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Davit Gareji Monastery. St. Davit’s Lavra, 6th C. (photo by Marita Sakhltkhutsishvili)

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FOREWORD

It is my honor to launch the proceedings of the international conference “Davit Gareji – Multidisciplinary Study and Development Strategy” that was held on April, 18th, 19th, and 20th, 2019 in Tbilisi, Georgia with a site visit to two monasteries within the complex: the Davit Gareji Lavra and Udabno.

Founded in the 6th century by Saint Davit Garejeli, one of the thirteen Assyrian fathers, and his disciples, the Davit Gareji complex is one of the unique sites within the Georgian Cultural and Natural Heritage. The site is comprised of more than twenty rock-hewn monasteries and several hundred sanctuaries and cave-cells. It is located in Eastern Georgia, on the semi-arid lori plateau, and partly extends into neighboring Azerbaijan (where it is named the “Keshikchidag” State Historical-Cultural Reserve). The monastery complex was registered as a Monument of National Importance of Georgia, in 2007, was submitted to the UNESCO World Heritage Tentative List; and lately, in 2018, the complex was inscribed into the 7 Most Endangered Heritage Sites in Europe list, a programme run by Europa Nostra and the European Investment Bank Institute as a founding partner. This status reflects the increased interest on the part of a wide range of international organizations to safeguard this unique medieval site, which motivated the organization of the conference and the publication of the conference proceedings.

The aim of the conference followed by the publication of its proceedings has been to stimulate multidisciplinary studies of the Site, to highlight the threats faced by the complex’s natural and cultural heritage and to define the best solutions; to raise discussions on development strategies and the action plan; to overview the current cultural, historical and art historical aspects of Davit Gareji, its restoration and site management issues; and to create a platform for dialogue among international and local scholars and professionals organized into three Sections: Historic, Cultural and Art Historical aspects of the Davit Gareji Monastery complex; the Natural Heritage of Davit Gareji; and Site Management and Preservation.

I would like to acknowledge the contribution of all the scholars and representatives of the cultural heritage institutions from Georgia, Azerbaijan, Israel, Italy, Greece, and the USA studying and operating in the fields of Davit Gareji desert’s cultural and natural heritage landmarks, who discussed the existing challenges and paths to solutions.

As a leader of the conference I would also like to express my gratitude to the main donor of the project, the Shota Rustaveli National Science Foundation; and to the organizers: the Georgian Arts and Culture Center / Europa Nostra Country Representation in Georgia and the National Agency for Cultural Heritage Preservation in Georgia; and Europa Nostra and its “7 Most Endangered” Programme, which presented a report on the Davit Gareji mission resulting from the inclusion of the Davit Garegi monasteries on the “7 Most Endangered” Programme list.

By taking into consideration political and social changes in the region, I would like to underline the cooperation with Ministry of Culture of Republic of Azerbaijan and the representatives of the “Keshikchidag” State Historical-Cultural Reserve, for their willingness to cooperate in safeguarding this unique historical monument.

As a final note I would like to express the strong hope that this conference will act as a beginning for further developments and cooperation among local, regional and international academics and operators toward further smoothing the path safeguarding and promoting the Davit Gareji Monastery complex an important part of the international communal patrimony.

Maka Dvalishvili, Project Leader
Georgian Arts and Culture Center President
Europa Nostra representative in Georgia
FOREWORD

As Secretary General of Europa Nostra, I warmly welcome the publication of the proceedings of the international conference “Davit Gareji – Multidisciplinary Study and Development Strategy” held on 19-21 April 2019 in Tbilisi, Georgia.

Let me first pay tribute and thank to all heritage professionals who have contributed to the knowledge of and care for this exceptional European Heritage site and who have participated in this conference. I also wish to acknowledge the vital support this conference received from the Georgian authorities.

In 2018, during the European Year of Cultural Heritage, Europa Nostra together with our partner the European Investment Bank Institute decided to include the Davit Gareji monastic complex in our List of 7 Most Endangered sites in Europe. The nomination of this site was made by the Georgian Arts and Culture Center (GACC), our most active country representation in Georgia. For this reason, Europa Nostra has expressed its highest interest and conveyed its full support to this conference through the active participation of our Vice-President, Piet Jaspaert.

The Davit Gareji conference in Tbilisi also provided the opportunity for my very first visit to Georgia. Among the series of visits and talks which I had had on this occasion, I shall keep the very special memory of my very first visit to this extraordinary monastic ensemble and heritage site on the occasion of the special visit to the site by H.E. Salome Zurabishvili, President of Georgia. This was a very moving personal experience. I was so impressed by the stunning beauty of the landscape and natural environment of Davit Gareji, by the outstanding historic, architectural, artistic and spiritual significance of the monasteries and by the dedication and warm hospitality of the Georgian orthodox monks whom we had met on this occasion. I could also see with my eyes the poor state of conservation of the monasteries and the urgent need for support and action to improve the situation. Last but not least, I could experience first hand the difficulties caused by the fact that Davit Gareji monastic site and ensemble is located in an area where the demarcation line between Georgia and Azerbaijan has still not been agreed by the two countries. This poses a particular challenge for the safeguard of this exceptional heritage site.

Europe’s shared cultural heritage is a very rich and complex ensemble of historic monuments and sites. The safeguard of this heritage is our shared responsibility. We can only succeed if we cooperate more closely together: across cultures and across borders. We sincerely hope that these proceedings of the Tbilisi Conference will contribute to a deeper understanding and a wider dissemination of the knowledge both of the exceptional history and of the uncertain present of Davit Gareji. We also hope that the positive spirit of collaboration which was generated by the Tbilisi Conference will contribute to ensuring a sustainable future of Davit Gareji. May this site serve as a source of pride and identity for local inhabitants and as a cultural tourist destination for travellers from the wider region, from all over Europe and the rest of the world.

Sneška Quaedvlieg-Mihailović
Secretary General
EUROPA NOstra
CONFERENCE BODIES

The international conference, “Davit Gareji – Multidisciplinary Study and Development Strategy,” was organized by the Georgian Arts and Culture Center, Country Representative of Europa Nostra in Georgia in cooperation with the National Agency for Cultural Heritage Preservation of Georgia.

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and to the National Agency for Cultural Heritage Preservation of Georgia and to its General Director Nikoloz Antidze for cooperation and generous support in the realization of the conference.

Our special appreciation and thanks go to the President of Georgia, Salome Zurabishvili; to Mr. Michael Giorgadze, ex-First Deputy Minister of Education, Science, Culture and Sport of Georgia and to Bishop Abba Alaverdeli (David Makharadze), Georgian Patriarchy for their generous support.

We would like to acknowledge Europa Nostra Secretary General Sneška Quaedvlieg-Mihailović, Europa Nostra Vice President Piet Jaspaert, Campbell Thomson from European Investment Bank-Institute and Gaiane Casnati, Europa Nostra Council Member for their enormous international support to Davit Gareji site, their meaningful elaboration of the report for the 7th Endangered site list, participation in the conference and for their international promotion efforts.

Special gratitude to the Ministry of Culture of the Republic of Azerbaijan and representatives of “Keshikchidag” State historical-cultural reserve, for their willingness to cooperate in the safeguarding of this unique historical monument.

We have deepest appreciation to our advisory board, international and local experts and scholars for their thoughtful presentations and discussions around the diverse Davit Gareji problems and development perspectives.

Special appreciation to Dr. Ori Z Soltes, Georgetown University for his enormous editorial work on the proceedings.

A particular thanks to project team members whose efforts made this event possible.
PREFACE

The International Conference Davit Gareji – Multidisciplinary Study and Development Strategy was dedicated to one of the most valuable cultural and natural heritage sites of Georgia. It is important to highlight some key findings and central reflections that emerged in the course of the conference.

First of all, on behalf of the Davit Gareji Monasteries, I want to congratulate the organizers, the Georgian Arts and Culture Centre and the National Agency for the Cultural Heritage Preservation of Georgia for this initiative and the way they have been organizing it, and at the same time, I want to thank the 60 competent and committed scholars who have been sharing with us their vision.

Davit Gareji Monasteries and Hermitages have been so significant as part of the rich and impressive sweep of Georgian history – the history of a country that has been leading growth and development within the Caucasian region for centuries. This true medieval cultural heritage site is still today a living and tangible testimony of Georgia’s lush artistic past. But it has also suffered a great deal through decades of lack of maintenance, through geological cataclysms, through man-made damage, etc. – yet it did not disappear, it didn’t give up! On the contrary, three of its sites have gradually regained an active spiritual life thanks to monks returning to their original home!

During the conference, it has become evident for all attendees that this amazing part of Georgian medieval art and culture deserves international recognition as part of both the Georgian and the European Heritage.

The Davit Gareji Monasteries were selected as one of the seven Most Endangered Sites by Europa Nostra and the EIB-Institute, based on the proposal of the GACC, supported by the National Agency for the Cultural Heritage Preservation of Georgia. And now we have at our disposal the technical report as an outcome of a joint rescue mission prescribing conservationist actions that need to be undertaken, and that proposes recommendations that will provide for a viable future for the Monastery complex.

It was encouraging, in fact, to listen to Metropolitan David, who welcomed the rescue mission and the technical report. He appreciated particularly that all partners concerned were now on board with the idea of a carefully conceived preservation and restoration program.

Here are some elements that emerged from the discussions during the conference, as essential steps to be taken on shorter- and longer-term bases:

1. An in-depth and multi-disciplinary analysis of the assets is needed in order to arrive at a high-quality master plan. This asks for an investigation of conservation techniques done on a scholarly basis, with art historical knowledge as a background.
2. The mapping of the site’s needs must lead to a prioritization of proposed interventions in terms of degrees of urgency and resources. This is not only about physical protection but also with regard to economic and regional development in seeking to arrive at a correct business plan.
3. Guidelines are needed for archaeological excavation efforts, consolidation of structures, and the preservation and restoration of both structures and artwork in order to achieve a coordinated and coherent process of dealing with the delicate works in situ. There should be a participatory dimension in the project design that will integrate work that the monks currently in residence have been doing or are planning to do.
4. There will be no survival without urgent intervention to prevent unsupervised access and monitoring efforts to prevent wind, rain, and sun from entering freely into cells, chapels, caves… Therefore, safe working platforms have to be created.
5. Tourism isn’t a magic device; it can be disruptive if not properly managed, but it can help save heritage sites and support regional development, which is needed in the Gareji region.
Further, we welcome the idea that Professor Margottini will include all monasteries in his actual studies on the water systems and erosion problem of the Monasteries.

We also hope that Ilia state University will be able to realize a 3D presentation of all interiors, specifically those that have murals and frescoes.

Finally, and most importantly on a practical level, the Gareji complex is located in a politically disputed area, being partly claimed by the Azerbaijan authorities. We have learned from the Georgian President and Ministries that the Azerbaijan as well as Georgian authorities are willing and eager to solve this problem but that this might take some time.

The “delimitation Commission” should be restarted, but we as an NGO should stay out of the political context. Our interest is the accessibility of the region, with the possibility of making a full inventory of the heritage site and its risks and to improve the possibilities for cooperation in restoring it, working together with local and international scholars and volunteers. The participation of the Azeri delegation in this Conference has given us the possibility to discuss the case openly, and an agreement has emerged that the correct goal for the moment is to create possibilities for scholars on both sides of the border to practice joint research and to obtain free access for Georgian and Azeri reciprocal visits.

As Europa Nostra and the EIB Institute, we are particularly happy with the call for help and for the support that we could also hear from the Georgian President on behalf of the Georgian government. We commit ourselves to follow up, to advocate, to help look for funding, expertise, best practices, and dialogue... GACC, Georgia’s country representative for Europa Nostra, will continue to play a key role in this, and act as a pace-setter and also a peace-maker when needed and possible.

Piet Jaspaert,
Vice President of Europa Nostra
April 19, 2019
Tbilisi, Georgia
EUROPA NOSTRA/EIB INSTITUTE MISSION REPORT
Abstract

In 2018, Davit Gareji was listed as one of the 7 Most Endangered sites in Europe in 2018 by Europa Nostra and the European Investment Bank Institute (EIBI). On 6th - 9th November 2018, the Georgian Arts and Culture Centre, the nominator of the site, organized an expert mission which aimed to:
1. assess the actual situation, 2. propose step-by-step actions to be taken for the safeguard and development of the complex and 3. support the legitimisation of the selected processes. The output of this mission has been a comprehensive report publicly presented in Tbilisi on April 18th, 2019. This paper focuses on the first two points of the report which concern the technical aspects.

Site overview

Davit Gareji is a site of great charm and extreme fragility, due to its peculiar geological condition. Included on the Tentative List of UNESCO World Heritage Sites, it occupies a huge, mountainous and deserted area in the South of Georgia, crossed by a border line with Azerbaijan that is still in the process of being defined. Archaeological evidence demonstrates the intense use of these lands since the lower Palaeolithic period. The potential of still unexplored archaeological sites, both in terms of scientific interest and touristic valorisation is huge. Nevertheless, the attention is mostly concentrated on the monasteries, built between the 6th and the 20th centuries, bearing high religious values. 21 monasteries have been identified: 3 lay completely (Bertubani) or partially (Chichkhituri and Udabno) in Azerbaijan; 6 are accessible by car, 1 is inaccessible, 1 is reachable only by climbers, the others are accessible by footpaths. The 5 monasteries founded by St. Davit and his group have a greater religious significance and are a destination for pilgrimages. All the monasteries on the Georgian side are owned by the Georgian Patriarchy while the Ministry of Education, Science, Culture and Sport of Georgia, through the National Agency for Cultural Heritage Preservation is responsible for their preservation. All were abandoned after the Bolsheviks revolution but some (Laura, Natlisimtsemeli, Dodorka and Udabno) are now going through a revival as they have been inhabited by some monks who are maintaining and rehabilitating the monasteries.

1. Member of the Europa Nostra Council and of the 7ME program advisory panel.
2. In this report we refer to the monasteries using the spelling adopted by international organizations. Therefore, we should mention that in Georgian the right spelling for “David” is DAVIT, while for the term Gareji (desert), some scholars do prefer the form GAREJA, although both are grammatically correct.
4. The area, 173,000 ha, 160x50 km wide (according to the World Bank report) includes the administrative districts of Segarejo, Gardabani, Sighnaghi and Dedoplistskaro.
5. Since the independence of Georgia in 1991, the borders between Georgia and Azerbaijan are under discussion, 170 out of 310 km of border are still to be defined. 4 km is the length of the border disputed in Davit Gareji.
6. Of great importance are the sites of Udabno I, II and III, consisting of three large settlements dating back to the Iron Age (XI-XV cent. b. C.) that have been object of investigations and archaeological excavations hold by German, Turkish and Georgian experts during the first decade of the years 2000.
7. In the “Vita of St. Davit” it is explained that when he went to Jerusalem for pilgrimage, he didn’t feel worthy to enter the town and stopped in the hill of Mercy. Before leaving he took three stones from the Portal of Jerusalem. An angel appeared and declared that those stones were carrying the Grace of Jerusalem. The Patriarch allowed Davit to bring one of those stones to the desert of Davit Gareji. This stone, the Stone of Grace, has been one of the most venerated relics of the Georgian Christian Orthodox Church. See: Z. Skhirtladze (2017) “The Stone of Grace in Gareja Desert”.
8. According to the information provided by the Georgian experts met during the mission, while the UNESCO nomination concerns only 19 of them.
10. The monks staid in Udabno only a short span of time, as the life conditions there were too hard.
Technical aspects

The collection and organization of comprehensive information on the state of conservation of the heritage in the Gareji desert should be considered a priority.

The monasteries are carved in soft sedimentary rocks affected by different instability mechanisms. The design of a study/preservation/maintenance plan and the drafting of a management and tourism development strategy should not disregard the assessment of their geologic/structural/hydrogeologic condition and seismic risk.

Geological and geo-mechanical models are a useful tool for identifying landslide mechanisms and processes and for defining and prioritizing mitigation measures. ISPRA, the UNESCO Chair in the University of Florence, the University of Milano-Bicocca and Ilia State University are implementing such investigations in the Lavra, Natlismtsemeli, Sabereebi, Dodorka and Udabno monasteries. This research, of crucial importance, should ideally be enlarged to include all of the sites.

14 monasteries have mural paintings, all in a state of advanced deterioration. The main causes of deterioration are strictly related to the context in which they are found: the instability of the rocks, overtime, has led to cracks, collapses, water and mud penetration. The partial collapse of the rooms exposes the paintings to sunlight and, in some cases, also to meteoric precipitations with the consequent deterioration of the colour of the pigments, the fading of the paints and their increased exposure to superficial deposits (dirt, black smoke, powders, salt concretions, etc.).

11. A good number of studies has been implemented but their outputs should be collected, confronted, integrated and made available.
It is important to consider that the paintings are realized with a dry technique on a plaster made of gypsum or gadji; both materials are very different from the lime mortar utilized in Western Europe, for which the techniques of preservation are well established and have tested as effective throughout the years. For the restoration of plasters in gypsum, a satisfying solution is still to be identified.

Davit Gareji may constitute a very interesting case study for experimenting with innovative methodologies in the preservation of mortars in gypsum.

History has played an important role. All the monasteries, at different times, have suffered from deliberate destruction or from abandonment and there is still an issue with visitors writing on the walls or causing damage in other ways, often scratching the surface and causing irreversible damage. Georgian authorities need support to address this problem that is made all the more complex due to the logistics of the site.

The access to the monasteries should be regulated and controlled and visits allowed only through licensed, guided tours that would guarantee the respect of the cultural and natural assets.

The interventions realized in the past have been crucial for the safeguard of the paintings. Comparing old and recent pictures we see that they succeeded in slowing down deterioration processes. Nevertheless, they couldn’t stop the deterioration processes as they focused on plasters and paintings without intervening on the structural context.

12. See: M. Buchukuri, “The restoration of the Gareja Murals”.
13. A technique widespread in Georgia for the preparatory layers of plaster.
14. As a useful reference, please see the research conducted by the restorer Anna Lucchini in the ambit of the Preservation Training project in Armenia co-financed by the Italian Ministry of Foreign Affairs and the Politecnico di Milano and the report by Dr. Taso Gvantsa Potshkhishvili, Development of a site specific injection grout for gypsum based plaster in the Ateni Sion church in Georgia, Master of Arts in Conservation and Restoration, AA. 2015-2016, Supervisors Proff. F. Piqué and A. Jornet, SUPSI DACD; Co-supervisor PhD Candidate C. Pasia, Courtauld Institute of Art, SUPSI (University of Applied Sciences of Italian-speaking Switzerland).
For a successful restoration and for its durability over time, it is essential that paintings and plasters, once restored, are no longer subject to the factors of deterioration. The stabilization of the rocks, the control of the water flows to prevent their interaction with the paintings and the design of systems of protection from the daylight are a must.

General recommendations

The more a site is fragile, the more important it is to guarantee high quality in the design and implementation of preservation measures. The following recommendations have been devised following consultations with expert restorers and with reference to ICOMOS’s ethical and technical guidance on the subject of quality in preservation:

1. The in-depth knowledge of the characteristics of a cultural good is the most important means of guaranteeing its safeguard. The research should be conducted in all fields (geology, hydrogeology, history, topography, physics) and organized in record cards designed for each artefact, including detailed information about deterioration phenomena and previous restorations.
2. Effective interventions follow a correct analysis and diagnosis of deterioration mechanisms and their causes including all the aspects, from the stability of the rock to the characterization of the materials.
3. Restoration materials and techniques must be previously tested.

16. A warm thank to Silvia Simeti and Stefano Volta, restorers of stone and paintings with many years of experience earned working on outstanding cultural heritage in Italy and abroad (i.e. Armenia, Georgia, Giordania, Tunisia, Turkey, ...).
17. https://agcult.it/wp-content/uploads/2018/11/For-Venice-Quality-Document-14-11-18.pdf. The European Commission, in the framework of the European Year for Cultural Heritage, launched the initiative “Cherishing heritage”, aimed at the definition of European Quality Principles for Cultural Heritage Interventions. A workshop has been held with experts and decision makers in Paris, in May 2018, when examples have been presented to point out success factors and bottlenecks in interventions on cultural heritage; after that, the expert group set up by ICOMOS, under the mandate of the European Commission (EC), presented a document in Venice on November 2018 and launched the public debate on this issue.
18. See the ICOMOS Illustrated glossary on stone deterioration patterns, available also in Georgian (ქვის დაზიანების ილუსტრირებული განმარტებითი ლექსიკონი - iscs.icomos.org/pdf-files/georgian_glossary.pdf).
4. Chapel of St Demetriosin Dodorka, Photo M. Bulia. Recently discovered, it is in need of an immediate intervention for the preservation of the murals. The preservation measures should include the closing of the opening over the door to preventing the fading of the colours due to sunlight.

4. A 3D model\(^{19}\) can constitute an extraordinary tool for allowing the virtual visit of fragile and inaccessible sites and for enhancing their perception and better study of their characteristics\(^ {20}\) in view of a restoration project. They also allow their transmission to future generations.

4. A holistic approach to problem solving is crucial: no intervention can be performed without taking into consideration all of the aspects involved. A selected professional (usually an architect-restorer) should coordinate a multidisciplinary group including, but not limited to: a geologist, a hydraulic engineer\(^ {21}\), a restorer, an architect, an art historian.

5. Attention to authenticity, efficacy and minimum intervention should drive the approach.

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21. The correct channeling of meteoric water is in this case very important as water may constitute one of the major causes of deterioration both for the rock and for the mural paintings.
Mural paintings

No intervention should be implemented on the mural paintings prior to addressing the structural and water penetration/percolation problems and design measures for preventing an excessive exposure of the paintings to the sunlight and other deterioration factors. From the other side, rock stabilization without the restoration of mortars and paintings seriously endangers the survival of the murals.

a. A professional restorer must supervise each structural intervention to promptly provide effective and rapid solutions to keep the murals safe. Physical protection systems to prevent further deterioration of the paintings should be designed in team and with consideration for geological and hydrogeological characteristics, the stability of the paintings and the aesthetic impact.

b. The materials used for restoration must be compatible with the original materials and should be selected after the implementation of specific studies and tests. Synthetic resins must be avoided as they can cause irreversible deterioration in the long run.

c. The pre-consolidation/consolidation of the stone behind the plasters is crucial for the effectiveness of the subsequent intervention to restore the adhesion of the plasters\(^2\). In fact, if the plasters aren’t reattached onto a cohesive, compact and stable surface, the consolidation through injection would only add unnecessary weight and increase the risk of collapse.

d. Great attention must be paid to avoid the presence of salts while working on the paintings. Both for cleaning and for the preparation of the mortars the use of distilled/deionized water is essential.

e. The pictorial reintegration of abrasions, loss of pictorial film, cracks and gaps should be kept to a minimum and should be realized by lowering the “neutral” tone of the support using watercolours that are coherent with the colours of the surrounding paintings. These interventions should reduce perceptual interference and restore the chromatic reading of the original decoration. The mimetic repetition of the lost and not reproducible original should be avoided.

The interventions on the murals should be designed together with a maintenance plan including a clear definition of the actions to be implemented and their cadence over time (cleaning, climatic parameters monitoring, etc.) and with the indication of the proposed level of fruition.

5. An example of pictorial reintegration, before (left) and after (right) the intervention

Photo S. Volta

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22. The plasters must be reattached onto a cohesive, compact and stable surface, vice versa the injections would only add unnecessarily weight and cause an increase of the risk of collapse.
Some inputs

The approach should be multidisciplinary although the primary structural interventions shouldn’t be designed without considering the eventual implementation of archaeological studies/excavations, the preservation of the mural paintings, the necessities connected to the promotion of tourism development and the needs of the monks who are living there.

Once the necessary information has been collected, different levels of accessibility should be defined and the interventions prioritized with consideration for the importance of each site, risk level, logistics and religious relevance.

The presence of the monks in some of the sites should be considered an exceptional opportunity for the monasteries to be preserved and revitalized. Therefore, in some cases their actions may not be fully respectful of the historical and artistic values of the monuments. It is advisable to provide the Patriarchy with a manual of good practices for the rehabilitation of cells carved in the rock and with detailed projects for the restoration of the churches and other valuable/painted buildings. Training and participatory design workshops can be organized at the monasteries by the Universities and the Agency for the Preservation of Monuments.

Sustainable presentation and well-designed interpretation of the cultural assets would increase the interest of potential visitors and should be an integral element of any intervention. The creation of a museum in Udabno would contribute to the promotion of a rapid growth in tourism and minimize its potentially negative impact. It should include laboratories, facilities for providing training (for guides, local administrators, monks, students, etc.) and for facilitating study on the sites (a lab for cleaning and studying archaeological findings, a library for mural paintings), rooms for experts and artists, space for temporary and permanent exhibitions (information about the archaeological sites and the monasteries in Davit Gareji, including maps and pictures, tips for the visit, some fragments of the mural paintings, documentation of the restoration works, relics of the Saints and other religious objects, a virtual theatre with a 3D reconstruction of some of the most inaccessible monasteries,...).

An increased number of visitors implies the need to solve logistic and other important issues such as cleaning and waste management, the demolition of obsolete and abandoned buildings, burying the gas pipes and designing public spaces and providing better road infrastructure.

Gareji desert derives its charm from its wide and open horizons. Therefore, each new intervention should be properly planned and controlled as its impact may be significant. Investments in agricultural development should be considered with due attention as they inevitably impact on the fragile equilibrium of the place. The creation of one or more protected areas would imply the creation of a framework of norms and regulations that would favour the sustainable development of the site and the improvement of the local inhabitants’ wellbeing.

Conclusions

Davit Gareji desert and its monuments constitute a very fragile ensemble that must be treated as a whole. Urgent intervention is needed to allow the survival of its heritage. The needs are bigger

than the resources available so mapping and prioritization are a must and should be based on an in-depth and multidisciplinary assessment of the assets (consistence, characteristics, state of conservation, ...).

The potential for tourism development is high but the impact of tourist visits on the sites may be harmful. A strict regulation is a must, both to guarantee the safety of the visitors and the preservation of the sites. It is advisable to differentiate the level of opening to tourists for each site and to create an alternative point of attraction, such as a museum/visitor centre.

The availability of one or more visitor centres, together with better road infrastructure and signage would favour a better and wider visitor experience and would encourage visitors to stay in the area for a longer visit. The development of different itineraries for pilgrims and tourists should also be taken into due consideration.

The whole approach must be multi- and inter-disciplinary, no archaeological excavation or mural painting preservation should be implemented without addressing the geological problems. Likewise, there should be no structural consolidation without planning for the protection of the mural paintings and for the design of tourism infrastructure.
Heritage conservation and socio-economic development should be balanced through integrated management strategies and the involvement of civil society in decision making. Heritage-led regeneration aimed at increasing the attractiveness and competitiveness of the Davit Gareji area should be integrated into the regional economic policy.

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HISTORIC, CULTURAL AND ART HISTORIAN ASPECTS OF DAVIT GAREJI MONASTERY COMPLEX
The Historical Geography of Gareja: Past and Present
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The century-old investigation of the monastic complex of Gareji, the biggest center of Georgia’s spirituality and culture, has amply demonstrated both the universal significance of the site and the multi-aspected nature of its history, as well as the role of historical geography in the proper conceptualization of the key issues connected to Davitgareji.

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Archaeological excavations revealed that humans inhabited the area as early as the Lower Paleolithic Era. The region was particularly densely populated in the Late Bronze- Early Iron Age (second half of the second millennium BCE – first half of the first millennium BCE). The trace of inhabitation disappears in the Gareji desert following the mid-first millennium BCE. Natural and anthropogenic impact caused the area’s gradual desolation. The heat and aridity that became characteristic features of the Iori Plateau were, indeed, emphatically noted by ancient Greek authors (Strabo, Dion Cassius).

In the Middle Ages, due to a landscape that seemed to resemble a biblical one, the semi-desert region of the Mtkvari Valley and the lower Iori became an important center of monasticism. In the sixth through thirteenth centuries nearly twenty monasteries were established here; the core were those founded by Saint Davit Garejeli and his disciples. This reality is reflected in the terms ‘three monastic hermitages of Gareji’ and ‘twelve monasteries/monastic hermitages’ documented in Georgian sources.

Today there is no doubt that the beginning of monastic life in the area between the Iori and Mtkvari rivers is associated with the ministries of the Assyrian fathers St. Davit, Lukiane and Dodo. However, issues such as the descent, confession, time and circumstances of the arrival of the Assyrian fathers remain debatable. The Georgian manuscript newly discovered in St. Catherine’s Monastery on Mount Sinai (N/SIN.GEO-50) brought greater clarity to these issues. It can be claimed that the Assyrian fathers, including Davit of Gareja and Lukiane, were Dyophysite Syrians, who arrived in Kartli in the 510s to consolidate Christianity.

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Another subject of heated argument is the ethnocultural identity of the monastic complex of Gareji. Resulting from the topicality of the problem, it is necessary to discuss several points.

Scholarly literature has witnessed several attempts to explain the etymology of the term Gareji. Is Gareji tribal name or the reduced form of Garejvari (i.e. “outer/border cross”); does Gareji mean “foreigner,” “stranger,” etc? However, none of these assertions have become popular in the scholarly literature. Some claims even became subject to fierce criticism. The most acceptable version is the explanation of the anonymous author of The Vita of Davit Garejeli, according to which gareji is a term connected with asceticism.

The toponym Gareji/Davitgareji can be traced back at least a thousand years – it is evidenced in the form of Garercha (comp. Merchule/Merjule) three times in a Sinai manuscript of the first half

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1. The manuscript is dated from the first half of the tenth century (Aleksidze 2019: 7-28).
3. Detailed analysis of the term was conducted by D. Merkviladze in St. Father Davit Garejeli and His Monasteries, In Georgian, Tbilisi, 2012: 129-155; See also Aleksidze 2019: 125.
of the tenth century. The term Garesheta is applied in the C redaction of The Vita of Ioane of Zedazeni’ (10th c), while the redactions of the Vitae of Assyrian Fathers more frequently apply Garesja Udabno (Gareja Desert). Garercha-Gareshja-Garesja is found in the redactions of the Vita of Ilarion Kartveli (St. Hilarion the Georgian). Garesja-Gareji is a common form in the narrative and documentary sources of the 13th – 18th centuries. Simultaneously, there occurs the phrase Garejis/ Udabnos Mravalmta (the Rolling Mountains of Gareji/Desert), as well. Davitgareji is largely applied to indicate the Lavra. St. Davit’s Tomb is the parallel form of the latter.

Equally long is the history of the onym Gareji Mountain, which is first mentioned in an early fourteenth-century source while reporting the mid-thirteenth-century events. The same source cites ‘the Country of Gareji’. Division by countries/lands is one of the aspects of Georgia’s historical-geographical development in the High Middle Ages. Apart from the monastic complexes, the Country of Gareja comprised the monastic seignory as well. It is known from historical documents that the Gareji monasteries possessed rather vast lands, especially in Kakheti, on the northern and southern slopes of the Gombori Range. The villages belonging to Gareji were typically referred to as Tsinsagarejo, Ukansagarejo, Tsina-Ukana Sagarejo or just Sagarejo.

It is remarkable that the Persian khans of the seventeenth century pronounced the toponym as Gareji/Davitgareji. A strong tradition of naming places after monasteries is also evidenced by the fact that despite the profound demographic changes that took place on the lori Plateau (see below), almost all the monasteries maintained their historical names. Mta Tsamebuli, Tbilelis Khevi, Phshatians Khevi, Natlismtsemeli Monastery, Kedi Tetri Udabno, Seri, Davit Gareji Monastery, Mta Udabno, Garejis-Tskaro, etc. are all marked on the Russian military maps of the 19th -20th centuries. If we look at these maps carefully, we can see that the monastic toponyms are ‘surrounded’ by Turkic geographical names, which perfectly demonstrates the viability of the Georgian forms, as well as the absence of alternatives both within the country and beyond its borders. The materials concerning the delineation of the border between Georgia and Azerbaijan (from the 1920s) cite Davit-Gareji, Udabnos Kedi, Udabno, Chichkhituris Series Kedi...

Unlike Gareji/Davitgareji, the toponym Keshikchidaghi, which Azerbaijani scholars are seeking to establish to refer to the Gareji complex, is not documented in any narrative, or any documentary or epigraphic source at all. At least, this is the case until the first third of the twentieth century.

All redactions of the Vitae of the Assyrian Fathers, including the Sinai version, straightforwardly state that they arrived into the “country of Kartli” (= Iberia of Classical and Byzantine writers) // the “country of the Georgians,” “settled down in Kartli,” and established monasteries “within the borders of Kartli.” K’akheti, K’ukheti, Zena-Sopeli, Gareji, Mtisa K’erdzoni, and Dvaleti are cited as the places in which they were active on their missions.

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This is what the standpoint of Georgian authors was at least following the first half of the tenth century. Presumably, a similar historical-geographical situation was reflected in the archetypes that have not reached us, which, according to scholars, must have been created in the sixth and seventh centuries (I. Javakhishvili, I. Abuladze, Z. Aleksidze, M. Chkhartishvili).

We do not possess any account that would cast doubt on the perspective of Georgian hagiographers about the lives and activities of Davit Garejeli and other Assyrian Fathers in Kartli. Armenian and Armenian-writing Albanian authors keep away from this fact. Apparently, they remained unaware of this phenomenon which took place beyond their native cultural-political world.

The ecclesiastical geography of Kartli at the turn of the sixth century, as documented by the Armenian ‘Book of Epistles’, makes it indubitable that the Assyrian Fathers established monasteries in the kingdom of Kartli.

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In the Classical period, Gareji was situated at the conjunction of three historical provinces: K’akheti, K’ukheti and K’ambechani (Hereti). It is difficult to ascertain whether in the Early Hellenistic Period (3rd - 2nd centuries BCE) the territory of Gareji was included in the borders of the newly formed kingdom of Kartli; however, the analysis of Strabo’s accounts provides a solid basis for confirming that by the late first century BCE the territory of Gareji belonged to the kingdom of Kartli. Specifically, Strabo’s ‘Geography’ asserts that the province called Cambyseenewas distributed among the Iberians, Albanians and Armenians (Strabo, XI. 3. 5; 4.1, 5; 14.4). Cambyseenewas the name of the area between the lower stretch of the Alazani River and the Mtkvari. It may be presumed that the Iberians owned the northern and western parts of Cambysee, Albanians were in control of the north-eastern part and its southern part belonged to the Armenians. Even in the case of such rough distribution, Gareji must be sought within the borders of Iberia.

Strabo’s accounts also create certain impressions regarding the ethnic situation. We may even claim that, beside the political geography, his accounts reflect the ethnic situation, as well (e.g. Cambysee, where the Armenians border both the Iberians and the Albanians – XI.4.1.). In this regard, particularly interesting is the khoronym ‘Cambysee’. In medieval sources it corresponds to K’ambechani/K’ambechovani, while the latter, as Z. Alexidze believes, “is a toponym derived according to the Georgian system and ...it means the territory where a large number of buffaloes (kambechi) are bred or just live in the wild. The name is spread throughout Georgia. ‘Kambechovani’ does not exist in the vocabulary of any other language except Georgian”. If the ethnic composition of Cambysee-Kambechovani was Georgian, then, naturally, the same should have been true for the area west of Cambysee, as well.

By the mid-first century CE, the entire right bank of the Alazani River fell within the borders of the kingdom of Kartli. The tendency of expanding toward the east continued through the following centuries and was completed by annexing Hereti (the left bank of the Alazani from Lagodekhi to Shaki) and Shaki.

Simultaneously with these processes, there occurred changes in the geography of the provinces situated on the east borders of Kartli. The Vita of Davit Garejeli vividly shows that Gareji is the area

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18. Muskhelishvili 1982: 19-20; 2016: 4-5, II.
21. Pliny, VI. 11. 29; Muskhelishvili 1982: 20; 2016: 5, II-III.
of governance of the eristavi (duke) of Rustavi, i.e. Gareji is a constituent part of K’ukheti. The same is indicated by the fact that Gareji was subject to the jurisdiction of the bishop of Rustavi.

The ethnic composition of Rustavi and its country was Georgian, which is unambiguously demonstrated on the fifth- through seventh-century ceramic fragments with Georgian inscriptions recovered in the city and its environs.

The epigraphy of Natlishtsemeli, also fits easily into this context. In the doorway of the church of the monastery, G. Chubinashvili tracked down a stone column that, according to his observation, must have been a fragment of a once existing monument. The stela depicts St. Stephen and there is a six-line supplicatory inscription placed below the relief. The inscription dates to the late sixth or early seventh century. As is known, in the Middle Ages, language was an important marker of national identity. It is also known that in early medieval times inscriptions in Armenia and Albania were rendered in their native Armenian or Albanian languages. This once again confirms that the inscription of Natlishtsemeli, just like those of Rustavi, was executed in a Georgian ethno-cultural society and that the donor and the monks (for whom the inscription was made) were Georgian. Taking the above-mentioned information into consideration, it can be presumed that the first followers of Davit Garejeli and Lukiane were Georgians too; the hagiographer of the eighteenth century directly reports that Father Dodo was ‘born in the country of Kakheti’.

Ethnic geography had not been uniform. There were Armenians living among Georgians, which is indicated by the conversation between the eristavi of Rustavi and Davit Garejeli that went on in the Armenian language, as well as by the toponyms Nasomkhari (“former Armenian”) near Sabereebi and Khevi Somkhitisa (“gorge of Armenia”) at Cambysene, located adjacent to Gareji. Armenian sources say that in times of religious and political expulsion, it was in Georgia that the Armenians found shelter. We do not possess information about the Albanian population. At one time A. Shanidze expressed a reserved supposition according to which the three-line inscription made on the eastern façade of Ninotsminda Cathedral could be “Heretian” (resp. Albanian). Current scholars tend to claim that the inscription must be Greek, and they even suggest its possible interpretation (S. Mouravieff, T. Kaukhchishvili).

The earliest account regarding the ecclesiastical subordination of Gareji Monastery is preserved in The Vita of Ilarion Kartveli, which says that Ilarion Kartveli (822-875) was consecrated as a priest by the bishop of Rustavi. Gareji would thus have been under the jurisdiction of Rustavi bishops before the ninth century.

The Georgian book of law ‘The Blessing of the Myrrh and the Rule of Counselling,’ which dates to the mid-thirteenth century, refers to the bishop of Ninotsminda as the archimandrite. According to church documents, the bishop of Ninotsminda was recognized as the archimandrite of the twelve monasteries of Gareji. When and in what circumstances this change came about is unknown.

1442) donated “two monasteries of Gareji and all the domains of Gareji” to the patriarchal cathedral of Svetitskhoveli in Mtskheta.\textsuperscript{32} From the beginning of the 16\textsuperscript{th} century, half of the revenue of the domains of Gareji had to be handed over to Svetitskhoveli, and the other half to Gareja.

In the 17\textsuperscript{th} - 18\textsuperscript{th} centuries the economic destruction caused by foreign invaders affected ecclesiastical geography as well. Documents straightforwardly say that because of the destitution of the bishop of Ninotsminda, from the 1630s Natlismtsemeli Monastery fell under the jurisdiction of the bishop of Sameba.\textsuperscript{33} In the mid-eighteenth century, a certain Ioane was “the bishop of Nekresi and the father superior of the holy monastery of Davit Gareji”.\textsuperscript{34} When he was transferred to the Bodbe bishopric, Ioane was granted the title of the father superior of Davitgareji, too; “all the further bishops shall be designated as father superiors of Gareji and shall mention their bishop following the patriarch of Georgia” – says the charter (25 April 1753) of King Erekle II (1744-1798) and Catholicos Anton I (1744-1756, 1763-1788).\textsuperscript{35} In ecclesiastical documents Ioane is referred to as ‘the bishop of Bodbe and the father of St. Davit Monastery’.\textsuperscript{36} The jurisdiction of the bishops of Bodbe is apparent in Dodo Monastery as well.\textsuperscript{37}

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The united Georgian kingdom disintegrated in the late fifteenth century. Gareji Monastery was brought under the ownership of the Kakheti Kingdom, but the border section remained the subject of dispute between the kingdoms of Kartli and Kakheti. In 1700 King Erekle I (1688-1703) donated the disputed lands to Davitgareji Monastery and in this way, he tried to deal with the border conflict.\textsuperscript{38} The original modey of territorial dispute resolution did emphasize the transborder significance of Gareji Monastery.

Another document of Erekle I (1697) offers evidence of demographic and economic changes taking place in Gareji – settling semi-nomadic Turkmen, turning the lands of Gareji into passive winter pastures and the emergence of Turkish toponyms.\textsuperscript{39} Despite the ethnic and economic changes, the political geography did not change. Territorial integrity came under threat only after the Georgian kingdoms lost their independence. As early as in the first half of the nineteenth century, Russian officials started the administrative distribution of Transcaucasia by ethnicity and religion. In the following century, Soviet leaders applied ethnographic principles to the process of marking boundaries between the forcibly Sovietized Georgia, Armenia and Azerbaijan.

Following a long-term dispute, on 18 February 1929, the Presidium of the Central Executive Committee of Transcaucasia assigned the ownership of the disputed lands of Davitgareji Monastery – an area of 2000 \textit{desiatinas} – to Georgia, and marked the border from Shikhli-Caravan – Eli Pass along the Udabno and Chichkhituris Seri ridges.\textsuperscript{40}

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Divided into two parts, Gareji Monastery retains its transborder significance up to the present day. Above all, it is a cultural heritage site of worldwide importance whose preservation and protection requires the joint effort of both sides – Georgia and Azerbaijan.

\textsuperscript{33} Lomidze \textit{et al.} 2008-2011, I: 413-414.
\textsuperscript{34} Lomidze \textit{et al.} 2008-2011, I: 366, 373, 387.
\textsuperscript{35} Dolidze 1963-1985, III: 835.
\textsuperscript{38} Lomidze \textit{et al.} 2008-2011, I: 120-121.
\textsuperscript{40} Mirianashvili 2012: 202, 230.
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After D. Muskhelishvili and M. Shekiladze
Established by St. Davit Garejeli in the sixth century, the Gareji Monastic Complex (Tab. I,1) was an acknowledged center in the Christian East over the centuries. At Gareji, monuments of the Georgian cultural heritage from almost all stages of the Middle Ages are preserved.

