# THE MIRROR-WRITING EPIGRAPHIC CRYPTOGRAPHY OF TATEV MONASTERY AND SIMILAR PARALLELS

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#### ABSTRACT:

Tatev monastery is one of the famous historical, religious-cultural centers of medieval Armenia, whose epigraphic inscriptions have great importance for the study of the history of South Caucasus. Numerous inscriptions are preserved on the walls of churches and memorial monuments of the monastery and many of them remain unpublished. A mirror-writing epigraphic cryptography is preserved on the exterior southern wall of St. Paul-Peter Cathedral of the monastery, whose decipherment has been the main occasion of this publication. The inscription reveals the names of bishops Anton, Stepanos and Father Kirakos – most likely visitor-donors who came to the Tatev monastery as pilgrims and made donations, for which their names were awarded to be mentioned on the walls of the church as the "Book of Life". As a result of this discovery, the number of Armenian mirror-writing cryptographs (which are known from various Armenian monuments: Kurtan, Tanahat, Sevanavank, Litchk, Haghpat, Old Shinuhayr etc.) has been increased.

# Abstrait: La cryptographie épigraphique à écriture miroir du monastère de tathèv et parallèles similaires

Le monastère de Tathèv est l'un de célèbres centres historiques, religieux et culturels de l'Arménie médiévale, dont les inscriptions épigraphiques ont une grande importance pour l'étude de l'histoire du Caucase du Sud. De nombreuses inscriptions sont conservées sur les murs des églises et des monuments commémoratifs du monastère et nombre d'entre elles restent inédites. Une cryptographie épigraphique en écriture miroir est conservée sur le mur extérieur sud de la cathédrale Saint-Paul-Pierre du monastère, dont le déchiffrement a été l'occasion principale de cette publication. L'inscription révèle les noms des évêques Anton, Stépanos et de Père Kirakos - très probablement des visiteurs-donateurs qui sont venus au monastère de Tathèv en tant que pèlerins et ont fait des dons, pour lesquels leurs noms ont été mentionnés sur les murs de l'église comme le "Livre de la vie". À la suite de cette découverte, le nombre de cryptographes arméniens à écriture miroir (qui sont connus de divers monuments arméniens: Kurtan, Tanahat, Sévanavank, Litchk, Haghpat, Hin Chinuhayr etc.) est augmenté.

KEYWORDS: epigraphy, cryptography, Tatev Monastery, bishop, visitor-donor.

MOTS-CLés: épigraphie, cryptographie, monastère de Tathèv, évêque, visiteur-donateur.

#### A brief introduction to the cryptography

The existence of cryptography or secret-writing (Greek  $\kappa\rho\nu\pi\tau\delta\varsigma$  – secret and  $\gamma\rho\alpha\phi\dot{\eta}$  – writing) has deep roots in both Armenian and worldwide written-cultural inheritance. At the base of this phenomenon lies the secret encrypting of different words and names. Cryptography was used to ensure against the actions of those wishing to destroy or efface writings and thereby prevent them from being passed on to future generations. In Christian tradition, there was an additional dimension, the individual fear of the spiritual consequences of names being defaced or appropriated because the record of any name implies the expectation of memory and prayer<sup>2</sup>.

Since the 5th millennium BC in the Armenian Highlands a form of cryptography using iconography developed, in particular using ideograms, and this later spread to Syria, Palestine and other neighboring countries<sup>3</sup>. In

<sup>&</sup>lt;sup>1</sup> For example, in Ancient Greek epigraphy the inscriptions written in the *boustrophedon* method are dated back to 550-540s BC (Cook 1987, 39-41).

<sup>&</sup>lt;sup>2</sup> Harutyunyan 2019, 173.

<sup>&</sup>lt;sup>3</sup> Movsisyan 2003, 9.



Figs. 1/1-2. The petroglyphs of Ukhtasar (Armenia, Region of Syunik)
1. The History Museum of Sisian,
2. The Museum of Armenian Ethnography – Sardarapat (© Author, 2017).

