75.

\(^2\) Memuari, otnosiaschchiesia k istorii Uzhoii Rusi. Kiev, 1890. Вып.1. С. 85.

\(^3\) Bronskevski M. Opisanie Kryma// ЗООИД. 1867. Т.6. С. 340, 344.

\(^4\) Obolenski M. Skazania sviashchenika laikova// ЗООИД. 1850. Т.2.

\(^5\) Ksiega podrozny Ewliji Czelebiego (Wybor). Warszawa, 1969. С. 261


\(^7\) Gablitz K.I. Geograficheskie izvestia sluzhashchie k obiasneniyu prezhnego sostoiания ninesheй Tavricheskoii gubernii. Sankt-Peterburg, 1803. С. 31 - 32.

Montpereux\textsuperscript{9} Strukov\textsuperscript{10}, Markov\textsuperscript{11}, Karaulov\textsuperscript{12}, Berthier-Delagarde and others)\textsuperscript{13}, the authors of the other trend attribute them to fugitive Byzantine schematos (Pallas\textsuperscript{14}, Kulakovski\textsuperscript{15} and others).

The same tendency can be observed in modern literature. Some researchers connect the appearance of the «cave towns» with the activity of Byzantine administration in Taurica\textsuperscript{16}, others think that these monuments appeared as the result of the development of economic and social relations among local tribes\textsuperscript{17}.

Studying the history of building and functional purpose of rock structures as elements of «cave towns» demands the necessity to classify them and work out a chronological scale. However, it should be noted that the latter is extremely difficult, because it is practically impossible to date them using archaeological data, as there is no cultural layer; though there are some inscriptions on a number of monuments\textsuperscript{18}. But they are not numerous and the majority of them has no evidence for defining the period of building a structure. And in cases where there are some, they give information about the period of functioning relating to a later period. That is why the question about reliable architectural analogies arises. But such analogies are most easily found to architecture-expressive monuments (for example, cave churches).

However, cave temples are not numerous (3\%). That is why the data obtained during their research not always can be correlated with the other monuments. Dating the cave construction complex with the overland

\textsuperscript{10} Strukov D.M. Drevnie pamiatniki khristianstva v Tavride. Moskau, 1876. S. 4.
\textsuperscript{11} Markov E.L. Krym i ego osobennosti. In: Zhivopisnaya Rossia. Sankt-Peterburg, 1898. S. 257.
\textsuperscript{13} Berthier-Delagarde A.L. Issledovania nekotorykh nedoumennikh voprosov srednevekovia v Tavride// ИТУАК. 1920. № 57. S. 21.
\textsuperscript{14} Pallas P. Puteshestvie po Krymu v 1793-1794 gg./// ЗООИД. 1883. Т. 13. С. 80.
\textsuperscript{15} Kulakovski Yu.A. Proshloe Tavridi. Kiev, 1914. S. 75.
\textsuperscript{18} Latishev V.V. Sbornik grecheskikh nadpisei khristianskikh vremen iz Yzhoi Rossi. Sankt-Peterburg, 1896; Latishev V.V. Zametki k khristianskim nadpisiam iz Kryma// ЗООИД. 1897. Т. 20.
architecture is not always reliable due to serious disagreements in defining the chronology of the latter.

We worked out an architectural-archaeological approach to study non-cult artificial caves. The main idea of this research is in the following:

On a certain plot or parts of a settlement we single out caves which are directly connected to overland architectural structures dated definitely. Then their function is defined. After that architectural peculiarities, characteristic to this given group of caves are defined. Then analogous monuments in other settlements are systematized. And if all the caves connected with the monuments of the same period and function in different settlements have the same architectural peculiarities, then we can declare that we deal with the premises of the same period.

So, correlating cave constructions of different periods we can develop their chronology, discover the peculiarities of evolution.

We define three periods in the development of medieval rock architecture of the mountainous Crimea: A (the second half of the 6th - 7th centuries), B (the end of the 10th - the mid-14th centuries) and B (the second half of the 14th - 18th centuries).

Premises of Period A were discovered in Mangup, Chufut-Kale, Eski-Kermen and Tepe-Kermen19 (Fig. 2,3). These premises are alike in architectural aspect. First, their size is within 3 ml - 11 ml; second, they have an oval or round in the plan; third, smooth passage from the floor to the walls, and from the walls to the ceiling, as a result of it the ceiling has the form of a box-like arch; the fourth, on the walls of the premises there are traces of cut, displaying the technique of making a cave construction which we define as T.I. (slanting furrows, formed as a result of strikes with a pick lying as a rule in one direction: up-down at the angle of 35-50°. These furrows are not always precisely parallel. They are at a distance not more than 0.08-0.09 m); the fifth, the form of the opening entrance is rectangular in the plan with the imitation of arch solution in the upper part. Benches cut in rock and arch niches are among the peculiarities of such premises.