Archaeology is one of the primary research methods for the mountainous Gareji monastic complex. It supports the study of monastic life, conservation-restoration works, and the restoration of modern monastic life in the sprawling, extensive monument.

Diverse exploratory and preservational archaeological activities have been carried out for nearly five decades by structural units of the Georgian National Museum. There were several research projects also supported by the National Agency for Cultural Heritage Preservation of Georgia, the Gareji Research Center, the „Udabno” Scientific Fund, and through requests from the Georgian Patriarchate.

The results of earlier research in the Gareji desert and the lori area have often been confirmed and verified with a newer cycle of research. Previous points of view have also been checked and revised in some cases. In this paper we will briefly discuss the monasteries that have been more recently more or less fully studied.

In 2000, in St. Davit’s lavra, in the Transfiguration church, St. Garejeli’s tomb was opened (6th-beginning of 20th centuries). It offers a many-layer monument in which five chronological periods are distinguished.¹

The first period – the sixth century: the lowest layer of the sepulcher presents a rock-carved single burial placed in an east-west orientation. The corpse of St. Davit is almost fully preserved (Tab.I.2-3). The burial structure, its exceptional simplicity, and the written sources (Dzveli kartuli agiografiuli literaturis dzeglebi, book I (5th-10th cc), 1963) prove that the lowest layer of the burial belongs to the sepulcher of St. Davit Garejeli.

The second period – the ninth century: Written sources (Dzveli kartuli agiografiuli literaturis dzeglebi, book I (5th-10th cc), 1963; Dzveli kartuli agiografiuli literaturis dzeglebi, book III (11th-13th centuries), 1973), as well as architectural and archaeological evidence prove that the church was reconstructed, enlarged and that the sepulcher of Davit Garejeli was resurfaced by Ilarion Kartveli.

The third period - 17th-18th centuries: The growth of monastic life in Mravalmta began after centuries of virtual abandonment. It especially continued under Onophre Machutadze’s leadership (1690-1733). Reconstruction of the ostensory (monstrance) took place: a brick construction was erected on its rocky part, parameters of the ostensory grew, the floor was raised up. The ostensory got a “coach”-like, right-angled form. The roof was plastered and, supposedly, painted.

The fourth period – the 19th century: To eliminate the damage caused by Lezgin forays the sepulcher was reconstructed and restored, which is proven by photo-documents as well as by archaeological data.

The fifth period – the 1960s: in the so-called Soviet restoration, conservation work was carried out on the grave.

The establishment of the church of St. John the Divine (12th c) in St. Davit’s lavra is attributed to the reverend father Onophre Garejeli. It became the site for the burial of Georgian royalty and high ranking priests over the centuries.2

The church was seriously damaged in the 1830s-40s (G. Gordeev, 1932; A. Muraviov, 1848). In 1999, archaeological clearing activities (led by Z. Tvalchrelidze) started in the interior of the church of St. John the Divine. In the southern wall, the structure of a chapel was revealed. The continuation of work was complicated because of huge rock boulders in the interior. Therefore, it was decided to temporarily discontinue the clearing activities and to postpone them until the conservation of the chapel could start.

In 2016 a group of archaeologists from the Georgian National Museum (led by N. Bakhtadze) visited the rehabilitation activities of St. Davit’s lavra. At the local rehabilitation area - on the third terrace of the lavra yard, from the south tower in the north-east – they found 21 copper objects dating back to the beginning of the seventeenth century.3

St. Elijah the Prophet’s Church is situated above St. Davit’s Lavra on the highest section of the desert mountain; it is considered one of the sacred places at Gareji. The church was abandoned due to the desertion of the monastery, and gradually collapsed.

In 1999-2000, conservation study of the monument (led by Z. Skhirtladze), archaeological study of the church (the archaeologist was Z. Tvalchrelidze) took place. In the process of excavation, the church’s plan was revealed: a square-shaped hall with a small semicircular sanctuary. Fragments of the late medieval ceramics (17th-18th centuries) were observed in the interior of the church and on its outer perimeter. Late in the process, a thorough reinforcement of the Church and its partial conservation was carried out.4

St. Dodo Monastery (Dodorka – 6th-18th centuries.; Tab. I.4). A research expedition to Gareji desert and its architectural works (led by G. Gaprindashvili; and including archaeologists Z. Tvalchrelidze and S. Burildadze) in 1984 undertook a range of archaeological explorations. Artifacts of the 9th-11th, 12th-13th (Tab. I.5-7), 14th, and 16th -18th centuries came to light. Taking into account artifacts and other data, existence of a glazed ceramic work-shop for the inner usage has been supposed during the developed Middle Ages (including the 14th c) in Dodorqa5. Though, settling of the mentioned question remains open till the complete archaeological studying of the monastic complex.

In 2007, under the auspices of the international project of the “Udabno” Scientific Foundation (led by L. Mirianashvili ) an archaeological expedition from the Georgian National Museum (led by Z. Tvalchrelidze; the archaeologist N. Bakhtadze) was undertaken. In a four- caved group carved in the western part of the Dodorka monastery archaeological investigations were carried out. Test shafts

2. Priest-monk Kalistrate, Tsminda David garejelis udabno, (Udabno of saint David Garejeli, in Georgian) Tbilisi 1884
5. Tvalchrelidze Z., Garejis samonastro gaertianebis keramikis kvlevistvis (Dodos rqis mochikuli jamebi (Research of the Ceramics from the Gareji Monastery Union (Glazed Bowls from Dodos Rqa), (in Georgian), Tbilisi, 2003 -2004, pp.110-126.
were cut within the stockrooms and exploratory excavations of the pre-complex mountainside were carried out. Preserved physical materials, which were found in the pit cut into the floor of the central stockroom of the refectory, had clearly initiated an epoch of carving within this structure in the ninth century. Artifacts that were found in various zones clarified the phases of monastic life in different stages of the Middle Ages. It became apparent that that an active, monastic life stopped there in the 13th – 14th centuries.

Archaeological study of the same Dodorka cave group – a kitchenette block pantry or so-called „Satsivo“ – did not reveal any first-phase materials from the establishing and functioning of the component pantry. Nonetheless, artifacts of the 11th – 13th centuries proved its usage.

Complex archaeological excavations were carried out at three archaeological sites in Dodorka in 2011-2012 (led by G. Makharadze). The contours of the developed, late medieval St. Dodo Garejeli church complex were revealed, as well as part of the water supply and filtration system; a cell and the terrace connecting the cave were also cleaned up. Near the main Church of the Virgin Mary the late medieval double-portal entrance was revealed. A late medieval fortified wall and tower, as well as a small chapel and a cave burial were also cleaned up. Two burial grounds and rock shelters were studied. A full plan of the church with a dome and cliff-carved hall church (“darbazuli”) were revealed. An archaeological Survey, together with written sources (“Kartlis Tskhovreba”, vol. II, 1959); Jordania T. “Chronicles”, book II, 1897) and the palynological data, confirmed a sharp decline of monastic life in Dodorka in the 13th –15th centuries.


Based on the stratigraphic and typological data, three chronological groups were identified in the caves: monk cells from the 6th-8th centuries; chapels from the 11th-13th centuries; a chapel, household and workshop (smithery) caves; and caves used as living and economic cells from the 17th-19th centuries.

Three phases of construction and reconstruction of the fence wall were defined: the 11th-13th centuries; the 17th-18th centuries; and the 19th – early 20th centuries. The borders of the defense system for each stage were also identified. A section of a hydraulic system from the 17th-19th centuries and a later grave site were studied. In the eastern part of the archaeological complex, outlines of the first-layer caves can be identified.

Artifacts from a wide chronological range (9th-19th centuries.) were extracted. (Study of the artifacts is shown in Tab. II,5-17 and Tab. III,1-6). Written sources and artifacts (Architecture, Stela and Wall-paintings) defined seven stages from the beginning and development to the cessation of monastic life, carrying from the 6th-7th centuries through the early twentieth century.

First stage – formation of the monastery (6th-8th cent). The archaeological material from that period has not been uncovered yet, as the continuity of the intensive life in the monastery over the centuries led to the eradication of the earliest periods of cultural layers. However, in determining the period

of the monastery, we consider the information from the St. Davit Garejelis life (Il. Abuladze, 1965), the stela dating back to the 6th-7th centuries, found at the site and occasional objects from caves of the 6th-8th centuries.8

Second stage - transition period (9th-10th centuries). Changes in monastery life, gradual change of the traditions of asceticism and the emergence of new principles of monastic organization found its reflection in the architecture and monastic life. The monastery’s treasure and library were established during this period.9

Third stage - upgrade period (11th - first half of the 13th centuries). Natlismtsemeli during this period was the monastery of the Georgia’s royal house, the country’s most important cultural-educational center. At this time the first construction phase of the monastery wall and the existence of a metal workshop were noted.

Fourth stage - diminishment period (second half of 13th – beginning of 14th centuries). A small number of artifacts was discovered: glazed vessel imitations make it obvious that the intensity of life decreased, but still continued.

Fifth stage – cessation of monastic life (14th-16th centuries). According to archaeological data, monastic life ceased from the end of the fourteenth century to the last quarter of the sixteenth century in Natlismtsemeli.

Sixth stage - revival period (17th-18th centuries). From the seventeenth century a process of monastic resurgence begins. Significant changes are made in the architecture of the monastery. Mostly of the artifacts in the monastery were glass, faience and metal objects.

Seventh stage – decrease and end of monastic life (19th - beginning of 20th centuries). Monastic life continued under the imperial Russian regime. From the beginning of the Soviet occupation, monastic life stopped in Mravalmta for decades.

**Tsamebuli** (6th-13th centuries; Tab. III.7). A martyrium was located in the first tier of the western part. It was studied interdisciplinarily in 1998-1999 (archaeologically by Z. Tvalchrelidze and art historically by Z. Skhirtladze). The martyrrium’s ground plan has been determined: an irregularly round-shaped cave carved in the rock. It has a low altar and a large pocket-like space along the entire length of the northern wall. Two reliquaries are located in the interior. Two tombs came to light. One of them is a collective burial, the second one, placed next to the first, is a small grave for a single person (Tab. III.8). The martyrrium with its architecture and design of the reliquary suggests the earliest stage for the development of burials in the monastery. It must have been built during a transitional stage within the early Middle Ages.10

However, the archaeological and written sources (Gabriel Mtsire, 2000) show that martyrium did not lose its significance in the later period. The “Mkhedruli” inscription of the later period, on the ceiling, also confirms that the cave was a burial place for Holy martyrs. The exploration works carried out in order to set up the stratigraphy revealed artifacts dating back only to the 9th-13th centuries.

**Mravaltskaro** (9th -13th centuries) is a small-scale monastic cave complex that unites six caves and five churches, among which two have dome-like ceilings.

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Complex format expeditions were carried out in 1995-1997 in the monastery and its surroundings through the initiative of the “Udabno” Scientific Foundation (led by L.Mirianashvili and T.Jojua). As the result of cleaning archaeological work (led by K. Pitskhelauri - 1997), remains of early middle ages church, the plan of the main church, with a peculiar domed ceiling, has been fixed. A scraffito scene, with fighters’ images, came to light in a chapel. Fresco painting and numerous scratched inscriptions were found in a small church (data is based on L. Mirianashvili’s internet publication). The oldest inscription dates back to the year 851. Artifacts found in the caves’ cultural layers date back to the 11th – 13th centuries.

The Kvabebi monastic settlement complex in the eastern part of the Mravalmta – in the Iori area of Gareji – is very significant due to its size, architecture, structural arrangement, and its ecclesiastical landowning and economic organization.

Kvabebi is a 700-meter-long six-layer and five architectural sector cave complex carved into the rock. There are about 80 caves, refectory and two churches there (Tab. IV.2-3).

In 1970, the speleological expedition (led by G. Gaprindashvili) made archaeological investigations of a medieval settlement near the Kvabebi complex.

In 1974-1976, the investigation and small-scale archaeological excavations of Nasakhlari Kvabebi were carried out (led by B. Mchedlishvili). The archaeological survey revealed residential complexes (9th-10th; 9th-11th centuries), a metal workshop (9th-11th centuries), and auxiliary halls (9th-11th centuries). A central burial site with four components (№ III (9th-11th centuries) was found on the territory of the monastery, and was studied. There were revealed individual, collective, and children’s graves carved in rocks. The burial procedure in the graves was Christian. The jewelry was fixed in the burial inventory (Tab. V,1-6). Question of chronology of the other three burials is open till their archaeological studying. Artifacts proving production of ceramics, glass and metal have been stated on the territory of the monastic settlement complex.

After two decades of interruption, archaeological study of Kvabebi continued. In 1999-2002, a survey was conducted, and in 2005 an archaeological expedition of the complex formation was carried out (led by Z. Tvalchrelidze). The remains of ten dwellings was surveyed and one was excavated. As a result, additional archaeological materials have been obtained to specify the nature of the complex, its topography, typology and stratigraphy, together with an analysis of the monastery and its connection with the surrounding community.

Among varied artifacts (Tab.V, 7-15) found in Kvabebi particularly significant ones include clay lamp pots with petroleum remains (Tab. V,13), and in a pot-like vessel (“khelqotana”) (Tab. V,14-15) remains grapeseed oil. These artifacts represent the earliest archaeological discovery of these products’ usage in Georgia. (9th-10th centuries).

11. V. Silogava, Tarigis agmnishveli tsartsera garejis mravaltskarodan (The date inscription from Mravaltskaro monastery of Gareji), Bulettin of the georgian national academy of science, 158. n1, Tbilisi 1998
14. Tvalchrelidze Z. & N. Kebuladze, Garegis samonastro komplekxis arqeologiuri kvlevis akhali aspeqti (navtobi IX-X ss-is chraqebshi) (On Some New Aspects of the Archeological Research of the Davit Gareja Complex (9th-10th centuries), (in Georgian), Tbilisi, 2000, pp.18-22
15. Tvalchrelidze Z & E. Kvavadze, Kvabebis samonastro-samosakhlo kompleqsis artepaqtebis interdistsiplinuri kvlevis shedegebi (Results of Interdisciplinary Research of Artifacts from the “Kvabebi” Monastic Complex), (in Georgian), Tbilisi, 2016, pp. 63-87
The Kvabebi monastery dwelling complex was devastated by the raids of Seljuk Turks in the 1080s and in 1088-1089, an earthquake occurred that also affected the Mravalmta. According to some of the twelfth-thirteenth-century artifacts, extracted during the survey, traces of life in Kvabebi are still observable in this later period but the question to be answered is whether Kvabebi was still a monastery with a dwelling or whether it was a secular type of monument: a rock village with an intensive economic – agricultural – settlement.

**Sabereebi** monastic complex (9th-11th centuries; Tab. IV,1). In 1975, in the southern gate of the cave church, a speleological expedition (led by G. Gaprindashvili) opened a burial site. In the damaged tomb a bronze ring and fragments of a monk’s wool clothes were discovered together with the remains of the dead.

As a result of the survey conducted on the slopes in front of the Sabereebi monastery in 1977 (archaeologist: Z. Tvalchrelidze), artifacts dating back to the 9th-11th centuries were extracted. They have some significance for the dating and typology of the monastery, but this complex problem can be solved only after a fuller excavation of the monument.

To fully understand the history of the Gareji Monastery it is important to continue archaeological research on its different monuments. Such research by the Georgian National Museum and Gareja Research Center has already begun.

As has noted above, the Kvabebi monastery is the most significant in terms of archaeological research. The main research question that remains regarding the connection between the cave monastery and its surrounding settlement is whether Kvabebi was a monastery with a dwelling or a secular type of a monument – a rock village, with a nearby intensive settlement. This problem is connected with the study of the existence of and interrelationship between rock monastic complexes and dwellings. Thus, continuation of complex archaeological work in Kvabebi is also important in the context of similar monuments in other regions.

The most important problem for the archaeological study of the Sabereebi monastery is to determine whether the monastery belonged to a common type of dwelling or whether it was a memorial complex formed by unifying several martyrium churches. Solving this problem requires the detection and exploration of burials of high-ranking monks and, presumably, though performing archaeological excavations in the “buried” lower layer of the monastery. This would be possible only after fixation and conservation of the damaged and at-risk monument.

In 2018, the interior of the church of John the Divine was cleared of all of its broken detritus. Its partial conservation is intended in the near future, which requires the archaeological study of the graves of both the Georgian royal family members and outstanding ecclesiastic persons. Archaeological works should be carried out on the monument in order to study various aspects of its stratigraphy that provide information on its historical-cultural life.

Archaeological research conducted on the Gareji Mravalmta monuments has brought up some new and interesting problems. Future prospects now reveal themselves: further work will show different aspects of the monastic life in this region with its centuries-long evolution.

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16. *Kartlis tskhovreba, I* 1955
17. G. Gaprindashvili, 1976
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Tab. I.

1. Gareja Monastic Complex. Situational map (according to Z. Skhirtladze).


3. St. Davit Garejeli’s resting place: ground plan and sections (drawn by M. Kiknadze).

4. St. Dodo’s monastery. Cave group (photo - Sh. Lejava).

Tab. II.
Tab. III.

1. Monastery of St. John the Baptist. Faience vessel fragments: 1.1. 1-3 vase luster - painted (12th-13th c); 8. Vase – painted in blue cobalt (17th -18th c); 4-7 plates painted in blue cobalt (18th -19th c), photo - G. Bumbiashvili.


5-6. Monastery of St. John the Baptist. Queen Tamar’s copper coin - obverse, reverse (1187), photo - G. Bumbiashvili.


8. Tsamebuli monastery. Martyrium: Plan and sections (drawn by M. Kiknadze)
Tab. IV.


Tab. V.


6. Kvabebi. Silver medallion: St. Simeon, St. Martha and St. Conon (obverse) and “Bolnuri” Cross (reverse), photo - G. Bumbiashvili.


10-11. Kvabebi. clay pot (9th-11th c.), photo - G. Bumbiashvili (10); J. Chkhvimiani (11).


Natlismtsemeli monastery is located 9-10 km. west of the Davit Gareji Lavra. According to Davit Garejeli in the sixth century, Natlismtsemeli was established by his disciple Lucian. The complex was expanded mainly in the ninth through twelfth centuries. From the fourteenth century until 1672 it was abandoned, until the reign of king Artchil, whose revival efforts succeeded in giving the site new monastic life. The eighteenth century marked an efflorescent period for Natlismtsemeli; subsequently it weakened and finally in the beginning of twentieth century monastic life has stopped there.

In the 1980s, after a small archaeological campaign, the remains of structures and graves from the 9th-13th and 17th-18th centuries were revealed. Although nothing from the 14th-16th centuries was found during the excavations, this might be because monastic life there had been abandoned during that epoch.

In 2018, action was undertaken by locals to clean the eukterion (small, private chapel) located on the western edge of the complex. During this process a grave was discovered, located on the north side of the chapel, in front of the altar. It was an oval-shaped grave (outer dimensions: 2.5x1 m., inner dimensions: 2.3x0.78 m., and its depth: 0.7 m.) cut into the rocky floor of the chapel. The grave chamber was surrounded by a 10 cm. wide shelf which was designed to hold the top of the grave. It was cut into the rock, 20 cm. below the chapel’s floor surface. The grave was covered by four thin, partly shaped, sandstone slabs. Two of these were damaged and broken. The roof of the grave is just some centimeters from the eukterion. Originally this area might have been filled with earth but unfortunately this was lost during the activities conducted just before the archaeological excavations started. The grave itself was filled by particles of wall plaster and rock.

Two small fragments of light bluish glazed lamps were found here, which are typical of 11th-13th cc. ceramics (similar lamps have been discovered in Tbilisi, Dmanisi and Rustavi). The fact of discovering them in a disturbed layer indicates that they were placed there just after the human bodies were buried and before it was covered by roof. The grave was meant for just one individual, but afterwards a second body was buried there, too (fig.1). Both bodies were buried on their backs, in a straight position, their heads oriented towards the west. The second individual was buried on top of the first; its hands were placed on the pelvis and its head was turned toward the left. The shin and phalanges of the feet were not found. This individual had a square-shaped hole on the temporal bone. In between the clavicles a bronze barrel-shaped pendant was found.

This second individual’s placement was exactly the same as that of the first (fig.2). The first individual’s right hand, however, was curved and placed on the scapula and its left hand was placed on the belly. The body of first individual was intact, but its bones were chemically eroded and that is why after first touch most of the bones were destroyed. This one didn’t have any inventory.

Placing the grave in front of the apse, in the northern part of the chapel isn’t unusual in medieval Georgia. The same placement is seen for the graves of the founders at Davit Gareja Lavra, Dodosrqa, Khirsa, Martqhopi, Bretra, and Samtavisi. The same placement is also seen for the graves of saints in the Tsamebuli, Bertubani and Dodosrqa monasteries of Gareji.\(^2\) In the case of Natslmtsemeli monastery this would seem to be the same tradition and we could suppose that these individuals were important persons for the monastery (although it has to be mentioned that in the case of the Natlismtsemeli grave that there isn’t a hole for benediction).

As for the shape of Natlismtsemeli monastery’s grave we could say that similar forms are typical for rock-cut monastery graves in the Gareji complexes of the Early Medieval Period, such as the grave of Davit Garejeli himself.\(^3\) Based on descriptions by M. Sabinini and S. Grdzelishvili,\(^4\) the grave of Dodo Garejeli might also have been similar.

Accordingly, the grave of Natlismtsemeli might be of the early Medieval period.

The different issue is finding how the plaster and rock particles occurred in the grave. Finding High Medieval Period glazed lamp fragments indicates that this layer cannot be earlier than the 12th-13th centuries. What would be the reason for it? According to historical texts, in 1265 Berke Khan, leader of the Golden Horde invaded Rustavi, Khunani, and Khornabudji. Berke himself camped in the Gareja mountains, after which many villages and the agriculture of the area disappeared entirely.\(^5\) It is unknown exactly which monasteries were destroyed by that time, although the lack of cultural layers from the 14th-16th centuries in the excavations at Natlismtsemeli Monastery might be the result of that campaign. On the other hand, the earthquake of 1283 that lasted almost a week might be the reason for plaster and rock falling from the walls. But how did that the layer end up not on the roof of the grave but inside of it?

The only logical explanation is that it fell inside when the grave was reopened in order to bury the second individual. Considering archaeological, anthropological and palynological data the second individual was killed and buried in winter period, just after the death (before body decomposition). According to that this might have happened after the monastic life was rebuilt in Natlismtsemeli, after 1672.

Anthropological and palynological studies were conducted on the dead, buried in the Natlismtsemeli eukterion.


\(^3\) Skhirtladze, 2006, pp8-11.


The first stage of anthropological research seeks to determine the gender and age. Bone material of the first body is very fragile. Already during the inspection in the grave, it became clear that we would not be able to study most of the dimensional marks on the bones. The pelvic bones are poorly preserved, but features differentiating gender – the angle of symphysis (acute), the oval shape of the closed hole, the height of the pubic symphysis (tall), the large diameter of the acetabulum and the size of the clavicle bone – indicate that this is a man. There was an opportunity to study several differentiating features of the skull: the height of the eye socket (orbit) which is less than its width, the outer angular contour of the eye socket, the upper rounded angle of the eye socket, the superciliary area, sharply distinguished from the scaly part of the forehead, the nipple-shaped process of large dimension – the size and/or configuration of all of these features of the skeleton belong to an adult male.\(^6\)

The age of the deceased was defined according to the fusion of coronary and sagittal sutures of the skull, the degree of wear of the teeth of the upper jaw, the images on the surface of the pubic bone symphysis. According to these data, the age was determined to be 55-65.

The age of the second skeleton – also identified as male – was defined according to some features of the pelvic bones: the pubic angle (acute), the closed hole (oval), the great sciatic notch (middle), the pubic symphysis (high), the large diameter of the acetabulum. Sexual characteristics are not clearly expressed on its skull: the nipple-shaped process is comparatively small, the place for the attachment of muscles to the occipital bone is less raised and rough; at the same time the skull is of a large size and is characterized by large transverse and small longitudinal diameters; the indicator of the skull is brachicranial (86.5). The age was also determined based on the fusion of sutures of the skull, the teeth wear and the images expressed on the surface of the pubic bone symphysis. Judging by these three data, the age of the second skeleton was 51.

Deceased men differ considerably from each other by the shapes of their skulls. The shape of the skull of the first skeleton is wedged-shaped from the top (sphenoides) and corresponds to a dolichocranial egg-shape, but with only large transverse and small longitudinal diameters. According to this data, his indicator, with high probability, should not exceed 74.9. The greatest width in such shapes is usually observed in the back third part of a skull (fig.3.2). Flatness is observed on the broken occipital

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bone (fig.3.3) which is characteristic for this shape. The skull of the second skeleton is of a sharply spherical shape (sphaeroides), i.e. brachicranial (fig.4.2). Unfortunately, the facial bones of the second skeleton are broken; only the cheekbones and the upper arch of the eye-socket are left (fig.4.1). That is why its morphological type has not yet been defined.

Based on the preserved skull of the first skeleton, we studied its main differentiating features: the very large transverse diameter and width of the middle of the face, the large upper height of the face, the medium width forehead, the high and medium-width nose, the wide and high eye sockets, the high nasomolar and zygomatic angles, the large biornial and dacryonic width, the average dacryonic and large symotic indicator. This means that the morphological characteristics (appearance) of this man clearly differed from the anthropological type common in the Georgian population of that time (Early Middle Ages). He was characterized by the weakening of face profiling at both levels (according to the angles of upper and middle face profiling) (fig.3.1). As for the second set of skeletal remains, we can judge only by the shape of his skull. It is brachicranial, which becomes dominant in the late medieval population. Data of the second skeleton thus agree with dating given by archaeologists.

All tube bones, the measurement of which was possible even by some signs, were studied by all generally accepted methods (osteometry, osteoscopy). This part of the analysis gives us the opportunity to discuss the physical development and activities of the paleo-population. The poor preservation of the bones, especially on the first skeleton, makes studying descriptive marks difficult (fig.3.3-4), but the width and relief of upper and lower epiphysis speak of their massiveness, although they have a relatively gracile diaphysis with well-articulated places for muscle attachment; the manubrium sterni of both bodies is very wide, the ribs are wide (massive), and the lumbar vertebrae are particularly large.

Body height is the most important feature in determining overall body size. Definition of body height gives general information on the physical development, body proportions, and weight of the buried men. The body height of the first body was calculated by Trotter, Gleser (177.5 cm), Manouvrier (180.3), Pearson and Lee (1788), Bunak (178.3) and, based on the average data of the six authors, equals 178.7 cm. The height of the second individual, according to the same authors, in the same sequence, is 178.1, 181.4, 172.4 – 178.9 cm – and on average, 177.2 cm. Both individuals were thus distinguished by

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their great height. We calculated the torso length of the deceased men from their body height. For the first man it is 78.97 cm and for the second, 79.36. The length of the legs: 99.7 and 97.8 cm, respectively. The width of shoulders of the first individual 40.6 cm, and of the second, 37 cm. As becomes clear, the first individual was taller and more broad-shouldered. The weight of both individuals turned out to be significantly less than expected: 63.3 kg (the first), and 63.0 kg (the second). We can judge by the ratio of length and weight that both individuals were muscular in build. By the ratio of the shoulder width and leg length to body height, both men are characterized as possessing dolichomorphic proportions.

The spectrum of pathologies and the alleged cause of death of these men must have been different: porotic hyperostosis (Cribraorbitalia) is observed in the eye socket of the first skeleton that is the marker of anemia and acute infections (fig.3.5). He had osteoarthritis, signs of osteoporosis on the lumbar and thoracic vertebrae (fig.3.6), presumably, a brucellosis, outgrowths on all vertebrae (or at least on two of the cervical vertebrae).

Both deceased individuals had osteoarthritis, rheumatoid arthritis, osteoporosis (fig.4.5,6), brucellosis⁸. Osteoma (a benign bone tumor) of a small size is observed on the skull (fig.4.2), and hyperostosis in the occipital region (fig.4.5) of the first skeleton. He had several injuries: a bone process is observed on the fibula that indicates a healed old fracture (fig.4.8); there is a trace of a healed wound made by a blunt object on the vertex (fig.4.2); he has a small square hole on his right temple (fig.4.4) that looks a lot like the beginning of trepanation. As there is no trace of infection, the operation might have been terminated as the result of the patient’s death; the second wound, presumably made by an arrow, is observed on the right temple (fig.4.3), which might have been the cause of his death. According to these data, he could have been a participant in battles.

In our opinion, the common spectrum of diseases of both skeletons points to their similar living conditions – which were very difficult. Palynological data are consistent with these data.

Gareji desert has been rather well studied palynologically with respect to archaeological material from the late Bronze-Early Iron Ages.⁹ Present day deserted and waterless places were densely inhabited in the 12th-7th centuries BCE. About 40 sites were discovered and investigated here, according to which the climate conditions and vegetation of that period differed sharply from modern ones. A far more humid and warmer climate in that epoch conditioned the development of a rich hydrographic network and forest landscape. The mild and humid climate contributed to the strong development of agriculture, and the existence of forests made possible the emergence of metallurgy, which requires a large amount of wood. Analogous processes took place in the lower current of Iori-Alazani as well.¹⁰

The climate changed in the sixth century BCE; it became hot and arid. Continued warming in the 5th-4th centuries BCE, well expressed in the archaeological material of both western and eastern Georgian sites, led to the formation of steppes and the impoverishment of the hydrographic network.

Climate changes continued even in the Early Middle Ages. Palynological studies of burials of this period showed that climate was cooler and more humid in the 5th-6th centuries than today.

To conduct palynological analysis, burial sites are chosen where decomposed organic remnants are

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preserved in larger quantities, which are always distinguished by dark colour. Eight samples from the double burial at the Natlismtsemeni complex were examined palynologically (fig.5,6). Organic remnants were found on the skeleton of both corpses under the skull, on the chest, between the pelvic bones and above the coccyx. Organic remnants left under the skull are always rich, since pollen of those plants and objects with which a man has contact during his life generally gather in greasy hair. The research of organic remnants in the area of the abdomen and coccyx are of great importance for determining a diet in the last days of the deceased. In some cases, the existence of helminthiasis can also be established.

The investigation of the material under discussion showed that both men lived in similar conditions. Their dwelling was damp, as indicated by a large number of spores of mould fungus (Mucoraceae). This is normal, as cells cut into the rocks where monks live are always characterized by coolness and humidity.

Both dead men mainly ate cereal porridge and other vegetables; they boiled goosefeet and consumed stinging nettle soups.

At the same time, there is some difference in the palynological spectra of their material. Together with pollen of edible plants, pollen of medicinal plants such as the lime tree (Tilia), plantain (Plantago), valerian (Valeriana), achillea (Achillea), common cocklebur (Xanthium), stinging nettle (Urtica), and ephedra (Ephedra) were found in the regions of the abdomen and coccyx of the first corps. It is interesting that there is only a small amount of plant pollen in his hair which means that he did not go out for a long time before his death. Judging by the pollen grains of medicinal plants in
his abdomen, he must have had a good number of diseases. For example, plantain and achillea are used in folk medicine mainly for diseases of the gastro-intestinal tract and liver, and stinging nettle is a remedy for rheumatism and relieves pain in the joints.\textsuperscript{11} As for lime tree, it is known as a remedy for fever and for lowering the body temperature.

The monastery must have had a rather large farm in the period when these two men worked there. They grew crops and were also engaged in cattle-breeding. Phytoliths of wheat chaff and pollen grains of wheat found in the clothes of the second individual testify to this (it seems that he ground the wheat). At the same time, spores of dung fungus, \textit{Sordaria}, and other dung fungi are found in the garments of both dead men.

Numerous plant pollen found in the hair of the second body indicates that he was leading a very active life, walked for long distances, and spent time in a floodplain forest, where alder (\textit{Alnus}) grew. Pollen grains of nut (\textit{Corylus}), pine (\textit{Pinus}), walnut (\textit{Juglans}) and ephedra (\textit{Ephedra}) were also found in large quantities in the spectrum of his hair.

The analysis of the taxonomic list of plants identified by the palynological study shows that the first individual must have lived in different climate conditions. Spores of forest fern and pollen of willow (\textit{Salix}) detected on his clothes indicate that there must have been a humid climate in the Gareji desert at that time.

Pollen of common grape vine (\textit{Vitis vinifera}) was found only in the hair of the first dead man. It can be assumed that planting vineyards in Davit Gareji became possible because of the humid climate. Similar results were obtained through the palynological study of material from the monastery complex of Dodos Rka: forests grew in this region in the Early Middle Ages as well; floors of churches and other buildings were covered with wood; along with grain growing, viticulture and horticulture were also developed as part of the monastery economy; together with walnut and nut they also grew olive (\textit{Oleaeuropea}) trees in gardens; apiculture was developed, too.\textsuperscript{12} We would like to note that cooler and more humid climate spread in the 5\textsuperscript{th}-6\textsuperscript{th} centuries almost throughout Eurasia, and the peak of the cold snap was in the sixth century.\textsuperscript{13}

Climate conditions during the life of the second man would not have been as cool as in the lifetime of the first man, but the amount of precipitation was much greater. This fact is confirmed by the presence of helminthiasis detected by the palynological study, along with vegetation cover. The egg of the parasitic worm \textit{Trichuristrichiura} that severely damages the gastrointestinal tract was found in the region of abdomen of the second individual (fig.6). Helminthiasis, as a rule, is not common in arid and dry climate conditions, as the eggs of parasitic worms die in dry soil.

The study has also shown that the second individual must have died suddenly during the cold period of year, and the first man after a prolonged illness during the warm season. This is indicated by the fact that numerous remnants of ticks and other insects that were not on the garments of the second man were found in the clothes of the first man.

Both of these men were clerics, as their living conditions were identical. These results are fully consistent with the data of anthropological research, since both of the dead were ill with rheumatism due to the dampness of the rock.


Bibliography


The monastery was founded in the first half of the sixth century by one of the most remarkable of the Georgian Christian figures known as the Assyrian Fathers, St. Davit Garejeli.¹

Davit Garejeli together with his disciple, Luciane, came to the territory of what is now St. Davit’s Lavra and settled in a small, natural cave. Assyrian hermits used to follow strict rules of seclusion from secular life. As it seems, St. Davit wished to follow the same ascetic monastic lifestyle and therefore he chose this place in order to fulfill his religion mission. Still today, two small natural

caves, slightly modified by humans, with low and narrow beds hewn in the rock, are preserved within the territory of the monastery. According to tradition, these caves are considered Davit and Luciane’s initial dwelling space.

The Transfiguration Church, where the remains of St. Davit Garejeli and his disciple St. Dodo are buried, represents the most important part of Davit’s Lavra. The sacred graves of the monastery founders give special honorand dignity to this church. As for the Transfiguration Church itself, it became the canonical form for Gareji Mravalmta cathedrals and afterwards was more than once repeated in various cave monastery plan within the Gareji complex.²

During the next few centuries, Davit’s Lavra generally became the centre of monastic life in the region,³ and in the course of time, several branches were added to it; in the 6th-10th centuries, in the rocky hills around the Lavra, a network of cave monasteries’ complexes were built: Tsamebuli (Martyr), Natlismtsemeli (Baptist), Chichkhituri, Tetri Senakebi (white cells), Dodos Rqa, Udabno (Desert), Aghdgomisa Tsamebuli (Easter Martyr), Bertubani, Mgvime (Cave), Kolagiri, Didi Kvabebi (Large Caves), Verangareja, Pirukughmari, and Patara Kvabebi (Small Caves). By the end of this period the number of monasteries reached twelve. The name “twelve monasteries of Gareji” remains from that time.

The architectural ensemble of Davit’s Lavra consists of various rock-cut churches, cells, refectories, household gadgets as well as stone-structure components of different periods (6th-18th centuries), which are fortified with walls and watch towers. A rainwater-harvesting system, water-intake canals and reservoirs were artificially hewn into the mountainous massif.

Davit’s Lavra as well as several monastic ensembles of the Gareji Mravalmta reached the peak of its development during the national and political revival of Georgia on the crossroads of the 12th-13th centuries. Since the eleventh century, the Gareji monasteries have been under the ownership of the royal court of the Kingdom of Georgia. After expelling the Seljuk Turks and incorporating the Kakheti principedom into Georgia, a new stage in the revival and growth of the monasteries’ unification began. It is natural that the given process should have influenced, first of all, the Mravalmta spiritual centre: St. Davit’s Lavra. In the same above-mentioned period, one of the largest and most extensive constructions of Davit’s lavra - St. John the Theologian rock-cut Church – was created in the western massif of the Lavra’s upper yard.

In 1265 the Mongolian raids under the command of Berke Khan devastated and ravaged Davit Gareja and its adjacent areas, including Davit’s Lavra. In the first half of the fourteenth century, during the reign of Giorgi V the Brilliant, Davit Gareja became a powerful political and economic center. By the end of the fourteenth century, during Timur-Leng’s numerous forays into the region, monastic life was virtually destroyed.

In the Late Middle Ages, as a result of further devastating invasions organized by surrounding hostile states, Georgia was divided into several kingdoms and princedoms, and the majority of Mravalmta monasteries became deserted and desolated. However, St. Davit’s Lavra (together with Dodos Rqa and the John the Baptist monasteries) still retained the status of the leading religious center of the country.⁴ The constant attention of nobles and kings, with their tangible contributions supported this status.

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⁴ V. Bagrationi. *Agcera samefosa saqartvelosasa (Description of the Kingdom of Georgia).* Tbilisi, 1959. p. 754.
In 1424, Alexander I donated Davit Gareja to Mtskheta Svetitskhoveli Patriarchate Church. In 1616-1617, the monasteries were again largely destroyed by the Safavid Persian armies. In 1639, Teimuraz I restored monastic life, and by the eighteenth century Davit Gareja was again placed under royal stewardship. Vast lands and villages belonged to it, peasants living in the nearby settlements and villages were considered serfs of the monasteries. The monastic life in Davit’s Lavra was maintained until the beginning of the twentieth century; its most recent restoration became possible again in 1990.

The fortification defences and structures, and the tower system for residential and defensive purposes, transforming the monastery yard into several levels, built between the yard of Davit’s Lavra and the rock-cut systems of the monastery, survive from the late Middle ages.

Generally, large-scale planned archaeological research has not been actually conducted in Davit’s Lavra up to today. Some land works under archaeological supervision were carried out in the 1970s and 1980s in the lower yard of the Lavra and the terraces of different levels during the rehabilitation of the aforementioned fortification structures. However, we do not have any published information about the outcomes of that period of work. In addition, small-scale archaeological studies were conducted in Davit’s Lavra in the 1990s, when Davit Garejeli’s tomb was opened during the ongoing reconstruction works in the Transfiguration Church.

In 2017, the walls dividing the yard of Davit’s Lavra in the second and the third terraces partially collapsed and it became necessary to restore the walls. In the process of restoration, during the ground works, it was necessary to conduct small-scale archaeological research. In the same year, a study was implemented by a group of archaeologists from the Georgian National Museum (the head of the expedition was Professor Nodar Bakhtadze).

These archaeological works revealed a number of long-hidden details of architectural design, typical of constructions and cave structures from various functioning phases of Davit’s Lavra. Among these discoveries, we note that from the east some spaces were hewn into the rock mass, in particular: cells and spaces for other purposes, possibly even to serve as cave chapels. In the High Middle Ages, the façade parts of these cave spaces collapsed and they were restored with lime mortar masonry. During the Late Middle Ages, this cave tier, having sustained still further damage, was ultimately buried under the substantial volume of soil brought in to create terraces. Wall systems of similar construction had been found some 5 years ago in one of the Gareji Mravalmta cave monasteries, Dodorqa; they are built to replace the damaged southern walls of the cave churches within the monastery. In Davit’s Lavra as well as Dodorqa monastery, these stone-made extension restorations are of pylon-like structures. It seems that they also served to stop further damage to the rock crests from above. Planning specifications of these newly revealed spaces in Davit’s Lavra was not possible within the framework of the concrete rehabilitation project, due to technical difficulties.

The household items and objects of the late middle Ages, representing the focus of our current specific research, were discovered on the third terrace of the yard within Davit’s Lavra, adjacent to the first and second areas around the north-west load-bearing wall.

After removing a hummus layer of soil and working gradually back through the cultural layers of the 19th and 20th centuries, at approximately 60-90 cm below the current surface we can notice the yard with its coarsely graded surface that is contemporary with the monastery as it functioned in the late middle ages. There are traces of economic activity: we can recognize the places for open fires, a small-sized sanitation hole, areas plastered with clay and lime mortar. Within this level, several fragments of typical large and small ceramics of the 13th-17th centuries were confirmed. In particular, the following items were uncovered: 1. Bowl fragments glazed in light blue on a flat dish;

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2. Clay bowls, the inner surfaces of which were painted with dark green dots with curved images before glazing, and afterwards repainted with light lilac pinkish glaze;\(^6\) 3. Imported white-clay-plated ceramic ware-bowl fragments of Iranian faience production with motifs painted with cobalt, imitating Chinese analogs, which are dated back to the 16\(^{th}\)-17\(^{th}\) centuries by the foreign scientists.\(^7\)

The local pottery found here is also well-known from late medieval Georgian archaeological monuments. They would belong to 16\(^{th}\)-17\(^{th}\) century production, however this type of ceramic ware in Georgia continued into the 19\(^{th}\)-20\(^{th}\) century (this undoubtedly local production was called “kashanian” pottery by the population in accordance with distant association with glazed clay ware from famous Iranian ceramic production centers). As for this particular case, the just-mentioned clay objects are well dated to the 16\(^{th}\)-17\(^{th}\) centuries.