Armenia, the oldest examples of them are petroglyphs – the figures symbolizing people, animals, heavenly luminaries, geometric pictorials etc. (Figs. 1/1-2). Through them, the people were able to articulate and memorialize their thoughts, expressing their own lifestyle, assumption and perceptions<sup>4</sup>. As for the Egyptian pictorial hieroglyphs these were applicable since at least the 3rd millennium BC and simple linear examples (called Demotic script) entered into circulation only in the 8th century BC<sup>5</sup> (Fig. 2). Later, ideograms began to be used in the Assyrian-Babylonian and Urartian (Kingdom of Van) cuneiform inscriptions, but as a means of transliteration, because the word was perceived as a "sacred concept" and instead of syllabic writing the corresponding ideograph was used<sup>6</sup>.

### The cryptography in Armenian epigraphs

In Armenian epigraphy, cryptograms and monograms came to replace ideographs. Moreover, to save space in epigraphy, ligatures were also used<sup>7</sup>. The phenomenon that took place in the ancient and medieval written speech was interpreted by researchers not only as a way to encode information and names but also as experiences of scribes<sup>8</sup>.



Fig. 2. Egyptian hieroglyphs
1. The Metropolitan Museum of
Art, New York, USA
(© Author, 2018).

In Armenian written sources they are attested even in the Early Middle Ages. It should be noted that one of the oldest Armenian cryptographic inscriptions was preserved on the eastern wall of the Cathedral of Avan (Katoghike) (now in the History Museum of Armenia) (Fig. 3). The inscription is bilingual (Armenian-Greek) and is dated between 630 and 640 AD.

The cryptogram is mathematical (in Armenian - p'okharinagir) when the numerical value of the thirty-six letters of the Armenian alphabet is used for decipherment. This method of cryptography is deciphered as follows: the thirty-six letters of the alphabet are divided into four rows of letters — units  $(\mathbf{u}-\mathbf{p})$ , tens  $(\mathbf{d}-\mathbf{\eta})$ , hundreds  $(\mathbf{f}-\mathbf{p})$ , thousands  $(\mathbf{n}-\mathbf{p})$ , and the rows of letters, according to the



Fig. 3. The bilingual (Armenian-Greek) cryptographic inscription of Avan (The History Museum of Armenia. © HMA).

<sup>&</sup>lt;sup>4</sup> Karakhanyan and Safyan 1970, 6.

<sup>&</sup>lt;sup>5</sup> Korostovtsev 1961, 19-20; Robinson 2013, 21-35.

<sup>&</sup>lt;sup>6</sup> Movsisyan 2003, 82-83.

<sup>&</sup>lt;sup>7</sup> Still in the 2nd century BC the ligatures were used in Latin, then in Greek epigraphs (Fedorova 1969, 63, Figs. 28, 63; Cook 1987, 11, Fig. 23).

<sup>&</sup>lt;sup>8</sup> Abrahamyan 1973, 244.

alphabetical order are replaced by one another<sup>9</sup>. Two words are coded in the epigraphy of Avan: QΩL\Q, which is deciphered as \(\cline{\Omega}\Omega (HAYOTS) - ARMENIAN and \(\text{G}\Omega\Omega\Omega (SHRARL) - SERVANT^{10}\), and the proper inscription is as follows<sup>11</sup>:

S(E)P 6P 6PL42 (= $\langle$ U3PS) 4UBPLPADU,  $\Delta$ CUU/PPS  $\Delta$ {Q}[OY] $\Delta$ OE TO  $\Delta$ EQ (= $\Delta$ UPUS UUSPPDPS). UUU[PP]EQ 6PU/PL (= $\Delta$ UPUS)  $\Delta$ P(PPUSPU) $\Delta$ PS:

Ter (Lord) Yezr Catholicos (=of Armenia), the true servant of God, Samuegh servant of Christ.