Premises of Period A are originally fortification systems of settlements and are usually in clefts of defensive walls, on the edge of plateaus of settlements, mainly above ancient ascending roads. Defensive constructions cut in bedrock were used for the control of ascending roads, easily accessible clefts, as places for observation, gate rooms, places for guards at the defensive walls. Some of such rooms were used for several functions. Depending on topographic peculiarities of that or another «cave town» premises of definite function prevailed.

Cave constructions were mainly used in defensive systems of site for auxiliary purposes. That is why, they are not numerous: there are 30

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In relative chronology we have not got a single case where cave constructions of Period A re-covered other monuments. Vice versa, the given premises untouched with the latest re-making are very few. All of them are in the place where there were no late-medieval buildings. As it was noted, all the mentioned premises were the part of an original fortification system of settlements. So we can see that cave constructions of Period A are the early stage in the development of the architecture of the mountainous South-western Crimea.

Among architectural analogies to premises of Period A early-medieval vaults are of special interest. They have likeness in size, type of refinement, the form of entrance opening, interior details \(^{20}\).

Cave constructions of Period A are dated in accordance with the date of original defence systems of settlements, where they are located.

The appearance of defence constructions of Mangup are substantially dated back to the second half of the 6\(^{th}\) - the beginning of the 7\(^{th}\) centuries \(^{21}\), Eski-Kermen - the end of the 6\(^{th}\) - 7\(^{th}\) centuries \(^{22}\), Chufut-Kale - the second half of the 6\(^{th}\) - 7\(^{th}\) centuries \(^{23}\). Rising of Tepe-Kermen is obviously dated by the same period \(^{24}\). So we can think of the possibility to date cave constructions of Period A in the Crimea by the second half of the 6\(^{th}\) - 7\(^{th}\) centuries.

The question of its origin is closely connected with the problem of chronology of early cave constructions. Are they the result of local development or was the idea of its creation brought to the peninsula from other regions?

From the period of the end of antiquity and the early Middle Ages constructions cut out in the bedrock are known, these are vaults of Neapolis Scythian, Cherson, towns of Bosporos Kingdom, household pits and cisterns \(^{25}\). However, the majority of these constructions, complex in structure is connected with either Roman influence or the spreading of Christianity. Consequently, rock architecture of the mountainous South-western Crimea could not spring up here.

Among regions from where this tradition of creating premises in the rock could be borrowed there are some provinces of Byzantine Empire. In some cases these are defensive premises analogous to Crimean ones, which were

\(^{20}\) Mogarichev Yu.M. Peshchernie sooruzhenia... S. 71 - 72.
\(^{21}\) Gertzen A.G. Krepostnoi ansambl Mangupa. S. 136 - 142.
\(^{24}\) Mogarichev Yu.M. Peshchernie sooruzhenia... S. 73.
\(^{25}\) Ibid. S. 74 - 75.
widespread in early medieval fortresses (Minor Asia, Balkan peninsula). All this is in a good agreement with the architecture of overland fortification constructions in «cave towns» of the Crimea, their Byzantine character is beyond any doubt.

On the other hand, as it was noted, early cave structures of Southwestern Taurica have analogies in a constructive plan with early medieval vaults of local population, the architecture of which was a model for first in-rock buildings in fortified settlements, that reflects the origin of local building traditions.

Synthesis of Byzantine and local building traditions corresponds to social processes of early medieval period in Byzantine periphery.

In the second half of the 6th century Byzantine expanded its territories in the Crimea, developing further neighbourhood of Cherson by means of building strongholds. Local population finds an ally in Empire administration under conditions of intensifying onslaughts of Barbarians. In this period, fortresses known as «cave towns» came into being in the South-western Crimea. Their garrisons consisted of local people, a usual phenomenon for Byzantine periphery. Local population built fortresses under supervision of Byzantine engineers. That was why defensive cave constructions were built according to the patterns borrowed from Byzantine, but underground constructions which were well-known, i.e. vaults, were taken as models for their construction.

So, cave constructions in Taurica appeared in the second half of the 6th - 7th centuries in the fortresses of foederates.

**Cave constructions of Period Е and Б**

We, practically, do not know anything about premises of the 8th - 9th centuries in the Crimea. Relatively trustworthy we can date only two caves in Kyz-Kermen back to the 8th - 9th centuries. The absence of in-rock constructions in that period can be explained by the inclusion of the Southwestern Crimea in the sphere of influence of Khazar Caganate and the influx of new population unfamiliar with the art of creating premises in bedrock.