In the same stratigraphic layer, within the second area, 2.9 m away from the northern tower in the north-west direction, a clay bakery with a partially damaged surface was unearthed. The bakery is nearly cylindrical, and slightly truncated at the top, with a narrowing cone shape. The diameter of its surface is 0.55 m, at the bottom level – 0.6 m, its height is 0.58 m. Its mouth is flat and slightly folded to the outer side. The bakery was fired and then afterwards put into its current place and fixed as stationary. Bakeries of such shapes and made of similar technology were widespread throughout Georgia across the entire High and Late Middle Ages. Unlike Georgian samples confirmed in ordinary settlements, this clay bakery was 1.5 times larger in size, approximately and, as just noted, well-burnt in a specialized kiln. Thus, we can assume that the bread baked in this bakery could feed the whole monastic brotherhood of St. Davit’s Lavra in the Late Middle Ages, even if the bakery could have been heated at least once for each meal.

It should be noted that the few fragments of unglazed and glazed pottery noted above, typical for the High Middle Ages, were found fallen occasionally onto the bottom of the clay bakery at the time of its use; thus, apart from the fact that the bakery was arranged within the horizontal surface of the yard, and dated on its own back to the 16\(^{th}\)-17\(^{th}\) centuries, it was also dated to that era in accordance with the artifacts that happened to have fallen into it when it was in use. Therefore, it turns out that at that time, baked Georgian lavash was being made periodically in the monastery itself, apart from it being preparing it in the bakery arranged in the adjacent to the refectory cave kitchen.

Below the area, while lowering the modern horizon of the yard, it was found out that at the time of creating the terrace, in the late 16\(^{th}\) to early 17\(^{th}\) centuries, the emptiness remaining between the western surrounding wall and the steep rocky slope at the east of the dry ravine of the Lavra, was filled with specially gathered masses of earth and rocky boulders (the thickness of this land mass in the vicinity of the adjoining wall, spread within the 3-meter wide area, studied by us, varies from 1.5 to 2.5 m). This layer of land contained practically no artifacts.

In this once filled and packed mass of ground, within the first area, from the southern tower in a northeast direction, about 6.5 m away, below the modern surface of the terrace at a depth of approximately 85-90 cm, traces of an oval-shaped hole filled with differently structured ground were outlined. It should be noted that the surface level of the hole roughly levels off to the packed layer of the terrace yard, which was scattered with artifact fragments from the 16\(^{th}\) and 17\(^{th}\) centuries as well similar to those in the bottom level of the clay bakery.

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The further preparation of the hole made it clear that two copper cauldrons, one on top of the other, were placed in the hole; the bell-shaped cover of one of them, situated northward (with handles), had slightly slipped to the side (perhaps, at the time of filling the hole with earth), whereas another was covered with a large copper tray and a bell-like lid (fig.2). Both cauldrons were compactly packed with copper metal ware. In the cauldron covered with a lid, the metal objects were resting in emptiness, but the half-covered container was filled with earth. It is obvious that with these items we are dealing with a hidden “treasure” in a specially dug out hole later filled with earth. It is noteworthy that such a precious collection of late medieval metalware had not previously been uncovered in Georgian archaeological excavations (fig.3).

All in all, the treasure consists of 21 items made of copper. These are: the 2 large cauldrons (with and without handles); a smaller cauldron with a cover; 1 bowl; 6 trays of different sizes; 2 funnel-like trays with bell-like lids; the bottoms of 2 icon-lamps and 2 upper bodies for oil lights, which can be twisted together; 1 candlestick, which is fixed onto the oil lamp bottom by a screw thread instead of offering an upper body of oil lighting; 1 latticed sphere-shape incense burner, which in case of necessity, was fixed onto the upper bodies of the lamp (as a result, the lamp used to become a tray for labdanum); 1 ladle; 2 skimmers (fig.3,4,5,6). As we see, a full set of tableware and cooking utensils, as well as lighting devices for meals and even trays for burning incense are presented. Almost every copper object is tin-plated and ornamented with forged iron.
It is highly probable that these valuable sets represent simultaneously or separately donations from influential and authoritative noblemen to the monastery. As we will see below, almost all these articles are made in Muslim countries adjacent to Georgia, where production of such objects for the markets of neighboring regions was very common.

It is also obvious that this is the entire collection of utensils made from semi-precious metals that were used in the monastery refectory at the time; the kitchenware seems to be very expensive and, therefore, it is highly likely that it was hidden in order to save it in case of enemy encroachment. This hypothesis is supported by the fact that this section of the monastery yard is just about 25 meters away from the refectory. Apparently, the other less valuable utensils, such as clay or wooden bowls and plates, used at the time in the refectory, were not hidden from the enemy, or were not considered worth concealing. We should also assume that every member of the monastery brotherhood was murdered by invaders or were captured and, after the danger passed, they were not able to return to remove the treasure.

Dating these items was not so easy. As a matter of fact, copper utensils of similar purpose and design have been made in different countries throughout the Caucasus as well as in Western and Central Asia in the High Middle Ages, through the Late Middle Ages, and into the 19th and 20th centuries. Nonetheless, we obtained sufficient information about the chronological framework of their factual analogs.

For example, the seventeenth-century Iranian utensils used for similar purposes happened to be very similar in configuration to our collection of articles with bell-shape lids, cone-shaped from above, and flattened handles, together with supports with edging (fig.5-3).

Particularly useful dating elements were found in the copper items of the collection, preserved disassembled, in parts, which represent a combination of cylindrical candlesticks and oil lamps, connected with tray-like supports by means of high stems (fig.5-6). The tradition of manufacturing almost the same lighting devices was common among the Qajar tribes – Iranian and South Caucasian inhabitants in the seventeenth century (and of course, possibly among other ethnic groups, as well).

Very close analogues were found – with a motif of three engraved fish, depicted in the center of one of the trays in the collection (fig.5-5) – in Safavid-era Iranian copper plates. These were often designed stylistically in the same manner in the 16th-17th centuries.

Among the same seventeenth-century Iranian utensils parallels were found to vertical-mouthed, convex cauldrons. On the opposite sides of such vessel copper plates are two handles are soldered and riveted vertically, consisting of small, carved circles ending in snakehead shapes (fig.5-1).

9. A.S. Melikian-Chirvani... 146-146b; www.ebay.com/bhp/qajar
It is rather significant that the dating of the collection items corresponds very closely to the production period of the clayware, scattered around the surface level of the dug-out hole. In accordance with the stratigraphic homogeneity of their dissemination, it is difficult to doubt that these items were damaged, broken and scattered around the large area of the yard at the time of the same tragedy of destructive invasion that took place in the monastery, prior to which the copper objects were been hidden.

Based on strong arguments, we think that the set of copper items might have been hidden by the monastery brotherhood members in the beginning of the seventeenth century in order to protect them from devastating raids, organized by the Safavid Persian Shah Abbas I. Obviously, this hypothesis must be linked to the historical story, according to which during that military campaign (about 1614-1617), the Iranian army plundered the Gareji monasteries and on the Easter day killed a great number of monks and priests.11

Therefore, the recent suggestion made by several representatives from academic circles of our neighboring country, Azerbaijan, based on our preliminary information, concerning the fact that these items found within the territory of Davit Garejeli’s Lavra Christian monastery could have been the household utensils of Azerbaijani peasants, living here in the end of the nineteenth century or the beginning of the twentieth, is totally ungrounded.

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During a long period, the emergence of Georgian monasticism was associated with the name of the ‘Thirteen Syrian Fathers’ who came to Georgia in the mid-sixth century CE. This claim was challenged by several scholars as too simplistic; they pointed to more diverse origins of Georgian monasticism. Like conversion on Christianity the birth of monasticism in Georgia was not the result of one act but rather the result of the implementation of various ascetic ideas and conceptions through the lively interaction and exchange of religious ideas and practices involving Iberia, Armenia, Albania, Asia Minor, Syria and Palestine. However, it is hard to underestimate the place of the ‘Thirteen’ as role models for the Georgian monastic tradition. The scholarly opinions about the historicity of these outspoken ascetics diverge greatly from the semi-scholarly acceptance of the hagiographical narration about their activities as literal truth to doubt regarding their historicity. There is also great discontent among scholars about their religious affiliation: were they Chalcedonians, anti-Chalcedonians or ‘Nestorians?’

This study does not aim to review the entire range of issues regarding the ‘Thirteen.’ It focuses on one particular aspect of early Georgian monastic life in Gareja desert. Medieval Georgian tradition refers to St. Davit of Gareja — the one of the “Thirteen” — as the pioneer of ascetic life in the Gareja desert. According to this tradition St. Davit was the member of ascetic group of Syrian monks who, led by John of Zedazeni, arrived in to the eastern Georgian kingdom of Iberia. The main sources for the life of St. Davit are the brief and extended versions of his *Vita*. The extended edition was composed in the twelfth century based on the brief one. Of course, both of these *Vitae* have an overwhelmingly legendary character: hagiographical fiction certainly exceeds historical

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1. Their number is symbolic (an allusion to Jesus Christ and twelve apostles), there were more than thirteen, and there is serious confusion about the ethnic name ‘Syrian’ in modern Georgian scholarship. See Emma Loosley Leeming, *Architecture and Asceticism: Cultural Interaction between Syria and Georgia in Late Antiquity: Texts and Studies in Eastern Christianity*, vol. 13 (Leiden/Boston: Brill, 2018), 10-16. However, the ‘Georgian’ origins of these ascetics should be completely excluded.
5. Davit Merkviladze’s investigations are exemplary on this account. He even accepts the “friendship” and heartfelt relationships between saints and animals as historical truth, see for example, Davit Merkviladze, “Asurelimamebi da matigaremomtsvelibuneba,” *Amiran10* (2004): 54-61
7. For a complete review of primary and secondary sources about the various aspects of the lives and activities of ‘Syrian Fathers’ see Shota Matitashvili, “The Monasteries Founded by Thirteen Syrian Fathers in Iberia,” 11-19. Recently, in her interesting research, Emma Loosley Lemming proposed that the “Syrian Fathers” could have come from northern Mesopotamia. See Emma Loosley Lemming, *Architecture and Asceticism: Cultural Interaction between Syria and Georgia in Late Antiquity*, 191-192
truth. Notwithstanding this, glimpses of historical reality can be traced in these pieces of medieval Georgian literature. By collating the description of the emergence of monastic life in Gareja with the scarce though important archaeological data this study argues that the *Vita* of St. Davit of Gareja certainly includes actual circumstances about the initial character and development of the Georgian monastic communities in Gareja. This study does not discuss whether St. Davit of Gareja actually existed or not but it argues that, at least, the early date suggested for the emergence of monastic life in Gareja given in the hagiographical sources finds is historically accurate.

Both *Vitae* describe the life of St. Davit. He joined St. John of Zedazeni back in Syria and travelled with him to Iberia. Davit also accompanied John on his trip throughout eastern Georgia and for some period of time lived with him on Zedazeni mountain. After some time, John sent his disciples to different corners of the Iberian kingdom to strengthen Christianity against Zoroastrian and pagan oppression. The *Vitae* narrate how Davit, with his disciple Lucian, came to the comfortless desert of Gareja and settled in the cave they found here. The *Vitae* describe how Davit and Lucian lived here in complete peace and serenity without any worldly comfort for which Lucian often felt despair but how his spiritual supervisor always found the right words of courage for him.

Of course, the traditional hagiographic story-line demanded that the Holy Man could not have gone unnoticed. Once, St. Davit had an encounter with a local nobleman named Bubakar who was hunting prey. During this hunt he met the solitary cave-dwellers of Gareja. St. Davit miraculously showed him his power and after this divinely-inspired encounter Bubakar was converted. Bubakar was not alone in his admiration for St. Davit. Many came to the holy man, seeking the monastic vocation. One of the first local disciples of St. Davit was Dodo. After some time, when St. Davit realized that there were too many monks for his cave, he ordered Dodo to go and establish another monastery. Dodo went to fulfil the order of his pastor and founded a monastery near Davit’s cave. Thus, according to the hagiographic narrative, the first ascetic communities appeared in Gareja under the spiritual leadership of St. Davit:

Day-by-day a great number of brothers came to this desert, by which all these places became full of virtuous and venerable men. Some of them stayed as hermits and others settled within the community of brothers... and the great shepherd, our Father Davit, was joyful because of the revival of the flock; every day he went out to see his hermit brothers, the lonely cave-dwellers and gave them solace, encouraging and strengthening them toward their good purpose.

Of crucial importance, the author of the *Vita* makes a distinction between the “hermits” and “the community of brothers.” According to the *Vita* monastic life in Gareja acquired the features of a coenobitic life (community of brothers living together), but this did not cause the disappearance of anachoretic traits (individual hermits). In Gareja there emerged a symbiosis of anachoretic and

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10. However, the oral tradition (written down first in the nineteenth century) places Davit’s monastic vocation just outside Tbilisi, on the mountain known later as Mtatsminda (‘the Holy Mountain’) where he dwelled for some time, but after a false accusation he left Tbilisi. We cannot say anything about this story with certainty because it has a purely legendary character, although it could have hagiographical origins. See Shota Mattashvili, “The Monasteries Founded by Thirteen Syrian Fathers in Iberia,” 30-31
12. Abuladze, 182-183
13. The anachoretic life-style was the original form of Christian asceticism; anchorites or hermits dwelled in complete loneliness in the wilderness, far from settlements. Gradually they established communities and thus the coenobitic life-style appeared, where monks lived together under the spiritual leadership of one abbot. The classic example of this process is Egyptian monasticism, see Phillip Rousseau, *Pachomius: The Making of a Community in Fourth-Century Egypt* (Berkeley/Los-Angeles/London: University of California Press, 1999)
coenobitic life-styles that Denise Papachryssanthou calls “the hybrid system” of monastic life or hybrid lavra. 14 This model in its classic form first appeared in Palestine. 15

Few archeological artifacts prior to the ninth century help a great deal in our investigation of the earliest stage of monastic life in the Gareja desert. Archaeological surveys of the Gareja monasteries at testto the early origins of monastic life in the desert. A sixth-seventh-century plate with an inscription and the traits of painting no later than seventh or eighth centuries in Tetri udabno (‘White Desert’) are good evidence for the early monastic life in Gareja. 16 This discovery attests to the fact that already in the sixth or seventh century Gareja was an important center for monastic life. The caves around the cave-church of St. Davit of Gareja reveal archaic traits; 17 apparently, these caves were designed for monastic life. 18 They obviously served as the center for the dissemination of ascetic life in Gareja as depicted in the Vitae. This corroborates the notion that the initial stage of Gareja monasticism presented an anachoretic life-style that was subsequently transformed into a coenobitic one: the subsequent growth of monasticism in the Gareja desert led to the emergence of various ascetic cloisters nearby St. Davit’ original dwelling place. 19 Archaeological examination also attests to the antiquity of the grave of St. Davit in the cave-church, which makes his historicity more plausible, 20 although it is also possible that the Father of Gareja monasticism was the product of the imagination of later medieval authors who looked through the lenses of an established literary frame-work and associated the emergence of monasticism with one particular Holy Man.

The first written biographies of St. Davit of Gareja are much later compositions but they reflect the earliest, probably written, tradition based on many original and authentic sources enshrouded by the imagination and literary models of later hagiographers. The comparison of various forms of evidence regarding the monastic life in the Gareja desert shows that the hagiographical data about the early origins (sixth and seventh centuries) of Gareja monasticism should be regarded as historically accurate.

17. Giorgi Chubinashvili, Peshernie monastiri David-Gareji: Ocherkpo istorii- isskustva Gruzii(Tbilisi: Izdatelstvo akademii gruzinskoi ssr, 1948), 27
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Matitashvili, Shota, ‘The Monasteries founded by the Thirteen Syrian Fathers in Iberia: The Rise of Monasticism in Sixth-Century Georgia,’ *Studies in Late Antiquity*, Vol. 2 No. 1, Spring 2018 (University of California)//sla.ucpress.edu/content/2/1/4:


The significance of the Davit-Gareja rock-cut monastic complex is well known among both Georgian and foreign scholars. However, information about its development, especially before the 11th-13th centuries, is extremely scarce. There are only two texts, both hagiographic, which refer to this issue: *The Life of St. Davit Garejeli* and *The Life of Hilarion the Georgian*. Davit is the founder of the monastic complex in the 6th century; and Hilarion (822-875) lived there for some years, renewed the old church and laid St. Davit’s relics within the shrine he had prepared for it. Although, these two holy men lived in different periods, they have some points in common. Several versions of both Lives have survived. It is worth mentioning that from those versions the metaphrastic ones refer broadly to Gareja Monastery’s renewal in the 9th century, which occurred due to Hilarion’s efforts. He was born in a rich family in Kakheti, the same region where the Gareja rock-cut monastery complex is situated. Only the metaphrastic version (dated to the 12th century) provides us with information about his parents. His father was a famous general, a very pious and modest person. According to the same version, the saint received the name Hilarion during his baptism. The author explains that his life and he himself were like his name; in Greek “hilarion” means cheerful. He was dedicated to God from his very birth. Hilarion’s father built a monastery for him on his own land. His parents visited him very frequently and he was to some extent privileged among other brothers. To avoid this “special” treatment and his father’s guardianship, he decided to leave this place when he was 15 (according to the long version of the *Life*), 14 or 12 (according to the version) or 16 (according to the metaphrastic version).

To repeat, only the metaphrastic version provides us with detailed information about the Davit Gareja desert. It was an extremely remote and hard place in which to live; isolated from the world, it did not provide any consolation to its inhabitants; with no built cells, monks lived in caves and even bread and water were deficient. In this wilderness Hilarion dwelt in a small cave. His food was very

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1. At that period the complex reached the peak of its development. Chubinashvili, G., *Pescherne monastiri David Gareja (Ocherki po istorii isskustva Gruzii)* (Davit Gareja Rock-cut monasteries (Essays on Georgian Art History)), in Russian, Tbilisi 1948, 43-46.


There are four different versions of the *Life* (long, brief, metaphrastic and synaxaric with two main variants). Scholarly research has not reached a conclusion as to which version is the original one. However, all evidence leads us to infer that probably the brief version must be regarded as the original text since the manuscript (dating to 990) which contains it, is older than the manuscripts that contain the long and metaphrastic versions. The brief version was written at the latest in the first half of the tenth century. M. Dolakidze, *Ilarion qartvelis tskhovrebis dzveli redaqciebi*, (Old versions of the *Life of Hilarion the Georgian*), in Georgian, Tbilisi, 1974; Tchkoidze, E., *Enas Georgianos proskynitis ston vyzantino kosmo tou 9ou aiona: o aghios Ilarion o Georgianos* (A Georgian Pilgrim in Byzantine World of the Ninth Century: Saint Hilarion the Georgian), in Greek, Athens, 2011, 44-49.

3. It is worth mentioning that by the term “metaphrastic” two different types of texts are implied. In medieval Greek literature it is a collection of 10 volumes with 148 hagiographic texts edited by Symeon the Metaphrastes (second half of the 10th century). Høgel, Ch., *Symeon Metaphrastes, Rewriting and Canonization*, Copenhagen, 2002, 14 (full list in the liturgical order by dates, ibid. 173-204). In medieval Georgian literature metaphrastic texts are broader versions/re-writings of already extant hagiographic texts.

modest: bread, soggy lentils and wild greens. It was all what could be found on the infertile soil of Gareja. He spent ten years there. It was his first experience in this desert.

It is a broadly accepted opinion that since the 6th century (i.e., when the monastery was first established), there co-existed both types of monasticism: coenobitic (dwelling in a group) and idior rhythmic (dwelling as isolated hermits). The Gareja desert brotherhood was divided: one part lived in a coenobitic community and the other part as secluded hermits; they were, nevertheless, all subordinated to one charismatic spiritual leader. So, too, both the church and the refectory were common for all. In the Life there is no clear reference to the monastic type that existed at that period, or details about its formation or other related information. It is clear that it was not a coenobetic monastery. In the brief and long versions we read that when Hilarion arrived there, he found many anchorites. Hilarion became the abbot of a small community that consisted of 11 disciples and himself.

This information is important because based on this Hilarion appears as the third abbot of Davit-Gareja known from written sources. If there were many hermits and he became an abbot of 11, it means that there were several such communities. In all versions of the Life there is no reference to the notion that in the ninth century coenobetic monasticism existed in Gareja. The next passage is especially interesting and significant in this regard. After Hilarion had been living there probably for some years, report of his angelic life spread throughout all of eastern Georgia and a bishop from a neighboring area visited him. They discussed several issues concerning spiritual life and at the end of his visit the bishop asked to ordain him a priest. For this purpose, the bishop set up a sanctuary in Hilarion’s cave, blessed it and ordained him first as a deacon and the next day as a priest. This important event mentioned only in the metaphrastic version, has been passed unnoticed among scholars. K. Kekelidze and M. Dolakidze, who systematically compared those versions to each other philologically and with regard to their content, did not even mention it. According to this passage it is clear that in the place where Hilarion chose his cave, there is no church. His brotherhood did not need it and would not have it. The church with its sanctuary was “created” for a specific reason: the ordination ritual. Consequently, the monastic type Hilarion and his community followed was idiorrhythmic.

Shortly after becoming priest, the holy father was praised even more by the inhabitants of Kakheti. He decided to leave the area and set off on a pilgrimage to Holy Sites. When he returned to Georgia he learned about his father’s and brothers’ passing and with his family inheritance he found new monasteries. According to the brief and the long versions, he founded a nunnery for his mother and in one big monastery gathering there were 76 members. In those two versions there is no

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5. Dzeglebi 3, 214.
7. Chubinashvili, Peschernie monastiri, 33-34.
8. Dzeglebi 2, 11.11. Life of Hilarion the Georgian, brief version according to twelfth-century manuscript), S. Kubaneishvili, Dzveli qartuli literatures qrestomatia (Chrestomathy of Old Georgian Literature), I, 1946, 171 (further: Kubaneishvili, Chrestomathy).
10. Lominadze, Qartuli feodaluri, 150. It is also important that in no version is he mentioned with the title abbot (in Georgian tsinamdzgvari). In the relevant passage it is mentioned that they were obedient to him; that they shared their thoughts with him and he in return admonished and instructed them. (Dzeglebi 3, 214-214. In the brief and Long versions no reference to this issue is made; they only point out that he had 11 disciples).
11. According to the brief and the long versions after his ordination Hilarion and the bishop served together and provided communion together.
13. Kubaneishvili, Chrestomathy 171-172; Dzeglebi 2, 16.
reference to Hilarion going to Gareja again; it is mentioned only in the metaphrastic one. According to it, Hilarion established a nunnery for his mother and sister who also were alive and with his own portion from the family inheritance he returned to Gareja. Here he built a church for the shrine of St. Davit of Gareja: “he transformed the shrine of St. Davit into a church". This version with its passage describing Hilarion’s second residence in Gareja with this exclusive information is regarded as more reliable than that of the remaining two. In the northern part of Gareja monastery it is a complex with cells, a small church, a refectory and other buildings which differ from the older buildings: they are more spacious and comfortable. It is evident that these elements were added by Hilarion. Recent investigations show that in the ninth century Gareja’s monastic life was altered substantially. Alongside farming and cattle breeding, the manufacture of pottery, glassware and metal developed.

As previously noted, the metaphrastic Life of Davit of Garejeli refers to the same activities of Hilarion in Gareja. It is dated to the twelfth century. Talking about the baptism of a local aristocrat Bubaqar (or Bubaqri) by Davit’s disciple, its anonymous author makes a reference to Hilarion. Bubaqar helped to cut a church in the rocky caves in Gareja. A few centuries later it was widened and blessed by Hilarion. Then the anonymous author tells us a history of Hilarion after his settlement in Thessalonica in 875 and his miracles accomplished posthumously in Constantinople during the reign of Basil I the Macedonian (867-886). According to the same passage, Hilarion created a wonderful shrine for Saint Davit’s relics in the south part of monastery, inside the church. It is the monastery’s main church dedicated to the Savior’s Transfiguration.

According to the Life of Hilarion his generosity in spending his entire inheritance to meet Gareja’s needs provoked acute hatred from his uncle (his mother’s brother), because nothing was given to him. He threatened to burn the monastery and to kill the holy father. Hilarion’s prayers and one miracle saved the monastery and converted an aggressive relative into a repentant donor. The uncle also dedicated his inheritance and became a monk. It is unclear and impossible to know exactly why the uncle demanded to have something from his sister’s family property in the first place. Maybe this property was the dowry of Hilarion’s mother. It is clear that we have to do with a family conflict, a social problem which was reflected in the hagiographic text. This is a vivid example that this genre generally is a good source for the study of social perceptions. This passage reflects also the dissatisfaction often felt by laymen towards monks, due to property and economic issues. Although this period the Church was extremely influential in Georgia, similar cases probably were not unusual. Generally, during the medieval period there are not many references to conflicts between the church and laymen; all of them are provided through hagiographic texts.

The news of Hilarion’s virtuous deeds spread quickly and there were many desired to visit him and to receive his blessing. In addition, the clergy of the region wanted to consecrate him as a bishop. He decided to abandon Georgia for the second time. He chose a virtuous brother and set him in placedas an abbot, took two companions and journeyed to Constantinople. At this point the metaphrastic version is again extremely extensive comparing to the long and the brief ones. There are almost

15. Chubinashvili, Peschernie monastiri, 38; M. Dolaqidze, Ilarion quartvelis, 128.
18. Abuladze, I., Asurel mamata tskhovrebis dzveli redaqciebi (Ancient Redactions of the”Lives of the Syriac Fathers”), in Georgian, Tbilisi 1955, XXV.
19. Abuladze, Asurel mamata,174-175.
20. Lominadze, Qartuli feodaluri, 14.
two printed pages referring to his spiritual instructions to the new abbot and the monks.\textsuperscript{21} Since there are no teachings or admonitions by Georgian holy fathers that appear as separate works, this part from the \textit{Hilarion’s Life} could be used as the text for teachings given to Gareja’s brotherhood. In this passage Hilarion’s main messages touch on the following virtues: hospitality, philanthropy, love for each other, humility. As it was noted above, the long version does not mention that Hilarion returned to Gareja. It suggests that he established a new monastery with 76 members. Although, it is worth mentioning that in this passage the author describes a ritual through which Hilarion ordained a new abbot. It is extremely valuable information for liturgical studies.\textsuperscript{22}

In discussing Hilarion and his presence in Gareja, it is important, finally, to offer some information about the anonymous author of his metaphrastic \textit{Life}. K. Kekelidze was the first who dealt with this issue and reached a conclusion that it might be Theophilos the Hieromnonk, a well-known Georgian scholar and translator who lived at the end of the eleventh century and the beginning of the twelfth.\textsuperscript{23} Theophilos had no connection to the Gareja complex. Kekelidze’s arguments were based on the fact that Theophilos translated many texts from Metaphrastes’ \textit{Greek Lives} into Georgian. Recently this opinion was completely corroborated by S. Makharashvili.\textsuperscript{24} M. Dolakidze was the first who connected Hilarion’s metaphrastic \textit{Life}’s author with Gareja dating this text to the twelfth century.\textsuperscript{25} Gareja’s segment of the \textit{Life} shows clearly that its author knew quite well this episode from the holy father’s life. Since this information is supported by archeological data as well, it should be regarded as a pretty reliable source for Gareja studies. Probably, the author had access to some written sources about Hilarion’s deeds in the desert that could be available only there. It is also evident that both metaphrastic \textit{Lives}, that of St. Davit and of St. Hilarion had a common source referring to Hilarion’s activities in Gareja. It is impossible to suppose where Hilarion’s metaphrastic \textit{Life} was composed, but it definitely comes from a monk with strong ties to the Gareja monastic complex. Only this version provides us with information about Hilarion’s parents, his name’s etymology; describes Gareja’s natural and living conditions, its monks’ food, Hilarion’s offerings and his effort to construct new buildings and to enlarge St. Davit’s shrine; gives indirect information about Gareja’s ascetic discipline; and provides us with Hilarion’s spiritual instructions to Gareja’s monks. This metaphrastic \textit{Life} is the only written source of that period that deals with all of these aspects of the Gareja desert and depicts it as the place of an unusual monastic community.

\textsuperscript{21} Dzeglebi 3, 224-226.  
\textsuperscript{22} Dzeglebi, 2, 18.1-24.  
\textsuperscript{23} K. Kekelidze, \textit{Kartuli hagiografis istoriidan}, 147-149.  
\textsuperscript{24} S. Makharashvili, \textit{Thofhile khutsesmonazoni (Theophil the Hieromonk)}, in Georgian, Tbilisi, 2002, 41-57.  
\textsuperscript{25} M. Dolaqidze, \textit{Ilarion qartvelis}, 77-84
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Identifying Neki and Daniel Nekis Dze (son of Neki), Authors of the 13th-14th cc. Scratched Inscription, made in the Davit Gareji Udabno Monastery’s Martyrium and the Scratched Inscription of the first half of the 15th c., made in the Annunciation Church

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A three-lined commemorative scratched inscription, written in Mkhedruli script, is found on the western part of the south interior wall of the Davit Gareji Udabno Monastery’s Annunciation Church. It reads:

“წმიდ[ა] დავით, მიოხე | ცოდვილსა დანიელ(ი)ს ძესა ნექისს{ა}.”
(St. Davit! Help sinful Daniel, Son of Neki!)

The inscription is dated from the first half of the fifteenth century. As we can see, this laconic text does not offer any information about the author of the inscription.

Fortunately, there are several different kinds of other written sources, from which we have an opportunity to gain additional information regarding the biography of the author of the inscription Daniel and also about his family members and the family last name itself.

First of all we should mention another scratched inscription from Davit Gareji Udabno Monastery’s Martyrium which can also be connected to Daniel’s family. A seven lined commemorative scratched inscription, written in Mkhedruli script, is placed on the eastern part of the south interior wall. The inscription is damaged, but the name “Neki” can still be discerned. The text reads:

„უფალო [ი(ესო)Â] ქრისტე, [შ(ე)ნ(ი)თა] მ(ა)დლით[ა] | [შ(ე)ნ(ი)თა] მ(ა)დლით[ა] | [შ(ე)ნ(ი)თა] მ(ა)დლით[ა] |
(St. Jesus Christ! Have mercy with your grace and prayer on sinful Neki (?)... Whoever will pray for me, may God forgive him his own sins, Amen.)

According to the paleographic style of the inscription, it should be dated from the 13th-14th centuries. If the third line of the inscription has been read correctly and the name Neki is indeed mentioned, the author of this commemorative inscription, according to the chronology of both inscriptions, would be the father of Daniel, or his father’s (Neki’s) grandfather, as the tradition of naming a person after his grandfather, was very popular in medieval Georgia. If this consideration is correct,

1. The inscription was published only once (Garejis epigrafikuli dzeglebi. Tomi I, nakveti pirveli. Tsmida davitis lavra, udabnos monasteri XI-XVIII ss. gamosatsemad moamzades darejan kldiashvilma da zaza shkirtladzem. (Epigraphic monuments of Gareji. Vol. I, part I. St. David’s Lavra, Udabno Monastery. Eleventh-eighteenth centuries. Prepared by Darejan Kldiashvili and Zaza Skhirtladze), in Georgian, Tbilisi, 1999. pg. 274). In my opinion, the inscription should be read and understood differently, than it is in the publication, according to which, the text mentions Neki, son of Daniel ([წმიდ[ა] დავით, მიოხე ცოდვილსა დანიელ(ი)ს ძესა ნექისს{ა}]). As we shall see below in this article, the author of the inscription should be considered not as Neki, son of Daniel, but Daniel, son of Neki.

it seems that the family of Neki was somehow connected to the Davit Gareji Udabno Monastery already in thirteenth or fourteenth century.

There are two very important deeds of donation of the fifteenth century, which show us the main biographical details about the author of the Davit Gareji Udabno Monastery’s Annunciation Church inscription – Daniel, son of Neki.

On 3 February 1442, Grigol (Gregory), the bishop of Manglisi and Tbilisi, gave a deed of donation to the chorbishop¹ of Tbilisi Daniel Nekisdze and his sons – Mirian and Saba. According to the deed, bishop Grigol gave Mtatsminidiskhevi – or the Mtatsminda Ravine in Tbilisi and the vineyard in the same area – to Daniel and his sons. In response to this donation, Daniel Nekisdze and his sons were to donate approximately 300-450 liters of black wine for the liturgy to Sioni Cathedral of Tbilisi twice a year⁴.

After taking into consideration the fact that both – the commemorative inscription of Davit Gareji Udabno Monastery’s Annunciation Church and the deed of donation of Grigol the bishop of Manglisi and Tbilisi – belong to the first half of the fifteenth century, and also that the apparently identical names are mentioned in both sources – Daniel Nekis dze and Daniel Nekisdze – I, came to a conclusion that the author of the commemorative inscription of Davit Gareji Udabno Monastery’s Annunciation Church was made by the same person – Chorbishop Daniel Nekisdze, mentioned in the 1442 deed of donation. The inscription would have been made before 1442 year, at which time Daniel had already obtained the post of chorbishop, as the author did not mention his post in the inscription.

Twenty years later, on 20 March 1462, another bishop of Manglisi and Tbilisi Ioane (John), also gave a deed of donation to Nekisdzes family: to Chorbishop Daniel and his sons, Saba and Mirian. Bishop Ioane renewed the donation of the land for a vineyard near Kashoeti Church in Tbilisi. In response he did not demand anything, as those lands belonged to Daniel much earlier, and originally, bishop Ioane just renewed Daniel’s landownership⁵.

It seems that at this time Nekisdze was already a family surname. As we saw above in the 1442 deed, “Nekisdze” was used in the singular form only in relation with Daniel, as a “son of Neki” or “Neki’s son”. In the 1462 document it was already used in the plural form not only with regard to Daniel, but also in relation to his sons. According to this deed, the Nekisdze family belonged to the Tbilisi eparchy’s “Sakdrisshvilebi”, or the “Children of the local cathedral” – the privileged church aristocracy, the administrative staff – who were appointed by the local bishop. With their help the local bishop governed dealing with the landownership and other kinds of administrative issues within his eparchy, where each “Sakdrisshvili” had his own private lands and property⁶. In

³. A chorbishop is a member of the Christian clergy, ranked below a bishop. It also meant “a bishop without a parish”. Chorbishops were chosen by a catholics or a bishop. The candidate would have been well-educated priest or at least a deacon (Sakartvelos martmidadebeli eklesiis enciklopedii leksikoni (The Encyclopedic Dictionary of the Georgian Orthodox Church, prepared by E. Gabidzashvili, M. Mamatashvili, A. Ghambashidze), in Georgian, Tbilisi, 2007. pg. 919).
the case of Nekisdze family, according to these two documents of 1442 and 1462, they owned the whole ravine of Mtatsminda and land near the Kashoeti Church in Tbilisi city and its eparchy. In both cases they seem to have been vintners, as in both geographic areas they had vineyards and had an obligation to supply Tbilisi Sioni Cathedral with liturgy wine.

There are more biographical notes about Daniel in the 1462 document.

According to it, Daniel escorted King Constantine I (1407-1412) twice in the “horde”. After these events, there were some serious problems in the Tbilisi eparchy, as Daniel Nekisdze lost his land near Kashoeti and endured hard times. He visited King Constantine, reminded him of his loyalty (escorting him two times in a horde) and as a response to his loyalty asked to legally renew his landownership of the land near Kashoeti. King Constantine satisfied his request.

It is important to know what is meant by “escorting Constantine in the horde”.

The term “horde” first appear in Georgian narrative sources and diplomatic acts in the first half of fourteenth century (after 1336). In the narrative of Jamtaagmtsereli “the horde” meant the private military camp of a Mongolian Khan or warlord, where Georgian kings and noblemen went for diplomatic missions. In documentary sources the term “horde” had the same meaning, but in this case it was used as a term for the Georgian King’s private military camp. Therefore, the main question is: How should we understand this part of the document? Was Daniel Nekisdze a military person, a member of Constantine’s horde (private military camp) or a member of a diplomatic mission, in which he escorted Constantine during his visits to enemy hordes?

According to the historic sources, Prince Constantine took part in military activities against Tamerlane in 1387 (?), 1398 and 1400.

The oldest note about Constantine’s military activities belongs to 1387. At that time, the Georgian King Bagrat V, was imprisoned by Tamerlane. King Bagrat promised Tamerlane, that he would obey him as his vassal, and asked for 12,000 soldiers to get back to Tbilisi. At the same time, he secretly ordered his sons – Giorgi, Constantine and Davit – to prepare an ambush for this army of 12,000 men and to release him. The brothers defeated the invader’s army and released their father.

Is it possible to understand the note of the 1462 document regarding Daniel Nekisdze’s escorting of Constantine to the horde as a reference to his being a member of Constantine’s private army at this battle?

In the document of 1462, Daniel Nekisdze is mentioned as a live. If he was a member of Constantine’s horde in 1387, that would mean, that at that time Daniel would have been at least 18-20 years old. In that case, in 1462, Daniel was about 93-95 years old. Considering the fact that in 1462 he was not only alive, but also a full-fledged legal citizen and active chorbishop, it is far less likely that he was a member of Costantine’s horde in 1387.

1398 was an extraordinary year for Georgian military history.

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7. Unfortunately, the details of what caused the problems in the Tbilisi eparchy are not discussed. In the beginning of fifteenth century, Tbilisi was ruined several times during the invasions Tamerlane. This seems to be the main possible reason for the problems.

8. Tabatadze, K., Kartveli khalkhis brdzola utskhoel dampkrobta tsinaagmdextr IV-XV saukuneebis mijnaze (Battle of Georgian people against foreign invaders on the edge of the edge of fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1974. pg. 75-86. This note belongs to only one Armenian source (Metsopets, T., Istoria temur-lengisa da misi shtamovavelisa (History of Tamerlane and his descendants, prepared by K. Kutsia), in Georgian, Tbilisi, 1987. pg. 24-25). Some scientists believe that this event never happened (Katsitadze, D., Sakartvelo XIV-XV saukuneta mijnaze (Georgia on the edge of the fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1975. pg. 138).
One of the main political opponents of Tamerlane – Prince Taher – was holding the Alinja (Ernjaki) fortress in Nakhchevan. For many years, Tamerlane’s army besieged the fortress and tried to imprison Prince Taher without any success. King Giorgi VII considered Prince Taher to be a main ally against Tamerlane and decided to help him. So in 1398 Giorgi VII unexpectedly crossed many miles toward the Alinja fortress, defeated Tamerlane’s army, liberated Prince Taher and took him back to Georgia. King Giorgi left his men to guard Alinja fortress. According to one Armenian postscript, Prince Constantine also took part in this military operation along with his brother – King Giorgi. If this note is correct, it is possible to consider Daniel Nekisdze as a member of Constantine’s horde during the battle for the Alinja fortress in 1398, which was mentioned in the 1462 document, as one of Daniel’s meritorious acts in his relationship with Constantine.

The next battle in which Constantine took part was in 1400. Again, Prince Constantine and his brothers – King Giorgi VII and Prince Davit confronted Tamerlane’s army in Lower Kartli, but they were defeated by the enemy’s gigantic army. It is also possible to consider Daniel Nekisdze as a member of Constantine’s horde during the battle of 1400.

After 1400, Constantine’s military activities, already as king, can be seen only in 1412, when he fought against the Qara-Qoyunlu army and died on the battlefield. Thus we shall not discuss this episode in relationship to Daniel Nekisdze’s biographical notes in the 1462 deed of donation.

We should also, however, review the diplomatic activities of Constantine. As I noted above, the term “horde” can be also understood as referring to the enemy’s military camp, where Georgian kings and noblemen went to discuss diplomatic issues.

According to our sources, Prince Constantine was the head of the Georgian diplomatic missions to Tamerlane’s horde twice – in 1401 and 1403.

In the mission of 1401 in Shamkori valley, where Constantine represented his elder brother King Giorgi, he was escorted by a large number of noblemen. His diplomatic activities ended successfully, as Tamerlane agreed with the peace treaty conditions of the Georgian king.

As for the diplomatic mission of 1403, the situation went differently. After defeating the Ottomans, Tamerlane’s victorious horde came to South Georgia and stopped at Kola valley, where Prince Constantine and Atabag Ioane, the ruler of the south-west Georgian provinces (including the Kola valley) visited the horde. According to one part of the historic sources, Constantine represented his older brother, King Giorgi VII. The Georgian King’s conditions were the same as in 1401, but Tamerlane did not believe him anymore and as a result, this diplomatic mission failed. Prince

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10. Somkhur khelnatserta XIV-XV saukuneebis anderzebis (hishtakaranebis) tsnobebi sakartvelos shesakheb (Notes on Armenian manuscripts from the fourteenth and fifteenth centuries Georgia, prepared by Aleksandre Abdaladze), in Georgian, Tbilisi, 1978. pg. 130.
11. In that case, in 1462 Daniel Nekisdze would have been 80-82 years old.
12. Tabatadze, K., Kartveli khalkhis brdzola utskhoel dampkrobta tsinaagmdeg XIV-XV saukuneebis mijna (Battle of Georgian people against foreign invaders on the edge of the edge of fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1974. pg. 128.
13. Giorgi VII apologized to Tamerlane for his disobedience, sent him luxurious presents, promised to pay tribute and to send Georgian army whenever Tamerlane would need reinforcement (Tabatadze, K., Kartveli khalkhis brdzola utskhoel dampkrobta tsinaagmdeg XIV-XV saukuneebis mijna (Battle of Georgian people against foreign invaders on the edge of the edge of fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1974. pg. 155-160; Katsitadze, D., Sakartvelo XIV-XV saukuneta mijna (Georgia on the edge of the fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1975. pg. 150-151).
Constantine and other members of the diplomatic mission got back to King Giorgi bearing new threats from Tamerlane\textsuperscript{14}.

According to other sources, at this time there was a conflict between the two brothers, King Giorgi VII and Prince Constantine, because of which Constantine had moved to South Georgia, where Atabag Ioane was also in opposition to Giorgi VII. These sources assert, that Constantine and Ioane visited Tamerlane’s horde at Kola valley not as representatives of King Giorgi, but as independent diplomats. They promised Tamerlane to obey and help him against King Giorgi. They also escorted Tamerlane during the Birtvisi fortress siege\textsuperscript{15}.

In spite of the different notes of these sources, in relation to this research it does not really matter which story is more real: was Constantine on his brother’s side or not in 1403? The fact is that he visited Tamerlane’s horde for diplomatic reasons for a second time.