The main occasion of our present publication is a newly-discovered mirror-writing epigraphic cryptography (when the letters and whole words are presented in the reverse direction), which is preserved at one of the most famous historical and religious-cultural centers of medieval Armenia – Tatev monastery<sup>13</sup>. It has not been commented upon by previous specialists. Before presenting cryptography, let us mention that Armenian epigraphic cryptography, as a separate field of science, was noticed by Armenian and foreign researchers in the 19th and 20th centuries (M. Brosset, G. Ter-Mkrtchyan, H. Acharyan, S. Ter-Avetisyan, L. Khachikyan, V. Hakobyan, K. Ghafadaryan and others). Armenian cryptography has been thoroughly studied by the historian and researcher in source studies Ashot G. Abrahamyan, whose monograph entitled "Armenian Cryptography" is one of the most comprehensive phenomena<sup>14</sup>.

It should be noted that cryptographs appear both in inscriptions and in literary sources and they were devised and deciphered according to different principles. The cryptographs evidenced in inscriptions are quantitatively inferior to the examples found in literary sources, in particular manuscripts. This makes the publication of any newly-discovered epigraphic cryptography particularly valuable.

## A newly-discovered epigraphic cryptography of Tatev Monastery

The mirror-writing epigraphic cryptography of Tatev monastery is preserved on the exterior southern wall of St. Paul-Peter Cathedral, on the western side of the central window (Fig. 4). At the top of a partially erased inscription and attached to the elaborately-carved and red-painted crosses is a date. At the top of the carved crosses and to the right of the cryptography, two names are mentioned.

One of the first scholars who studied the inscriptions of Tatev monastery was archbishop Mesrop Magistros Ter-Movsisyan. In 1904 he copied and published many of the inscriptions found within the monastery, however he published only the date of the cryptography – "64. QQQ. (786 of Armenian Era, which equated to 1337 AD)" and one of the mentioned names – "Un|h6wb" (Kolijan). He also reported the following: "Other segments of the inscription are not deciphered as they have been erased because of humidity" 15.

Later, the prominent epigrapher Sedrak Barkhudaryan, who was unaware of the publication of Mesrop Magistros, included the same inscription in the second volume of the Corpus of Armenian epigraphy. He noted the following: "It was preserved at the top of the southern wall, to the west of the window. There are a couple of crosses at the top of the stone, under of which there is an inscription with both normal and reversed letters" <sup>16</sup>. S. Barkhudaryan provided a partial drawing of the cryptography and identified only the date – "ω. ! . 'Οω.' (758 of the Armenian Era, which equates to 1309 AD). It is striking that the drawing depicts the date as QQQ. (788 of the Armenian Era, which equated to 1339 AD). As for the decipherment of the cryptography, Barkhudaryan mentioned the following: "The inscription is in an awkward place, we looked through binoculars and we cannot guarantee accuracy" <sup>17</sup>.

It should be noted that because it is carved in a high and inaccessible place, the inscription can be read and then deciphered only through a high-resolution photo. To the best of our knowledge, this has not been done previously. During our research into the inscriptions of Tatev monastery, we deciphered this one for the first time, identifying not only the correct date but also the characters and meaning of the main inscription, which follows

<sup>&</sup>lt;sup>9</sup> Abrahamyan 1978, 11.

<sup>&</sup>lt;sup>10</sup> Abrahamyan 1978, 12; Greenwood 2004, 82-83.

<sup>&</sup>lt;sup>11</sup> The inscriptions have been transcribed in accordance with the methods of Leiden conventions (see Wilcken 1932).

<sup>&</sup>lt;sup>12</sup> Ghafadaryan 1945, 7; 1795, 190-191; Abrahamyan 1978, 13; Greenwood 2004, 82; Mouraviev 2010, 160.

<sup>13</sup> The main results of this material have been recently published in Armenian (Harutyunyan 2021, 147-162).

<sup>&</sup>lt;sup>14</sup> Abrahamyan 1978.

<sup>&</sup>lt;sup>15</sup> Ter-Movsisyan 1938, 4525-26; 2010, 29113.

<sup>&</sup>lt;sup>16</sup> Barkhudaryan 1960, 17<sub>14</sub>.

<sup>&</sup>lt;sup>17</sup> Barkhudaryan 1960, 17.