But from the end of the 19th - the beginning of the 20th centuries in Russian and, later, in Soviet historiography there was a hypothesis that correlated the appearance of cave monasteries in the Crimea to the 8th - 9th

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27 Mogarichev Yu.M. Peshchernie sooruzhenia... S. 72 - 81.

28 Ibid. S. 82 - 84.
centuries, and connected them with the influx of monks during iconoclastic strife in Byzantine.\textsuperscript{29}

We investigated this problem\textsuperscript{30} and came to the following conclusions.

Epigraphic material, frescoes from cave monasteries are dated back to the period not earlier than the 12\textsuperscript{th} century. Archaeological works undertaken in cave monasteries did not discover complexes of the 8\textsuperscript{th} - 9\textsuperscript{th} centuries, connected with cave structures. Architectural analysis of cave churches in the Crimea does not enable us to single out monuments of the 8\textsuperscript{th} - 9\textsuperscript{th} centuries.

Cave churches and monasteries of Minor Asia and Southern Italy are often given as analogies to Crimean monuments of the 8\textsuperscript{th} - 9\textsuperscript{th} centuries. However, mainly all cave churches there are dated to post-iconoclastic period\textsuperscript{31}. So, there are definite data which could allow to date Crimean cave monasteries to the 8\textsuperscript{th} - 9\textsuperscript{th} centuries.

The analysis of written sources (Life of St. Stephen, the Life of Ioann Gothian, Letters of Theodor Studit and others) drives to the conclusion about the absence of reliable data about numerous iconoolule escaping from Byzantium living in the Crimea. Vice versa, the sources show that Taurica, Cherson and Gothian dioceses in particular, were on pro-governmental positions, and monastery life was just generated in the beginning of the 9\textsuperscript{th} century.

The peack of rock architecture in the Crimea is in the 11\textsuperscript{th} - 15\textsuperscript{th} centuries. There are two types of cave constructions of this period: secular and cult. They are undoubtedly interrelated with each other, but there are serious distinctions between them, though. That is why, it will be more logical to consider them separately.

**Secular monuments.** In the 11\textsuperscript{th} - 12\textsuperscript{th} centuries the political situation in the mountainous Crimea became more stabilized. The power of Byzantium comes here again. It promoted the economic rise of this region. The prime of


three «cave towns» - Eski-Kermen, Tepe-Kermen and Bakla belongs to the end of the 11th - 13th - the first half of the 14th centuries\textsuperscript{32}.

\textbf{Eski-Kermen.} There are more than 350 premises of period Б here (Fig. 4). By the way, cave constructions for household give 83%, and 86% out of them are pens. 17% from the whole number of premises are churches and concomitant premises (vestries, burial vaults and others). 14% out of household premises are basement under estates.

In architectural aspect there are more differences among these premises than among earlier ones. Their sizes vary from 6 ml to 100 ml. Practically, there are no corners (churches are the exception). The ceilings are of two types: box-formed arch, to a less extent, and flat, to a larger extent. The type of refinement is Т.2. (parallel or criss-crossing deep furrows at a distance of not less than 0.1 m (Fig. 2,11). Widely spread mangers and stone rings for the cattle to be tied attract our attention as interior details.

There are about 250 premises in Tepe-Kermen, and 90 - in Bakla which are dated back to period Б. In architectural plan they are analogous to corresponding caves in Eski-Kermen. The percentage of household buildings and barns here is the same.

Besides the above mentioned monuments, defence and household premises of Period Б are known in Mangup, in Kachi-Kalion - of household function.

For cave constructions of this type some other architectural traditions in comparison with the monuments of Period A are noted, if the latter follow vault architecture, the former reproduce the elements of overland one in rock. The dominant in defining the form and size of these premises is their function and the character of utilizing them.

To define the chronology of the monuments under consideration, it is very important to follow their «relations» with dated overland object and, what is extremely important, with the cultural layer. Most of these monuments are household ones and they are directly connected with the ruins of farms in these «cave towns». The economic prime of Eski-Kermen was in the 11th - 13th centuries, Tepe-Kermen - in the 10th - 13th centuries. The similar situation was in Bakla. All three settlements perished in the end of the 13th - the mid 14th centuries\textsuperscript{33}. So, cave constructions of Period Б on these sites should be dated by the 11th - mid-14th centuries. This is proved by the results of the excavations in Eski-Kermen in 1930s when some farms were researched, those from complexes with rock basements of Period Б, dated back to the 12th - 13th centuries\textsuperscript{34}.