After reviewing the military and diplomatic episodes of Constantine’s biography, we may conclude that he notes in the 1462 document regarding Daniel Nekisdze (twice escorting King Constantine in the horde) can be understood as the military campaigns of 1398 and 1400 by the Georgian King Giorgi VII, where Constantine also took part and could have had his own army and camp (horde), with Daniel Nekisdze as a member of it, or as diplomatic missions in Tamerlane’s horde of 1401 and 1403.

As a result of this research, I consider that the author of the Udabno Monastery’s Annunciation church inscription, Daniel was a son, or son of a grandson of Neki, mentioned in the Udabno Monastery’s Martyrium inscription: Daniel Nekisdze, born around 1380. As a “Sakdrisshvili” of Tbilisi’s Sioni Cathedral, he twice escorted Prince Constantine in military campaigns against Tamerlane’s horde or visited his horde with Constantine within the diplomatic missions on the edge of the fourteenth-fifteenth centuries. During the same period he owned the vineyard land near Kashoeti church. Later, there were some problems with the Tbilisi eparchy, because of which Daniel had difficulties with his private land. Constantine remembered his loyalty, however, and renewed the deed of donation. Before 1442 Daniel became a chorbishop of Tbilisi. He was granted the Mtatsminda Ravine and had an obligation to supply Sioni Cathedral with black wine two times a year. In 1462 he was still alive and was an active chorbishop. At that time he took his father – Neki’s name as a surname – Nekisdze\textsuperscript{16}.

\textsuperscript{14} Some sources say that Constantine and other Georgian diplomats were arrested by Tamerlane and were forced to escort his horde for a while (Tabatadze, K., Kartveli Khalkhis brdzola utskhoel dampbkroba tsinaagmdeg XIV-XV saukuneebis mijnaze (Battle of Georgian people against foreign invaders on the edge of the edge of fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1974. pg. 163-165).

\textsuperscript{15} Katsitadze, D., Sakartvelo XIV-XV saukuneta mijnaze (Georgia on the edge of the fourteenth and fifteenth centuries), in Georgian, Tbilisi, 1975. pg. 121-123, 131, 153-157.

\textsuperscript{16} That is all that may be said about Daniel Nekisdze’s Biography for know. It is worth to mention, that this family would have continued living in Tbilisi as the “Sakdrisshvilebi” of Sioni Cathedral. Apart from Neki, Daniel son of Neki and the sons of Daniel – Mirian and Saba – for now, there is known one more representative of this family: Petre (Peter) Nekadze, the priest, the poet and the choir singer of Sioni Cathedral in the second half of the seventeenth century and first half of the eighteenth century (Rukhadze, T., Udzelesi kartuli dramatiuli tkhzuleba, literaturuli sakartvelo, № 23 (Old Georgian dramatic work), in Georgian, Tbilisi, 1938).
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The Kolagiri Monastery of Gareji lies on the Iori River downstream, in eastern Georgia. It is rock-cut in the eastern slope of a mountain ridge on the right bank of the river. Kolagiri overlooks the riverine forest—a very unusual landscape in the midst of the Gareji dryland. The Kolagiri Monastery contains several rock-cut caves arranged in a single tier, including a single-nave church with south and north side chapels. The walls of the church and its chapels were originally completely covered with wall paintings. Due to the collapse of the eastern side of the church and its chapels, part of the murals have vanished.

Portraits of eleven historical figures have survived in the north chapel of the Kolagiri Church: five portraits are depicted on the north wall; three on the west wall; and the remaining three, on the south wall. In Marine Bulia’s opinion, one more portrait was probably located along the collapsed east edge of the north wall. She suggests that this was a portrait of the patron saint of the church (Bulia 2013: 68). Due to the collapse of the rock, the first figure on the north wall has survived just partially. The remaining ten portraits have survived in a more or less satisfactory condition. The portraits are supplied with identifying inscriptions in Asomtavruli script, though due to the partly flaked plaster and faded paint the readability varies across the texts.

Zaza Skhirtladze was the first scholar who attempted to identify historical individuals depicted in the north chapel. In his book published in 2000, he addressed the issue fundamentally and suggested identifications of four of the eleven figures.

Some of the identifications suggested by Skhirtladze—specifically concerning three of the figures—are well substantiated and are not called into question. These are: 1. The first, almost completely lost portrait with an identifying inscription that reads: “This is Vardan Eristavt-Eristavi, son of Eristavt-Eristavi Saghirisi, brought up by the King of Kings Demetre m...,’’3 which depicts a prominent figure of the second half of the twelfth century, Vardan Kolonkelisdze, Eristavi (Duke) of Hereti4. 2. The second and third portraits, found on the south wall of the chapel, also with identifying inscriptions: “... son of Eristavt-Eristavi Vardan’’ and “Chr. Beshken, son of Eristavt-Eristavi Vardan,’’ which depict sons of the above-mentioned Vardan Kolonkelisdze – Beshken and his brother, whose name is unknown5.

Skhirtladze’s identification of the fourth historical individual—a man dressed in church attire, depicted next to the portrait of Eristavt-Eristavi Vardan—is questioned. The identifying inscription is significantly damaged. According to the reading of Skhirtladze, this is a portrait of the highest ranking official of the Royal Court of medieval Georgia – Mtsignobartukhutesi. In a fragment read by Skhirtladze, the name of Mtsignobartukhutesi is not mentioned. The identifying inscription supplies information

1. This paper resulted from a study carried out under the project “Interdisciplinary Study of Endangered Medieval Cave Monasteries of Davit-Gareji” funded by the Swiss National Science Foundation.
3. The readings of mural inscriptions from the Kolagiri Church cited in this paper belong to Z. Skhirtladze. I will suggest my readings of the same inscriptions in my pending publication.
that this person, in addition to being Mtsignobartukhutsesi, was simultaneously the Vazirtukhutsesi (Grand Vizier) of the Royal Court: “nominated him Vazirtukhutsesi and Mtsignobartukhutsesi ...”\(^6\)

Skhirtladze’s book devotes considerable space to identifying the Mtsignobartukhutsesi depicted in the chapel. He studied the issue in the context of dating the murals and linking individuals depicted in them within a particular historical time frame. Based on a comprehensive historical and source study analysis, the scholar formulated three main assumptions: a) The reality of the end of the twelfth century and beginning of the thirteenth century is reflected in historical portraits of the Kolagiri Monastery (the above-mentioned “Eristavt-Eristavi Vardan” was brought up by the “King of Kings Demetre”; the Mtsignobartukhutsesi is referred as “Vazirtukhutsesi” (Grand Vizier); the region adjacent to the lori River suffered economic and cultural upheaval; a plausible date of the identifying inscriptions, which was defined by a method of palaeographic dating). Taking into consideration the above-mentioned issues, Skhirtladze suggested that the portraits were to be dated to the same period: end of the twelfth-beginning of the thirteenth century.\(^7\) b) Names of two Mtsignobartukhutsesi are known from the period under consideration: Anton Glonistavis-dze (1178-1184, 1185-1204) and Michael Mirianis-de, Katholicos of Kartli (1184-1185). Based on his life and activities, one individual depicted in Kolagiri can be identified as Anton Glonistavis-dze, who was devoted to King Giorgi III and Queen Tamar and who commissioned large-scale construction projects (churches and monasteries). For a certain time he lived in the monasteries of Gareji\(^8\) and c) Laymen and clergy depicted in the north chapel of Kolagiri Church – Eristavi of Hereti Vardan Kolonkelisdze and his two sons, Chkondideli and Mtsignobartukhutsesi Anton Glonistavis-dze, representatives of the House of the Makhatalisdze, Eristavi of Hereti, and so on – belonged to different Feudal Houses. The portraits were grouped based on the loyalty and good service to the Royal Court and to the individuals who are depicted, and their belonging to the same political group.\(^9\)

Thus, Zaza Skhirtladze was the first scholar to propose identifications of the Mtsiknobartukhutsesi depicted in the north chapel of the Kolagiri Church, identifying him as the Grand Vizier of King Giorgi III (1157-1184) and Queen Tamar (1184-1210), Chkondideli and Mtsignobartukhutsesi Anton Glonistavis-dze.

The next scholar who touched the issue of the Mtsignobartukhutsesi’s identification was Marine Bulia. Like Zaza Skhirtladze, she studied the problem in the context of grouping historical portraits within the same space. In contrast to Skhirtladze, who studied the problem by means of historical and source study methods, Bulia analysed the issue from the viewpoint of art history. At the same time, she noted that grouping different individuals as a reflection of their devotion to the Royal Court and belonging to the same political group is unknown in a centuries-old Georgian tradition of ketrov’ depictions. Hence, it can be assumed that all historical persons depicted in the chapel, including the Mtsignobartukhutsesi, belonged to the same Feudal House of Vardan Kolonkelis-dze, Eristavi of Hereti.\(^10\)

Thus, Bulia didn’t share the viewpoint of Skhirtladze concerning the identity of the Mtsignobartukhutsesi depicted in the north chapel of the Kolagiri Church and, in contrast to him, suggested that the historical person belonged to the Feudal House of the Kolonkelis-dzes. She didn’t specify the period of the Mtsignobartukhutsesi’s activities and didn’t identify him as one of the Chkondideli-Mtsignobartukhutsesis known from history. Bulia also didn’t mention whether she had any information about this historical figure.

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7. Skhirtladze Z. 2000..............pp. 46-60
8. Skhirtladze Z. 2000..............pp. 60-70
10. Bulia, Marine. “Qolagiris mokhatulobani (tarighis dazustebisatvis)” (“Murals of Kolagiri - Baptism, Entry into Jerusalem (Precision of Date”) (in Georgian), in Georgian Antiquities, no. 16, Tbilisi, 2013, pp. 69-71
The Georgian Asomtavruli inscription of 1172 from the Ikorta Church (in the Mejuda Gorge, Shida Kartli; inscription no. 3) is crucial for identifying the Mtsignobartukhutsesi depicted in the north chapel of the Kolagiri Church. The inscription is engraved below the horizontal arm of a large, decorative cross on the east façade of the church. Judging by the placement and content of the inscription, it belongs to the group of construction inscriptions of the church, including two more inscriptions: no. 1 – a significantly damaged construction inscription of the monk (?) Basil, below the north window of the west façade, and no. 2 – a significantly damaged construction inscription with a date (1172), which mentions Vardan, Eristavi of Hereti, and his family members, including Beshken, his last-born son. Inscription no. 3 is engraved on the west façade, in line with the inscription no. 1.

Here is the text of inscription no. 3 as I have reconstructed it. My reading is based on a twentieth-century black-and-white photograph:

“May the True Cross have mercy on the souls of Eristavt-Eristavi Vardan, Arsen Chkondideli, Basil and Tl’sgga.”

Despite the fact that, starting from the second half of the nineteenth century, inscription no. 3 was read by different Georgian and foreign scholars and published many times, the identity of Arsen Chkondideli, mentioned in the inscription, remained unknown. This was for the following reason: the publishers of the inscription – Platon Ioseliani, Tedo Zhordania, Parmen Zakaraia and others, erroneously read the third word in the third line, given in a shortened form by means of a single character “ჭ”, as Chiaberi. Accordingly, they concluded that the individual mentioned between the names Vardan and Arsen was a certain Chiaberi. This mistake was finally corrected in 2003 and 2008, when Tamaz Sanikidze and Valeri Silogava suggested, in their papers published independent of each other, that the character “ჭ” was to be deciphered as “ჭ(ყონდიდელი)” (Chkondideli). 12

Apart from that, Sanikidze and Silogava proposed interesting suggestions about the individuals mentioned in inscription no. 3. In Sanikidze’s opinion, the following representatives of the Feudal Family of the Kolonkelidzes are mentioned in the inscription: 1) Eristavt-Eristavi Vardan, i.e., the Eristavi of Hereti Vardan Kolonkelisdze, a contemporary to King Giorgi III; b) Arsen, supposedly a “bedroom bookman” of Queen Tamar Arsen Samdzivari; c) Chkondideli Basil, a clergyman unknown from other written sources, who occupied the post of Chkondidel-Mtsignobartukhutsesi probably in 1180s-90s; and d) Giorgi of Tualoi, supposedly the son of a certain Tualo – Giorgi. 13 In Silogava’s opinion, the inscription mentions quite different persons: 1) Eristavt-Eristavi Vardan, Msakhurtukhutsesi Vardan Dadiani, a well-known historical figure who carried out his activities during the reign of King Giorgi III and Queen Tamar; b) Arsen Chkondideli, i.e., Chkondidel-Mtsignobartukhutsesi, a contemporary to King Giorgi III; and c-d) Basil and Tualisguga, two local officials. 14

I believe that the four figures were, rather, four brothers from the Feudal House of the Kolonkelidzes, who are mentioned in inscription no. 3 in the Ikorta Church. They are listed in descending age order, as was the rule in feudal medieval Georgia: 1. Eristavt-Eristavi Vardan, a prominent historical figure from 1120/1130-1170s – the Eristavi of Hereti Vardan Kolonkelisdze, who is mentioned in the inscription no. 2 from the Ikorta Church; 2. Arsen Chkondideli, i.e. Chkondidel-Mtsignobartukhutsesi Arsen Kolonkelisdze; 3. Basil, the monk mentioned in the inscription no. 1 from the same church – Basil Kolonkelisdze; and 4. the third youngest brother of Vardan Kolonkelisdze. We still have to

11. I have attributed numbers to the inscriptions from the Ikorta Church according to the sequence of their publication by the authors.
decipher his name which is given in a shortened form – “თლ˜სგგა”.

I should note that mentioning representatives of the Kolonkelidzes’ Feudal House in a church inscription must not be surprising. It is well substantiated that the Feudal House of the Kolonkelidzes originated from the village of Kolonketi, in the Mejuda Gorge. The Kolonkelidzes owned land estates mainly in the environs of Kolonketi, and the Ikorta Church lay on their land. Accordingly, depictions of representatives of the Feudal House of the Kolonkelidzes, identifying them as donors to the Ikorta Church are quite logical and in full conformity with historical reality.

Thus, taking into consideration the above-mentioned considerations, it was established that inscription no. 3 in the Ikorta Church mentions the Grand Vizier, Chkondidel-Mtsignobartukhutsesi Arsen Kolonkelisdze whose name was earlier unknown, and who is therefore not included in the existing chronological list of Chkondidel-Mtsignobartukhutses.

I have studied the life and activities of the Chkondidel-Mtsignobartukhutsesi Arsen Kolonkelisdze extensively. Results of this study will be published this year. Therefore, here I will not refer to this issue in detail. I will just mention that Arsen Chkondidel-Mtsignobartukhutsesi occupied the post from 1170-1172 until a bit earlier than 1184, i.e. he was active in the 1170s. In addition I will note that among two Arsens from the newly established chronological list of Chkondidel-Mtsignobartukhutses, our Arsen is the first who held this position; therefore I will refer to him as Arsen I.

After it was established that an individual mentioned next to Eristavi Vardan Kolonkelisdze in inscription no. 3 is his younger brother, then Chkondidel-Mtsignobartukhutsesi Arsen I Kolonkelisdze automatically becomes evident as the identity of the Mtsignobartukhutsesi depicted next to the portrait of Vardan Kolonkelisdze: it is clear that this individual is his younger brother.

If the above proposal is correct, then the individual depicted on the north wall of the north chapel of the Kolagiri Church is Chkondidel-Mtsignobartukhutses Arsen I Kolonkelisdze, who is mentioned only in a single surviving written source – inscription no. 3 from the Ikorta Church and dated to 1172.

Identification of the Mtsignobartukhutsesi depicted in the north chapel of the Kolagiri Church is of crucial importance for clarifying certain key issues associated with wall paintings of the Kolagiri Church.

Let me list the main conclusions derived from this study. It was established that:

1. all twelve historical figures depicted in the north chapel of the Kolagiri Church belonged to the Feudal House of the Kolonkelisdzes. Their portraits were grouped together based on their kinship.

2. next to the portraits of Eristavi Vardan and Chkondidel-Mtsignobartukhutsesi Arsen I, found on the north wall of the north chapel at the Kolagiri Church, the closest brother in age – the monk (?) Basil Kolonkelisdze – is depicted.

3. the portraits of Eristavi Vardan and Chkondidel-Mtsignobartukhutsesi Arsen I were depicted next to the portrait of their father – the Eristavi of Hereti Saghir I Kolonkelisdze, unknown from other

16. As the study showed, the Feudal House of the Kolonkelidzes was one of the branches of an ancient family of the Pkhuenelis / Pkhuenelais-dzes, the landlords (Aznaurs) of the Didi Liakhvi Gorge, Shida Kartli. Supposedly, the Feudal House originated from a certain Kolonkel Pkhuenelais-dze who is mentioned in a lapidary inscription (10th c.) executed in Georgian Nushkuri script and found in the village of Mejvriskhevi (Shoshiashvili 1980: 146).
17. The second Chkondidel-Mtsignobartukhutsesi Arsen, who at the same time was Katholikos of Kartli, is a figure from the later period – the 1240s (Surguladze 2017: 275).
written sources. To date, due to the collapse of the eastern edge of the north wall, the portrait of the latter is lost. Saghir I was the very first representative of the Kolonkelisdzes who was nominated as the Eristavi of Hereti and who acquired a family property in Hereti. For this reason, his portrait was the first in the line of historical portraits depicted on the north wall of the chapel.

4. we can assume that the north chapel of the Kolagiri Church, together with the entire church, was decorated with murals in 1177/1178-1184/1185, when Saghir II Kolonkelisdze, the elder son of Eristavi Vardan, was the Eristavi of Hereti. Saghir II was the last representative of the Feudal House of the Kolonkelisdzes who was Eristavi of Hereti. After his death, the Kolonkelisdzes lost their hereditary high post, the Feudal House diminished in importance and ceased to exist by the end of the twelfth century.

5. we can assume that the portraits of the King of all Georgia, Giorgi III, and of his co-ruler, Queen Tamar, were depicted on the north wall of the nave of the Kolagiri Church. To date, the portraits of the above-mentioned royals are almost entirely lost due to the flaked plaster.

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Qronikebi da skhva masala saqartvelos istoriisa (Chronicles and other Sources for History of Georgia) (in Georgian). Compiled, Chronologically listed, Explained and Published by Tedo Zhordania, Tiflis, 1892.

Results of architectural analysis, as a part of the interdisciplinary study of the cave monastery of Dodorka of Gareji, are presented in the paper. Complete results of the interdisciplinary study will be published in a separate volume. The work started under a project executed in 2005-2008 by the “Udabno” Science Fund, together with funding from the Swiss National Science Foundation1. Scholars in architecture, wall painting, history, epigraphy, monasticism and archaeology were involved in the studies. It is important to note that the process of documenting the site by our team ended prior to the revival of monastic life in Dodorka Monastery that guarantees the authenticity of the acquired data and the accuracy of the results. Certain peculiarities of monastic structures unknown earlier were revealed during the project, and as the study was continued, several new cave structures were revealed after new monastic activities were launched. Therefore, the publication of the book planned for 2018 was postponed.

The objective of our project was a comprehensive and detailed study of a specific cave monastery within the Gareji realm. The Dodorka Monastery was founded by St. Dodo of Gareji, and which is located on a ridge opposite the Lavra of St. Davit, was selected for the study as one of Gareji’s most important monasteries. The selection was influenced by several factors. The first criterion was the antiquity of the monastery: according to written sources, the Dodorka monastery is one of the three monasteries established in the 6th century, i.e. in the lifetime of St. Davit. The second criterion was its large size: Dodorka is one of the largest monasteries within the Gareji complex; it extends for 2.4 kilometers along the mountain ridge. The third criterion was the diversity of primary materials revealed in Dodorka. These features provided hope of uncovering ancient layers and for the fruitful work of scholars in different fields. There was an additional stimulus: the caves of the Dodorka Monastery are significantly damaged due to undergoing erosion processes, and it is therefore a critically endangered monument in urgent need of detailed and comprehensive documenting.

At the very beginning of our architectural studies we decided to focus attention only on the Dodorka Monastery. This offered the opportunity to study a large amount of initial materials and due to the novelty of the preliminary findings. Architectural parallels between the Dodorka caves and structures elsewhere in Georgia or abroad will be established in the future.

In our studies we relied on several fundamental theories developed by art historians Giorgi Chubinashvili and Dimitri Tumanishvili in their study of the cave structures in Gareji. In his multi-profile monograph based on field work in 1921 and 1924, Chubinashvili attempted to give a more or less generalized overview of the development process of the Gareji cave monasteries, suggesting the main schemes of the architecture and the chronological stages of their development2. Chubinashvili considered that the Gareji cave architecture of Gareji, in a form with which we are familiar, originated in the ninth century and was associated with the name of St. Illarion Kartveli. Thus he considered the Transfiguration Church (the burial church of St. Davit of Gareji) and the so-called “St. Illarion’s branch,” both in the Lavra of St. Davit, the starting points in cave architecture development. The Church of the Transfiguration became a prototype for main churches in all large

1. Name of the project funded by the Swiss National Science Foundation was “A Comprehensive Study of the Dodorka Monastery (6th-18th cc.) and Gansashori Skete (Founded in ca. 6th-9th cc.) Against the Background of Byzantine and Eastern Christendom Traditions
monasteries: Dodorka, Udabno, Natlismtsemele and Bertubani. The main churches, together with large refectories in these monasteries, became the main axis of their centralized structure.

Chubinashvili further suggested that the “St. Hillarion’s branch” with its small church, rock-cut in accordance with refined geometrical shapes, and comprising dwelling caves furnished according to aesthetic principles, with certain elements of comfort, was a prototype for the small complexes and caves of Gareji monasteries.

Dimitri Tumanishvili studied the architecture of the Sabereebi Monastery churches and dedicated a large article to his conclusions. He contended that the cave monuments are architecturally secondary structures created by the example of the masonry architecture. Based on this consideration and knowledge accumulated about masonry architecture, Tumanishvili set the chronological framework for rock-cut cave churches enriched with architectural elements in Gareji starting from the 9th century and ending in the 11th century.

The architectural theories developed by Giorgi Chubinashvili and Dimitri Tumanishvili were ultimately verified by the results of our long-term studies. As a result, the theory of cave complexes in Gareji proposed by Chubinashvili was honed and brought to its maximally complete form. We have arrived at the conclusion that understanding the cave complexes and architectural structures is significant for understanding the history of Dodorka and the entire Gareji monasteries, beyond what Chubinashvili theorized. Moreover, we can now state without hesitation that the cave complexes were the leading architectural structures in the history of the Dodorka monastery in the 9th-13th centuries – i.e. when the majority of the caves known to us originated. The variety of architectural material in its complete form or at a level of its separate elements is linked with the theme of cave complexes.

This paper intends to represent this dominating architectural structure through the example of an individual cave complex. To be more precise, we will present the general structure of complexes and will single out their constituent components and elements, as well as discuss their shapes and functions. What concerns the issues associated with their origination and development in time and some other aspects of interest, will be discussed in subsequent papers and in an interdisciplinary book dedicated to the Dodorka Monastery which is being prepared by our scholarly team.

Among the numerous cave complexes of the Dodorka Monastery we have selected the so-called “Grigol’s Complex” as an example. The complex is located in the eastern part of the monastery. The selection criteria for the “Grigol’s Complex” were the following: it is one of the outstanding monuments of this type at a well-formed stage of development. At the same time, it is notable for its complexity, the diversity of its architectural components and elements, and for its originality. It is also significant that the “Grigol’s Complex” has survived in a good state of preservation, almost in an undamaged state. And finally, the “Grigol’s complex” shows very special features of carving and decoration. It is one of the most refined samples among other complexes of the Dodorka Monastery.

Our studies have established that the “Grigol’s complex” as well as the majority of other complexes within the Dodorka Monastery bear two main general peculiarities. The first one is isolation of a complex. This feature was achieved in a simple way: by rock cutting a complex high up on the cliff. It is obvious that this approach was used to guarantee the security of the monks dwelling there. The complexes in Dodorka Monastery lie at different heights; those known to us lie at a height of 5-20 meters above ground level. The “Grigol’s complex” lies at a height of approximately 6 meters above

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4. The epigraphic remains indicate that a monk named Grigol lived in this complex. Names were given to the complexes by our team members based on some characteristic feature of each complex.
ground level (fig.1). Due to the accumulation of eroded sediments at the foot of the cliff, it was impossible to define the height more precisely.

Elevation of a complex above ground level necessitated the introduction of a link between the cave complex and environment. A linkage system consisting of two vertical communication shafts and a short tunnel act as an interface. The first communication shaft (actually the half-shaft) is cut into the rock facade. It starts at ground level and ends at the door opening of the complex. The shaft is rectangular, with its facade side open. The second communication shaft is rock-cut within the cliff. It starts at a height of some two meters above the starting level of the facade shaft and opens within a room of the cave complex. The overall height of the inner shaft is some four meters. It is of a rectangular outline. The opening of the shaft onto the room’s floor probably was supplied with a wooden hatch equipped with a locking system that blocked off the entrance.

The facade shaft and inner shaft are linked with each other by means of a short tunnel. It can be entered through the narrow door that is cut into the rock at a height of approximately two meters above ground level. The tunnel makes a 90-degree turn inward into the rock. Such a design, together with the narrowness of the door, was a security feature: there was not enough space to use a long ladder or weapons necessary to reach the hatch and to break through it.

The majority of the Dodorka caves are damaged. This is mainly evident in their southern facades, which have collapsed. As a result, the communication shafts have been mainly lost. Six complexes are an exception to this. The communication systems survived in the following cave complexes almost completely: “Grigol’s complex”, “a complex with shafts”, “old refectory”, and “a complex with coin”. The communication systems survived just partially in a complex opposite the “complex with reservoir” and in “a complex in the ravine”.

Aside from isolation through elevation, the second characteristic feature of “Grigol’s complex” and of other Dodorka monastery cave complexes is their self-sustainment. This was achieved by grouping differently purposed caves into one complex (fig.1).

The dwelling cave is noted for its large size (fig.2). We conditionally call it the Main Cave. The Main Cave is trapezoidal in plan. Its shorter side is oriented to the south – the cave tapers toward the facade, and is therefore oriented toward sunlight. The barrel-vaulted ceiling has maximum height
at the north wall, and the minimum at the south wall. The vault is oriented north-south. In other complexes of the Dodorka Monastery, the ceiling of the Main Cave is mainly sloped in imitation of the sloping sides of a tent.

Openings that link the Main Cave of the "Grigol’s Complex" with the outside and with side caves are found in the south part of the cave. A wide doorway pierces the center of the south wall at a point where the facade shaft ends. Holes for holding the door frame and a groove are found in the upper jamb of the door. The groove probably held a horizontal axle for a pulley. One more part of the construction was probably fixed in the holes found above the door opening, in the upper part of the south wall. Based on these elements we can suppose that the facade shaft served for the transportation of bulk items. A vaulted niche is cut into the rock on the south edge of the west wall. It extends down to the floor surface. The inner shaft opens within this niche. Two holes are found in side walls at the bottom of the niche. They probably held the frame of a wooden hatch. A single doorway pierces the south halves of the west and east walls of the Main Cave. These doorways link the Main Cave with side caves. The door openings are narrower than the one found on the south wall. Holes in the door jambs were probably used to hold the doorframe beams.
Two wide blind arches decorate the north wall of “Grigol’s Complex.” One more blind arch is found on the west wall. It is lower than the ones on the north wall. A rock-cut bench is found at the bottom of this arch. It was probably used as a bed. Several small niches are cut into the rock in the walls of the Main Cave. Probably an icon, oil-lamp and other objects were kept in the niches.

The Main Cave of “Grigol’s Complex” was a general-purpose cave used for everyday life activities of the monks. Apart from that, the cave was also used as a bedroom, as suggested by the just-mentioned sleeping bench. It should be noted that similar rock-cut benches are quite rare in the Main Caves of the other complexes within the Dodorka Monastery. One can guess that, in these complexes, the monks slept on wooden beds or on a mat spread on the floor.

In two more complexes of the Dodorka Monastery—in “a complex with shafts” and in “an old refectory” – the Main Caves have survived in an almost complete form, together with a communication system arranged in their southern parts. The Main Caves of other complexes survived just partially.

The second essential component of the “Grigol’s Complex” is a liturgical space: a naveless altar apse cut into the rock in the northern part of the east wall in the Main Cave. Despite the shallowness of the apse, it maintains all features characteristic of a chancel: the floor of the chancel is elevated by one step above the Main Cave floor; a rock-cut altar table stands against the apse wall (The altar table is gone: only its trace is visible); a step-like frieze runs around the altar apse; there are holes in the upper part of the apse that probably held a rod for hanging altar curtains.

Such a naveless altar was present in four more cave complexes of the Dodorka Monastery: the “complex with inclined altar,” the “complex with coin,” the “old refectory,” and the “complex with canopy.”

Apart from these, other cave complexes equipped with churches are found in the Dodorka Monastery. Their number totals eleven. These complexes have been labeled as “a complex with reservoir,” “a complex in the ravine,” “a complex with shafts,” “the burial church of St. Dodo,” “the church buried in earth,” “the church with strengthening arch,” “the church with Bolnian cross in its dome,” “Basil’s church,” “a complex with Crucifixion, no. 2,” “the church with Deesis,” and “a damaged complex.”

There are also at least seven cave complexes in the Dodorka Monastery that lack liturgical space. These complexes are “a complex adjacent to the complex with reservoir,” “a complex adjacent to the complex with canopy,” “a complex with a cross image,” “a complex with a shaft leading up,” “the tower’s complex 1,” “the tower’s complex 2,” and “a complex adjacent to Grigol’s complex.”

Of note is a rock-cut chair with arms found under the east blind arch of “Grigol’s complex,” cut within its west side. The chair stands opposite of the altar. One can guess that an individual seated in this chair observed the service. There are two more cave complexes in the Dodorka Monastery in which such chairs are found: in “the complex with shafts,” where two armchairs are cut in the rock side-by-side, and in “the complex with reservoir,” where two rock-cut armchairs are found. Existence of these rock-cut chairs points to the high status of those monks who occupied them.

One more constituent component of “Grigol’s complex” is a cave on its east side (fig.3). The cave is small and quadrangular in plan. A sleeping bench is rock cut along its north wall. There are several small niches in the east and west walls of the cave. It is possible that, apart from the entrance door linking the east cave with the Main Cave, the former had one more door cut into its south wall. Supposedly, the eastern cave was the bedroom of a prominent monk.

A similar cave used as a bedroom and located to the east of the Main Cave is found in one more case: in “the complex with inclined altar.” One might also suppose that the cave located on the east
side of “the church with Bolnian cross in its dome” had the same function, though it cannot be said for sure, without conducting an archaeological probe, since the cave is partially filled with earth.

The utility room was a significant component for self-sustainability of the “Grigol’s complex” (fig.4). It is a quadrangular cave, which is significantly elongated along a north-south axis (as is the case with the Main Cave). Numerous niches are cut into the walls. A fireplace in the form of a shallow recess is found in the southeastern corner of the cave.

The utility room is connected to a small storage cave off its north side for storing food supplies.

A significant installation found in “Grigol’s complex” is the water collecting and storage system with sedimentation basin and a water cistern cut in the rock floor. Most of the complexes did not have a
cistern of their own: fragments of water-collecting and -storage systems were found in only two other complexes, “the complex with coin” and “the complex with Crucifixion image, no. 2.”

“Grigol’s complex” also has an individual latrine (fig.5). This consists of a chamber and a corridor. The chamber lies close to the facade and is equipped with a hole for the evacuation of excrement. The second component of the latrine is a corridor, three meters in length, which links the utility room with latrine chamber. The holes for holding a door-frame are cut at the entrance into the corridor. The bigger part of the chamber is lost, though by example of the latrine found in the “complex with reservoir” we can convincingly state that the chamber was equipped with two holes: the upper one was used for illumination and the lower one for evacuation of excrement.

We have attempted to present issues associated with “Grigol’s complex” in a complete form. It is to be noted that neither “Grigol’s complex” nor any other cave complex within the monastery can serve as a general model for other complexes: the variables – such as geographic and geological conditions, the different stages of development, the donor’s demands and personal taste, etc. – influenced the architectural style of each cave complex.

A big number of the Dodorka Monastery complexes with diverse architectural forms underlines the scale and significance of this element for the Dodorka architecture. This statement is also true concerning the architecture of all other rock-cut monasteries of Gareji. The above consideration is corroborated by the materials available to us.

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Acknowledgments

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Dodorka Monastery (6th c), founded by St. Dodo, disciple of the Assyrian Father St. Davit Gareja, is one of the earliest and largest within the Davitgareja complex. As a result of archaeological excavations carried out in 2011-2012 under the leadership of archaeologist George Makharadze, a domed church carved into the rock was revealed in the western part of the monastery from where it extends to the north into a narrow gorge (interior: length – 6.95 m; width including the doorway – 6.20 m; height – 7 m). Previously, this cave was accessible through a small hole at the south and only the hemisphere of the dome was visible in the interior filled with collapsed rock and earth. Like other caves at Davitgareja, the church is carved into the southern slope of the rock and, in plan is similar to the croixlibre type and extends along the west-east axis; southern, western and northern arms are almost the same size and, in terms of area, they are considerably smaller than the altar apse, which has a shape of a three fourths circle. The aperture (width – 1.73 m) in the southern arm into the under-dome space. The church has a tall interior; the walls, arches, and dome are badly damaged; fragments of plaster have survived in some places. The interior used to be plastered completely but no trace of painting is in evidence. The solea is elevated by two steps (0.45 cm). There is an altar carved out of rock in the center of the apse (0.7 x 0.45 m, height – 1 m). A big-size niche (0.7 x 1.3 m) carved at the height of 0.85m from the floor level is located in the extreme eastern part of the altar. The niche must be a high seat and, apparently, considering this, the creators decided to carve it out in the center of the altar apse. Given the fact that altars in the majority of the cave-chapels of the Davitgareja Monastery complex are merged with walls, the altar erected in the center of the altar apse and presence of the high seat emphasize the special importance of this church of Dodorka. This is how the altar apses were arranged (an altar and a high seat) not only in the main church of the Dodorka monastery, but in the churches of the Transfiguration and the Dormition of Lavra, and in the main church of Natlismtsemeli Monastery. (fig.1)

1. The present article is a revised version of the work published in 2013; see: Dzveli Khelovneba Dghes, 04, Tbiilisi 2013, pp. 64-72.
2. There are three domed churches in Dodorka Monastery, see: G. Gaprindashvili, Gareji, Tbilisi, 1987, p. 16.
4. G. Chubinashvili. Peshchernie monastiri ..., pl. 51-54, 69, 70; According to Kalistrate Tsintsadze, the church of John the Theologian at the Davit Gareja Lavra (presently collapsed) used to have a high seat and an altar erected in the centre of the apse. See: Monastic Priest Kalistrate, Saint Davit Garejeli Udabno; Tbilisi, 1884, p. 11; There are five niches that are carved into the apse wall marked on the plan of this church in G. Chubinashvili’s work. See: G. Chubinashvili. Peshchernie monastiri ...,pl. 59.
Up to the height of 2.15 m (the upper boundary of the high seat) the lower part of the altar apse has an outline which is close to a rectangle with rounded corners, while at the top the apse has a round contour and terminates with a conch. An identical situation is observed in the altar apse of St. Dodo’s chapel in the same monastery, whose purpose is to enlarge the lower, ritual area.

A rectangular niche (0.48 x 0.56 m) for the placement of an icon is carved into the eastern wall of the northern arm at 1.64m from the floor.

The interior of the church is carved in imitation of a built one and, accordingly, constructional elements of stone architecture are represented. There are four-stepped pilasters at the juncture of the arms and double semi-circular under-dome arches are produced on all four arms. The arches ‘rest’ on impost carved out at different heights. The spherical dome ‘rests’ on the square with a minor drum. Shapes likened to dome building constructions are carved between the square and the dome sphere: the semi-spherical concavity in the corners must be an imitation of squinches; the almost completely preserved shape of a conch-like squinch can be observed in the south-west corner; the squinch'sends are projected in a console-like style which, to some extent, is reminiscent of the squinches of the southern and northern minor triconch chapels of Vachnadziani Kovladsminda (late 8th - early 9th cc). Similar constructions are found on the southern portico (8th - 9th cc) of the Ghvtaeba Church at the Ikalto Monastery. Sunken rectangular surfaces between the ‘squinches’ in the Dodorka Church may imitate windows; several such ‘windows’ are detached from the ‘squinches’ by projections that are triangular in section. (fig.3)

The ‘squinches’ and the décor make this church look most like the domed configuration of the cave-church N7 of the Sabereebi Monastery. That church is better preserved than the Dodorkachurch, and its interior is plastered and painted (10th c). The hemisphere of the dome of church N7 is also embellished with a large relief-carved cross. The lower parts of the conch-like ‘squinches’ are painted dark, which makes this structure more distinct. Four radial lines are drawn on the surface of each ‘squinch’. The sunken rectangular surfaces between the squinches (the imitation of windows) is also painted. These shapes particularly resemble the dome constructions of El Hadra Church (6th)

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8. In the article the cave churches of Sabereebi Monastery are numbered according to Givi Gaprindashvili’s master plan. See: D. Tumanishvili, Architecture of Sabereebi Churches, Ancient Art Today, 0.4, Tbilisi, 2013, pp. 44,45.
- 7th cc) in Tur Abdin. Similarities to this type of monument are evident in the dome décor of a mid-tenth century domed chapel of Tsarakar, an Armenian monastic complex cut into rock near Kagizman, Kars Province, Turkey. Its relationship to the monuments of Tur Abdin and Cappadocia is indisputable. Decoration of the interior of Sabereebi church N7 reminds Nicole Thierry of early medieval architectural forms in Georgia, Armenia, Cappadocia, and Northern Mesopotamia. The similarity of this church to the monuments of Tur Abdin is considered by Dimitri Tumanishvili as well. (fig.4)

In terms of architectural peculiarities and those of wall painting, Z. Skhirtladze associates Sabereebi Church N7 with the artistic circles of the eastern regions of the Byzantine world and considers it a creation of the monks ministering in one of the Georgian monasteries functioning there. It is obvious that the sculptor of the domed church of Dodorka carved the structure according to the

10. S. Karapetian. Tsarakar Monastery. Duty of Soul, Research on Armenian Architecture, N4, 2011, p. 39, 45. The squinches of Tsarakar Church, which are decorated with pairs of arches and the image of the semi-circular surface cut between them – imitation of the window – differ from Georgian versions.
model of the Sabereebi church N7: details of the dome décor of the Sabereebi church N7 are repeated in Dodorka. However, these ‘foreign’ forms are somehow softened in Dodorka, or adjusted to the local fashion. Here the drum is not as sharply squared off. These structural details of the churches built in Dodorka are as though ‘weakened’ and have turned into just decorative elements. Similarity is observed with the Sabereebi church N8 as well. Here, too, there are conch-like squinches that resemble those in church N7, but no sunken-plane rectangular window imitations are carved. Presumably, the domed church of Dodorka must be placed chronologically between the churches N7 and N8 at Sabereebi. The dating of the Sabereebi churches has been substantiated by art historian Dimitri Tumanishvili. The scholar noted that the process of carving the churches there developed from west to east. The earliest chapel of the monastery is a ninth-century hall-type church (N3) situated west of the complex. Chronologically, it is followed by churches N4, N7 and N8, the period of whose carving is limited to the second half of the 9th and the first half of the 10th century. The wide doorway (width – 1.46m) in the southern part of the altar apse of the domed church of Dodorka leads to a minor chapel which has an altar merged with the wall of the semi-circular altar apse and small shelves on both sides. The ceiling of the chapel is flat and there is a rectangular niche carved into the upper part of the western wall. A porch, collapsed by now, was attached to the church along its entire length on the south side. It could be accessed by means of a wide door from the church, as well as from the chapel standing south of the altar apse. At the same time, the doorway was the only source of light for the altar apse of the church. The altar apse of the church and the south chapel are so closely connected with the wide opening that this chapel must undoubtedly have been involved in the liturgy conducted in the church. The closest example of such a rendering is recorded in Sabereebi church N8, where a chapel with an apse is linked to an altar apse with a wide opening arranged to the south. There is an image of a historical person registered on the fragments of wall painting (10th c) still preserved on the vault. Presumably, it must have been the initiator of painting of church N8 and it is highly likely that the church in question was his


private chapel. The openings cut in the walls of the apses connect the Sabereebi churches N3 and N4 with eastern apsidal parts of the porches which, supposedly, must be chapels for commemorating dead souls. I presume that the Sabereebi church N7 and the church of St. Dodo’s tomb must have had similar kinds of chambers. A door leading to the south of the altar apse is identified in both places. The domed church of the Mravaltskarlo Monastery of Davitgareja also comprises a chapel connected to the altar apse by means of a door cut into the south wall. (fig.2)

It is probable that the northern rectangular rooms of Sabereebi churches N3 and N8, which connect to the main space of the churches through doors, are ossuaries. A crypt must also be arranged at the bottom of the northern wall of church N6, which is indicated by a bed head niche carved into the western wall of this arm, near the floor. Similar kinds of niches are recorded near the tomb of St. Dodo Garejeli, and in the martyrium of St. Shio the Novel in Lavra. The ossuary of church N6 must be the resting place of the donor depicted on the fragment of the mural preserved on the eastern wall of the same arm. Apparently, the churches of Sabereebi Monastery served a liturgical function, as well as being chapels. In my opinion, Dodorka Church, which resembles the Sabereebi churches in terms of its plan and architectural rendering, used to serve a similar function – here the chapel must be represented in the apsidal room at the south. This function of the church is also indicated by its isolated location in the monastery.