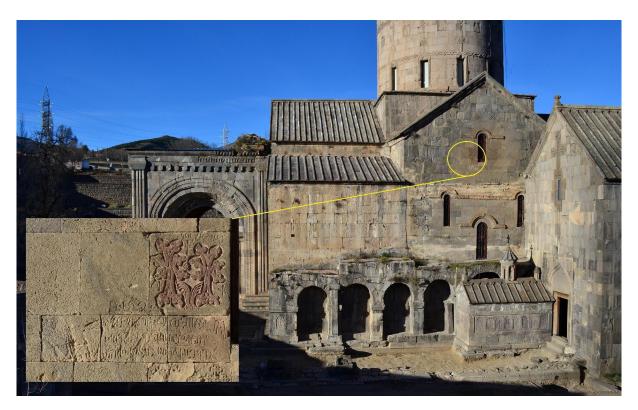
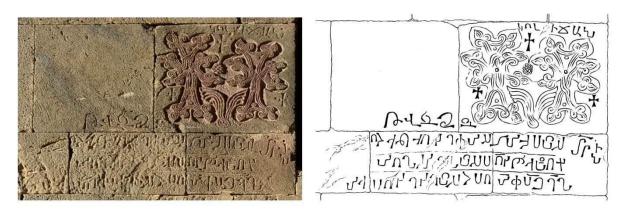


Fig. 4. The place of cryptography at the top of the southern wall of St. Paul-Peter Cathedral. © Author, 2020.

mirror cryptographic convention and is to be read from right to left. Thus, to the left side of carved crosses is preserved the date – "6·4. QQQ. (986 of the Armenian Era, which equated to 1537 AD)". Although the previous publishers read the initial letter of the date as "Q", nevertheless the outlines of "Q" are the epigraphs is very definite: the upper part is stylized and the circumference is almost complete, the lower part has a horizontal line, something that contradicts the canonical drawing of "Q", whose upper circumference is incomplete and the lower dactyl is oblique.

At the top of the crosses is the name "Կոլիճան" (Kolijan), and at the bottom is the name – "Տերին" (Terin). As for the cryptographic inscription, it consists of three lines and mentions the names of three clergymen – bishops Anton, Stepanos and Father Kirakos. The twin crosses were likely carved in memory of the same Kolijan and Terin, and the other three small crosses in memory of the clergymen (a cross to each), because according to inscriptions of memorial monuments (khachkars, tombstones etc.) "Saint Cross" (which is a symbol of Christ) is intended for the salvation of the souls of the mentioned persons, must intercede before God<sup>18</sup>.

Thus, we have established the following reading of the inscription:



Figs. 5/1-2. The mirror-writing cryptography of Tatev Monastery, 1537 AD. © Author, 2020.

<sup>&</sup>lt;sup>18</sup> Petrosyan 2008, 316.

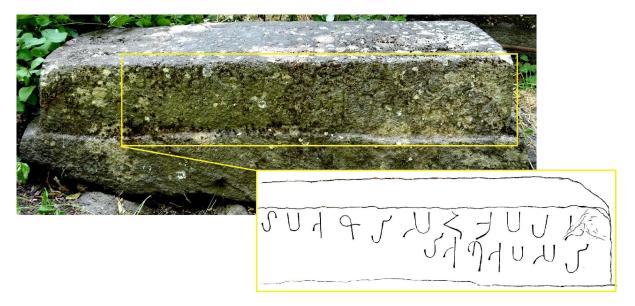
ԿՈԼԻՃԱՆ, / Տ[Ե]ՐԻՆ: ԹՎ[ԻՆ] ՋՋՋ. (986 of Armenian Era, which equated to 1537 AD) ԱՅՍ Է ՆՇԱՆ ՓՐԿՈԻԹԻ[ԻՆ] ՀՈ/ԳՈՑ ԻՊ[ԻՍ]ԿՈ[ՊՈ]ՍԱՑ Տ(Է)Ր ԱՆՏՈՆ[ԻՆ], / Տ(Է)Ր ԸՍ[ՏԵ]Φ[Ա]ՆՈՍ[ԻՆ], ՀԱՅՐ Կ[Ի]Ր[Ա]ԿՈՍԻՆ: Kolijan, Terin. 986 (=1537 AD).