\textsuperscript{32} Mogarichev Yu.M. Peshchernie sooruzhenia... S. 95 - 106.
\textsuperscript{33} Ibid. S. 100 - 101.
In Mangup most of the premises of Period Б are connected with the
Second line of defence of the mid-14th century. In Mangup only premises of
Period В were known later. So, the premises of Period Б should be dated to
the 11th - mid-14th centuries.

Cult cave monuments in the South-western Crimea can be found in cave
monasteries as well as in monastery settlings.

The latter are known in Eski-Kermen, Tepe-Kermen, Mangup and Bakla
(though, there is a possibility that a cave chapel of Bakla was a part of
monastery complex). The earliest monuments of this group are churches in the region
of ascending roads to Eski-Kermen dated by the mid-10th - the beginning of
11th centuries (Fig. 5 - 6), and possibly the cave temple «Sudilishche» in
original variant (though this question needs clarification). Other cave
churches of Eski-Kermen - «Three horsemen» and «Assumption» (Fig. 7)
are convincingly dated to the 13th - 14th centuries.

Cave churches of Tepe-Kermen (Fig. 8) (one of them is a parish, the
other is a chapel) are undoubtelly connected with the last stage of building
the settlement and, probably, appeared in the 11th - 13th centuries.

Mangup rock temples are beyond doubt attributed to Theodoro period and
dated to the 14th - 15th centuries.

The chapel in Bakla should also be dated to the period not earlier than the
11th century.

Seven complexes in Inkerman valley, Chilter-Marmara, Shuldan, Chilter-
Koba, Assumption, Kachi-Kalion can be attributed to the cave monasteries
and secluded monasteries. Some of them are in the settlements and in the
close neighbourhood from them. In Mangup there are four complexes - in
Tabana-Dere ravine, two under the southern edge of the plateau and on the
extremity of Teshkli-Burun cape. The monastery was in Chufut-Kale, in the
district of Southern Gates. Most probably, «Donators» temple not far from
Eski-Kermen was a small secluded monastery. So we counted up about 18
cave monasteries in Taurica. They are divided into 4 groups.

The first group comprises the complexes, the monastery character of
which is beyond any doubt. They are untouched with any repair works or re-
building in the 19th century. These are Chilter-Koba, Chilter-Marmara and
Shuldan. All of them have features of classical monastery: one (Chilter-

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35 Gertzen A.G. Krepostni ansambl Mangupa. S. 145.
36 Petrovski V.A. Skalnaya chasovnia v raione Bakly// Problemi istorii i archeologii
37 Mogarichev Yu.M. Peshchernie tzerkvi v raione podjomnoi dorogi Eski-Kermena//
38 Repnikov N.I. Eski-Kermen v svete archeologicheskikh razvedok 1928-29 gg.//
ИГАИМК. 1932. № 1 - 8. S. 108; Dombrovski O.I. Freski Srednevekovogo Kryma. Kiev,
39 Petrovski V.A. Skalnaya chasovnia v raione Bakly. S. 70.
- 50.
Koba) or several (Chilter-Marmara - 4, Shuldan - 2) temples, monks' cells, refectories, auxiliary household premises and funeral constructions. There are no reliable archaeological materials for dating these monuments, besides some fragments of pottery of not earlier than the 12th century found during excavations in Shuldan and Chilter-Koba. From known epigraphic material only one inscription from Chilter-Marmara can be dated to 1403. All other inscriptions and drawings have no distinct chronological signs. We'd like to note that in the large cave temple of Shuldan (Fig. 9) there were frescoes dated to the period not earlier than the 13th century.

The rock complexes of Inkerman are included into the second group. The problem of differentiating the monasteries of Inkerman has not been worked out yet and it needs thorough investigation. The solution of the problems is rather difficult due to the later construction works connected with the creation of St. Clement's monastery in the western precipice of Monastery rock in the 19th century and laying a railway. Irreparable damage was inflicted on medieval monuments, some of them were utterly destroyed.

According to our data, in the Middle Ages not less than seven complexes of monastery type were here: two - in Monastery rock, two - in Zagaitan rock, and three - on the opposite side of the valley of the Chernaya River (Black River). Besides 16 known cave churches we discovered 8 more churches in Zagaitan rock. Hence, there are 24 cave churches. Taking into consideration that some of caves in Zagaitan rock are inaccessible, and that some premises of Inkerman were destroyed during construction and quarry works, the number of churches might have been much larger.

The above-mentioned facts allow us to pose a problem about the existence of monks' centre in the valley of the Chernaya River like Aphon, Olimpia, Meteora. Turk invasion in 1475 stopped and ceased the process of its formation.