During the archaeological investigations of the interior of the domed church of Dodorka, fragments of a white sandstone chancel screen were found on the floor in the area of the apse. Some fragments of

18. Z. Skhirtladze, Painted Inscriptions of Sabereebi, p. 130,131, fig. 73.
21. G. Chubinashvili. Peshchernie monastiri ...,il. 126
23. Z. Skhirtladze. Painted Inscriptions of Sabereebi. p. 39. In general, it is the northern sections of churches that are used for burying the Assyrian Fathers at Zedazeni, Tsilkani, Samtavisi, Breti, Alaverdi, Khirsia, and Martkopi.
24. High ranking ecclesiastical and secular authorities often arranged chapels in monasteries for themselves. According to some accounts, the Shiomghvime Monastery had chapels dedicated to Kvirike, King of Kakheti, to Archbishop Ioane, and to Dzgan Abuletsidze. See: B. Lobzhanidze, The Patriarchate of Georgia and Its Land Ownership. Tbilisi, 2010, pp. 31-34.
25. Presumably, this chamber must have served as a diaconicon as well (about the location of the diaconicon see: G.Desceouedres. Die Pastophorien im Syro-Byzantinschen Osten. Wiesbaden, 1983, 70). The niche carved into the northern side of the altar apse could have served a different function. In Cappadocia diaconicon niches were arranged near the altar apses of churches, mainly in the eastern part of the north wall. See: N.Teteriatnikov. The Liturgical Planning of Byzantine Churches in Cappadocia. Rome, 1996, p. 81. Generally, examination of pastophoria showed that they were often multifunctional. See: M. Bulia, “The Tradition of Painting of the Northern Chambers of the Main Churches in the Davitgareja Monasteries,” in Levan Rcheulishvili 100: The Materials of the Scientific Conference, Tbilisi, 2009, pp. 56-69.
the column, capital, cornice and the arched part of the architrave have also survived. The architrave and the cornice are a whole stone marked off by a thick relief plait. All four facets of the cube-like capital are decorated with semicircular planes; the capital has a small round hole on the lower part, which was used to hold an iron or wooden rod to connect it to the column. Similar capitals terminate the chancel columns (1171) of Satkhe Church. The churches of Pkhotreri, Zhibiani, and Derchi have very similar kinds of capitals. The plain chancel screen discovered in the domed church of Dodorka must have been rather low (1.83m), with three arches. The surviving fragments fit the date of this chancel screen within the 12th-13th cc. It is remarkable that the churches of the Gareja complex preserved mainly the 17th-18th cc iconostases, made of gypsum (plaster); the only ancient chancel screen carved into rock has survived in the St. Nicholas Church in the Udabno Monastery. It is decorated with murals of the 12th -13th cc. Considering the situation, the discovery of the chancel screen from the high medieval period in Dodorka is an important matter, providing a certain impression about the decoration of the interior of the churches of the Davitgareja monasteries.

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It has been almost a century since the Davitgareji monasteries and their history, as well as the monastic life at Gareji, together with the literature and mural art associated with Gareji, became the subject of scholarly interest. However, the recent discovery of a small, hitherto unknown single-nave church at Dodorka, adorned with murals most likely dating from the late twelfth or the early thirteenth century, is yet another reminder of the lack of even factual knowledge regarding these monasteries.

The discovery of highly remarkable medieval Georgian wall paintings associated with the heyday of Georgian statehood and culture, important in its own right, has proven especially noteworthy for the content of the paintings. Dominating this modest chapel, the life cycle of the great martyr Demetrius of Thessaloniki the Myroblytos (myrrh-giving), one of the greatest Christian saints, finds no parallel in Georgia.

The painting programme at Dodorka is concise in order to conform to the small size of the chapel. The sanctuary niche presents a programme of paintings united within one scene, while elsewhere at Gareji the apsidal paintings commonly take up two registers. The centre features the bust figure of the Virgin Platytera - “Wider than the Heavens” - symbolizing the incarnation of Christ predicted by the prophet Isaiah (Isaiah, 7:14). Adorned with a golden halo, the Virgin holds Christ Emmanuel, also shown with a golden halo, in her bosom. The two figures flanking the Virgin can tentatively be identified as Holy Bishops. On both sides of the niche the Annunciation is depicted, as a historical illustration of Platytera. (fig.1) The vault is taken up by the

1. *This work was supported by Shota Rustaveli National Science Foundation of Georgia (SRNSFG), [grant number FR-18-3030].

Having become prevalent in Byzantine art from the eleventh century, this iconographic type first appeared in Georgia on the tenth-century relief of the Korogho church, while in mural art it did not appear until the fourteenth century. Regarding the images of the Virgin Platytera in Georgia see Úza Khuskivadze, “Doret’kari – cminda Barbare esklesiis moxatuloba” (“Murals of the Doretkari Church of St Barbara”), Sak’art’velos sijveleni, 13, 2009, pp. 104-122; Tamar Dadiani, Ekaterine Kvachatadze, & Tamar Khundadze, Šua saukuneebis k’art’uli k’andakeba (Medieval Georgian Sculpture), Tbilisi, 2017, p. 134, fig. 260-263.
Ascension of the Holy Cross, a scene traditionally represented in the domes of Georgian churches. (fig.2) The corners of the vault are marked by the bust figures of the Evangelists set in medallions, holding codices. The areas adjoining the sanctuary in the principal section of the chapel are taken up by the warrior saints. The south wall features the standing figures of St George and St Theodore, and on the opposite wall is St Demetrius of Thessaloniki, the patron of the church, also represented as a warrior. A large size and a golden halo distinguish him from the other of the warriors.²

The remaining space of the chapel is adorned with the scenes from the “Martyrdom” of St Demetrius, also known as the Passio, which trace the life of the saint until his martyrdom.³ Forming one register, the scenes of the cycle are arranged in a historical order starting from the south-west section of the wall and extending clockwise, finishing with the figure of the patron of the church at the east section of the north wall. Despite damage, the scenes can be easily identified.

Like the majority of the present cycles of the saints, the Dodorka cycle begins with the scene presenting St Demetrius before Emperor Maximian (i.e. Galerius, 293-311), the former having been captured for preaching Christianity. The saint is shown removing a belt - honorary regalia that points to his high status - and dropping it before the emperor as a gesture of his rejection of the earthly

2. Of the gold halos of the Virgin and warrior St Demetrius only the violet lining used for gold has survived.
3. The part of the Vita dealing with the miracles, i.e. “the Miracula” gives an account of the events that unfolded after the death of St Demetrius. These include numerous miracles relating to the protection and patronage of Thessaloniki, highlighting the military prowess of St Demetrius. Paul Lamerle, Les plus anciens recueils des miracles de saint Démétrius Vol. I, Le texte, Paris, 1979 and Vol. II, Commentaires, Paris, 1981.
honours. The next scene unites two episodes that are traditionally represented separately. One of them presents an angel placing a crown of martyrdom on the head of the saint and another features the so-called “scorpion miracle” in which the saint kills a scorpion, i.e. the symbol of evil, with the sign of the Cross. Being the first reference to the martyrdom of the saint and his miracle-working ability, these episodes form the conceptual and compositional accents on the central and largest section of the west wall. The next scene also combines two episodes from the *Passio*, which are also commonly represented separately. It shows young St Nestor, a disciple of St Demetrius, who decides to combat the emperor’s favourite giant vandal gladiator called Lyaeus and visits St Demetrius in prison to receive his blessing. (fig.3) The following episode depicts an unequal battle in the stadium, in which St Nestor triumphs over Lyaeus as a sign of victory of Christianity over paganism. In the blessing scene only St Demetrius is represented on the west wall. Standing with his hand raised in benediction, he faces St Nestor, who is included in a battle scene featured elsewhere, on the north wall. The cycle finishes with the scene of the martyrdom of the saint. Enraged by the death of his favourite gladiator and having learnt that Christian Nestor had received his blessing from St Demetrius, the emperor issues orders to kill St Demetrius. The executioners go to the prison and pierce St Demetrius with their spears. (fig.4)

All the scenes of the cycle present a traditional iconographic type of St Demetrius known from the mosaics adorning the walls of a basilica built over the saint’s tomb in Thessaloniki. The saint is shown with short hair, wearing the garments of a nobleman and a chlamys; he is adorned with a yellow halo. The image of the saint with a golden halo is represented only twice: one is included in the martyrdom scene and in another image that appears separately. Hence the key importance of these representations in the entire painting programme. The former is a clear reference to the saint’s being a martyr, while the other points to his power in providing military protection and guardianship.

As a defender of Thessaloniki and a patron of warriors in battles, St Demetrius is recognized as a protector of cities. It is no coincidence that the Virgin Platytéra, one of the icons of the Blachernae, still rare in Georgia at the time, was selected for the apse. Along with the great relics of the Virgin, such as a maphorion and a girdle, the icon was understood to possess a miraculous power of protection and guardianship during wars and sieges of cities. It thus appears obvious that apart from the idea of the triumph of the incarnate Christ featured in the vault and the sanctuary, the wall paintings of the small chapel at Dodorka are united by the themes of martyrdom and celestial protection.

The painted cycle of the life of St Demetrius recently discovered at Dodorka finds no parallel in Georgian arts; it can be presumed that the artists were guided by Byzantine models. The Georgian cycle reveals similarities with Byzantine works both in terms of the composition of its scenes and their iconographic redactions. However, differences are also obvious. Characterized by a specific combination of scenes, the Dodorka paintings contain iconographic elements unparalleled either in Byzantine texts dealing with the martyrdom of the saint or in related representations, which allows us to assume that the artists of these narrative cycles were guided not only by Byzantine visual models, but also by a different, most probably Georgian redaction of the martyrdom of the saint.

The earliest Georgian redaction of the Martyrdom of St Demetrius belongs to St Euthymios of Athos (eleventh century). Being a translation of an eighth century redaction - the so-called Passio Altera, one of the three redactions of the martyrdom known in Greek literary tradition, it is characterized by deletions and additions and other revisions in separate sections as was typical of the translations made by St Euthymios. The text contains several important revisions and episodes absent in the Greek originals. Some of them are included in the Dodorka paintings. For instance, the unbearable heat of the Roman thermae engulfed in flames and the unnaturally large size of the scorpion are extensively and figuratively described in St Euthymios’ redaction. Unlike the Byzantine works depicting the same episode, the prison in the scene at Dodorka is coloured in red, which must be intended to indicate the raging fire. The especially large scorpion is also shown as caught in the fire. Among the additions found in the translation by St Euthymios of particular note is the episode of


6. The earliest redaction, the so-called *Passio Prima*, in circulation from the seventh century, is a typical example of keimenon hagiography offering a laconic account of events. It survives in the Latin translation by Anastasius Bibliothecarius of 876. A similar account of the martyrdom was compiled by Photios (810-893), patriarch of Constantinople, in his *Bibliotheca*. The interim, anonymous redacton, *Passio Altera*, provides a more extensive story of the life of the saint and includes a multitude of new episodes and details. The *Passio Tertia*, i.e. the third redaction from the tenth century is ascribed to Symeon the Metaphrast and is largely based on the preceding redactions of the *Vita*. See Hippolyte Delehaye, *Les légendes grecques des saintes militaires*, Paris, Picard, pp. 103-109; Rëka Forrai, *The Interpreter of the Popes. The Translation Project of Anastasius Bibliothecarius*, PhD dissertation, Budapest, 2008.


the martyrdom of the saint, which is presented in a way that differs substantially from the Greek versions. According to the text of St Euthymios, St Demetrius is killed not by executioners, but by the nobles sent by the emperor not only with spears, but also with a dagger. He is first dismembered and then pierced by spears. 9

Numerous scenes preserved in the wall paintings and icons depicting the martyrdom of St Demetrius, dating from the Palaeologan and later periods, were fairly standardized. Based on similar iconographic models, they reveal very few differences. In the majority of cases, the enthroned saint and an angel sent from heaven placing a crown of martyrdom on the head of the saint are represented on the right, and on the left, a group of executioners is shown, armed with spears heading toward the saint behind whom his servant, St Lupus is depicted. 10 A different redaction is followed by earlier scenes of the martyrdom featured in the tenth century menologion of Basil II (Ms. Vat. gr. 1613) and also in the silver reliquary of the Vatopedi monastery dating from the second half of the twelfth century. These scenes feature St Demetrius facing one or two executioners armed with spears before him. It is this early redaction that one of the elements of the Dodorka scene, i.e. the number of soldiers, follow. Yet unlike Byzantine representations and in accordance with the text of St Euthymios, his full-length, naked figure with a shroud around his back, is shown without limbs, and two executioners facing him are armed with a spear and a dagger. Parts of the saint’s dismembered body are depicted in the lower section of the scene, in the forefront. In the same section of the composition the miracle-working chlamys of St Demetrius, a great relic, is included, which finds no parallel in medieval art. 11

The presence of unknown episodes and details in the Georgian redaction of the Passio and the Miracula confirms that in the eleventh century – i.e. at the time when the translation was being made – a redaction of the Vita unknown to us or the oral narratives that guided St Euthymios of Athos already existed. 12 Yet the inclusion of such episodes only in the Georgian painted cycles indicates that by the time of the formation of the cycles of the saint’s life in Byzantium these sources had either been neglected or were regarded as less reliable.

The cycle of St Demetrius at Dodorka is a highly remarkable example of the local interpretation of the typically Byzantine theme and of the relationship between a text and its visual models. Apart from that, it raises significant questions regarding the established chronologies related to the cycles and the geography of their dissemination.

The earliest cycle of the life of St Demetrius, which dates from the second half of the twelfth century, appears on the aforementioned silver gilt reliquary at the Vatopedi monastery, which was made to contain the saint’s blood and myrrh. 13 Judging by the few surviving works – such as the miniatures

11. Given that the martyrdom scene represented in the Dodorka paintings most likely had no iconographic model in Byzantine art, it can be presumed that the scene had prototypes of two different types, i.e. that of the traditional redaction of the Martyrdom of St Demetrius and the scenes of the martyrdom of other saints whose bodies were dismembered. One of such models could be the scene of Saint James Intercisus, which also appears among the twelfth-thirteenth century wall paintings in one of the chapels of the Chichkhituri monastery at Gareji and shows the dismembered body of the saint, as was common in the Byzantine iconographic tradition.
12. The presence of such sources from the period earlier than the seventh century is confirmed by John, Archbishop of Thessaloniki (seventh century), compiler of the earliest redaction of the saint’s miracles, who noted that among the many miracles of St Demetrius he included only those that he either witnessed himself or whose witnesses he knew personally.
of a menologion made for Demetrios Palaeologos, Despot of Thessaloniki (Oxford, Bodley Ms. Gr. th. f.1, fols. 54v-55r, 1322-1340); late thirteenth century murals of the Church of St Demetrios (Metropolis) at Mistra; paintings in Bogorodica Ljeviška at Prizren dating from 1310-1313; as well as St Demetrius’ at Peć (some of the scenes of which date from 1345, while others were made by George Mitrofanovich during 1619-1620); Markov Monastery (1376-81) and Dečani (1340s), the latter presenting the most extensive cycle of St Demetrius containing twelve scenes - it has been suggested that the representation of the life cycle of St Demetrius spread widely from the Palaelogan era, especially in Byzantium proper and in Slavic countries (Serbia, Bulgaria and Russia). The popularity of St Demetrius in these countries is attributed to the missionary activities of SS Cyril and Methodius and their disciple St Clement of Ohrid.

That the area of the spread of the narrative cycles of St Demetrius was wider than is commonly suggested and that it also included the eastern regions of Christendom is clearly evidenced by the Dodorka cycle alone. The currently accepted chronology of the cycles also appears less convincing, since there can be no doubt that the Gareji paintings were made in the pre-Palaeologan era.

Matching with the specific sections of the wall, the flat painting compositions appear calm and balanced. Unlike the Palaeologan scenes featuring multiple figures, they contain only two or three. Characterized by elegant proportions, these middle-size figures are mostly static and their movements restrained, lacking the dynamism of Palaeologan figures. A thin reddish outline marks the forms hidden behind the drapery. The surroundings are conventionally represented. The richness of architectural and landscape backgrounds common in Palaeologan scenes is absent, and instead, the surroundings are marked either by a single arch, a hill (the scorpion miracle), or a simple building (the combat between St Nestor and Lyaeus).

To sum up, with their concise iconographic redactions, compositional structures, the proportions and types of movement of the figures – all characteristic of an early period – the Dodorka murals find more similarity with the scenes featured on the late twelfth-century reliquary of the Vatopedi monastery than with the late thirteenth-century and later Byzantine mural cycles. Furthermore, they appear to reveal an affinity with the Gareji murals of the late twelfth and early thirteenth centuries.

It thus appears that the cycle of St Demetrius at Dodorka, dating from the late twelfth or early thirteenth century, is the earliest among the painted cycles of the saint, which further confirms the suggestion made by some of the scholars according to which such cycles existed even before

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16. E.g. the cycle of the St John the Forerunner in the principal church of the monastery of St John the Baptist, the wall paintings surviving in the hermitage chapels at Udbano, as well as the paintings adorning Udbano Motsameta and a ceiling in the diaconicon of the principal church at Udbano, and the scenes of the Great Feasts included in the chancel barrier paintings in the Church of St Nicholas.
the Palaeologan era and the cycle on the Vatopedi reliquary was designed according to these early models. 17

The painting of such a typically Byzantine cycle in a royal monastery in Georgia, which was a novelty and was rarely represented even in the empire, must have been prompted by a special occasion, even more so since no evidence of particular devotion to St Demetrius can be traced to the period before and after the painting of the cycle (unlike the tradition of devotion to the Virgin, St George and St Nino). Only a small number of churches in Georgia are dedicated to St Demetrius and the paintings depicting the saint, though represented with honours, are integrated into rows of warrior saints.

The attention devoted to St Demetrius can be viewed as part of the general trend of veneration of warrior saints observed in Georgian mural art of the twelfth and thirteenth centuries. 18 This, in its turn, reflected the distinctive interest in warrior saints that became prominent in Byzantium of the tenth to the twelfth centuries together with the ascension of the military aristocracy to the imperial throne and the concomitant replacement of the early Christian ideal of holy martyrs with that of military saints, 19 as well as the military victories achieved by Georgian monarchs at the time. 20

However, the fact that it is the martyrdom rather than the military achievement of the saint that is highlighted in the paintings, and the representation of the most important relic of the saint, i.e. the miracle-working chlamys incorporated in the martyrdom scene in a way that finds no parallel, 21 must indicate that this small chapel served as a “monumental reliquary” and was designed and created specifically for the relic of the saint translated to the royal monastery. 22 (fig.5)

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17. Such a cycle is presumed to have been present in the basilica of St Demetrius at Thessaloniki. It has been ascertained that one of its scenes, The Healing of the Exarch Marianus, was represented on the basilica façade. See Robin Cormack, Writing in Gold, pp. 63-64; Ανδρέας Συγγάμπουλος, „Βυζαντινόν κιβωτίδιον“, pp. 101-136.
20. Mariam Didebulidze, Qinc’vis cminda nikozlozis, p. 93.
21. That the chlamys was included in the scene of the martyrdom not merely as an illustration of the text, but as a special relic is demonstrated by the lack of others of saint’s relics, such as an orarion and an imperial ring, while these are especially referred to in all the redactions of the episode of martyrdom of the saint’s Vita. According to the Vita, after the death of St Demetrius, his blood-soaked orarion and the ring were hidden by the saint’s disciple, St Lupus and these relics worked numerous miraculous healings.
22. It is well known that the emergence and spread of saints’ relics and images, as well as the revival of their cult, is traditionally associated with the invention or translation of their relics, e.g. the translation of the holy relics of St Mark to Venice, of St Nicholas to Bari, of St James Intercessus to Jerusalem, etc. Peter Brown, The Cult of the Saints: Its Rise and Function in Latin Christianity, Chicago, 1981; Elka Bakalova, “Relics at the Roots of the Cult of Saints”, in: Eastern Christian Relics, ed. Alexei Lidov, Moscow, 2003, pp. 19-37; Patrick J. Garrow, Furta Sacra: Thefts of Relics in the Central Middle Ages, Princeton, 1948, p. 87-103; Jveli k’art’uli agiografufi literaturis jeglebi (Old Georgian Hagiographic Works), II, Tbilisi, 1967, pp. 213-263; John Rufus: The Lives of Peter the Iberian, Theodosius of Jerusalem, and the Monk Romanus, Edited and translated with an Introduction and Notes by Cornelia B. Horn and Robert R. Phenix Jr., Atlanta, 2008, pp 34-35. Historical developments relating to the holy relics are reflected in those few images of the relics that survive in Byzantine painting art, e.g. the Relics of the Passion and the Slab of Lamentation in the Church of St Panteleimon at Nerezi (1164), as well as the paintings at the Church of the Virgin Peribleptos in Ohrid (1296) and the Church of St Demetrius at Peć (fourteenth century) paintings. See A. Lidov, “A Byzantine Jerusalem. The Imperial Pharos Chapal as the Holy Sepulchre”, in Jerusalem as Narrative Space, eds. Annette Hoffmann and Gerhard Wolf, Brill, Leiden-Boston, 2012, pp. 63-105.
The chlamys of St Demetrius belongs to a small number of so-called “contact relics” the authenticity and miracle-working power of which had been confirmed even by the early redactions of the Vita and the translation of which from Thessaloniki, unlike the bodily relics, was approved by St Demetrius himself.

The texts of the Vita refer to the chlamys in relation to the story of Leontius, Praetorian Prefect of Illyricum, who was miraculously healed at the tomb on St Demetrius. Leontius translated the chlamys from Thessaloniki to the city of Sirmium and placed it together with a part of an orarium in the church dedicated to the saint, which he had built himself. Several centuries later, the chlamys was to be found in Constantinople and as the twelfth-century Latin version of the Greek description of the metropolitan relics notes, it was deposited in the Church of the Mother of God of the great

23. Such relics also included the saint’s orarion, ring, some fragrant earth from his tomb, and from a later stage – myrrh, which exuded from his tomb according to the sources from 904, the year of the Muslim invasion of Thessaloniki. See Christopher Walter, “Saint Demetrius The ‘Myroblytos’ of Thessalonika”, in Eastern Churches Review, 5, 1973, pp. 157-178.

palace. It is commonly believed that the chlamys was still in that place in the middle of the twelfth century when in 1149 Manuel I Komnenos had the myrrh-exuding cover of the saint’s tomb removed from the Thessaloniki church and translated it to the Pantocrator Monastery in Constantinople, which sheltered the Komnenian tombs, thus adding importance to the metropolitan tradition of the veneration of St Demetrius.

The history of the relic allows us to assume that it entered Georgia from Constantinople, while the rank and importance of the part of the chlamys as well as its earlier and later locations point to it having been a royal possession.

Bearing in mind that no material evidence has ever been presented on the existence of the bodily relics of St Demetrius, it is obvious that his contact relics would qualify as the first-rank relics in Constantinople. There is no doubt that the chlamys would have been treated as such. Therefore it is quite possible that the Georgian monarch - who can be identified as Queen Tamar, according to the tentative date of the wall paintings - received this relic as a gift from a Byzantine emperor. The practice of gifting saints’ relics, including highly valuable ones, to the rulers of foreign countries, was quite common in Byzantium and was regarded as part of the imperial diplomacy. But it also appears plausible that Queen Tamar or some other member of the royal family bought this relic from the emperors, or later from the Latin rulers of Constantinople, who began selling important relics - collected by the emperors over the centuries after the capture of the metropolis during the Fourth Crusade (1202-1204) – at a high price. That Queen Tamar had an avid interest in acquiring relics and was ready to pay a good price for them and even compete with Byzantine emperors is evidenced by a note left by Baha’ ad-Din, a learned imam and qadi and the author of The Life of Saladin, according to which the Georgian monarch was ready to pay 200 000 gold dinars for the part of the True Cross obtained by Saladin (Salah ad-Din) in 1187 as a result of the battle of the Horns of Hattin. The return of the relic was also demanded by Alexios II Angelos, yet both were rejected.

25. It was most probably the very chapel of the palace that was added to the church of the Virgin of the Pharos by Leo VI the Wise as a sign of gratitude for his deliverance from prison with the intercession of St Demetrius. Paul Magdalino, ”Saint Demetrios and Leo VI”, Byzantinoslavica, 51, 1990, pp.198–201.
27. The presence of the bodily parts of St Demetrius in Thessaloniki has always been questioned. They could not be traced neither in the twentieth century during the archaeological excavation of the basilica of St Demetrius at Thessaloniki (excavations were conducted by Georgios and Maria Soteriou). Only a small marble reliquary containing brownish dust, most probably the remains of the blood-soaked cloth, was found under the sanctuary where traditionally holy relics were kept. This was the reliquary that appeared to be the only piece of evidence to support the presence of the relics of St Demetrius in Thessaloniki, which further contributed to the suggestion made by several scholars that the cult of St Demetrius was not of the Thessalonikian origin. See Hippolyte Delehaye, Les légendes grecques, pp. 103-109; Michael Vickers, ”Sirmium or Thessaloniki?: A Critical Examination of the St. Demetrius Legend”, Byzantinische Zeitschrift, #67, Munich, 1974, pp.337-350; Peter Tóth, ”Sirmian Martyrs in Exile. Pannonian Case-Studies and A Re-Evaluation of the St. Demetrius Problem”, Byzantinische Zeitschrift, #103, 2010, pp. 145-170; David Woods, ”Thessalonica’s Patron: Saint Demetrius or Emeterius?”, The Harvard Theological Review, vol. 93, no. 3, 2000, pp. 221-234.
Although Queen Tamar’s historians make no reference to her attitude to the relics,31 numerous events that took place during her reign and slightly later indicate the ideological significance of holy relics in those times. It is also apparent that the attitude to the relics was shaped by state policy.

The theme of relics in Queen Tamar’s reign was widely reflected in Georgian hymnography; although the knowledge of the notion of icons not made by human hand had existed in Georgia from early times - and the first image of this kind survives from as early as the ninth century (e.g. Telovani Jvarpatiosanili) - it was in the age of Queen Tamar that Georgia first claimed to possess them;32 from the same period derive the majority of the works on which the most treasured relics of Georgia are represented.33

As is well known, apart from religious and ideological importance, the possession of holy relics in the Middle Ages had a political bearing. Sacred objects, and especially primary relics, including those of St Demetrius, underlined the legitimacy of the rule of their owners and the blessing they had received. They privileged any state, placing it in an advantageous position among other Christian

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31. This must not be surprising as long as the detailed notes on relics in Georgian sources are provided only as part of the narrative on the conversion of Kartli. These include the bringing of Christ’s robe to Georgia, St Nino’s search for the robe, as well as the stories relating to other important relics associated with the conversion of Kartli to Christianity: the Life-giving Pillar, the erection of the cross made of the ‘blooming’ tree and the sending of the relics of the Passion, such as parts of the True Cross, the Suppedaneum and the Holy Nail, by Constantine the Great to King Mirian. See K’art’lis c’xovreba (Georgian Chronicles), tek’sti dadgenilia kvela dzirit’adi khelovneba bhovneba; S. Qaukhčišvilis mier, vol. I, Tbilisi, 1955, pp. 100-101, 114, 117, 122). Later historical narratives relating to the relics contain only general information mentioning the fact of their existence and large number of them. See Marina Bulia, „Šua sakuneebis sak’art’veloši tsminda natsilebis t’aqvaneb;emis zogi t’aviseburebis šesaxeb“ („Observations on Some Peculiarities of the Veneration of Relics in the Medieval Georgia“), Sak’art’velos sijveleni, 21, 2018, pp. 139-194.


33. At the turn of the thirteenth century, acting on the orders of Queen Tamar, Ioane Rkinaeli, Bishop of Ancha, commissioned the revetment for the Icon of the Holy Face of Ancha, one of the famous chased icons not made by human hand preserved in Georgia; he also wrote The Canons of the Ancha Icon, which is the earliest source mentioning the bringing of the Holy Mandilion to Georgia from Hierapolis by St Andrew called the First. Slightly later, in the second quarter of the thirteenth century, Arsen Bulmaisimisdze wrote a cycle of hymns for the Invisible Icon, while Saba Svingelozi wrote Hymns for the Providence and the Incarnation, which is the first text to relate the bringing of the Keramion to St Anton of Martkopi. It was at this time that the earliest surviving cycle of the life of St Nino was painted in the diaconicon of the main church of Davitgareji Udabno monastery. It was followed by the painting of Tigran Honents Church at Ani, which, among other scenes, featured the elevation of the Life-giving Pillar including the Lord’s robe, the latter serving as a reference to the foundation of the Georgian church. At the turn of the thirteenth century and almost throughout the thirteenth century, the Holy Face was also often featured in Georgian wall paintings (e.g. the narthex of the principal church at Gelati, Vardzia, Timotesubani, Ozaani, Dmanisi, Kazreti, Tanghili, the church of the Ascension of the Holy Cross at Shiomghvime, Zenobani, Kobairi, Kirants, Kintsvisi Church of the Virgin etc.). See Shalva Amiranashvili, Bek’a Opizari, Tbilisi, 1956; Ketevan Mikeladze, „Kel’t’uk’rmeni khlatis gamosakholeba XII-XIII sakuneebis K’art’ul kedis mkhvatvobas“ („Images of the Holy Face in the 12th-13th century Georgian Wall Paintings“); in Literatura da kholoneba, III, 1991, pp. 210–223; Zaza Skhirtladze, “Tsminda Ninos tskhvorebis tskili mravalmt’is udabnos monastris m’t’vare eklesiis sadiakvnis mkhvatulobaša“ ("The Cycle of St Nino’s Life in the Paintings of the Diaconicon of the Principal Church at Udabno"), in Saistorio krebuli, tseitsdeuli, 1, 2011, pp. 344-38 etc.
Having a centuries-old continuous tradition of dynastic monarchy, Georgia would have no need to prove the legitimacy of the Bagrationi dynasty or seek the strengthening of the power of its royal house. But that the Georgian crown would aspire to become a regional player and had an ambition of being a strong Christian state equal to Constantinople under Queen Tamar is without doubt and is supported by historic evidence. With the appearance of the Western Christians in the Holy Land during the Crusades, the centuries-old order and hierarchy of the powers changed in the Christian East to become finally destroyed with the siege and sack of Constantinople in the Fourth Crusade. In the new political context, Georgia tried to establish its place not only through the active engagement or in some cases, taking the lead in military or political processes, but also by showing off its local relics and saints as well as those commonly venerated across the Christendom.

Judging by the aforementioned evidence, it can be suggested that the translation of the relics of St Demetrius to Georgia and the creation of a reliquary chapel adorned with the scenes from the saint’s life were part of the ideological and political agenda. By possessing these relics Georgia would gain the favour and patronage of the saint who remained a symbol of the military glory of the empire over the centuries and was therefore much desired in the Orthodox world and beyond.

The mural paintings adorning the chapel of St Demetrius at Dodorka are a remarkable example of blending the Georgian artistic tradition with the leading Byzantine trends of the time, which is yet another confirmation of the fact that in the course of the twelfth and thirteenth centuries Georgia not merely borrowed, but creatively reinterpreted, the new artistic tendencies prevalent in Byzantium.


35. On the initiative of Queen Tamar and with the participation of the Georgian troops the Empire of Trebizond, subject to the Georgia, was established in 1204. Ivane Javakhishvili, “K’art’veli eris istoria” (“History of the Georgian People”) in T’khulebani t’ormet tomad, vol. II, Tbilisi, 1983, p. 273, 379-381; Sok’art’velos istoria (The History of Georgia), ed. Roin Metreveli, vol. II, Tbilisi, 2012, pp. 433-434. However, it has also been suggested that Tamar’s ultimate goal was to restore the Komnenoi to the imperial throne rather than create a buffer state. See Soso Margishvili, Mit’ebi da realoba Davit’ Agmašenebelis mep’obis šesakheb (Myths and Reality Regarding the Reign of David Aghmashenebeli), Tbilisi, 2006, pp. 110-112.

36. It is important to note that it was at the end of the twelfth century that the possession of the relics and patronage of St Demetrius became especially prestigious. The translation of the saint’s relics, as well as the sacred space of the Thessalonian basilica and the subsequent legitimization and strengthening of the power by the authorities in Bulgaria and Russia started at that time. The leaders of the Bulgarian revolt, Peter and Asen, built a church dedicated to St Demetrius in 1185 in the new capital of Tarnovo, placing there, most probably, the icon of the saint and his myrrh-giving relics. Likewise, in 1197, Vsevolod the Big Nest (Всеволод Большое гнездо), Dimitri in Baptism, the ruler of Vladimir, built a church dedicated to St Demetrius in his capital, as a place for his relics: the grave slab and parts of the tunic. See Polnoe sobranie russkikh letoipisej (The Complete Collection of Russian Chronicles), Moscow, 1997, vol. I, pp. 414, 436-437; Monika White, “The ‘Grave Covering”, pp. 9-28; Idem, “Relics and the Princely Clan in Rus”, in Byzantium and the Viking World, eds. Fedir Androshchuk, Jonathan Shepard and Monica White, Acta Universitatis Upsaliensis, 2016, pp. 391-408; Anastasia Dobychina, “Tyrnovo kak ’novaâ Fesalonikâ”, pp.24-40.

Bibliography:


The Tetri Udabno Monastery of Gareji lies at a distance of some four kilometers northwest of the Natlismentsemeli Monastery. It is a small complex with two rock-cut churches. One of these churches contained an interesting apse painting, which was removed in December 1998 and transferred first to the Restoration Laboratory and later on to repository of the National Museum of Georgia where it remains to this day. This paper concerns the theological content of the wall painting from Tetri Udabno. Its iconography and dating are not my scope. My observations are based on *in situ* documentation and study of the mural in autumn 1997, before it was removed from the wall, as well as on study of it in the repository where it is kept as several large fragments applied to a new support.

The mural painting was initially found in the altar apse. It is divided into two registers: a cross in a rainbow-coloured mandorla, in the conch (fig.1), and The Presentation of Christ in the Temple, beneath the cross. The cross is depicted on a star-spangled blue background (in the upper part of the image). It is ornate and does not have the body of Jesus on it. The cross has a tablet attached to its top upright arm with the following text in old Georgian Asomtavruli script: “Jesus of Nazareth king of the Jews”. Four rays of light radiate from the center of the cross. The cross is adorned with several jewels (the largest one is placed in the center of the cross). It is surrounded by a luminous rainbow mandorla with pointed ends. The image of the cross is contained within the borders of the mandorla. The date palms stand to either side of the cross.

The lower register is only preserved in part: on the right side is the standing figure of the Mother of God with an identifying inscription: “St. Mary”. On the left side, the plaster has fallen and the figures of the Christ Child and St. Simeon have perished, though the identifying inscriptions “Jesus” and “St. Simeon” have survived on the right part of the mural. Thanks to them the scene is recognizable: the Presentation of Christ in the Temple.

1. This paper resulted from a study carried out under the project “Interdisciplinary Study of Endangered Medieval Cave Monasteries of Davit-Gareji” funded by the Swiss National Science Foundation.
2. Based on iconography of the “Presentation of Christ in the Temple” depicted in the lower register of the altar apse of the Tetri Udabno Monastery church, and taking into consideration Davit Chikhladze’s argument based on his observation on the rock-cut church architecture, according to which “there’s no way that the church was rock cut prior to the mid-9th century”, Marine Bulia dated the apse murals (in both registers) to the mid-9th c. - first half of the 10th c. (Bulia, Marine. “Tetri udabnos mokhatuloba da adreuli kartuli mkhavropis zogi sakitxi (Tetri Udabno Murals and Some Aspects of the Early Medieval Georgian Mural Painting),” in *Sakartvelos Sizveleni (Georgian Antiquities)*, no. 15, 2012, pp. 58-59).
Examples of cross depictions lacking the body of Christ are found throughout Syria, Mesopotamia and Palestine. As is well known, the iconoclasts used to replace Christ and Christ Child, as well as the Mother of God with a cross. But this was not the case in Tetri Udabno: the use of an empty cross in the mural has deep theological roots and it has nothing to do with either iconoclastic or monophysite concepts.

Certain viewpoints concerning the meaning of this mural have been suggested before. Zaza Skhirtladze identified the cross as the Cross of Calvary and noted the triumphal aspect of the mural. Marine Bulia holds that, apart from the triumphal aspect, the mural is connected to the idea of Christ’s death on the cross and the human salvation that was achieved by the sacrificial shedding of his blood. These viewpoints have the right to exist. I consider that the image under consideration doesn’t have a single meaning. There is nothing strange in this observation. Many scholars have recognized that in late antique art, images may not have been intended to mean just one thing, but may have been intended to evoke multiple meanings and associations. Josef Engemann contends that early Christian images encode a plurality of meanings. It seems that such an attitude was maintained in the Middle Byzantine period as well. Our mural is a good example of this principle.

In my opinion, when considering the meaning of the cross depicted in the mural of Tetri Udabno church, the main accent must be shifted from the triumphal and sacrificial aspects in another direction. It is essential that examples of depicting the victorious cross with the tablet bearing the inscription “Jesus of Nazareth king of the Jews” in the realm of paradise are unknown to me in Georgian, Byzantine, Syrian or Coptic art. Paradise usually presents crosses of victory and glory. The latter traditionally bear inscriptions restricted to “Ἰησοῦς Χριστός νίκα,” “σωτηρία,” or “メディα.” Some small variations are also allowed, such as “Salvator Mundi” in Latin, written in combination with the Greek letters, alpha and omega in a mosaic from the basilica of St. Apollinare in Classe.

I hold that the first and dominant meaning of our radiant cross is to convey the idea of “the sign of the Son of Man, coming on the clouds of heaven with power and great glory” (Math. 24:30); i.e. it is the cross of the Second Coming as was interpreted by the Church Fathers, and it stands for Christ’s triumphant return: “The sign of the Son of Man in Heaven; that is, the cross being brighter than the sun, since this last will be darkened, and hide himself, and that will appear when it would not appear, unless it were far brighter than the beams of the sun” (John Chrysostom, Homily LXXVI). The sign of the cross is associated with Christ’s Second Coming in an anonymous apocryphal work “Apocalypse of Elijah”: “When the Christ comes ... He will walk upon the heaven’s vaults with the sign of the cross leading Him” (III.2). The same is predicted in the Apocalypse of Peter: “I will come upon the clouds of heaven with a great host in my majesty; with my cross going before my face will I come in my majesty, shining sevenfold more than the sun will I come in my majesty with all my saints, mine angels”. Cyril of Jerusalem speaks of a luminous cross preceding the Second Coming of Christ (Catechesis 15.22).

If we review the scientific literature, we find that a number of scholars considered the depiction of the cross in an altar apse as a sign of the Second Coming — the more so if the cross is luminous.

4. Bulia, Marine, idem, pp. 52-53.
But is my opinion regarding the symbolic depiction of Christ as final judge during His Second Coming contradicted by the fact that the cross from Tetri Udabno church bears a tablet with the inscription “Jesus of Nazareth king of the Jews”? No it doesn’t, because according to Ephrem the Syrian, the sign of the Cross preceding Christ at the Second Coming is the Golgotha Cross. Ephrem the Syrian was a monk outstanding in his study and knowledge of the Scriptures. He was much appreciated in Georgia. The first Georgian translations of Ephrem the Syrian’s works date probably to the 7th-8th centuries, though the most ancient manuscript containing his works in Georgian translation (Sin. 97) that has come down to us dates to the 9th-10th centuries.

As already noted, the Cross of Tetri Udabno is depicted against a starry sky. Depictions of a similar type are found in the Baptistry of the Naples Cathedral (the 5th-century mosaics; the cross is depicted in the dome); the Mausoleum of Galla Placidia in Ravenna (mosaics of 386-452; the cross is depicted in the dome); Sant’ Apollinare in Classe (the 6th-century mosaics; the cross is depicted in the altar apse); and so on. Art historians have noted the apocalyptic meaning of all these above-mentioned crosses.9 There exists an opinion that the cross in the Mausoleum of Galla Placidia contains the connotation of Glory simultaneously with an apocalyptic meaning.10

The stars in the background of the Tetri Udabno cross are static, whereas the Evangelists speak about the stars falling during the Second Coming: “The sun will be darkened, and the Moon will not give its light; the stars will fall from the sky” (Math. 24:29; Mrk. 13: 24-25). Static stars can be seen in all the above-mentioned mosaics with their apocalyptic connotations. In the case of Sant’Apollinare in Classe, two reasons have been suggested for the depiction of static stars: a) these stars are a visual suggestion of heaven; or b) the mosaicist had not found a way to represent falling stars.11 The latter might have been the case in Tetri Udabno as well. However, I’m more inclined to think that the painter decided to apply a method of symbolic realism to make the painting more convincing: thanks to static stars, the sky becomes recognisable, therefore the viewer understands that the cross is floating in the sky. Garejian painters were skilled in using the method of symbolic realism. One might note, as an example, the mural “The Martyrdom of St. James Intercisus” depicted in the Chichkhituri rock-cut Monastery of Gareji, in which the cut hands and feet of the saint are depicted with fingers12, whereas we know that the executioner first had cut off St. James’ fingers: “And the butcher cut off the thumb of his right hand... And then the butcher cut off the forefinger...”. Despite this, the painter decided to depict the hands and feet of the saint with fingers to make them recognisable. One more explanation for static stars might also be suggested: according to the Christian Church, stars were sometimes associated not with celestial bodies but with angels; e.g., the Star of Bethleem which led the Magi to the site of Jesus’ birth, was actually an angel. This symbolism was also used in the iconography of the middle ages. Therefore, I would suggest that the stars depicted in the mural from the Tetri Udabno church are attendant angels of Christ (Rev. 19:14).

One more detail in the mural with symbolic meaning, which supports my interpretive perspective, is the multi-hued mandorla. The light and Christ are indivisible. Christ has the light in Himself. From Him emanates divine light: “When Jesus spoke again to the people, he said: I am the light of the

12. Mirianashvili, Lado. “Garejis adreuli monastitsizmi da chichkhituri zosime-pimesis kerdzo samlocvelos mokhatulobis programa, rogorc beruli tskhovrebis anarekli (Early Monasticism in Gareji and the Programme of Murals from Zosime-Pimen’s Oratory at Chichkhituri Skete as Manifestation of the Essence of Monastic Life),” in: Analecta Iberica, v1, 2001, p. 237, Fig. 15, Tab. II.
world. Whoever follows me will never walk in darkness, but will have the light of life” (John 8:12). To convey the radiance of Christ, painters in the middle ages typically enclosed him in a mandorla. In the Byzantine tradition, the number of the mandorla hues varied from three to seven. In the case of Tetri Udabno, the mandorla appears with seven colours. A number of dome crosses in the interiors of Georgian churches are also encircled in multi-hued mandorlas. The rainbow mandorla is considered a paradigm of heavenly light. John the Evangelist speaks about the light emanating from the Lord: “And there before me was a throne in heaven with someone sitting on it. And the one who sat there had the appearance of jasper and carnelian. A rainbow resembling an emerald, encircled the throne... From the throne came flashes of lightning, rumblings and peals of thunder” (Rev. 4:2-5). Ezekiel also compares the divine light to the rainbow: “As the appearance of the bow that is in the cloud in the day of rain, so was the appearance of the brightness round about. This was the appearance of the likeness of the glory of the Lord” (Ezekiel 1:28). According to Arethas of Caesarea, who was considered one of the most scholarly theologians of the Greek Orthodox Church, apocalyptic light looks like a rainbow arched over the clouds.