This is a Sign (symbol of crosses) of the Salvation of the Souls of Bishops

Ter (Lord) Anton, Ter (Lord) Stepanos, Father Kirakos.

It is striking that two names and the date are mentioned separately to the cryptography using normal characters, read left to right, and that only the three-lined inscription has been carved using mirror-writing (Figs. 5/1-2).

It is a common phenomenon when the epigraph is partially codified. The abovementioned inscription of Avan was also encrypted in that way: such are known from other monuments as well, with mirror-writing from right to left, whose best parallel is an epitaph in the cemetery of Old Shinuhayr called "Khacher" ("Crosses"), located not far from Tatev, where the inscription perpetuating the memory of a certain Nasip was encoded in bold and straight letters: "Uյu է huնqhum Նասիպին - This is the rest of Nasip" (Figs. 6/1-2).



Figs. 6/1-2. The mirror-writing cryptographic epitaph of Old Shinuhayr, 16-17th cc. © Author, 2021.

The fact that encryption was not alien to this geographical environment from the 10-11th centuries is also evidenced by the well-known cryptograph from Artsvanik village of Syunik region of the Republic of Armenia, made with six methods of encryption, one of which is written from right to left, but not in a way of mirror-writing. It contains an extract from the Holy Book: "The Lord is at hand. Be careful for nothing" (Philippians 4: 5-6; cf. Matt. 6: 31-33)<sup>20</sup>. We believe that the choice of the extract is not random. In the same chapter of the Gospel of Matthew, it is spoken about mercy, which is pleasing to God, if it is not done ostentatiously: "...But when thou doeth alms, let not thy left hand know what thy right hand doeth: That thine alms may be in secret: and thy Father which seeth in secret himself shall reward thee openly" (Matt. 6: 3-4). This scriptural idea seems to create prerequisites for documenting religious-theological reasons as well.

Referring to the epigraph under consideration, it should be noted that the mirror-writing cryptography of Tatev monastery most likely was also written by the same scribe, which is testified by the paleographic features of letters (cf. letters "Po, V, V" and the non-canonical engraving of the scribe). This is the main reason why we considered the letters adjacent to the engraved crosses as a whole. Moreover, the letters of the inscriptions have numerous similarities to the donative inscription dated to 1532 (for instance: letters "Q, 3, 8" and the non-canonical engraving of the scribe), which is preserved on the exterior southern and eastern walls of St. Gregory the Illuminator church in the same monastery.

<sup>&</sup>lt;sup>19</sup> Barkhudaryan 1960, 56<sub>143</sub>.

<sup>&</sup>lt;sup>20</sup> Abrahamyan, Shahinyan 1975, 113-125.





Figs. 7/1-2. The Donation inscription of St. Gregory the Illuminator Church, 1532 AD. © Author, 2015.

It contains the fact that on behalf of a group of rulers of Gegharkunik (in Armenia), a condition was imposed on all the villages from Mazra to Kot, that is, each village will donate two kapals (measures) of oil (as tribute, tax) to Tatev monastery as a means of illumination, which will be given as a waqf, that is the inviolable result. On that occasion, the donors also gave a certificate to bishop Shmavon of the monastery. "...From Mazra to Kot village... yearly 2 kapals (measures) of oil were given as a waqf to St. Arakelots as a means of illumination for their souls ... With their own handwriting they gave a writing to bishop Shmavon..." Let the end of the inscription the scribe mentioned his name: "Nerses sutanun (humble) monk" citing the following lines famous from the manuscript sources: "My hand will rot and become land, but my writing will stay as a memory for you" (Figs. 7/1-2). Taking into account the archaeological, stylistic commonalities and contemporaneousness of the epigraphs, we consider it probable that the author and scribe of the abovementioned cryptography most likely was the same figure, the monk Nerses.