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44 Latishev V.V. Sbornik grecheskikh nadpisei christianskikh vremen... S. 125.
45 Ibid.
48 Ibid. S. 245 - 246.
49 Rodley L. Cave monasteries... P. 8.
The period of rising these monasteries has not been established yet. Probably, the complex, in the place of which St. Clement's monastery appeared in the 19th century, was formed in the period of Theodoro (Fig. 10). There are monuments which can be dated to not later than the 13th century (Eugraphy temple) and the 14th century (the temple with the premise for christening; Fig. 11 - 12). We have not discovered any earlier reliable complexes yet.

The third group of cave monasteries comprises «Assumption» and Kachi-Kalion ones. They are united by the fact that in the place of ancient monasteries new ones were reconstructed by the mid-19th century and they existed up to 1920s and they changed the appearance of the original monuments to a great extent. The rise of Assumption monastery is most probably dated to the 14th - 15th centuries, not earlier than the 11th, and, obviously, in the 13th - 14th century a monastery in Kachi-Kalion appeared.

The last group includes monasteries situated in the settlements and in the nearest neighbourhood - 4 Mangup complexes, in the district of the Southern Gates in Chufut-Kale and «Donators» temple near Eski-Kermen. Mangup monasteries appeared in the period of Theodoro (the 14th - 15th centuries), the monastery in Chufut-Kale can be dated to not earlier than the 13th century, secluded monastery with the «Donators» temple - to the 14th century.

In the Crimea, besides cave monasteries the monasteries with the elements of rock architecture in the neighbourhood of Cherson are known. But it is impossible to interprete them as actually cave ones.

Cave constructions of Period B (Fig. 13) are situated in Mangup and Chufut-Kale. In Mangup they were used for defensive, cult and household functions, in Chufut-Kale for household.

The distinguishing features of premises of Period B are rectangular form, distinct corners, plane ceiling and smooth refinement of walls. These cave constructions were functioning during the second half of the 14th - the end of the 18th centuries (though some premises were cut out in the 19th century).

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51 Latishev V.V. Sbornik grecheskikh nadpisei christianskikh vremen... S. 37 - 40; Latishev V.V. Zamekti k christianskim nadpisiam iz Kryma. S. 150 - 151; Chepelev V. Peshcherni khram v Inkermanе// Труды Первого Московского государственного университета. 1927. Вып. 3. C. 45; Repnikov N.I. Materiali k archeologicheskoi karte... S. 39 - 40.
53 Ibid.
54 Ibid. S. 8 - 9.
55 Repnikov N.I. Eski-Kermen v svete archeologicheskikh razvedok. S. 120 - 122; Latishev V.V. Sbornik grecheskikh nadpisei christianskikh vremen... S. 124 - 125.
So, in the mountainous South-western Crimea there are 1600 premises cut out in the rock, which are located in 12 «cave towns». They originated in the early Middle Ages and were built up to the 19th century. Most of rock monuments were cut out in the period from the end of the 10th - the beginning of the 11th - the last quarter of the 15th centuries, among them more than 50 cave churches. Obviously, cave monasteries in Taurica appeared not earlier than in the 11th - 12th centuries, though most of them, among them those which are reliably dated, belong to the 14th - 15th centuries. But this question needs clarification.
Fig. 1. Plan-Schema of the location of "Cave towns":

1 - Bakla; 2 - Chufut-Kale; 3 - Assumption monastery; 4 - Tepe-Kermen; 5 - Kyz-Kermen; 6 - Kachi-Kalion; 7 - Siurel Fortress; 8 - Chilter-Koba; 9 - Mangup; 10 - Shuldan; 11 - Chilter-Marmara; 12 - Eski-Kermen; 13 - Inkerman
Fig.2. Mangup. Premise of Period A

rekonsstruktzia

0 — 20 см

0 — 2 м
Fig. 3. Premises of Period A
Fig. 4. Eski-Kermen. Premise of Period Б

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Fig. 5. Eski-Kermen. Ascending road. “Bolshoi Khram”

(Large Temple)
Fig. 6. Eski-Kermen. Ascending road. "The Temple at Town Gates"
Fig. 7. Eski-Kermen. The Temple of "Three horsemen"
Fig. 8. Tepe-Kermen. Cave church
Fig. 9. Shuldan Large cave temple
Fig. 10. Inkerman. The monastery of St. Clement.

The plan of 1937
Fig. 11. Inkerman. Evgraht's Temple
Fig. 12. Inkerman. The temple with the premise for christening
Fig. 13 Chufut-Kale. The Premises of Period B