A multi-hued mandorla is common in Noah scenes, and is also associated with the Transfiguration. A cross surrounded by a mandorla, its upper part studded with stars, evokes the Transfiguration; moreover, many Transfiguration icons and illuminations include representations of palm trees as at Tetri Udabno – for example, the Paris Gregory Transfiguration illumination, an illumination from the monastery of Iviron, an icon/miniature from Sinai, to name a few. For its part, the Transfiguration is closely linked with the eschatological theme. In this connection, I will give an example of the composition depicted in the apse mosaic in the basilica of St. Apollinare in Classe in Ravenna. Because of the presence of Elijah and Moses in the scene, it is identified as the Transfiguration. However, as Erich Dinkler holds, the theme of the Parousia, which was widely spread in mosaics and paintings of the same period, dominates the composition. Andrea Andreopoulos also considers that “the overall depiction is an eschatological scene – quite appropriate and usual for an apse mosaic – dedicated to the post-apocalyptic glory of Christ... The eschatological light of Christ links the Transfiguration, the luminous cross of the last days, and the glory of paradise”.

It is of note that two colours in the Tetri Udabno mandorla – red and green – are excessively saturated. I think that this is not accidental. Symbolically, these colours are linked with the Parousia and the Flood as symbols of destruction of “both the earth and the works that are in it” with fire and water. Taking this into consideration, I assume that the cross within a rainbow-coloured mandorla depicted in Tetri Udabno symbolizes the Transfiguration and simultaneously Christ as final judge. The date palms that stand on either side of the Tetri Udabno cross represent victory and paradise. Their presence alludes to the Kingdom of Heaven, the New Jerusalem, which will be established through the resurrection of the dead after Parousia, its doors wide open to the righteous believers.

As I have already mentioned, the cross is depicted as the crux gemmata adorned with several jewels. The gemmed cross can allude simultaneously to the Crucifixion of Christ, the Second Coming, and Christ’s rule in heaven. It may also allude to a jewelled cross erected on Golgotha around 440 by Theodosius II.

The image of the Presentation of Christ in the Temple is depicted beneath the cross in the mandorla. It is closely linked with the latter. Based on the words uttered by Prophet Simeon the God-receiver

14. Andreopoulos, idem, p.120.
15. Dinkler, idem, pp.50-87.
upon seeing the Christ child (Luke 2:35), Church Fathers considered the Presentation in the Temple to be the prefiguration of Christ’s sacrifice. Marine Bulia shares this point of view and links these two compositions with Simeon’s prophecy about the Crucifixion of Christ.\(^{18}\) Searching for a clue to the linkage between the two scenes, Marine Kenia suggested that the theme of Christ’s incarnation is stressed in the Tetri Udabno mural. If the accent in the Tetri Udabno scenes is put on the incarnation, the simplest way to convey the dual nature of Jesus Christ would have been to provide a depiction of the Mother of God with the corresponding identifying inscription, that is not the case in Tetri Udabno: the inscription mentions simply St. Mary. In distinction from these scholars, I consider that a link between the scenes is the recognition of Christ by the prophet Simeon as messiah, who will shed the light of revelation upon the people (Luke 2:30-32). The distribution of these two scenes in two registers doesn’t mean that they are independent of each other. On the contrary, the luminous cross and the Presentation are used for conveying a general idea. Introducing the separation line between the two scenes was needed to delineate the border between the heavenly and earthly realms: the heavenly realm with the luminous Cross and the earthly realm with St. Mary, the Child and Simeon.

Juxtaposing these two compositions also illustrates the organic linkage between the First Advent and the Second Coming of Christ. The First Advent was the period between the incarnation of Jesus Christ and His Ascension. An Old Testament prophecy (Isaiah 7:14; 42:1-4; Daniel 9:24-27) had been fulfilled with the First Advent of Christ (Math. 2:5). The Second Coming is associated with general judgment: the voice of the trumpet will awaken the dead to the resurrection, and those who have accomplished good will enter the New Jerusalem, where believers in Christ will spend their eternal lives (John 5:28-29; 1 Corinthians 15:52; 1 Thessalonians 4:15).

In the tenth-century decorations of Cappadocian churches (in Göreme, Gullu Dere and Peristrema Valley), the representation of the Presentation of Christ in the Temple is often depicted above the prothesis niche.\(^{19}\) This positioning underscores the idea that the scene is associated with the theme of sacrifice. Likewise, The Presentation of Christ in the Temple in Tetri Udabno is depicted above the altar table. In its turn, the luminous cross is depicted above the Presentation. Based on the content and placement of the scenes, one can guess at the following connotation of the murals: when on Earth, Jesus Christ died as a sacrifice for the sins of humanity, after which he Ascended to Heaven. Now the sign for His second coming is awaited and expected from heaven. Christians are preparing for His judgment. The main purpose of the ceaseless prayer and psalmody of monks in monasteries is to address to the Lord the hope for the salvation and the care of the souls of all Christians, so that they may deserve to enter into the kingdom of heaven.

In conclusion, I will summarize my considerations. The composition depicted in the rock-cut church of the Tetri Udabno Monastery of Gareji contains both eschatological and Theophanic dimensions. The wall painting evokes multiple meanings. These include: 1. “The sign of the Son of Man” in the form of an empty cross as the herald of the Second Coming (the principal theme); 2. Christ as the final judge; 3. The Transfiguration; 4. The Ascension; 5. The Golgotha Cross, which reminds us of the Last Judgment; 6. The Eternal glory of Christ; 7. The New Jerusalem; 8. A jewelled cross erected on Golgotha around 440 by Theodosius II.\(^{20}\) As one can see, the apocalyptic meaning dominates in the wall painting.

A few words concerning the originality of the mural from Tetri Udabno. In search of iconographic parallels, I stumbled over the depiction of a luminous cross in a mandorla on a wooden reliquary box from the Sancta Sanctorum, which is dated to the sixth century. The reliquary is widely known

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18. Bulia, idem, p. 52.
20. The restricted length of the text did not allow me to consider a couple of the above meanings in detail.
for the scenes from the life of Christ, depicted on the inner side of its top. A luminous cross in a
mandorla is depicted on the external side of the top. It is possible that a similar memory-object
brought from the Holy Land with a depiction of the cross in a mandorla inspired the Garejian painter
to create the representation found in Tetri Udabno, which was undoubtedly inspired by early images.

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Ann Wharton Epstein, Tokali Kilise: Tenth Century Metropolitan Art in Byzantine Cappadocia,
The monastic complex of Davit Gareji is a monument that is part of the world cultural heritage. It is remarkable in many ways, and important in terms of Christian art. Its unique architecture, altar screens, wall paintings, decorated manuscripts, and embroidered ecclesiastic cloths have for centuries been considered a precious part of both the Georgian and common Christian art treasury.

Paintings hold a special place among the Gareji arts. Dating back to the 9th-18th centuries, they are quite diverse typologically, thematically and artistically. They decorate the walls of the cave churches and their altar screens, as well as the refectories, the chapels, the martyrons, and the tower. Some of these are painted in full, in others the holy images, resembling icons, are presented only in certain parts of the interior of the church or refectory (eg, conches, niches, the walls adjacent to sanctuary), in order to emphasize their symbolic and liturgical importance.

The school of Gareji painting held most important position in Medieval Georgia. It was distinguished for its early hagiographic cycles of the saints (Davit of Gareji, St.Nino, St. Demetrios of Thessaloniki), its extraordinary iconographic themes, its portraits of historical figures including portraits of kings and at the same time its many inscriptions of religious and historical contents offer diverse and interesting paleographic elements, as well.

It is evident that the examples of monumental painting at Gareji show local peculiarities but are closely aligned with the main line of development of Georgian and common Orthodox pictorial art. They are distinguished for deep spirituality on the one hand and for the grandeur and festive character of royal paintings on the other hand.

It stands to reason that many painted icons should have been created in the cloisters of Gareji across the centuries, but unfortunately no samples of icon-painting of this school pertaining to the early and developed Middle Ages have survived. Based on the icons painted on the altar screens and walls of local churches we can imagine how the icons of Gareji looked as they are close to the icon-painting monuments in the manner of execution. As a matter of fact, the number of such ‘icons’ is small and they are poorly preserved, but they still allow us to draw certain conclusions.

We refer to the Deisis and the Great Feasts scenes - the Raising of Lazarus, the Crucifixion and Palm Sunday (12th-13th c) on the altar screen of the St. Nikolas Church in Udabno; the Nativity and the Entry of the Virgin into the Temple from the Lavra Church (17th c) and also the surviving half-figures of the saints on the stone iconostasis of Dodos Rka (17th c) at the Lavra Church of St. John the Theologian, which have the frames like those of the icons, though the frames are engraved in stone or molded in plaster. As it turns out the painted images of the Gareji altar screens used to be done in the same style and manner as those painted on wooden boards or canvas.

To illustrate this, we recollect the fragment of the Nativity scene painted on the altar screen of the Lavra Church and the 17th-century Ascension of Christ icon from the Shiomghvime Monastery, which belongs to the Great Feasts cycle to be placed in one row on the architrave of the altar screen. In both cases the type of faces of the saints — with their slightly elongated facial contours,
high cheek-bones, straight short noses, full lips, narrow eyes, puffed eyelids, thoroughly painted hairs – are identical. Moreover, the density of the painting layers, the thick contours of the drawing, the masklike whiteness of the faces, linear modeling of the clothing, cheerful color scheme, intense white reflections inserted in local colors, configuration of mountains, specific forms of their platforms, and the system of finishing them with “light-and-shade” – are similar. The fresco icon of the Lavra’s altar screen and the painted icon of Shiomghvime are so similar with regard to these features that they definitely belong to one and the same artistic trend and must have been made at the same time. Arguably they were created by the same artist.

Furthermore, the wooden icons of the Shiomghvime altar screen (1678) belong to the Georgian painting trend that shows the impact of Syrian-Antiochian and Palestinian so-called Melchite art of the time. Interestingly enough we have several monuments exhibiting this trend in the treasury of Georgian ecclesiastic painting from the post-Byzantine period. To illustrate this, we can cite examples from both the 17th-18th c. murals (in: Ananuri, Khoni, Tsinarekhi, Saskhori, Samtavro churches, and on the Living Pillar in Svetitskhoveli) and painted icons preserved in the Georgian National Museum: St. Efstathios Plakida, St. Christopher Dog Head, St. Peter, St. Archangel Gabriel of Labechina, and also the icon of spiritual father of Davit Garejeli St. Simeon Stylites in the Patriarchate of Georgia. It is noteworthy that features in a similar style can be detected in some of the miniatures in Georgian manuscripts dating to the 17th-18th centuries (e.g. Gulans of Anchiskhati and Kanchaeti, Acathistos of Amilakhvari, et al).

The distribution of this style in Georgia at that time is associated with the intensification of relations with the Antioch Orthodox Church, with which the Georgian Church had been associated as early as the fourth century. It is noteworthy that the Antiochian Patriarch in 1647-1672, Macarius III visited Georgia twice with his son, the deacon Paul, who was an icon painter, remained in Georgia and died in Tbilisi. The consequence of this is the appearance of Arabic inscriptions on some icons and frescoes from the 17th-18th century in both eastern and western Georgia.

As to the icons depicting Davit of Gareji himself, it has to be pointed out that there are several icons with the images of this saint preserved among the holdings of the painted icons at the Shalva Amiranashvili Fine Arts Museum (the Georgian National Museum). Some of these were brought to Tbilisi in the 1920s, while some of them turned up in Tbilisi earlier, by way of public figures and members of the clergy, and were stored at different public and ecclesiastic depositories prior to ending up in the museum. These icons are the primary topic of this article, but before reviewing them we would recall the monuments of medieval art of Georgia that preserved images of St. Davit of Gareji. These include the life-cycles from the tenth and eleventh centuries that survived in the diaconicon of the main church of Udabno Monastery and on the north wall of the church as well. There we can see the key episodes from the biographies of Georgian saints It is noteworthy that one of the earliest depictions among the images of national saints are those of St. Davit. Gareji cycle of St. Davit tells about his miracles, and the daily life and sacrifice of the monks, as well as about the foundation of several more monasteries by way of his followers.

St. Davit’s cycle as survived in the Gareji complex together with scenes from the Life of St. Nino, which had been depicted on the upper layer of painting, during the renovation of the mural of

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5. Burtchuladze, Georgian Icons... pp. 218-219;
6. Amiranashvili, Sh., Gruzinskaia miniature (Georgian Miniatures), in Russian, Moscow, 1978, pp.37-39, ill. 80-88
Davit Gareji – Multidisciplinary Study and Development Strategy

8. Remarkably, the cycle of St. Davit is one of the earliest examples of visual hagiographic cycles of both the Georgian and Byzantine painting and coincide with the time (10th-11th c.), when hagiographic narratives appeared widely in Georgian historical sources and spiritual literature.

It is evident that the process of unification of the country and the formation of a national consciousness laid the groundwork for this phenomenon, which required the creation of images of national saints and their contributions to the nation. Further, we might recall that the leader of the process of the country’s unification, David III the Great Kuropalates (930-1001), the ruler of Tao Klarjeti, included a relief icon of St. Nino in the sculptural décor of Oshki temple, which is similar to Theotokos Oranta in terms of iconography. The reason for this is the fact that St. Nino, the Cappadocian Virgin Equal of the Apostles was perceived as a mother of Georgia on par with the Virgin Mary. These two Virgins had been bestowed the conversion of Georgia and the protection of the country. Therefore, visual statements of the commencement of the process of Georgia’s unification was taking place in the monastic centers of both Gareji and Tao-Klarjeti in parallel modes. Accordingly, the Church of Georgia used image of St. Davit alongside the images of St. Nino.

Interestingly, the appearance of hagiographic cycle in Gareji coincides with the compilation of the collection of the Lives of saints by the Byzantine hagiographer Symeon Metaphrastes. From that time forward the rendering of the life-cycles of the saints was spreading widely in Byzantium and in the arts of all the countries within its range of influence. This also caused the appearance of calendar icons back then, the earliest sample of which was produced by the Georgian monk, Ioane Tokhabi, who served at St. Catherine’s monastery on the Mount Sinai in the 11th-12th c. The creation of hagiographic cycles of St. Nino and St. Davit (as well as of St. George) at the end of the tenth and the beginning of the eleventh centuries was part of this process.

It should be noted that some scenes from the life of Davit Garejeli have survived in other churches and monasteries of the Gareji uplands, including the Motsameta Church, Bertoubani Church and Refectory, and the Lavra Church of John the Theologian. These include a depiction at Motsameta (12th c.) of the conversion of Boubakar Eristavi, a nobleman from Rustavi, to Christianity, as a result of a miracle performed by St. Davit; while in Bertubani (12th-13th c.) and Lavra (17th c.) there are images of the milking of deer by St. Lucian, a disciple of St. Davit, and also the burning of a dragon by an angel, which is especially popular among the episodes within the Saint’s cycle. Both of these scenes combined into one composition in the painting of the Lavra church, dated 17th century. An original version of this storyline is depicted in an 18th-century Georgian manuscripts (S-3269), where St. Davit, St. Lucian, deer and a dragon eating a young deer are all depicted against the background of the Gareji highlands.

St. Davit appears in the Udabno main church (11th c.) and the Church of the Annunciation (13th c.) as a patron of the representatives of the laity and clergy, who stand before him in poses characteristic of donors.

9. She is so named in the 14th c. mural of the altar screen of the Church of the All-Holy Trinity (and Transfiguration) in Kazbegi.
St. Davit is depicted in a frontal presentation in the wall painting of the refectory, in the Orans position, as if he is blessing the monks entering the refectory. In Udabno he is presented separately in the soffit of the arch as a full-size figure, while in Bertoubani his half-figure is included in the scene of Lucian milking the deer.  

In addition to their place in wall paintings, themes related to St. Davit Garejeli also survived in stone carving. This is exemplified by the façade relief of the Ateni Sioni Church, dating to the end of the tenth century, depicting Lucian milking the deer.

Naturally, during the middle Ages, images of St. Davit had been created in other regions of Georgia as well. His fresco portraits are also found in Kintsvisi (13th c.), Akhtala (13th c.), Zarzma (14th c.), Martkopi (18th c.), and elsewhere. Unlike at Gareji, however, he was not represented within a given scene, but separately or together with other saints. St. Davit is presented in the same way in miniatures and embroidered textiles of the 17th-18th centuries.

Beyond any doubt, the icons of St. Davit must have existed in abundance in the Middle Ages and they would have been first created in the Gareji workshops. Unfortunately, only examples from the 17th-19th c. have survived and are mainly situated at Shalva Amiranashvili Museum of Fine Arts. They present the Saint according to various iconographic schemes. On some icons he is depicted with his “Life” scenes, on others he is shown together with his disciple St. Dodo and other Assyrian fathers (fig. 1,2). These icons are very close to the fresco portraits of St. Davit and St. Lucian, located in a small chapel near the church of St. John the Theologian in the Lavra, but, the fresco images of the Lavra Chapel are of early nineteenth century and made in a more primitive manner.

Some icons of St. Davit closely resemble the icons of St. Nino and St. Queen Ketevan painted on canvas that are inscribed with the date 1796. This allows us to date this group of icons of St. Davit to the late 18th century. One more icon belongs to the same group, depicting a big group of monks and a father superior.

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13. This Bulia, M., Tumamishvili, D., pp.70,117.
15. Some of these icons are published by G. Abramishvili (Davit Garejelis...), pp. 133-149.
who resembles St. Davit with his red beard. A large number of monks with the crowns of martyrs over their heads suggest that it is a depiction of the 6000 monks whose self-sacrifice for faith had been supported spiritually by Davit; they were slaughtered in Gareji during the Persian invasion associated with Shah Abbas I.

The icon of the 12 Syrian Fathers painted on wood in the 17th-18th c and belonging earlier to the Shiomghvime monastery, and the icon of Katskhi iconostas of the 17th-18th c, where Davit Garejeli is represented together with Ioane Zedazneli, also reflect the Syrian-Antiochan stylistic trend.

The icon painted on canvas and depicting St. Davit together with St. George, St. Shoushanik and St. Queen Ketevan, is absolutely different from this group of icons. It belongs to the Russian style and is dated to the nineteenth century, based on the inscription.

The Shalva Amiranashvili Fine Art Museum has an icon with the Life of St. Davit which is also painted in the Russian mode. The central image of the saint is surrounded by 8 scenes depicted on the frame (fig. 3). This icon was brought from the Church of Dodos Rka, but it had certainly been painted by

18. Medieval Georgian...p. 186
a Russian artist. This is evidenced by the Russian type of the faces and the Russian churches and belltowers in the background. All-Holy Trinity is depicted above the centre and in the rest there are diverse scenes: of the transformation into cheese of the milk drawn by Lucian from the deer, by the blessing of Davit; giving sermons to the hunters who came to Davit by accident; of his visiting Bertoubani monks and making their bitter water sweet (in the left, vertically); of his withering the arm of Boubakar and then restoring it; of his healing Boubakar’s son; and of the burning of the dragon by the angel (to the right, vertically); in the lower part of the icon we can see the death of the Saint and the healing of the blind monk by means of touching Davit’s dead body. Despite the Russian origin of the images, all the descriptive inscriptions on the icon and the longer narratives attached to each scene are in Georgian “Asomtavruli”.

The domination of Russian style in the 19th century Georgin art was caused by the abolition of Georgian statehood and ecclesiastic autocephaly followed temporally by the attempts of the Georgian culture’s russification. The process began from the 18th century and lasted for quite a long time, until destruction in the Soviet state19. This is very clearly revealed in wall paintings of the 19th century in Tbilisi (see numerous frescoes and icons in churches: the Sioni, the Anchiskhati, the Small Sameba, the Mamadaviti...) and in all regions of the country.

Particularly characteristic of these is the painting (1889) of the Mamadaviti Church, where all the walls are occupied by the images of the Georgian saints among which is the founder of monastic life on this site, Davit Garejeli. All Russian-like images of the saints, accompanied with Russian-Georgian inscriptions, are created according to the patterns of portraits from M. Sabinin’s historical-hagiographical essay “Paradise of Georgia”, which became so-called book of iconographic samples for many icons and murals of the dating back to the 19th and 20th centuries. The closest analogue of this Museum icon (in terms of composition, iconographic program and narrative inscriptions) is found at the Kashveti Church in Tbilisi20. (fig.4). This church was built in the place where St. Davit was often giving sermons to convert the pagans. This 19th century icon is large in size and repeats almost exactly the iconographic scheme of the Dodos Rka icon. The difference is that the miracle, which occurred at the site of the Kashveti Church, is depicted in the center of its upper part. A pregnant woman is depicted here, who was incited by the pagans to cast aspersions on Davit; the deception was exposed by the voice of an unborn baby. So this scene is a kind of identification code of the Kashveti icon, which allows us to establish that it was painted especially for the Kashveti Church in the nineteenth century. The difference between these two icons is that the Kashveti icon shows attempts at Georgianization of the faces and architectural structures; however it is evident that the Gareji hagiographical icon is the inspiration behind this icon.

20. The icon has not yet been published.
One more icon from Gareji, which was kept at Lavra before early 20th century and was lost thereafter, bears similarity to these two icons. We can review it only based on a photograph from Ermakov’s archive, preserved in the Georgian National Museum (fig.5).

This icon is apparently of a much earlier period as compared with the two icons just referenced. It bears a close resemblance to the pieces of art of the Syrian-Palestinian an stylistic and iconographic trend from the seventeenth century. Its closest parallels are the above-mentioned icon of the Ascention from the Shiomghvime icons of the Feasts of the Lord and the Nativity painted on the altar screen of the Lavra Church, (with regard to the type of faces, the shapes and handing of clothes and mountains); the portraits of the Assyrian fathers depicted on the pillar in Ananuri;21 and the icon of St. Simeon Stylitis of the Georgian Patriarchate. The Ananouri mural portraits and the Patriarchate’s icon bear such a strong resemblance to the Lavra icon with the “Life,” that arguably they were produced in the same workshop and probably by the same icon painter (maybe Paul of Aleppo).

The iconographic scheme and repertoire of the scenes of the icon of St. Davit are exactly the same as on the icons of Dodos Rka and Kashveti, which suggests that the icon of Lavra is their prototype. The consideration that the icon of Lavra is a work of the local Gareji school is supported by the fact that it has the same cable moulding framing as the mural icons painted on the stone iconostasis of the Lavra Church of John the Theologian and of the domed church in Dodos Rka.

All of this is to suggest that historical images of St. Davit in Georgian art are characterized by iconographic diversity. They are done with different materials and techniques for various purposes and are dated back to the 10th-19th centuries. The early works of the Gareji school of painting are the most accomplished in comparison with the works of the 17th-19th c, which exhibit considerably less skill.

Among the monuments of the later period, the hagiographic icons of St. Davit evoke special interest toward the Cycle of Life, which repeat the scenes of the “cycles” at Udabno Church (10th-11th cc), modified with due account for the iconography and style of the shift in epochs.

In the end it should be noted that image of St. Davit Garejeli is especially popular in various types of modern art. It is interesting in this regard that in the Kashveti Church there is a completely new icon of St. Davit, which is inspired by the hagiographical icon of the 19th century, which we have already mentioned above.

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CAVE MONASTERIES AND INTERNATIONAL CONTEXT
Monastic and Artistic Bridges: Davit Garejeli and Niko Pirosmanishvili within the Georgian Ethos

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The Georgian ethos is notable for a paradoxical double feature: over the millennia the country has been a bridge between cultures and among religions and at the same time it has a distinctive culture and has been an intensely Christian country, from the time of Saint Nino to the revival of Christian institutions in the post-Soviet era. One might add that Georgia has been the site of an unusual array of “firsts” that have implications well beyond its own borders.

St Nino (ca 296-338/40) – a slave girl referred to in her important apostolic activity as equal to Jesus’ disciples – is an appropriate symbol of the unique shape of the Georgian Christian identity. She is credited with bringing the faith to Iberia/Kartli (Eastern Georgia), converting first Queen Nana and then King Mirian III. Mirian declared Christianity the official religion of Iberia in 327, making Georgia the first country to embrace the faith as a state belief system – and few if any other countries can assert that a woman brought them to Christianity.

It is not surprising that St Nino’s attribute is a grapevine cross, not only because of the tradition that she made the first cross in Georgia from vine branches tied together with strands of her own hair – and also referencing the vine, in its Eucharistic connotations, as a consummate Christ symbol – but given the great likelihood that viticulture also began millennia earlier on the Caucasian slopes of what is now Eastern Georgia. Such imagery bridges the profane and sacred aspects of Kartlian uniqueness. The sacred side of this was cemented, one might say, when the Georgian Church asserted an independent (autocephalic) status by the year 466.

Much of the territory of Georgia is mountainous, parts of it with the sort of micro-climates that facilitate the development of activities such as viticulture and also of independent and even isolated spiritual growth – the kind of monastic spirituality that emulates the desert-waste experiences that helped shape John the Baptist and Jesus.

Monasticism offers a particular – and particularly Christian – instrument that bridges human and divine; monastics generally separate themselves from society at large, dwelling in lonely places under extraordinary conditions in order to draw closer to God – and once established, they and the sites that they choose often evolve as foci for ordinary people seeking more intense proximity to God. The beginning of monasticism in Georgia also exemplifies the transformation of foreign saints into uniquely Georgian figures.

Saint Davit Garejeli came to Iberia/Kartli in the late fifth/early sixth century, as one of the disciples of his Syrian monastic master, St John Zedazeni. John had responded to a vision instructing him to go forth to Iberia/Kartli with 12 disciples – echoing Jesus and the apostles in number – and they settled on Zedazeni Mountain. Saint Davit and his brethren, in turn, spread the Gospel from that base, emulating the apostles in proselytic ambition – Davit in particular. Accompanied by a single acolyte, Lucian, he established himself on Mount Mt’atsminda (“Holy Mountain”), overlooking Tbilisi, periodically coming down into the town to preach. Eventually he and Lucian withdrew into the desert wilderness of the cave-ridden hills of southeastern Georgia, thus introducing a distinctive monasticism to the country.

While other monastic cave complexes may be found elsewhere – in Syria, Greece, and Cappadocia, for instance – the unique marriage of living-with-nature asceticism and technical skill with regard to carving diverse spaces and water-collecting systems within the rock of such a site offers a defining characteristic to Georgian isolated troglodytic life.
The traditions and tallest hat developed regarding Davit Garejeli reflect frequently on the way in which the spaces associated with him become sacralized by the purity of his being and how that affected his actions as a conduit through which God operates. The area in which he ended up dwelling was overrun with wild animals, including among the diverse fauna a very large serpent. The snake inhabited a cave not far from that in which Davit and Lucian had taken up residence, and frequently forayed out to attack and kill other wild beasts. Davit is said, however, to have commanded it to depart—and so it did.

One might recognize in this the important motif of a force for good (the ultimate force, in Christian thought being God, of course) overcoming a force of evil (the Satan) symbolized by a serpent. What may be unique within Christian verbal and visual imagery is that Davit is not represented as destroying the serpent—which is not discussed as an absolute and unrepentant manifestation of evil—but inducing it to leave, thus implicitly transforming it from an irrational evil force to a force that may succumb to the reason of goodness.

In this handling of the serpent theme we may perhaps discern the influence of the Zoroastrian tradition: Zoroastrian Sassanian Persians lived for centuries cheek-by-jowl with Georgian Christians. Although the Sassanians are elsewhere understood, politically and historically, to have been a threat to the physical survival of the monastery, it is typical of Georgian Christian tradition that it comfortably absorbs features from other earlier or contemporary traditions. In this case the Davit Garejeli narrative tradition may be seen to have absorbed a positive element from the Avesta: rather than the Serpent-Satan being dispatched by a sword or spear, or thrust into a lake of fire, at the end of the cosmic battle between Ahura Mazda (and the forces for good) and Ahriman (and the forces for evil, or more properly, “twistedness”—druj in Avestan) the dark forces are not destroyed. They see and are absorbed into the light.

In time, Saint Davit and his site became a magnet for increasing numbers of pious Georgian pilgrims, from peasants to monarchs—some spending brief periods of time, others settling long-term in the caves and also building church structures outside them, providing spiritual accommodation for religiously thirsty and hungry visitors. The model of Saint Davit and the monastic idea clearly captured the Georgian Christian imagination. Under the guidance of the ninth-century Saint Ilarion the site achieved sustained growth. Even more so, under the royal Bagrationi family, especially during the twelfth and thirteenth centuries, Gareja (and other monastic complexes) enjoyed strong support. King Demetre I (1093-1156), who, as a poet, wrote the renowned hymn, “Thou art a Vineyard,” chose Davit Gareja as the place of his confinement during a not quite year-long period after he abdicated the throne to his son, David V, in 1154.

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1. This is most obvious in the art that decorates many Georgian medieval churches—for example, pre-Christian bulls’ heads that are incorporated into the façade of the entrance gatehouse and also the main building of the Svetitskhveli cathedral in Mtskheta.
2. When David died, Demetre returned to the throne; when Demetre died about 15 months later, he was succeeded by his younger son, Giorgi III.
Over time the expanding beehive of inhabitants included artists, as well, some of whom left behind a legacy, mainly between the ninth and thirteenth centuries, that included unique re-conceptions of traditional Christian subjects and scenes, thus echoing Saint Davit himself in reflecting a uniquely Georgian perspective onto traditional Christian thought. Paintings within the caves include images that may still be identified as directly relating to stories about Saint Davit. One exemplary image depicts him and his acolyte, Lucian approached by a group of deer (fig.1). For although the two monks initially survived on herbs and the bark of trees with which heated water could become a nutrient-filled tea, once the herbs withered in the summer heat (and later, would dissipate with the advent of winter), God sent them deer that stood calmly as Lucian milked the females, bringing the liquid to Saint Davit—who then astonished his companion by making the sign of the cross over the milk, and transforming it instantaneously and miraculously into cheese.

One might see this as a unique confabulation of—a bridge among—three Christian traditions: the innocent deer as analogous to the innocent lamb that represents Christ; together with the pelican as a self-sacrificing Christ-symbol, feeding its young with its own heart’s blood; together with the Eucharistic miracle of transubstantiation. The tradition further observes that, when the two fathers kept a strict fast, on Wednesdays and Fridays (corresponding in Genesis I to the day when God created sun, moon, and stars and the day when the first human was created), the deer never appeared. Appositely, the legends assert that hunters, pursuing these very deer, observed Lucian milking them and, astonished at what they had seen, both reported this event and turned away from the area of the cave complex as a venue for hunting.

Other wall paintings reflect on the larger Christian narrative that begins with the figure of Jesus, but particular episodes from Christ’s life would have resonated with a specific symbolic/metaphorical power for the site and the stories of Saint Davit. There is a unique refectory-placed representation of the Last Supper, in which, in the composition, Christ is placed at the farthest point from the entrance to the cave (fig.2). He is the only one with a halo—there is only one other depiction of the scene before the late 15th century (in the Church of Sant’ Angelo in Fornis, in Capua, southern Italy, dating perhaps to ca 1100) in which the apostles are not haloed. The probable figure of Saint John the Evangelist is asleep on his master’s lap—although he is proportioned, as far as can be discerned, as a small child—and the other Apostles form an undulating row on the far side of the broad table.

Unique to this depiction, however, one of their numbers seems to be missing. While in every other version of this scene across Christian art, Judas is at the table (or, albeit rarely, still visible in the room, hurrying away from the table)—with or without a halo, seated like the others or reaching for food while others are not—he is not in evidence here. Well, almost not: a very careful look shows the outline of the missing thirteenth figure just above and behind the others, to the center. So either the original artist simply left him out and he was added subsequently or, given the stylistic similarity of the outline to that of the other figures, the unusual solution to the problem of Judas was to reduce him to a kind of invisible figure: he who betrayed Jesus and, by extension, his fellow apostles, is literally fading from the group that one sees engaged in lively gestural conversation (as if, indeed, Jesus has just told them the news, that one of them will betray him).

3. The lights to rule over day and night and humans to have dominion over all other creatures (Gen I:18, 26).
Or perhaps what we see is a preliminary sketch that the artist decided was too high, so it never went beyond the sketch-form and was covered with whitewash that subsequently flaked off—and perhaps we see the damaged image of a replacement thirteenth individual a few figures to the right, near the apostle with his hand placed over his eyes. In that case the thirteenth figure—Judas—is not missing, but he is together with the other apostles, on the same side of the table (in Western art this won’t happen until Leonardo’s famous rendition) and virtually indistinguishable from them, which would be even more unusual than his simply being absent.

This subject may have had a particular resonance with the story of Saint Davit: he was, after all, the most distinctive among the twelve disciples instructed by their master to go forth to preach Christianity. The notion of a leader and eleven of his twelve followers present while one is missing could have offered a metaphor of Davit’s story. Further, reflecting how Georgian Christianity historically expressed itself in relation to other denominations, this would imply a unique if odd kind of equation between Davit and Judas. While most Christian denominations associate Judas with Judaism, and offer long histories of hostility toward Jews as a consequence, the virtually unprecedented positive relationship between Georgian Christians and Jews—like that between Georgian Christians and Zoroastrians or Muslims—would be underscored by this kind of oblique association between a traditional negative figure and such a positive one.

Such an unusual perspective within Georgian culture toward Judas and the Jews is differently evidenced in a second, 14th-century wall painting of “The Last Supper” in the Ubisi Monastery, painted by Gerasime and his workshop. There, Judas is identified by his gesture: he extends his hand—both reaching for the sop of bread and pointing to the large fish at the center of the table—that early Christian symbol for Jesus in his soteriological capacity, since the Greek word for fish, ikhthys, is an acronym for “Jesus Christ, Son of God, Savior.” Thus typical of Georgian sensibilities, Judas the villain is shown reminding the viewer that, without his betrayal, Jesus could not complete his salvational mission. Moreover, Judas’ bent-over body echoes that of John, leaning over on Jesus’ protective lap. The artist has offered us a kind of conceptual contraposto between these two figures—loyalty and betrayal on a grand scale. So a particularized equation in Garejani imagery between Judas’ departure and Davit’s departure—the one to betray but as such, to facilitate; and the other to fulfill the mission that began, ultimately, with Judas’ moment of departure—is not so far-fetched in the context of Georgian religious traditions.

Indeed, Saint Davit Garejeli himself, in his humility, refused to see himself as unusually virtuous. On the contrary. Sometime after his hermitage had grown into a fuller monastic community, he set out on a pilgrimage to Jerusalem, leaving Lucian in charge of the growing complex. His narrative asserts that, as he and the brothers who accompanied him arrived at the “Ridge of Grace” from which Jerusalem could be seen, he knelt and wept—but refused to go further, feeling himself unworthy to follow in the footsteps of Jesus. Gazing at the city at length from a distance, he finally came as far as its gates, but, (in one version of the story), no further.

At the beginning of his homeward journey, he took three stones to bring back to Georgia. On that night, an angel appeared in a dream to Patriarch Elias of Jerusalem, informing him that all of the city’s holiness had been taken away by a pious man named Davit, who had visited from afar. The Patriarch sent messengers to catch up with Garejeli, asking him to return two of the three holy stones. It is said that the remaining stone carried to Gareja—placed in the Sioni Cathedral in Tbilisi, but brought to the monastery for special ceremonies—retains a capacity for miraculous healing to this day.

4. I am grateful to my Georgian colleague, Lado Mirianashvili, for pointing out this possibility.
5. When the Arab Muslims were defeated by the Bagratid leader, Ashot Kouropalate, in the 9th century, Islam was not driven out; and later, when David the Builder defeated the Muslim Seljuks in several key battles between 1120 and 1123, eliminating them as a political force in Georgia, he did not drive out Islam; the mosque in Tbilisi remained intact, not far from the Cathedral. (The synagogue is also nearby).
One might suppose that the unusual 13th-century wall-painting of Christ approaching Jerusalem’s gate on his donkey with two figures on foot beside him – with little of the scene’s usual other visual elements, such as palm fronds strewn on the road before him, but a soaring hilltop behind him – would have had a particular resonance for monks and pilgrims alike as they meditated both on the figure whom they worshipped who entered and was crucified in Jerusalem and the figure whom they venerated at this site (fig. 3). It offers a double metaphor: Davit as a sacerdotal being on a more local plain than the ultimate plain upon which Jesus stands; and in his self-doubt regarding worthiness to enter Jerusalem also connecting him to Saint Peter, first of Christ’s disciples – who, in a manner apposite to Judas, betrayed his master (three times before the cock crowed) and then returned to Jerusalem to proselytize, where he was eventually martyred, but felt himself unworthy of being crucified in the same manner as had Jesus.

The notion that the unique figure of Saint Davit provoked unique works of art with unique implications is consistent with the Georgian Christian predilection for both familiar saints depicted in an unusual manner and for saints not familiar elsewhere. There is Saint Mamas of Caesarea (in Cappadocia), for instance, martyred at age 16 for his Christian beliefs, in 275 CE, by the Roman Emperor Aurelian – according to St Basil the Great and Gregory Nazarianzeri. In the several months before his apprehension and death, he was living in a cave, harkened to by the wild animals, and surviving on milk provided him by wild goats and deer. In an 11th-century silver and gilded silver repoussé-tondo from Gelati, he is shown astride a beautifully detailed lion with a cross in his right hand and his left hand held up and out in a gesture of entreaty that is altogether unique to Georgian representation. In the Byzantine and Eastern Christian artistic tradition she is never shown seated on a lion. Elsewhere (Lebanon, Cyprus, Greece, Italy, Spain, Portugal), he is sometimes seated this way – but these are later works, of painted wood – but is typically shown cradling in his left hand the lamb that he had rescued from the lion.

On the other hand, Saint George, a familiar figure across Christian art, who is typically shown defeating a dragon – that familiar serpentine symbol of evil – is, in many Georgian representations instead shown defeating a soldier: Diocletian, the Roman Soldier-Emperor (r.284-305 CE) understood as the last and most formidable persecutor of Christianity in its early history. So the narrative of Saint George as a Roman soldier who, become Christian, was martyred by Diocletian, is uniquely represented in Georgian art – for example, in a late 10th-early 11th century silver icon from Tsvirli-Tchobeni, and others from Labechina and Nakipari, for instance.

Against this small array of details regarding Georgian art and religious history, the frescoes at Davit Garejeli monastery offer part of a distinct visual bridge from antiquity and the medieval era to modernity. As Georgia evolved in the post-Industrial Revolution world of the late 18th through early 20th centuries, the focus of many of its inhabitants turned away from the idea of the sort of piety encompassed by monasticism and expressed by such art, and from traditions associated with rural life. However, the painter who emerged as the national artist of modern Georgia was Niko Pirosmanashvili (ca 1862-1918). Born in the countryside, he eventually moved to Tbilisi, where he lived a rather monastic existence, even in the midst of the city: more often than not for the last 17 years of his life he slept under whatever roof was available, trading a painting, or a painted tavern sign, for a corner bench and limited food.

Pirosmanashvili was a modernist champion of the traditional Georgian world of the countryside and the old ways. One observes this in at least five types of his paintings. He depicted humble contempo-
rary urban figures cut off from their daily lives, monumental and serious—like his ca 1905 “Janitor” (fig.4). The depiction suggests an icon—in the flatness of the figure and the domination of the setting: a kind of spaceless space—that offers an equation between this humble and unassuming character whom the artist encountered in his own humble and unassuming life and humble, unassuming saints in Georgian Christian history—in particular, Saint Davit Garejeli.

One can also recognize a passion for tradition that is both cultural and obliquely religious in his kutezhi paintings, that “convey a vision of the eternal holiday as part of the higher spiritual meaning of the communal feast and its rituals, so important to Georgian culture.” Images like “The Kakheti Train” (1913) suggest contrasts between the new world of industrial technology, symbolized by the railroad, and old world traditions symbolized by three large marani—both cultural and, in their threeness, Christianly symbolic. That symbolism is reinforced by three large barrels and three dead, swollen farm animals.

Pirosmani also painted occasional overtly religious paintings, like his “Lamb and Easter Table with Angels” (N.D.). Most interesting, for this discussion, is his fascination with wild beasts, and in particular with deer. This harks back to Davit Garejeli’s unique relationship to animals, particularly when Pirosmani paints a trio of white deer (1917) (fig.5). Given the lamb-like pigment and obvious trinitarian symbolism of the configuration, one can easily imagine that the painter has in mind an association between these creatures, peacefully sipping from a forest stream, and the father of Georgian monasticism who survived by the milk of deer and the miraculous transubstantiation of that milk into cheese.

Pirosmani was himself a bridge: between centuries and, at the time of his life and work, between Georgia’s long past and its uncertain future. He died as World War I was ending, and three years later, as Georgia was swallowed up by the USSR, the Soviets closed down the Gareja monastery. Pirosmani’s unique perspective on Georgia’s pious past resonates with the re-establishment of a monastic community at Gareja 70 years later—fifteen centuries after Saint Davit implanted the idea of monasticism in Georgia with such unique and rich consequences.

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7. Gareja, incidentally, is located in the Kakheti region.
Everywhere monasteries were preceded by individual anchorites or hermits, whose fame spread far and wide, attracting other people of religious piety to settle next to them, and get benefit of their experience and counsel. Thus communities of monks came into being. But there were different answers to the question: “what is the proper way of monastic life”. The variety of monastic systems gave rise to the emergence of several types of monasteries, of different architectural layout. The appearance and structure of the monasteries was also determined by the regional tradition in architecture. And everywhere there was also a development in time.