# Who are the mentioned clergymen?

Now we will try to identify who the mentioned clergymen might have been. According to the inscription, the crosses (in cryptography: sign) were intended to intercede with God for the salvation of their souls. Most likely, bishops Anton and Stepanos mentioned in the inscription were visitor-donors who came to the Tatev monastery as pilgrims and gave a donation of some kind, in exchange for which their names were allowed to be mentioned on the walls of the church as a "Book of Life".

It should be noted that two of the three mentioned clergymen are evidenced as "lord" and one as "father". Still in the epigraphs dated the 10-11th cc. of Tatev monastery other clergymen are also mentioned as "father", such as Father Shapuh<sup>22</sup>, Father Georg<sup>23</sup>, Father Vasak<sup>24</sup>, Father Vardan, and the latter is remembered also "vicar of the house"<sup>25</sup>, that is, abbot of the monastery. This is a good reason to assume that one of the clergymen mentioned in the cryptography – Father Kirakos, is perhaps the leader of the monastery, and the other two - bishops Anton and Stepanos, are visitors-donors.

In our view, the inscription was encoded at the request of the donors, who tried to remain anonymous and to protect their names from the danger of being removed from the "Book of Life". As we noticed above, the reason for cryptography could also be the religious-theological basis, that is, following the Holy Book, not to do charity (in this case, pilgrimage, donation) ostentatiously to be worthy of God. It seems most likely that the above mentioned bishops came from the diocese of Gegharkunik belonging to Tatev monastery. Based on a document kept in Tatev monastery (preserved in manuscript M 6271, 6r-7r, cf. also manuscripts M 1488, 4rv, M 2869, 3r-4v, M 2924, 3r-4r), we know that the meliks and headmen of Gegharkunik in 1513 reaffirmed the former rights of the diocese<sup>26</sup>. The content of

<sup>&</sup>lt;sup>21</sup> Barkhudaryan 1960, 27<sub>47</sub>.

<sup>&</sup>lt;sup>22</sup> Barkhudaryan 1960, 14<sub>6</sub>.

<sup>&</sup>lt;sup>23</sup> Barkhudaryan 1960, 21<sub>32</sub>.

<sup>&</sup>lt;sup>24</sup> Barkhudaryan 1960, 35<sub>69</sub>.

<sup>&</sup>lt;sup>25</sup> Saghumyan 2001, 96.

<sup>&</sup>lt;sup>26</sup> Alishan 1893, 34; Barkhudaryan 1967, 192.

the abovementioned donative inscription in 1532 also testifies about the pilgrims, who donated oil to the monastery and confirmed it with a certificate. Another inscription, which is preserved on the exterior eastern wall of St. Paul-Peter Cathedral and which is dated to the first half of the 16th century, records the names of pilgrim-priests, who came to Tatev monastery: "The priests of Gegharkunik: Poghos Mazretsi, Movses Karminjoy, Vardan ..., Ghulik Getkay"<sup>27</sup> (Fig. 8). By the way, the name of the last of the mentioned – Ghulik, originally from Getik, was also mentioned in the abovementioned donative inscription of 1532.

# The principle of decipherment of mirrorwriting cryptography and other similar cryptographs

What is the principle of the decipherment of mirrorwriting cryptography? Ashot Abrahamyan, one of the researchers, explains that deciphering similar



Fig. 8. The epigraph of pilgrim-priests of Gegharkunik, St. Paul-Peter Cathedral, the first half of the 16th century.

© Author, 2020.

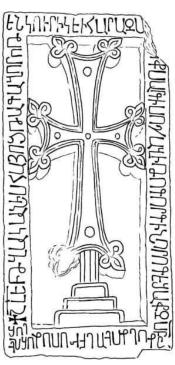
cryptographic inscriptions is possible by looking at the reflection of the inscription in a mirror reflection or copying the inscription on to paper and then reversing the sheet and holding it up to the light<sup>28</sup>. The Armenian mirror-writing cryptography, as we have already seen, was composed of inverted letters of the alphabet which also meant that

the direction of reading was inverted and became from right to left. This phenomenon has a lot of similarities with inscribed seal-rings and stamps, when the letters appear regular only after the stamping has been made.