Egypt

The Egyptian landscape was determined by the Nile, forming a long Valley and a broad Delta of green, cultivated land, delineated on either side by vast, waterless desert. The transition between the sawn land and the desert is abrupt not only horizontally, but also vertically, forming the Jebal (“mountain”), and rendering the Greek word to oros (mountain) the notion of desert (to eremos) in the literary sources and papyrological documents.

Two main monastic systems were established in Egypt: That of St. Antony (265-356?) in Lower Egypt, and that of St. Pachomius (290-346 CE) in Upper Egypt. The main Antonian eremitic colonies, interconnected by unpaved desert tracks, were those of Mount Nitria, Kellia (=The Cells in Greek; est. 338) and Scetis (est. between 330 and 340). At the end of the 4th c. they comprised few thousands monks.

Pachomius founded his first monastery in ca. 323 in Tabennesi. At the time of his death nine monasteries and two nunneries, scattered along the Nile in an approximately 280 km long stretch in the district of Thebais belonged to his federation - the Pachomian Koinonia. It comprised several thousand monks. Except for Phbow, none of them can be precisely located, and we do not know exactly how these village monasteries looked like.

The Kelliot Dwelling

The vast monastic colony of Kellia extended over ca. 22 km stretch of desert. The collapsed cells, which were built of mud bricks, created more than fifteen hundred mounds (koms), which are clearly visible on the ground. They are grouped in agglomerations described in Arabic as qasr (pl. qusur, from Latin castrum, fortification).

The typical spacious Kelliote hermitage, which is dated to the sixth century, is composed of many rooms and a courtyard, and is surrounded by a wall (fig.1). A typical example is the early phase of Kom 167. A brick wall encloses a rectangular area of ca. 15 X 27.5 m. In the northwestern part are

the living quarters, which also included a kitchen and food-stores. In the southeast corner there are water supply installations including a well, a pool, channels and a toilet, which drains into a pit located beyond the wall. The area between the living quarters and the well served as a garden. The more spacious dwellings had two parts, each with several rooms: the larger one was occupied by the elder or senior monk, while the smaller one, attached to it on the southern side, was intended for a disciple or attendant. Each part had its own chapel (oratory). The oratory is a more spacious room whose walls were ornamented with frescoes.

Only two communal centers were recognized in this Desert City. These were *Qasr Wuaheida* and *Qasr Isa 1*. *Qasr Wuaheida* comprised two churches of basilica plan in juxtaposition, the apse of the one being backed on to the west wall of the other, a hostelry or refectory, with a kitchen, various adjoining rooms, and a refuge tower. *Qasr Isa 1* comprised of three basilical churches – more prominent in their dimensions than the regular oratories, or more developed halls of two, or three domed bays.

**The Cells West of Esna\(^2\)**

These nine cells, dated to the years 550-650, present another good examples of spacious hermitages. These are subterranean complexes cut into the conglomerate stratum to a depth of ca. 3.5 m below the surface. The walls and floors are plastered and whitewashed. There are two types: the simple one (fig.2), with a single prayer chapel (oratory) and courtyard, and a second type, with two chapels and two courtyards. A rock-cut staircase leads down from surface level. The chapels are decorated with frescoes. The beds in the bedroom are rock-cut and plastered. In the storeroom storage jars with water were also stored. The kitchen was generally equipped with elaborate cooking devices including a stove and a baking oven with an improved air circulation system. In a double complex, that served two monks, there were two courtyards and a second oratory was added.

**Town monasteries**

Other than the famous semi-anachoretic centers of Kellia and Scetis, many Egyptian monasteries in Lower Egypt were located within towns and villages, or in their outskirts; these were urban and peri-urban monasteries. The case of Oxyrhynchus as described in the *Historia Monachorum* (V.1-4) is noteworthy:

“….the city is so full of monasteries that the very walls resound of the voices of the monks. Other monasteries encircle it outside, so that the outer city forms another town alongside the inner. The temples and capitols of the city were bustling with monks; every quarter of the city was inhabited by them. Indeed, since the city is large, it has twelve churches where the people assemble. As for the monks, they have their own oratories in each monastery. The monks were almost in a majority over the secular inhabitants, since they reside everywhere right up to the gates, and even in the gate towers. In fact, there are said to be five thousand monks within the walls and as many again outside, and there is no hour of the day or night when they do not offer acts of worship to God.”

The Monastery of Apa Apollo at Bawit - an urban monastery – looked like a walled village built of small houses, one next to the other. The dwellings had three components: a tiny courtyard, an outer

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room that served as a living room, and an inner room, with a niche in the eastern wall, that served as an oratory. It seems that there was also a second story. Similar was the structure of the cells at the Apa Jeremias monastery at Saqqara. In both sites as well as near Esna, the rooms also had air shafts.

**Dayr al-Bala’yazh (fig.3)**

This monastery, located in Upper Egypt some 11km to the S of Asyut on the left bank of the Nile, is the best preserved example of a Pachomian monastery. It is a fortified monastery constructed in ca. 500, and abandoned later than 750. First a Roman quarry was fitted for dwelling, and a small church was installed in a cave. Then a whole series of buildings were constructed in tiers the length of the eastward descending slope. Its walls, more than 1mile long, encircle a trapezoidal area, 200x150-250 sqm. Many structures, built of mud bricks, are preserved to a height of two to three stories. They include three or four churches, a bakery, three aisles refectory (with a capacity of 400 monks), and several dormitories. Its estimated population is ca. 1000 monks. The wall had a gate on the east, and next to it, on the outside, a guest house.

**Monastic Cells in Sinai**

Mt. Sinai was the major biblical attraction of the peninsula; a goal for monks and pilgrims. Accordingly, monastic remains are to be found mainly in this southern, mountainous section of pink granite formation, of the peninsula. The mid 6th c Justinianic fortified monastery of Sinai held a magnificent basilical church dedicated to St. Mary Theotokos, at the site of the Burning Bush. Another fortified monastery was built by Justinian at Sheikh Ra’iya (= Raitho), ca. 10 km to the south of et-Tur, on the western shore of the peninsula. The monastic colony of southern Sinai in about 530 did not surpassed 600 monks. The majority lived around Mt. Sinai. Other three colonies were in Pharan, Jebel Umm Shumar and Raitho. The hermitages were located in inner valleys (farsh in Arabic), and wadis. No monastic settlements were built on the very summits. Some were located near the pilgrims’ circuit routes (Mt. Horeb, the site of the Burning Bush), and others in much more remote places. A network of built routes connected the dispersed hermitages with the centers at the site of the Holy Bush, Pharan (and the adjacent Jebel Tahuna), and Raitho. Each center had its anchorite colonies in the adjacent mountains. These were a tiny laura-type settlements, with 5 to 30 residing monks. Each settlement comprised of three basic components: a prayer chapel, none of the basilical type, with several adjacent rooms that could serve for dwelling and storage. A kitchen

adjacent to this complex is exceptional, indicating that cooked common meals were not practiced in the hermit monastic settlements.

The second component was hermit cells (fig.4), set under cliff overhangs and boulders, or built dwellings of 2-3 rooms, presumably for a monk and his disciple. Generally, there was no eye contact between the structures. The cells were white-washed. Most were one-room dwellings, but there were also two and more room houses. Rooms were rectangular, measuring 2.80 x 3.50 m on the average, with storage niches. The sleeping cells had a single room and did not contain beds. The third component was an agricultural system, sometimes comprising of several terraced orchards, each retained by heavy walls, and surrounded by a fencing wall.

**Laurae and Cenobia of the Holy Land**

Architecturally, the coenobium was an enclosed monastery, with all its components confined within its walls. The Monasteries of Martyrius (Khirbet el Murasas), Euthymius (Khan al Ahmar), and Khirbet ed Deir, all in the Judean Desert – the Desert of Jerusalem, are the best representatives of this type. The laura, by contrast, was composed of dispersed cells, connected to each other and to the communal buildings by a network of paths that converted the scattered elements into an integral architectural entity.

The Great Laura of Saint Sabas (Mar Saba), of ca. 250 monks, was the most elaborate example of this type. Its remains are dispersed in several tiers along a 2.5 km long section of the ravine (fig.5). The dispersed hermitages were connected to the core buildings by a network of built paths. The core buildings comprised of two churches, a hostelry, an infirmary, a kitchen, a bakery and stores. The laura hermitages were of various types. The simplest cells had a single room and a courtyard, while the complex ones consisted of several rooms, including a private chapel, or a prayer niche. Most hermitages were

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intended for a single monk, but there are several dwelling complexes that might have served two, or even three monks. Private chapels are a common feature. Each hermitage had its own water supply by drains and cisterns for rain water. Impressive examples are the so-called hermitages of Xenophon, his brother Arcadius, and Iohannes hesychastes. The cell of Xenopone extends along a narrow rocky ledge, comprising of a water cistern, a two-rooms dwelling cell with a fore and rear courtyards. The walls of the dwelling rooms retained their plaster. The cell of Arcadius (fig.6), was erected on a tower like structure built in front of a cave. The dwelling included a balcony on top of the tower, an external living room built in the cave, a private chapel installed farther deep inside the cave, and a rear storage space. The walls were plastered and the floor – mosaic paved. The water system was elaborate, including an upper tank that fed an inner cistern. Excessive water was led to an external cistern built inside the tower. The hermitage of Iohannes Hesychastes, the most elaborate of the Laura, was installed within a long and narrow vertical cleft blocked by a 11.5m high wall. It held several floors interconnected by wooden ladders. A ladder from the lower entry led to a dwelling room. An elaborate private chapel was installed above. Here as well the walls still retain their plaster and the chapel apse – its frescos. The water system comprised as well an external water tank and an inner cistern interconnected by masonry channels.

An elaborate hermitage, related to the Laura of Gerasimus, was exposed in the Jordan Desert to the SE of Jericho, near Ein Abu Mahmud (hermitage no. 3) (fig.7). Rock cut in the soft marl formation, it comprised three rooms—a private chapel and two dwelling rooms interconnected by a long corridor. The entry was on the one end of the corridor, a kitchen with a chimney - in its other end. Other hermitages of this small colony were simpler.
Among the coenobia, the sixth century plain-type monastery of Martyrius (Kh. el Murassas) is the best preserved representative. The compound is a ca. 78x68m rectangle – by far smaller than Dayr al Balaiza. The main entrance was in the eastern wall with stables next to it. The church, with colorful mosaic floors, is of the regular monastic-chapel type, serving a community of moderate size. The northern wing comprised the dwelling cave of the founder monk, that served later as burial grounds. A vast refectory (31x25m), basilical in shape, with galleries on three sides and paved by colorful mosaic floors, was the most prominent structure in this compound. Adjacent to it was the kitchen, with a cellar and an upper floor. The dwelling quarters, with two other chapels, were on the south west, on the second floor, around a central courtyard. The monastery was equipped with vast underground cisterns and draining channels, as well as with storerooms. On the outside, near the northern east corner was a hostel (28x43m), including a stable and a chapel. On the nearby outskirts were three gardens, irrigated by stone cut channels.

Khirbet ed Deir, a cliff-type coenobium, extended over two levels separated by a steep cliff. The gate, stable, church, refectory, kitchen, burial grounds and storerooms were on the lower level, along the streambed of the wadi. The dwellings, in the shape of two parallel dormitories separated by a corridor, were in the upper part. The water system included a dam and several cisterns interconnected by channels. A terraced garden extended along the streambed.7 The Sabaite Monastery of the Cave (Spelaion) had similar features (fig.8).

Syria

Syrian monasticism knew extreme forms of asceticism on the one hand, and elaborate coenobitism, on the other. About the end of the third quarter of the fourth century there was a transformation, marked by increasing tendency toward communal life. The transition from anchoritism to coenobitism passed through the stage of harta - cells arranged in irregular fashion around the cell of the head of the community. Physically such a settlement of monks resembled the Palestinian laura or the semi-coenobitic settlements of Mount Nitria, Kellia, and Scetis. However, the way of life, coenobitic, was significantly different. The monks met every day for common prayers, while in the laurae of Palestine and in Egypt the community met only for the weekend prayers while during regular weekdays the monks prayed in their dwelling places.

A typical Syrian rural monastery in the limestone massif of northern Syria, ca. 45 km to the E of Antioch, is Deir Déhès (fig.9). It is ca. 1 km distant from the village of Déhès, and some 35 km from the pilgrimage center of Qalaat Seman which came into being around the column on top of which the famous stylite monk Simeon the Old was living. The monastery, a coenobium, is built on a hill-lock which descends southward, extending over three levels: A tower and an oil-press in the lower level; the dwelling building with its courtyard, in the middle level and on the north, dominating the entire complex – the church. A second courtyard, to the S of the church, slopes moderately toward the dwelling building. The entire complex was surrounded by a fencing wall, built of field stones, with an opening that led directly to the church, as was customary to the monasteries of Antiochene, permitting to the villagers and pilgrims convenient access to the church, yet preventing any possible disturbance to the monastic life in the internal, more intimate parts of the complex. Cultivated plots of land extended beyond this line.

Syrian Towers of Seclusion

Towers of seclusion are a peculiar feature of Syrian monasticism, inspired by the famous 5th c. stylitic monk Simeon the Elder. Fifty towers of them were explored in the limestone massive of northern Syria, between Antioch and Apamea -- an agricultural region rather than a desert. The towers, of a rectangular plan, consist of two to three, and even six stories, separated by floors of wooden or stone beams, each with a single room. Each tower had a door with a locking aparatus, apertures, and even wide windows. The cell in the ground floor was used by the attendant or disciple, while

the cell in the upper story served as living quarters for the recluse or as a private chapel. Only a few of the towers served more than a single monk. Access from one story to another was by means of a wooden staircase or a ladder. Each tower is generally surrounded by a stone fencing wall enclosing a courtyard and forming a *mandra* (μάνδρα), literally a fold. Some towers are dated by inscriptions to the sixth century. Some are isolated, others are appended to a monastery or church. The towers are distinguished in plan, masonry, and workmanship from simpler hermitages, and they are therefore better preserved. The best example of a tower of seclusion in Transjordan is that of Umm al-Rasas, not far from Madaba, in the province of Arabia (fig.10). A small chapel with appended rooms is built at its foot.

In eastern Syria, near TurʿAbdin on the Tigris frontier, a two-story hermitage known as the “Cell of Gabriel” was explored in the abbey of Qartmin. The lower story served as a prayer chapel and the upper as a living room. A peculiar devise installed in the east wall of the living room is a narrow standing niche, 88 cm deep and 22-29.5 cm wide, for perpetual standing.

Summary

Most of the available information pertaining to Early Christian hermitages is derived from Egypt and from the Holy Land. The information pertaining to Syria, where mostly coenobia with dormitories were explored, is meager. Several features common to the monastic dwellings of Egypt and the Holy Land can be singled out:

--- Generally the hermitages comprised of several rooms, well-built, plastered and finely decorated. They resembled the dwellings of the lay middle class, permitting adequate residence for a human being. These were not humble huts or caves without any installation to comply with the basic needs of a human being, such as water supply, storage of food, and cover against bad climate conditions. A private fenced courtyard was an integral component.

--- A private chapel / oratory, or, at least, a prayer niche, was a common component. (Yet, there were hermitages that lacked such a feature). In many cases, the chapel / oratory was lavishly decorated with murals and even with mosaic floors. The murals could depict crosses, saints, and floral or geometric motives. Prayers were also painted on the walls. Murals depicting saints were preserved in two hermitages of the Great Laura of Saint Sabas (and in a burial chapel at Castellion / Hyrcania), in the Desert of Jerusalem. They were attributed to the post Arab conquest of 638 CE era and interpreted as iconodoulic expressions in protest against the iconoclastic policy adopted during the iconoclastic crisis in Byzantium.

--- An elaborate water supplying system, either of rain water, or digging wells, is another common feature. The rain collecting water system could comprise of an external channels leading to a reservoir with a settling basin, and an internal channel leading to an internal cistern. Water could be also stored in jars placed in a separate room of the eremitic complex.

All these features of monastic dwellings might have inspired the later monks of Davit-Gareji. And indeed, after visiting the Udabno site and familiarizing myself with data and plans of hermitages from Dodorka Monastery of Gareji, kindly shared with me by “Udabno” Science Fund, I realized that the Davit-Gareji hermitages also comprised several rooms, well-carved and plastered. A private chapel / oratory or a prayer niche was a common component. Sometimes, chapels / oratories were decorated with wall paintings, though in difference from the Holy Land, their floors were never adorned with mosaics. As for rainwater collecting system, this was a feature common to several of the Davit-Gareji hermitages; a single hermitage had its own water collecting system only in exceptional cases. Hence, the sense of community was more emphasized than in the laurae of the Desert of Jerusalem. Another feature of the Davit-Gareji colonies that bear similarity to those of the Holy Land is the *diakonikon* shaped as a separate chapel attached to the communal church. Such a
layout is typical to the churches of the Holy Land, bearing a significant liturgical meaning in serving as a prothesis chapel. In this respect, the layout of the churches of Egypt, Syria and Constantinople, is different.10

Literature:
E. Wipszycka, Moines et communautés monastiques en Égypte (IVe-VIIIe siècles) (The Journal of Juristic Papyrology. Supplement, 11), Warsaw 2009


10. Patrich 2006. I am grateful to Prof. Zaza Skirtladze for the enlightening tour he had guided at the Udabno hermitages and to Prof. Lado Mirianashvili for the reading material on Georgian hermitages at the Desert of Davit-Gareji he had provided and for fruitful discussions about features of similarity between them and hermitages of the Great Laura of St. Sabas in the Desert of Jerusalem.
The distinctive architecture carved into the soft volcanic rock in Cappadocia in central Turkey offers significant evidence for cross-cultural interactions in the middle ages, especially between the Byzantine Empire and the Georgian and Armenian kingdoms of Transcaucasia. Many rock-carved churches and courtyard complexes of the Peristrema Valley in western Cappadocia are particularly significant in this regard. The most well-known example of cross-cultural interaction, and perhaps intermarriage as well, is the donor image of the aristocrats Lady Tamar and Basil Giakoupis in the donor painting of the 13th century church of St. George in Belisirma, located around the middle of the long, sixteen-kilometer stretch of the river gorge known alternately as Ihlara Valley or Peristrema Valley. At the northern opening of this canyon, there is a significant rock-carved settlement at Selime-Yaprakhisar, dated through funerary inscriptions, and architecture and painting styles to the tenth to eleventh centuries AD. High up on the cliff at Selime, about fifty meters above the river bed, sits the double courtyard mansion of Selime Kalesi, sprawling out over 100 meters along the edge of the cliff facing south. This large complex and its very spacious basilica church is the largest of the courtyard complexes of the region that have recently been re-identified as the houses of the local landed aristocracy of the tenth to eleventh centuries AD. The double courtyard mansion at Selime is exceptional for many reasons. It is the largest example of the type, arranged around two courtyards, with the most spacious examples of a kitchen and ceremonial halls. In addition, it is located very high on the cliff at Selime, with excellent southern exposure, and with access to an associated fortification wall above the complex at the top of the cliff. This exceptional positioning in the landscape allows for an understanding of its role not only as an outstanding residential complex but also one that could guard the entrance to the valley and look over the other residential courtyard complexes carved below. (fig.1)

The rooms of this sprawling complex are arranged in hierarchical fashion with a rock-carved stable located at ground level by the entrance to the tunnel that leads up to the complex. Stables are common in the rock-carved courtyard complexes in Cappadocia that have been identified as secular residences of the local elite. They consist of a long, rectangular room with a flat ceiling and mangers carved on either of the long sides. Near this large stable is the path that leads to a long, winding tunnel carved deep inside the rock that terminates almost 80 meters above the riverbed. At the end of the tunnel are stairs that ascend to the open space of the first courtyard of the complex (space 1 as marked on the plan of Figure 3). To the left as one enters the first courtyard of the complex is the entrance to a very large, rectangular kitchen with a conical ceiling and ventilation shaft at the apex (2). Straight ahead (facing north) is the large, arched entrance to a spacious, long, rectangular hall with a flat ceiling (12). There are three deep arcosolia with benches on their back walls on either side on the ground floor. On a second level, there is a gallery with three arched windows to
the left (12a), and three open arches to the right (12bc) that allow views down into the open space below. Because of the partially closed nature of the upper floor gallery arches to the left, it has been proposed that the area could have functioned as a space for women to stay when there were male visitors to the household. From this gallery they could see the activities of the household unfold down below but not be seen by the male visitors.

At the end of the ground floor of this hall to the right is a long narrow tunnel (17) that leads to the second hall of the complex. The second hall (22) can also be reached via the gallery level to the right of Hall 1 (12c-d), or from the outside by walking eastward along a pathway carved along the side of the rock cliff. Hall 2 is impressive, spacious, and highly articulated, with a tall, barrel vaulted ceiling, an elevated threshold to the second half of the hall, which is decorated with a blind arcade on the upper walls. At the end of the hall is a wide, rectangular entrance to a cruciform room with a flat ceiling decorated by a cross in relief (23). At one corner of the cruciform room is an entrance to small room that served as a private latrine (24). This second hall is larger than the first and is situated higher on the rock. It is also further away from the utilitarian rooms and is next to the church. Therefore it most likely functioned as the ceremonial audience hall, dining chamber, or bedroom for the head of the household.

Standing in the middle of the second courtyard (32), the entrance to the second hall is straight ahead, and the basilica church is to the right toward the east (27). This church is exceptional not only because of its great size and proportions but also because there are no other churches in Cappadocia from the Middle Byzantine period with a basilica design. The most common church plans for the Middle Byzantine period is either a domed, cross-in-square church with four supports that divide the square into nine bays, or the more simple barrel-vaulted, single-nave church of varying sizes. Hundreds of these types of churches are scattered throughout the region and are both painted and unpainted. None however, reach the scale of the church at Selime. It is one of the largest in Cappadocia (the main, rectangular space of the basilica, without the sanctuaries and attached oratory, measures fifty-six square meters). The basilica is divided into three barrel-vaulted aisles separated by two arcades supported by a square pier between two thick columns. The arcade ends on engaged piers along the east and west walls. Engaged colonnettes articulate the four corners of the free standing and engaged piers. Both piers and columns sit on elevated square bases. The columns have two rings at their base and the piers only one. At the top of both columns and piers is a double band, rectangular for the piers and circular and rectangular for the columns with space in between the bands to mimic capitals. At the four corners of the upper, rectangular band of the columns are ovoid projections that resemble hanging cones or dates perhaps, a motif commonly seen in the carved masonry decorations of medieval architecture in Transcaucasia. A running hood molding articulates the outline of the arches. A band of similar width along the length of the barrel vault defines the springing of the vault. All of these details are meant to imitate architectural features found in masonry-built basilica churches. Cut into the east face of the pier on the north arcade is a deep niche with a depression at its base, which could have been used for holding a reliquary or holy water.

Cuttings on the church floor further delineate interior divisions of spaces. The side aisles are slightly elevated from the nave. The area in front of the central sanctuary is elevated even further by a platform that extends out from the side apses, wraps around the two columns closest to the sanctuary, and crosses in the middle of the nave. From the central nave, one must step up onto this platform before reaching the central sanctuary. A very prominent cylindrical cavity cut into the exact center of the step up onto the platform could have been used to support an architectural addition in wood, perhaps, such as a podium, baptismal font, or chancel screen that is now lost. All three apses at the east end of the basilica are equipped with individual altars, as is usual in many Cappadocian churches both large and small, painted and unpainted. Each apse could have
functioned as a separate sanctuary, and perhaps private liturgies were conducted in the side apses in addition to their traditional function as prothesis and diaconicon spaces. The central apse is larger than the side apses and includes a rock-cut bench, or *cathedra*, around the curved edge of the apse at floor level. This sanctuary area is separated from the nave by a step up into the bema through a templon barrier about chest high. The doorway into the south apse or sanctuary is very narrow and is thus separated from the rest of the church, creating a space that resembles an independent chapel more than a diaconicon. The space is also covered with domical vault instead of a conch, thus setting it apart like an independent chapel with its own altar. The north apse is more characteristic of a prothesis space with a semicircular apse but it also has an altar and thus could have also functioned as an independent chapel. It is also important to note how precisely the dimensions of the space were situated within the volcanic cone so that the west end of the church could open onto the courtyard, and a light shaft could be carved at the east end to allow light to enter into the central apse above the altar. A second light shaft was carved into the barrel vault of the south aisle of the basilica, reaching to the outside of the cone to allow for additional light into the church.

The church interior was painted. The nave’s central vault, the columns and piers, the intrados of the arches, the west wall and the central east apse all preserve figural and non-figural, narrative and non-narrative imagery, though most of the figural imagery is difficult to identify because of the poor state of preservation. The vaults and walls of the side aisles, and the north and south side apses remained unpainted, though precisely carved. Painted scenes from the infancy of the Virgin and Christ adorn the vault of the central nave. Bust images of saints in medallions decorate the spandrels of the arcades as well as the intrados of the arches. On the hood moldings of the arcades, on the moldings that articulate the tops of the columns and piers, and on the cornice at the springing of the nave vault, diamond and spade patterns add elegant touches. Though they may have been brightly colored originally, these decorative details now appear black. All of the figural imagery is very difficult to read, and although there are identifying inscriptions accompanying the images, as is traditional for Byzantine painting at this time, they are barely legible.

(fig.2) As stated previously, the basilica church plan is unusual for the period and for the region. Only one other basilica plan of this scale is known in the region and it likely belongs to the early Byzantine period (Durmus Kadir). This example at Selime, moreover, displays internal divisions that render a particularly “archaizing” character to the church. In other words these features reflect the basilica type of architecture from the early period of Christianity. The separation of the nave from the side aisles, the platform or *bema* in front of the central sanctuary,
and the *cathedra* in the main sanctuary evoke the shape of basilicas from the early Christian period. There must have been considerable prestige associated with having a basilica church with all its architectural references to the early Christian period included as part of the double courtyard mansion. Once again, the choice of a basilica church demonstrates the exceptional character of the Selime Kalesi. The alternating pier and column support system, moreover, is unknown in Byzantine architecture. This striking feature most likely indicates possible influence from the architecture of Transcaucasia at this time. In particular, the medieval churches of Tao-Klarjeti, now located in northeast Turkey bordering the eastern regions of Cappadocia, offer comparative evidence. In particular, the tenth to eleventh century churches of Otkhta Eklesia, Khakhuli, and Parkhali exhibit both the basilica type of Byzantine medieval church plan and elevation as well as alternating pier and column supports systems with varying designs for both piers and columns. The geopolitical proximity and exchanges between the eastern borders of Byzantium at this time and the Georgian princes of Transcaucasia make it likely that either Byzantine carvers of Cappadocia were influenced by Georgian designers, or Georgians themselves offered expertise in the design of the basilica church at Selime. (fig.3)
The main entrance into the church at Selime Kalesi was by way of the courtyard, though a small vaulted narthex, now partly collapsed (28). The narthex hosts a funerary arcosolium on its north wall that comprises a deep, arched niche sheltering a shaft grave at the foot of the niche. Above the arcosolium, on the cornice at the springing of the narthex vault, there is a funerary epigram painted in black uncial letters on white plaster. The epigram is composed of twelve-syllable verse, with only two lines surviving, and reads: “Let no one be consumed by the desire for wealth, for the love of money has destroyed many, for this flesh is earth, clay, and...” This poem is repeated in two different versions, in two separate churches near İhlara. An admonition against excess, the poem may have been the tombstone for the aristocratic owners of the complex, who are depicted inside the church, above the west entrance.

The donor image is located inside the church above the west entrance. Although it is in a very poor state of preservation, the format of the image and certain details are clear. It is a family portrait of donation with the largest figure in the center being the only religious figure wearing a halo. The central figure has been identified as the Virgin, and the church is thought to have been
dedicated to her, since there is a cycle of the Virgin’s life painted in the vault of the basilica’s nave. The nave, however, also features images from Christ’s infancy, so that the central figure of the donor panel could also be Christ. Whatever the identification, the central, holy figure is flanked by two individuals in secular dress and without haloes. They are both smaller than the central figure but at the same scale with each other. Three additional figures in secular dress to the left and right are depicted in even smaller scale. The two larger figures most likely are the heads of the household and donors of the church, while the remaining figures are members of their extended family. The central, holy figure raises his or her arms to bless the individuals on either side by touching the top of their headdresses, which appear to be square caps. In turn, the figure on the left presents with arms bent at the elbows what is most likely a model of the church, possibly the same church he founded and perhaps also dedicated to either Christ or the Virgin. As with other donor portraits in Cappadocia, although the architecture is rock-cut, the donor is depicted holding a built model of the church. This was the traditional way of depicting donor imagery in monumental sculpture and painting, icons and manuscript illuminations. Although Byzantine painting in Cappadocia adhered to certain established norms of representation, this kind of painted representation of built churches in Cappadocia’s donor portraits could also signify that a rock-cut church was thought of in no different terms than a masonry built church. (fig.5)

The group of donors at Selime has been identified as a family portrait with male members to the left, lead by the figure presenting the church, and female figures to the right. The two main figures

wear brocaded robes that are open in the front and decorated with roundels and foliage patterns. Both figures appear to wear square caps on their heads. These costumes belong to Byzantine fashion of the highest style for the period and indicate aristocratic, if not princely status. Female dress at this level of society, however, is usually closed in the front. Moreover, both figures seem to be wearing beards, although the details are badly damaged. I conclude, therefore, that both figures must be male, combined either as father and son or as two brothers, since groups of figures in donor images usually belong to one extended family. They could be the magnates of any one of the most prominent Cappadocian families, such as the Maleinoi, Skleroi, Bardas or Phokas. However, it is also well known in historical sources from this time that Byzantine emperors and Georgian princes were negotiating with one another over land retaken on Byzantium’s eastern frontier after the Arab incursions of earlier centuries. The only other representation in the wider region of two males in one donor portrait on monumental architecture is that of King David III Bagrationi Kuropalates and his brother King Bagrat, Magistros, Prince of Princes, at the tenth century church of Oshki in Tao-Klarjeti, in the medieval kingdom of Georgia. A direct correlation between the portraits carved in relief at Oshki and those painted at Selime cannot be made with any certainty, but it is worthwhile to consider connections between the owners and residents of the Peristrema Valley along the eastern territories of the Byzantine Empire and the most prominent ruling family in medieval Georgia in the tenth to eleventh centuries.

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NATURAL HERITAGE OF DAVIT GAREJI
Terrestrial Fossil Record from the Territory of
the Davit Gareja Monastery Complex

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Introduction
The territory embraced by the Davit Gareja monastery complex, which extends from the Tetri Udabno range in the east to Mount Didi Kvabebi in the west, is exceptionally rich in fossil vertebrate remains (fig. 1). Three important paleontological sites are known from the area: Udabno (Late Miocene, ca. 9-7.5 Ma), Dzedzvtakhevi (Late Miocene, ca. 7-6 Ma) and Kvabebi (Late Pliocene, ca. 3 Ma). This fossil evidence is essential in understanding the evolution of the Eurasian biome, since this territory is located along the border of the Eastern Mediterranean and Central Asian regions.

The occurrence of a dryopithecine, *Udabnopithecus garedziensis* at Udabno (late Miocene, eastern Georgia; Agusti et al. 2019) makes this place particularly interesting for the evolutionary history of late Miocene hominoids. In addition, the Kvabebi fauna documents the environmental background in the southern Caucasus preceding the early *Homo* dispersal out of Africa.

History of Paleontological Research at the Complex
Paleontological research of the territory of the Davit Gareja monastery complex extends back through nearly almost nine decades. The Udabno site was discovered first, in 1932; Kvabebi was discovered in 1962 and Dzedzvtakhevi in the 1980s. Paleontological research of Udabno was led by the State Museum of Georgia (now S. Janashia Museum of Georgia: GNM), while Kvabebi and Dzedzvtakhevi were studied by the L. Davitashvili Institute of Paleobiology, Tbilisi, ASGSSR (now part of the GNM). Fossils uncovered in these sites are now hoed in the vertebrate paleontology collection of the S. Janashia Museum of Georgia, (GNM).

N. A. Gedroitz first mentioned the fossils from Udabno in 1932; he encountered fossil vertebrate remains while mapping the area in the vicinity of the Davit’s Lavra. Later, in 1938, Burchak-Abramovich, together with M. B. Popkhadze from the State Museum of Georgia, Tbilisi and I. G. Podoplichko from the Zoological Institute, Kiev, explored the Udabno area. The expedition was fruitful and from 1939 through the end of the 1980s this territory has been systematically explored by the geological department of the State Museum of Georgia. In different years Udabno paleontological expeditions have been led by D. Tsereteli, E. Gabashvili, and G. Tsiskarishvili.

In parallel, from 1962 through the 1990s, paleontological excavations of Kvabebi and later Dzedzvtakhevi were conducted by the Institute of Paleobiology, Tbilisi. Both excavations were led by A. Vekua.

Joint Georgian-Spanish paleontological expeditions have been working in the Udabno and Kvabebi sites from 1990s until recently. Starting from 2008 GNM started sporadic paleontological exploration further east in the Iori valley, in the Chachuna area. This fieldwork has turned out to be extremely fruitful: new fossil localities and diverse vertebrate fossils were recovered; among them a primate mandible from Chachuna is worth mentioning. This is the first record of a colobine, an old world monkey, in the South Caucasus. Curiosity to understand the exact timing and environmental and biotic context of the Late Miocene South Caucasian primate record led to systematic paleontological and geological exploration of the Iori plateau by the GNM team. This work started in 2017 and still continues.
Figure 1

Selected fossils of large mammals from the territory of the Davit Gareja Monastery Complex; bar – 5 cm.

Top row from left to right: Deinotherium giganteum – proboscidean, lower jaw, Udabno-Natlismtsemeli; Tetralophodon longirostris – proboscidean, lower molar, Udabno-Tetri Udabno; Hipparion garedzicum – three digit horse, skull, Udabno.

Second row from left to right: Miohyeanotherium bessarabicum – fossil hyaenid, skull with mandible, Udabno-Natlismtsemeli; Percrocuta gigantea – fossil hyaenid, cranium fragment, Udabno-Natlismtsemeli; Tragoceros sp. – extinct antelope, horn-core, Udabno-Natlismtsemeli; Gazella sp. horn-core, Udabno; Tapirus priscus – fossil tapir, premolar upper, Udabno-Tetri Udabno; Chalicoteriidae, claw phalanx, Udabno-Natlismtsemeli; Nisidorcas planicornis – spiral horned antelope, frontlet with horn-cores, Dzedzvtakhevi.

Third row from left to right: Stephanorhinus megarhinus – fossil rhino, lower jaw, Kvabebi; Eosyncerus ivericus – fossil bovid, frontlet with horn-cores, Kvabebi; Puma pardoides – extinct puma, lower jaw, Kvabebi; Parastrepsiceors sokolovi – spiral horned antelope, skull fragment, Kvabebi.
Geologic and Paleogeographic Background of the Fossil Sites from the Complex

From the geological point of view, the territory of the Davit Gareja monastery complex belongs to the Middle Kura Basin (Bukhsianidze and Koiava, 2018) which is part of larger Kura Foreland, the eastern intermountain depression between the Greater and Lesser Caucasus delimited from the west by the Dzirula Crystalline Massif. Mollase deposits have accumulated in this basin since Oligocene times.

Until the Late Miocene, the Parathethys Sea covered the area where the Davit Gareja monastery complex is now situated. Here, the first continental deposits appear at the end of the Bessarabian (a marine stage, duration - 11.6 Ma to 9.4 Ma); the continental regime uninterruptedly continued until the late Pliocene, when entire Middle Kura basin was again covered by sea water as a result of the Akchagylian transgression at ca. 3.2 Ma.

The above-noted sites come from (1) the Eldari formation (continental) – a succession of variegated clays and sandstones deposited in the coastal zone of the Kura bay during the Khersonian marine stage (the duration of this marine stage is debatable and differs from author to author – from 9.4 to 8.6-8.2 Ma; or to ca. 7.6 Ma); (2) the Shiraki Formation (continental) – a huge succession of clays and sandstones deposited in calm conditions with slow transportation of terrigenous material corresponding to the Meotian-Pontian marine stages (following the Khersonian stage to 5.2 Ma); and (3) Akchagylian deposits (marine and continental, ca. 3.2 - 2 Ma).

Overview of Fossil Vertebrate Sites

1. **Udabno**: Late Miocene, Eldari and Shiraki formations, late Vallesian, early Turolian, MN10–MN11; located on the right bank of the Iori river near the Davit Gareja Lavra monastery, Sagaredjo region, Kakheti, Georgia; discovered in 1931 by Nikolaj A. Gedroiz while mapping the area. Composite list of fauna from Udabno in Table 1.

Table 1. Composite faunal list of Udabno. References in Bukhsianidze and Koiava, 2018.

<table>
<thead>
<tr>
<th>Reptilia</th>
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<tbody>
<tr>
<td><em>Testudo eldarica</em></td>
</tr>
<tr>
<td><em>Testudo</em> sp</td>
</tr>
<tr>
<td><em>Megalochelys</em> sp.</td>
</tr>
<tr>
<td><em>Trionyx</em> sp.</td>
</tr>
<tr>
<td><em>Mauremys</em> sarmatica</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aves</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anser</em> udabnensis</td>
</tr>
<tr>
<td><em>Larus</em> udabnensis</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mammalia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primates</td>
</tr>
<tr>
<td><em>Dryopithecus garedziensis</em></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Rodentia</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Palaeomys</em> sp.</td>
</tr>
<tr>
<td><em>Steneofiber</em> caucasicus</td>
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</tbody>
</table>
The Udabno site has a considerable EW extension (ca. 20 km), and fossils are found in several localities: Davit Garedja's Lavra, Natlismtsemeli, Adjia (the same as Dibsis), Dodo, Tetri Udabno, and Bertubani.

At the base of the Udabno section, Bessarabian sandy-clayish shallow marine/continental sediments are exposed. The Bessarabian sediments are followed by the variegated clays with layers of sandstone and conglomerates of the Eldari Formation, which is conformably overlaid by the Shiraki Formation. The terrestrial faunal remains come from different stratigraphic levels.

Regrettably, most of the Udabno fossils lack quality provenance information (but the exact place of finding for the Miocene ape – *Udabnopithecus garedziensis* – is known); only a few fossils were described and illustrated from the site, and it seems that taxa names were changed in the past without proper revision from list to list. The lists provided by various authors differ and, if taken together, they do not include all the taxa found in the Udabno site. All these issues make compilation of one comprehensive faunal list of the Udabno site more difficult.
New explorations of Udabno carried out by the GNM will eventually change the situation. During the last years (2017-2019) a substantial number of fossils were collected following strict stratigraphic protocols. Among the new discoveries the colobine, tapir, and varanus remains are especially remarkable, because these are new elements for the site and for the South Caucasus in general. Discovery of the almost complete proboscidean (*Deinotherium*?) femur in articulation with a pelvis in clay layers suggests that these fossils were found *in situ*, and that there is a high probability to unearth an entire skeleton. The new material is now under preparation.

Considering Udabno fauna as a whole, the absence of typical Vallesian rhinos (e.g., *Lartetotherium*, *Brachypotherium*) and muntjacs (*Euprox*, *Dicrocerus*), as well as the low diversity of suids (represented only by *Microstonyx*), points to either a late Vallesian or early Turolian age for these fauna. It is noteworthy that there is a striking difference from the neighbouring early Turolian fauna from Maragheh (Iran, only some 400 km away from these sites). For example, the Lower Maragheh (MN11, 8.9–8.2 Ma) bovids are more diverse than the Udabno fauna; though rare in the former (represented by *Protragelaphus skouzesi* and *Prostrepsicos* sp.; Kostopoulos and Bernor 2011), spiral-horned antelopes are totally absent in the South Caucasian sites. The bovid community from Udabno is represented mainly by boselaphines (*Tragocerus aff. amaltheus var. rugosifrons*, *Tragocerus* sp.), primitive gazelle species (*Gazella schlosseri*) and *Udabnocerus georgicus*, a bovid of uncertain phylogenetic affinities (from Adjia, found in the Shiraki Formation, Meotian–Pontian). Giraffids at these two sites are not diverse (*Palaeotragus roueni* and *Palaeotragus* sp.). Carnivores are represented by taxa appearing in the Turolian (*Adcrocuta eximia*, *Miohyaenotherium bessarabicum*, and *Simocyon* sp.), by taxa that appear earlier in the Vallesian but persist into Turolian times—*Percrocuta gigantea* and *Plesiogulo i.e., brachygnathus*. The primate *Udabnopithecus garedziensis*, a fragmentary and poorly known late Miocene ape from the Udabno site, is synonymized with *Dryopithecus* by a majority of researchers (Gabunia et al. 2001; references therein); it is the latest and the easternmost dryopithecine, which makes this fossil one of the key specimens for the evolutionary scenarios of the Eurasian primate record.

In total, this faunal material suggests that Udabno fauna from the lower fossil-bearing horizon belongs to the very late Vallesian (MN10) and postdates the Vallesian Crisis. The recent discovery of remains of *Tapirus priscus*, a typical Vallesian form in the lower horizon of the Tetri Udabno supports this interpretation (Bukhsianidze, 2019).

2. **Dzedzvtakhevi**: Late Miocene, Shiraki Formation, middle Turolian, MN12; located on the southern slope of Pirukguma Mountain on the right bank of the Iori river, Sighanghi region, Kakheti, Georgia. The site was discovered by Trubikhin in the 1980s. Faunal list of the Dzedzvtakhevi site: *Ergilemys natadzei*; *Adcrocuta eximia*; *Simocyon primigenius*; *Felix attica*; *Gomphotheriidae* gen.; *Hipparion* ex. gr. *elegans*; *Dicerorhinus* sp.; *Microstonyx major erymanthius*; *Cervidae* indet.; *Karsimatheirum aff. bazaleticum* (this list is based on Vekua and Trubikhin 1988; Vanishvili et al. 2007). According to palaeomagnetic research (Vekua and Trubikhin 1988), the fossil-bearing horizon at Dzedzvtakhevi is immediately above the reversed magnetized episode Chron 5 (corresponding to the subchron C3An, 6.25–6.44 Ma). Yet, the faunal assemblage, especially the presence of *Nisidorcas planicornis* (identification of MB), suggests a somewhat older age for the fauna (middle Turolian, MN12, ca. 7.5–6.5 Ma).