In Armenian epigraphy, there are other known examples of mirrorwriting cryptographs, which are dated back from between the 11th and 15th centuries, at Kurtan, Sevanavank, Litchk. Tanahat, Haghpat, Shinuhayr etc. In epigraphic inscriptions of the monuments at these mentioned settlements, we can see not only mirror-writing, but also from right to left, upside down or partial mirror-written letters<sup>29</sup> (Haghpat, Talin, Tanahat etc.)<sup>30</sup>.

To make our observations more vivid, let us briefly present similar cryptographs known from other monuments. We have already mentioned above the circular cryptography of Old Shinuhayr with a right to left writing, therefore, turning to the others, we should first state





Figs. 9/1-2. The khachkar of Kurtan, 1086 AD. © Author, 2021.

<sup>&</sup>lt;sup>27</sup> Barkudaryan 1960, 17<sub>16</sub>.

<sup>&</sup>lt;sup>28</sup> Abrahamyan 1973, 268.

<sup>&</sup>lt;sup>29</sup> According to epigrapher Temo Jojua specialized in Georgian epigraphy we can find inscriptions where some letters are also presented as a mirror-writing. Some researchers attributed this phenomenon to the illiteracy of the scribes or considered them to be mistakes. Nevertheless, T. Jojua mentioned that it can count as an example of mirror-writing cryptography, too (Temo Jojua, oral report – 03.07.2021).

<sup>&</sup>lt;sup>30</sup> Saghumyan 1979, 65-66.





Figs. 10/1-2. The fragment of khachkar from Tanahat, 1181 AD. © Gharibyan 1983, Fig. 56; author, 2021.

that the geographical distribution of these is quite wide – Lori, Gegharkunik, Shirak, Vayots Dzor, Syunik, thus it is difficult to specify whether this type of cryptography is typical for this or that region.

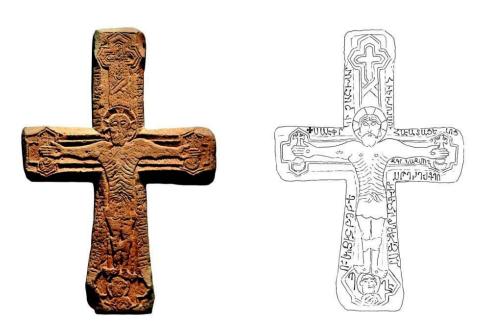
The earliest cryptograph dated 1086, is preserved

in one of the epigraphs of khachkars in the medieval cemetery of Kurtan village of Lori region of the Republic of Armenia (Figs. 9/1-2). Only the lower part of the cross-engraved slab is completely from right to left, upside down and encrypted. Judging by the content of the inscription, the khachkar was erected on the occasion of the renovation of the church, in the name of three brothers: Sargis, Davit and Gorg: "535 (=1086 AD) ... have renovated St. Gevorg (church), intercessor of our spirit" We highlighted the encrypted parts, therefore the name of the renovated church and the fact that the khachkar was erected for the intercession of souls were encrypted in this epigraph.

In the 1181 epigraph on the lower half of the famous khachkar from the Tanahat monastery in the Vayots Dzor region of the Republic of Armenia, only the part about the Second Coming of Christ is encrypted: "...remember me at Your Coming, in the year of  $630 \, (=1181 \, AD)$ " (Figs. 10/1-2), and the 1448 epigraph of the winged khachkar with the scene of the Crucifixion located in Sevanavank monastery (now in the Museum of the History of Armenia) the intermediate

section is from right to left and made using inverted writing, where about the worship of the obelisk and perhaps the remembrance of its builder priest Karapet in prayers is mentioned: "...that you worship priest Karapet and remember him in your prayers... 897 (=1448 AD)"33 (Figs. 11/1-2).

The 1456 epigraph of khachkar embedded into the eastern wall of St. Astvatatsin Church of Litchk village in Gegharkunik region of the Republic of Armenia is of special importance, where the last part of the epigraph is again partially coded



Figs. 11/1-2. The winged khachkar of Sevanavank, 1448 AD (The History Museum of Armenia). © Author, 2021.

when the person is mentioned who erected the monument having re-founded the village lying in ruins for eighteen years, and was an elder there: "...I – Tchantar... for 18 years, I have built my village in ruins, and have been its elder... 905 (=1456 AD)"<sup>34</sup> (Figs. 12/1-2).

In addition to the examples of partial cryptography, one of the epitaphs of Haghpat monastery is also interesting, which was completely coded from right to left and in a circular way. We read the name of archimandrite Ghukas

<sup>&</sup>lt;sup>31</sup> Barkhudaryan et al. 2012, 438-439<sub>995</sub>.

<sup>&</sup>lt;sup>32</sup> Gharibyan 1983, 145-146; Petrosyan 2008, 319.

<sup>&</sup>lt;sup>33</sup> Abrahamyan 1973, 269; 1978, 76; Petrosyan 2008, 319; Khacheryan 2017, 112-113.

<sup>&</sup>lt;sup>34</sup> Barkhudaryan 1973, 144<sub>589</sub>.





Figs. 12/1-2. The khachkar of Litchk, 1456 CE. © H. Petrosyan, 2008; author, 2021.



Figs. 13/1-2. The epitaph from Haghpat Monastery, 13th century. © Corpus of Armenian Epigraphy 2012, Fig. 291; author, 2021.

in the epitaph: "This is the rest of archimandrite Ghukas" (Figs. 13/1-2).

The given examples reaffirm the regularity of incomplete cryptography in Armenian epigraphs, as well as determine the specific features of the coded sections: names, expressions of intercession and remembrance, encrypted, apparently to prevent desecration.

It should be noted that mirror-writing is often combined with right-to-left script, as the examples found at Artsvanik<sup>36</sup>, Lmbatavank<sup>37</sup> and numerous examples from manuscripts attest. Right-to-left writing was taught in medieval Armenian scriptoria. A manuscript copied by deacon Andreas Yevdokatsi (from Tokat) in 1584-1589 (M 1869) attests to this. One of the chapters displays the Armenian alphabet written in reverse order, which could imply an awareness of right-to-left writing (Fig. 14).

# Conclusion

The study has shown that the phenomenon of Armenian cryptography was closely connected with protecting names from being defaced and hence removed from the "Book of Life". The cult of writing and memory was very powerful in the medieval period. As a result, pilgrims were prepared to encode their names, so that they would be remembered in prayer by readers and other visitors as well as during the liturgy.

In this respect we can say that those who did this managed to ensure their memory for posterity. The individual wanted not to be forgotten, to remain immortal and to be remembered for generations to come.

According to this newly-discovered cryptography of Tatev monastery dated to 1537 AD, the number of Armenian mirror-writing cryptographs may be expanded by





Fig. 14. The Armenian alphabet written from right-to-left (M 1869, 387r).

<sup>&</sup>lt;sup>35</sup> Abrahamyan 1973, 296; 1978, 77; Barkhudaryan et al. 2012, 168<sub>201</sub>.

Abrahamyan, Shahinyan 1975, 113-125.

<sup>&</sup>lt;sup>37</sup> Barkhudaryan 2017, 71<sub>104</sub>.

one. The study confirms that the desire to encode existed among the bishops, who probably came to Tatev monastery from the diocese of Gegharkunik as pilgrims and gave donations of some kind. The paleographic features, uneven lines and contemporaneousness of the inscription manifest numerous similarities with the donative inscription of St. Gregory the Illuminator Church dated to 1532 AD. On its basis it can be suggested that the author and scribe of the newly-found cryptography is the same monk Nerses, who is evidenced at the end of the inscription of the abovementioned church.

The similar cryptographs known from other monuments testify to the cryptography of individual words, anthroponyms, and means of expression in Armenian scribal art, whose main purpose virtually was to keep the memory and to be worthy of remembering.

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