3. **Kvabebi**: Late Pliocene, middle Akchagylian, early Villafranchian MN16b; located on the eastern foothills of Mount Kvabebi on the right bank of the Iori river, at the village of lormughanlo, Sighnaghi region, Kakheti, Georgia; discovered in 1962 by Heinrich S. Avakov. For a faunal list see Table 2.
Table 2. List of Kvabebi fauna. References in Bukhsianidze and Koiava, 2018.

<table>
<thead>
<tr>
<th>Class</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reptilia</td>
<td>Testudo cernovi transcaucasica</td>
</tr>
<tr>
<td>Aves</td>
<td>Struthio transcaucusicus</td>
</tr>
<tr>
<td></td>
<td>Ioriotis gabuniae</td>
</tr>
<tr>
<td>Mammalia</td>
<td></td>
</tr>
<tr>
<td>Rodentia</td>
<td>Hystrix cf. primigenia</td>
</tr>
<tr>
<td>Carnivora</td>
<td>Nyctereutes megamastoides</td>
</tr>
<tr>
<td></td>
<td>Vulpes cf. alopecoides</td>
</tr>
<tr>
<td></td>
<td>Eucyon sp.</td>
</tr>
<tr>
<td></td>
<td>Ursus minimus</td>
</tr>
<tr>
<td></td>
<td>Perunium kvabebicus</td>
</tr>
<tr>
<td></td>
<td>Chasmaporthetes lunensis</td>
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<tr>
<td></td>
<td>Homotherium davitashvili</td>
</tr>
<tr>
<td></td>
<td>Dinofelis sp.</td>
</tr>
<tr>
<td></td>
<td>Lynx issiodorensis</td>
</tr>
<tr>
<td></td>
<td>Puma pardoides</td>
</tr>
<tr>
<td>Proboscidea</td>
<td>Anancus arvernensis</td>
</tr>
<tr>
<td>Hyracoidea</td>
<td>Kvabebihyrax kacheticus</td>
</tr>
<tr>
<td>Perissodactyla</td>
<td>Hipparion rocinantis</td>
</tr>
<tr>
<td></td>
<td>Stephanorhinus megarhinus</td>
</tr>
<tr>
<td>Artiodactyla</td>
<td>Propotamochoerus provincialis (=Dasycoerus sp.)</td>
</tr>
<tr>
<td></td>
<td>Procapreolus sp.</td>
</tr>
<tr>
<td></td>
<td>Eucladoceros sp.</td>
</tr>
<tr>
<td></td>
<td>?Pseudalces sp.</td>
</tr>
<tr>
<td></td>
<td>Ioribos aceros</td>
</tr>
<tr>
<td></td>
<td>Eosyncerus ivericus</td>
</tr>
<tr>
<td></td>
<td>Parastrepsiceors sokolovi</td>
</tr>
<tr>
<td></td>
<td>Oryx (Aegoryx) sp.</td>
</tr>
<tr>
<td></td>
<td>Protoryx heinrichi</td>
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<tr>
<td></td>
<td>Gazella postmitilinii</td>
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</table>

The Kvabebi site has produced a very rich faunal assemblage, which has been rather well studied taxonomically; the site is well dated using absolute age, magneto- and bio-stratigraphy. However, some contradictions among the available results are evident. Agustí et al. (2009) interpret the paleomagnetic data in combination with the biostratigraphy of vertebrate fauna as Kaena (C2An.1r;
3.032–3.116 Ma). However, this interpretation is not in accordance with the absolute fission-track dates of the ash layers below and above the fossil-bearing horizon (2.53±0.20 Ma and 2.18±0.18 Ma, respectively; Chumakov et al. 1992). It also conflicts with the finding of vertebrate fauna within the middle Akchagylian layers according to Kolesnikov’s scheme, and with the possible diachronous, delayed appearance of the Akchagylian transgression in the interior of the Kura Foreland Basin.

Another problematic issue at Kvabebi is the biogeographic affinity of some faunal elements, especially bovids, as this group comprises numerous Afrotropical (Ethiopian) taxa (Sincerini, Tragelaphini, and Hippotragini). They were interpreted as relicts of Mio-Pliocene Hipparion faunas. This author’s preliminary observations on the Kvabebi ruminants suggest many taxonomic changes: among cervids, Arvernoceros sp. (not yet mentioned in the faunal list) and Croizetoceros ramosus (= Eucladoceros sp. in Vekua 1972) are present in addition to Procapreolus sp. and Pseudalces sp., which is more likely a Palaeotragus sp.; among bovids, Eosyncerus ivericus belongs to Caprinae, Parastrepsiceors sokolovi, and is synonymous with Gazellospira torticornis, Protoryx heinrichi with Gazella borbonica; etc.

These faunal elements are typical Early–Middle Villafranchian Eurasian taxa. The absence of Mammuthus and Equus in the Kvabebi fauna makes a correlation with the middle Akchagylian, early Villafranchian, MN16b plausible. Yet, the presence of some middle Villafranchian taxa, such as Vulpes cf. alopecoides, as well as Gazellospira torticornis, the dominant antelope in the Kvabebi fauna, might support a younger age (MN17). Taxonomic revision (especially of artiodactyls) and reconciliation of paleomagnetic data with the existing absolute dates (or new dating) are needed to resolve these controversies.

Summary and conclusions
As evidenced from the above mentioned, this fossil record covers late Miocene and latest Pliocene intervals of the evolution of terrestrial fauna in the southern Caucasus. The late Miocene interval of the Udabno site coincides with the decisive episode in the evolution of the Eurasian biome known as the Vallesian Crisis – a major shift from evergreen forest domination to increasingly seasonal and open ecosystems. Existing and newly discovered primate remains add to the scientific value of this faunal record. Udabno fauna in combination with other fossil sites from the continental Eldari Formation and marine Khersonian deposits will eventually answer the pending questions concerning the exact timing and environmental and biotic context of the Late Miocene South Caucasian primate record: (1) was the Iori valley a refugium of humid adapted biome? (2) did dryopithecines and colobines coexist in the southern Caucasus, or (3) did they replace each other as part of a general faunal turnover due to environmental changes in western Eurasia at the end of the Miocene?

The direction of environmental changes during late Miocene in western Eurasia is everywhere the same – from closed to open environments – however these changes do not happen everywhere synchronously and as a result, several bioprovinces are distinguished. The biogeographic assignment of the Georgian Late Miocene vertebrate fauna varies from author to author and represents one of the fundamental issues for the Eurasian paleontological record. Did the humid biome refugium along the coasts of Kura Bay during the Khersonian stage continue to exist later on in Meotian times? or did this area become a full-fledged part of the Greco-Iranian province, where evolution of the land mammal fauna was driven by the aridisation? Detailed chronostratigraphic works, including absolute dating, as well as taxonomic studies of late Miocene faunas which are under way now can potentially clarify this matter.

Clarification of the taxonomic affinities of Kvabebi faunal elements will greatly help to better understand the biogeographic role of the Middle Kura basin. Was this area a refugium of the late Miocene Subparatethyan (Greek-Iranian) province? Was it a refugium of the mesophilous biome
in the strict scientific sense, or a marginal area of the mesophilous biome, expanding in this area periodically during favorable conditions from the forests that developed on the southern slopes of the Great and north-eastern slopes of the Lesser Caucasus?

So far, it is clear that much field, chronostratigraphic, and taxonomic work remains to be done to uncover the real picture of faunal evolution in this part of the South Caucasus.

The basis for writing this article is the curating work done in the Simon Janashia Museum of Georgia, (the Georgian National Museum), and the introductory field work aiming to rediscover and further explore the Iori valley. This work was conducted in the framework of the following projects: NSF RHOI project upper Miocene of Georgia (2005–2007); Pleistocene NSF project #BCS-1019408 (2011–2013); Volkswagen project #85 820 2 (2010–2014); SNF IZ73Z0 152380 (2012–2014); SNF IZ73Z0 127940 (2014–2016); Paleobiomics Project http://www.paleobiomics.org; and the Rustaveli Foundation projects: 1-5/23 (2010–2012), #11/05 (2012–2015), #217626 (2016–2019).

References
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5. Chumakov, I.S., Byzova, S.L., and Ganzei, S.S., Geohronologiya i korrelyatsiya pozdnego kainozoya paratetisa (Geochrono and correlation of the late Cenozoic of Paratethys), in Russian. Moskva, 1992
Physical-Geographic Conditions

The Davit Gareji protected landscape is located in the southern and southwestern parts of the Iori plateau [300-900(1000) m amsl.] (fig. 1). The relief alternates with anticline hills and syncline plains. It is characterized by a dry subtropical, semi-arid climate (fig. 2). Average annual precipitation is 350-450(500) mm and uneven throughout the year – the highest during April-June and the lowest during winter. Average annual temperature is 10.3°C-14.2°C. Evaporation – 900-1000 mm, moistening coefficient – 0.4-0.6.

The main soil types are grey-cinnamonic and black. Grey-cinnamonic soils are mainly skeletal. They have different levels of salinization. There are various modifications: light grey-cinnamonic, grey-cinnamonic, dark grey-cinnamonic. Grey and solonetz soils are developed in grey-cinnamonic soil areas. Alluvial soils are developed near the Iori River. There are clay (sometimes ultisol) and sand-clay eroded badland slopes and hills in the southern and southeastern parts of territory. There are areas of exposed sandstone mother rock, as well.

**Vegetation**

The vegetation cover is distinguished by its diverse typological composition. The vegetation ecosystem is developed with entirely different origins and structures. Namely there are: steppe, desert, arid open woodland (xerophitic forest), phryganoid vegetation, hemixerophilous shrubberies of shibliak type, mesophilous and xeromesophilous shrubberies and floodplain forest ecosystems. Besides these, there are exposed mother rock florocomplexes and wetland habitat fragments. The majority of the area is covered with steppes and deserts.

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Steppes are represented by primary (relict) and secondary communities. Nowadays, they are not clearly separated. The typological composition of steppes is rich. The main formations are: Bothriochloeto ischaemum, Stipeta (S. lessingiana, S. capillata, S. pulcherrima), Festuceta vallesiaci and Gramineto-mixtoherbeta. There are transitional plant communities among them – Bothriochloeto-Stipetum, Bothriochloeto-Festucetum and others.

The typological composition of the individual formations is high and represented by different plant communities. Mostly, Stipeta is primary and Bothriochloeto is secondary. According to Troitzki, the floristic composition of Bothriochloeto is similar to that of Stipeta and they developed through anthropogenic factors.

The floral composition of the steppe is high and diverse. Different bioecological and phenorythmic plants are distributed. The composition of perennial grasses and herbs is especially distinctive with its rich species: Koeleria cristata, Potentilla recta, Phlomoides tuberosa, Thalictrum collinum, Rumex tuberosus, Dactylis glomerata, Salvia nemorosa, Potentilla adenophylla, Falcaria vulgaris, Galium verum, Veronica multifida, Filipendula vulgaris, Psephellus carthalinicus, Agrimonia eupatoria, Inula aspera, Polygala transcaucasica, Astragalus bungeanus, Tragopogon tuberosus, Astragalus brachycarpus, Stachys atherocalyx, Onobrychis cyri and others. The ephemeral synusia is well developed as well (Medicago minima, Medicago orbicularis, Helianthemum lasiocarpum, Helianthemum salicifolium, Alyssum alyssoides, Arabidopsis thaliana, Scabiosa micrantha, Bromus japonicus, Viola kitaibeliana, Crepis sancta, Phleum paniculatum, Galium tenuissimum, Draba nemorosa, Arenaria serpyllifolia, Bombycilaena erecta, etc.). Some of the ephemroides should also be noted: Ornithogalum navaschinii, Gagea caroli-kochii, Gagea commutata, Colchicum trigynum, Iris caucasica, Bellevialia montana, Leopoldia tenuiflora, etc. There are dwarf semi-shrubs as well: Thymus tiflisiensis, Teucrium polium and Teucrium nuchense.

The Davit Gareji protected landscape is one of the main areas of the South Caucasus steppe. The steppe vegetation of Davit Gareji, and overall Lori plateau, offers a strong florogenetic connection with that of the Eurasian steppes, however they have a different plant development rhythm and structural characteristics.

Desert vegetation is mainly distributed in the eastern part of Davit Gareji protected landscape and is represented as one of the extreme locations of South Caucasus desert vegetation. The desert vegetation of the South Caucasus is the continuation of the Irano-Turanian deserts and belongs to their South Caucasian version. There are two ecological types: plain and foothill deserts. The main formation of the plain deserts is Artemisieta fragrans. Salsoleta denderoidis communities are distributed with the participation of Nitraria schoberi. Fragments of Gamanthus pilosus formations are spread on the highly saline soils. A good development of ephemeral synusia is one of the main structural characteristics of plain deserts. Ephemers include: Astragalus asterias, Madicago orbicularis, Torularia contortuplicata, Torularia torulosa, Eremopyrum orientale, Eremopyrum tritecum, Koelpinia linearis, Linum corymbulosum, Malcolmia africana, Bombycilaena erecta, Spergularia diandra, and others. Main ephemeroi are Poa bulbosa and Colpodium humile, which are the dominant species of grass cover. Apart from these, some species of Gagea are distributed (Gagea commutata and Gagea caroli-kochii).

The fragments of foothill deserts are represented by saline clay badland slopes and hills. In such relief-edaphic conditions, foothill deserts and phryganoid vegetation together form a clay and sand clay badland ecosystem. The vegetation projection cover is low. Slopes and hills that have

no vegetation cover are not that rare. Characteristic species are: *Salsola nodulosa*, *Reaumuria alternifolia*, *Stachys fruticulosa*, *Bupleurum wittmannii*, *Gamanthus pilosus*, *Zygophyllum fabago*, etc. Because of the relief-edaphic conditions, ephemeral-ephemeroid synusia is not mostly shown, unlike in plain deserts.

**Phryganoid vegetation**, alongside desert foothills, is fragmentally distributed with different areas. Its main areas are the southern and southeastern parts of the territory. Xerophilous semi-shrubs and dwarf semi-shrubs are the main edificatory-dominant in the clay and sand-clay badlands: *Reaumuria alternifolia*, *Stachys fruticulosa*, *Salsola nodulosa*, *Artemisia fragrans*. Besides these, *Capparis herbacea* is present. Characteristic grass species include *Agropyron cristatum*, *Bupleurum wittmannii*, *Zygophyllum fabago*, *Gamanthus pilosus*, *Amberboa glauca*, *Lappula barbata*, *Stipa arabica*, etc., and as for the shrubs: *Caragana grandiflora*. As in the desert foothills, ephemeral-ephemeroid synusia is mostly not in evidence.

The phryganoid vegetation and desert foothill ecosystems, both spread across clay and sand-clay badlands, are in florogenetic connection with the Irano-Turanian vegetation and belong to its South Caucasian variation\(^7\), \(^8\).

On relatively mild relief, cenoses with the edification of *Caragana grandiflora* and *Salvia garedji* are formed and fragmentarily distributed (Caraganeanum grandiflorae and Salvietum gareji).

**Arid open forests** (Xerophytic forests) are considered to be tertiary period vegetation relics. Their formation in Georgia was implemented in the bosom of the Ancient Mediterranean through close contact with boreal flora. In the Davit Gareji protected landscape, arid open forests are spread in the eastern and southern eastern parts. Their derivatives are still present within the Davit Gareji monastery complex as well.

The xerophytic forests in the Davit Gareji protected landscape are represented by plant communities of *Pistacieta mutici* and *Junipereta* (*J. foetidissima*, *J. polycarpos*) formations. Pistachio woodlands are distributed on a mild relief, whereas Juniper forests are found on slopes with average and high inclination. There are transitional Pistacieto-Juniperetum communities, as well.

In the pistachio woodlands, pistachio trees are more or less distant from each other (tree layer coverage 0.2-0.4). Undergrowth is mostly well shaped. Characteristic shrubs are: *Paliurus spinachristi*, *Jasminum fruticans*, *Ephedra procera*, *Prunus incana*, *Lonicera iberica*, *Juniperus oxycedrus*, *Rhamnus pallasii*, *Punica granatum*, etc. The grass cover is different—plant communities of Pistacieta mutici are developed on the steppe background, as well as in the desert and semi-desert vegetation. Accordingly, they are characterized by a wide range of perennial grasses, semi-shrubs and dwarf semi-shrubs: *Bothriochloa ischaemum*, *Stipa lessingiana*, *Stipa capillata*, *Artemisia fragrans*, *Salsola dendroides*, *Salsola ericoide*, *Scorzonera biebersteinii*, *Bassia prostrata*, *Tragopogon tuberosus*, *Dianthus crinitus*, *Daucytyl glomerata*, *Stipa bromoides*, *Onobrychis cyri*, *Salvia nemorosa*, *Teucrium polium*, *Scutellaria orientalis*, *Thymus tifliensis*, *Potentilla recta*, *Melica transsilvanica*, *Festuca valesiaca*, *Centaurea ovina*, etc. There is also a diverse ephemeral synusia: *Bromus japonicus*, *Phleum paniculatum*, *Psilurus incurvus*, *Schismus arabicus*, *Bombycilaena erecta*, *Clypeola jonthlaspi*, *Alyssum linifolium*, *Alyssum desertorum*, *Arabidopsis thaliana*, *Medicago orbicularis*, *Ziziphora capitata*, *Helianthemum salicifolium*, *Arenaria serpyllifolia*, *Viola kitaibeliana*, *Galium tenueissimum*, etc. Ephemeroïdoids participate as well: *Poa bulbosa*, *Bellevalia montana*, *Ornithogalum navaschinii*, *Allium rubellum*, *Gagea commutata*, and *Iris caucasica*.

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The tree-layer coverage of Juniper stands is mostly 0.3-0.6. The undergrowth components are: 
*Paliurus spina-christi*, *Jasminum fruticans*, *Ephedra procrea*, *Prunus incana*, *Lonicera iberica*, 
*Juniperus oxycedrus*, and *Rhamnus pallasii*. Grass cover plant species are: *Stipa bromoides*, *Galatella villosa*, 
*Agropyron cristatum*, *Astragalus stevenianus*, *Thymus tiflisiensis*, *Tragopogon tuberosus*, 
*Onobrychis cyri*, *Teucrium polium*, *Teucrium nuchense*, *Festuca valesiaca*, *Stipa arbarica*, 
*Bothriochloa ischaemum*, etc. The composition is enriched with desert and phryganoid vegetation components: 
*Stacys fruticulosa*, *Reaumuria alternifolia*, *Salsola nodulosa*, *Capparis herbacea*, *Zygophyllum fabago*, 
*Artemisia fragrans*, *Salsola ericoides*, *Salsola dendroides*, etc. Unlike in the Pistacieta mutici communities, 
the ephemeral synusia in Junipereta is poorly distributed.

**Shibliak type hemixerophilous shrubberies** are fragmentally spread in steppe vegetation areas 
and distributed in ravines and slopes with different expositions and inclinations. The communities 
formed are both primary and secondary. The secondary plant communities are mostly formed 
due to arid open forest deforestation. The main plant communities are: Paliuretum spina-christi, 
Spiraetum hypericifoliae and Mixtofruticetum. Characteristic shrubs are: *Prunus incana*, *Rhamnus pallasii*, 
*Cotinus coggyria* and *Cotoneaster racemiflorus*. The involvement of the Georgian Red List 
species—*Prunus microcarpa* is noteworthy. The grass cover is rich; it is formed with semi-xerophilous, 
xerophilous, xeromosophilous and mesoxerophilous plants of the steppe and shrubberies of the 
shibliak type. In the Paliureta spina-christi both perennial grass-herbs and ephemeral synusias are 
well shaped. Due to the high coverage of Spiraeta hypericifoliae, ephemeral synusia is weak and 
sometimes absent. Characteristic species are: *Stipa capillata*, *Festuca valesiaca*, *Potentilla recta*, 
*Phlomoides tuberosa*, *Thalictrum collinum*, *Rumex tuberosus*, *Dactylis glomerata*, *Falcaria vulgaris*, 
*Galium verum*, *Filipendula vulgaris*, *Vinca herbacea*, *Psephellus carthalinicus*, *Agrimonia eupatoria*, 
*Teucrium nuchense*, *Arabidopsis thaliana*, *Asparagus verticillatus*, *Teucrium polium*, *Salvia nemorosa*, 
*Potentilla adenophylla* and *Seseli grandivittatum*.

Besides the formations mentioned above, we will relate the hemixerophilous shrubberies of shibliak 
type to the Georgian Almond plant communities (Amygdalian georgici). They are distributed 
along the western edge of the Davit Gareji protected landscape – the Kochora low range. The 
Kochora range is one of the main and important areas for the Georgian Almond populations. 
The Georgian Almond plant communities are found in ravines and the lower parts of slopes, where 
the soil humidity is relatively high. Apart from Georgian Almond, the rest of the shrub species 
are *Spiraea hypericifolia*, *Rosa spinosissima*, and *Jasminum fruticans*. It is characterized with a 
well-developed array of grass-herbs: *Dictamnus scaucasicus*, *Agrimonia eupatoria*, *Galium verum*, 
*Asparagus verticillatus*, *Origanum vulgare*, *Dactylis glomerata*, *Vincetoxicum hirundinaria*, *Fragaria viridis*, etc. In the Kochora range, Georgian Almond is also distributed in different communities of 
shibliak (Spiraeta hypericifoliae, Paliureta spina-christi, polydominant shrubberies).

**Floodplain forests** are distributed along the Iori River banks. The structure in different parts of the 
area is incoherent due to anthropogenic factors (deforestation and grazing). There are mainly oak 
and poplar forest (Querceta pedunculiflorae and Populeta; *P. canescens*, *P. nigra*). Poplar stands 
are distributed along the first river terrace and oak stands along the second. Different liana species 
are involved: *Hedera helix*, *Periploca graeca*, *Smilax excelsa*, *Vitis vinifera* subsp. *sylvestris*, as well as 
*Rubus* ssp.. Besides these characteristic woody plants include *Crataegus pentagyna*, *Crataegus kyrtostyla*, 
*Prunus divaricata*, *Cornus mas*, *Swida australis*, *Berberis vulgaris*, *Rosa canina* and 
*Prunus spinosa*. In the direction of the Iori River, in parallel with airadization rise, the number of 
lianas and above mentioned plants are decreasing. Instead, there are *Punica granatum*, *Berberis iberica*, 
*Tamarix ramosissima*, *Rhamnus pallasii*, *Paliurus spina-christi*, and *Pistacia mutica* (growing 
on the forest edges) distributions. In the grass cover, the typical forest plant species are replaced by 
*Limonium meyeri*, *Imperata cylindrica*, and *Atriplex* ssp.. Such structural changes are mostly seen in 
the eastern parts of Davit Gareji protected landscape.
In small, separate places within the floodplain forests, *Ulmus minor* and *Elaeagnus angustifolia* are the dominant species. Their communities (Ulmetum minor and Elaeagnetum angustifoliae) are mostly secondary – they were formed after the deforestation of poplar and oak forests.

**Mesophilous and xeromesophilous shrubberies** are fragmentarily distributed along the banks of humid ravines and the Iori floodplains. The main plant communities are Tamaricetum ramosissimae and Halimodendronetum halodendron. Tamarisk shrubberies are mainly distributed along the Iori floodplains, as well as along humid ravine banks. Salt tree shrubberies are distributed along the northern side of the Davit Gareji monastery complex and the Jangiris khevi gorge (the far edges of the southwestern side of the Davit Gareji protected landscape). They are developed in humid ravines. In Georgia, the area of *Halimodendron halodendron* and its plant communities are not separated from the Davit Gareji protected landscape.

**The exposed mother rock sandstone florocomplexes** are mainly distributed in the southern parts of Davit Gareji protected landscape. The floristic composition is complex. Alongside typical petrophytes, different vegetation species (Steppe, hemixerophilous shrubberies of shibliak type, xerophitic forests, tragacanthic shrubberies) are distributed, as well as accidental species. Accordingly, we meet species with different bio-ecology and life forms. The phytosociological structure is undeveloped and unstable. Interaction between plants is at its minimum. Mostly, fragments of such florocomplexes are secondary. Florocomplexes are very sparse. The vertical structure has deteriorated. Distributed shrubs are: *Astracantha microcephala*, *Ephedra procera*, *Rhamnus pallasii*, *Paliurus spina-christi*, *Spiraea hypericifolia*, *Cotinus coggygria*, *Juniperus oxycedrus*, *Cotoneaster racemiflorus*, etc. The involved characteristic semi-shrubs and dwarf semi-shrubs are: *Teucrium polium*, *Teucrium nuchense*, *Scutellaria orientalis*, *Artemisia caucasica*, *Salvia garedjii*, *Thymus tiflisiensis*, *Fumana procumbens*, etc. The majority of grass species are perennial: *Agropyron cristatum*, *Astragalus stevenianus*, *Bothriochloa ischaemum*, *Euphorbia glareosa*, *Matthiola odoratissima*, *Stipa arabica*, *Dianthus crinitus*, *Gypsophila stevenii*, *Onobrychis radiata*, etc. Annual plants with a weak root system cannot develop on erosional exposed mother rock. Only those with a strong root system can develop (for example *Astrodaucus orientalis*).

**Wetlands** are connected with mineralized small lakes (Jikhurebi, Sakhari and Kapanadze lakes) and ponds. In some of these, plant communities of wetland characteristic species (*Phragmites australis*, *Typha* ssp., *Bolboschoenus maritimus*, *Carex* ssp., *Cyperus* ssp., etc.) are distributed. These lake ecosystems in semi-arid landscapes represent the special habitats for some animals and play an important role in the biodiversity of the Davit Gareji protected landscape.

**Floristic Composition**

Approximately 700 species of vascular plants are distributed. The floristic composition indicates boreal and Ancient Mediterranean florogenetic links. The main links are toward the Eurasian steppe, Southwest Asia and Turan. Weaker links are toward the Mediterranean and Europe.

The Southwest Asian links are most clearly represented in floristic compositions of arid-open woodlands, deserts and phryganoid vegetation. Florogenetic links to Turanare represented in the desert and partially in the pistachio woodlands floristic composition. As for the Mediterranean links, arid open woodlands are important. The boreal florogenetic links are represented in more or less steppe and shibliak floristic composition. In the floristic composition of arid open woodlands, the boreal links are represented poorly. It is noteworthy that Caucasian species play an important role in all the floristic compositions within these ecosystems. This once again underscores the floristic diversity of the Davit Gareji protected landscape and its uniqueness. Overall, the versatility of florogenetic links reflects the biodiversity of Davit Gareji protected landscape.

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Plant Bio-ecological Diversity

The plant-life forms distributed in those areas indicate the diversity of floristic composition. All main plant life forms are present: trees, shrubs, semi-shrubs, dwarf semi-shrubs and herbaceous plants. Each life form is represented as various bio-ecological species. There are diverse features of adaptation to the environmental conditions. Quantitatively, the herbaceous plants are the highest, namely hemiherbaceous plants and therophytes. In comparison with these two, there are only a small number of geophytes. The majority of these are decorative plants. Among them, there are endemics of Caucasus (Iris carthaliniae, Iris iberica, Iris caucasica, Belleviala montana, Tulipa eichleri, Gagea caroli-kochii, Gagea commutata) and rare species of the flora of Georgia (Orchis punctulata, Bongardia chrysogonum, Phelypaea coccinea). Shrubs predominate in woody plants, whereas trees are few. It is important to note that among woody plants, there are trees and shrubs, which are the characteristics of entirely different ecotypes and distributed in almost every ecosystem vegetation covers. The majority of trees and shrubs are deciduous, however there are evergreen conifer species as well (Juniperus foetidissima, Juniperus polycarpos, Juniperus oxycedrus).

The composition of semi-woody plants is interesting. There is a distribution of the semi-shrubs characteristic of deserts (Artemisia fragrans, Bassia prostrata, Noaea mucronata, Salsola ericoides, Salsola nodulosa, Halothamnus glaucus and Reaumuria alternifolia), as well as dwarf semi-shrubs characteristic of the steppe, shibliak and skeletal and rocky ecotypes (Thymus tiflisiensis, Teucrium polium, Teucrium nuchense, Scutellaria orientalis, Helianthemum orientale, and Fumana procumbens).

Due to low precipitation, ombrophytes, which can survive on limited precipitation, are the main core of the floristic composition. The composition of ombrophytes is diverse. Among them are perennials with strong root systems (trees, shrubs, semi-shrubs, dwarf semi-shrubs and herbaceous plants), as well as ephemerals with weak root systems. Accordingly, ombrophytes are represented in almost every ecosystem. Plants connected to groundwater and filtration moisture (phreatophytes and trichohydrophytes) are few. They mostly grow near rivers.

The halophytes are few, but their involvement is important. They are mostly species characteristic of desert ecosystems. Despite the small number of species, plants of all halophyte groups are presented: (1) euhalophytes, (2) crynohalophytes and (3) glycohalophytes. Euhalophytes are succulent or semi-succulent plants: Salsola dendroides, Salsola ericoides, Salsola nodulosa, Halothamnus glaucus, Gamanthus pilosus, Petrosimonia brachiata, Salicornia europaea, Suaeda heterophylla, Suaeda microphylla, Suaeda dendroides, etc. Among the crynohalophytes (Tamarix ramosissima, Tamarix sylvestris, Reaumuria alternifolia, Limonium meyeri, Aeluropus littoralis, etc.) and glycohalophytes (Artemisia fragrans, Bassia prostrata, Noaea mucronata, Camphorosma monspeliaca, etc.), generally, succulent plants are not present. Ephemerals among the halophytes are: Spargularia diandra, Eremopyrum orientale, Eremopyrum distans, Eremopyrum boneapartis, Eremopyrum triticeum, Psylliostachys spicata, Bupleurum wittmannii, and Arnebia decumbens.

High Conservation-Value Plants and Plant Communities

From the “Red List of Georgia”10, different plant species are distributed: Amygdalus georgica, Halimodendron halodendron, Juniperus foetidissima, Juniperus polycarpos, Prunus microcarpa, Nitraria schoberi, Pyrus demetrii, Pistacia mutica, Quercus pedunculiflora, Salvia garejii, and Ulmus minor.

60 species are found in the “Red List of the Endemic Plants of the Caucasus”11. Two species among them (Amygdalus georgica and Onobrychis kachetica) are endemics of Georgia.

10. Saqartvelos Witeli Nuskha (Red List of Georgia), (in Georgian), Tbilisi, 2014.
The representative species of the CITE convention protected orchid family (Orchidaceae) are rare: *Anacamptis morio* subsp. *picta*, *Orchis punctulata* and *Orchis simia*. Other rare species of the flora of Georgia are distributed: *Suaeda dendroides*, *Suaeda microphylla*, *Bongardia chrysogonum*, *Punica granatum*, *Phelypaea coccinea*, etc.

High conservation status plant communities are:

- stands of pedunculate oak (Quercetum pedunculiflorae);
- arid open woodlands (Pistacieta mutici; Junipereta, *J. foetidissima, J. polycarpos*);
- salt tree plant communities (Halimodendronetum halodendron);
- Georgian almond plant communities (Amygdaletum georgici);
- Edaphicactor-dominants of these plant communities are the species from the “The Red List of Georgia”.

Besides these, all plant communities involving the species from “The Red List of Georgia” are worth mentioning. These communities represent the habitats of these rare species and play an important role in conserving their populations.
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*Sakartvelos Witeli Nuskha (Red List of Georgia)*, (in Georgian), Tbilisi, 2014.


Abstract

This research project of the Shota Rustaveli National Science Foundation of Georgia - Natural Disasters in the South Caucasus: Earthquakes and Attending Natural Phenomena in Historical Sources from the Ancient Period up to the 19th Century – began in 2017 and has been conducted by the Korneli Kekelidze Georgian National Center of Manuscripts and Ilia State University. With this interdisciplinary project, historians and seismologists envisage culling information from poly-lingual historical sources about earthquakes in the South Caucasus and the adjacent seismic zones. The aim of the project is to identify and classify evidence of seismic effects found in these sources; reveal seismic hazard zones; and examine, describe and study the cultural heritage sites damaged by earthquakes and related natural disasters.

Written sources over a long historical period have preserved evidence of the earthquakes and other natural phenomena occurring in the Monastic complex of Davit gareji, a semi-desert region which lies parallel to the river Mtkvari and the lower part of the valley of the River lori. Architectural monuments damaged by earthquakes also provide us with important data concerning the time and effects of past seismic events.

In the current work, we show preliminary results of a survey of the large earthquakes in the 11th -13th centuries that are available in Georgian historical sources, which probably occurred on the territory of Gareji desert, namely: in the area of the rock-cut monasteries of the western massif, located along the Karta-Rustavi line: Tsamebuli, Mravalstkaro, Tetri Udabno; the Kolagiri, small-cave monastery of the lori ramification, and the Bertubani monastery in the extreme southern desert (in modern-day Azerbaijan). Analysis of the complex historical seismological data shows that strong earthquakes with a magnitude of up to 7.0 might have occurred here. The type of damage observed at several monasteries also supports this hypothesis. The earthquakes have caused significant damage and probably even stopped the functioning of several rock-cut monastery complexes in the western part of the Gareja desert (i.e. Mravaltskaro and Tetri Udabno). Collected data provides an important complement for the historical studies of Gareja Monastery life, and at the same time it is crucial to properly access the Natural Threads affecting the rock-carved monuments.

The Davit Gareji Monastery Complex is located in the extreme southern part of Iveri plain which is stretching 25 km, in between the Iveri and Mtkvari rivers. More than two dozen large and small rock-hewn complexes are cut in outcrops of gray and yellowish sandstone; reddish, greenish, yellowish and brownish clays; and colored conglomerates that are subjected to constant weathering and easily

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1. Geographically, the lori plain or Hereti is bounded on the northwest by the Gombori plateau, north to the Saguramo-Yalon ridge, north and southwest to the Mtkvari valley, and to the south-east by Shiraki. Historically, the northern part of today’s eastern Kakheti, on the left side of the Iori River, was called Sujade; the right side of lori was called Gareji (Todria - Putkaradze 1988, 114-115, 116).
Humans first inhabited Gareji about sixty to thirty thousand years ago (the second half of the Acheul and first half of the Mousterian periods). The ancient remains of the highly developed aterian culture found on the territory of the Gareji hills (მრავალმთა), starting from the Stone Age and continuing into the ancient historical period, suggests a continuous record of human life. Archaeological research shows that starting from the second half of the 1st millennia BCE and continuing through antiquity, traces of human life in Gareji stopped suddenly and the area remained deserted. Humans returned to Gareji in the first half of the 6th century CE, after the Syrian father Davit and his disciples established desert monasteries in the area.

The question of what forced humans to abandon this area is still unanswered today. Was it a major natural disaster, which fundamentally changed the landscape here and made it useless? Or did the Global climate change and increased human stress leave the region stripped of resources? This question also applies to the subsequent monasteries of Gareji, where monastic life suddenly ceased in the early stages and no longer developed. A complex study in the 1980s of the monasteries of the Western Massif of the Rolling Mountains of Gareji (Tsamebuli, Mravaltskaro, Tetri Udabno) and the Iori Bank Gareji (Sabereebi, Satorge, Kholagiri) with its numerous multicultural pilgrim and fresco inscriptions, suggested the likelihood that the monasteries and smaller groups in their vicinity, apart from rare exceptions (Tetri Udabno – 7th-8th c, Kholagiri – 12th-13th c), were established in the ninth and tenth centuries. The study also showed that after the 11th

2. The Gareji ridges are made of lower and middle sarmar sand marshes and strongly welded conglomerates, characterized by very steep slopes and cycling flats, and dollars (massive pontone sandstones) (Bugnianishvili 1988: 18-37).

The cave complexes built in Gareji are divided into three categories: A. Monasteries cut in sandstone (Udabno, Bertubani, Sabereebi, etc.); B. Complexes hewn in conglomerate-deposited mass in fine pebbles (Kolagiri); C. Complexes hewn in sandstone, with brick or stone facilities constructed on the entrance side; these annexes form part of the design of strengthening the cave (Natlismtsmeli, Lavra of St. Davit Udabno, Tsamebuli, etc.). Of these categories, type C and A caves are in the best state of preservation or in relatively good condition; Type B are ultimately doomed, for erosion of the rocks after each rain and from wind is obvious (Buchukuri 2001: 254).
century, local monastic life was no longer flourishing as in the earlier period, and after the 13th century the activities slowly faded away and the sites were abandoned, which is likely to be associated with a natural disaster among other factors.

A direct confirmation of the natural catastrophe that occurred in Gareji is encountered in one of the inscriptions of the eleventh century found in the Tsamebuli desert in the northwest massif of the Rolling Mountains Monastery complex (fig. 2-3). The front façade of the upper tier of the complex – the principal part of which is represented by a hall church, the gate and the living premises – is collapsed. Because of that, it can only be accessed with help of special equipment. In the “Kharitoni Pot” of the rock-cut church, on the plaster on the western wall on the altar entrance a local monk’s inscriptions tell us about a powerful earthquake that took place on May 31st (On the last day of May), on a Thursday at lunchtime, which caused the destruction of churches, fortresses, buildings and the deaths of many individuals (Graphic outline):

At the very end of May (=31 May) there was an earthquake in atmidday, on Thursday. The churches were ruined and the castles and other buildings had collapsed and many people died and there was great fear and mourning among all the inhabitants.

Paleographically, since the inscription is written in Nuskhuri script, it would not go beyond the 11th-12th centuries. Based on this, in the special literature, it is suggested that the graffito must refer to the well known 1089 earthquakes, which lasted almost a year (fig.3).

The royal historian of King David IV of Georgia (r. 1089-1125), then residing in Javakheti, writes about a strong earthquake that occurred in the 1080s, shortly before the reign of David. The devastating earthquake killed many souls and “terrible” tremors lasted for a year. On Easter day when the primary earthquake struck, the mountains and cliffs turned to dust, towns, villages and churches were destroyed, and houses were swept to the ground and became the tombs of their inhabitants. The earthquake destroyed the Tmogvi fortress, killing its owner, Kakhaber, son of Niania, together with his wife. According to the historian: “...Thus on Easter Day, the very day of the Resurrection of Our Lord Jesus Christ, a day which should have been one of rejoicing and peace, The Lord looked down in anger and caused the earth to tremble to its foundations, with such violence that lofty mountains and solid rocks were ground into veritable dust, towns and villages were destroyed, churches tumbled to the ground, and houses, engulfed and shattered, turned into tombs for those who dwelt within them. In the course of these events T’mogvi collapsed in ruins, with Niania’s son Kakhaber and his wife within it. And there were terrible earthquakes like this one until the end of the year, in which numberless people perished” (from Life of the Great King David. 1955: 323-24).

3. The Armenian translator of the modern “Kartlis Tskhovreba” of David Aghmashenebeli, David’s historian about this earthquake in Javakheti only concerns and does not mention demolition of the Tovagvi fortress (The Georgian Chronicles old Armenian translate 1953: 236-37)
Specifically, the earthquake took place on the Javakheti plateau, in the Artani Mrkvari Valley, on Easter Sunday of 1089, just shortly before the beginning of the reign of David IV, followed by a number of “terrible” aftershocks during the following year. Easter 1089 was on April 1\textsuperscript{st}, while May 31, when the main after shock occurred, was indeed a Thursday. The area of the 1089 earthquake events must have been rather vast, probably comprising southern and western Georgia from the Javakheti plateau to historic Gare Kakheti, along the Karaia-Rustavi lie, including the Iori Plateau.

According to a Tsamebuli Monastery inscription, a strong earthquake was registered on Thursday, May 31\textsuperscript{st}. This probably was the time of the destruction of the Tsamebuli, Mravaltskaro and Tetri Udabno monasteries, hewed into the western massif of Gareji, on the verge of Rustavi-Karaia, along the Tetri Udabno ridge crest. The same is suggested by the collapsed facades and earth-filled cave-chapels of those tiered rock-cut complexes. The catastrophe of the eleventh century is well indicated by an older complex of Tetri Udabnocut into the upper part of the massive fringing rocks, on the southern slope of one of the branches of the Tetri Udabno Ridge, 14 km away from Lavra monastery, which would represent the ruins of an older, vaster monastery (fig. 3). The collapsed façade of the cave-church, the vault split in two and all its graffiti within the white, coarse-grained sandstone, doesn’t go beyond the 11\textsuperscript{th}-12\textsuperscript{th} centuries. It seems that monastic life was never revived in Tetri Udabno after the earthquake. During the complete repair and conservation tasks implemented on the architecture, frescos and epigraphs on the rock-cut monasteries of the Gareja Mravalmta Western Massif, it became clear that monastic life had begun to decrease in the Western Massif Desert-Monasteries (Tsamebuli, Mravaltskaro, Tetri Udabno) by the late eleventh century; by the late thirteenth century monastic activities gradually ended all together. This fact is probably connected with the destruction of those complexes caused by the natural catastrophe.

There is also evidence that the scale of monastic building activity decreased considerably in the peripheral rock-cut complexes of Gareji after the second half of 13\textsuperscript{th} century, when monastic life was gradually ceasing and the caves abandoned. This happened in the small monastery complex of Iori Bank Gareji and Bertubani Monastery, where 12\textsuperscript{th}-13\textsuperscript{th}-century frescos remain unfinished, and monastic life abruptly ceased. This could have been caused by natural disasters (earthquakes); nevertheless, the abrupt break-up of monastic life in some monasteries might also be connected with principal changes in the Georgia’s political condition, and Mongol and Khwarazm military raids in the region. In the absence of written sources, it is not always possible to establish what caused the destruction of monastery complexes, the break-up of monastic life, and the abandonment of given sites.

The picture of destruction of the small Kolagiri complex, one of the principal cave monasteries of Gareji in the Iori valley, coming to light during restorations in 1997 and 1998, points to a natural disaster – apparently an earthquake – as the main cause. Otherwise, it would be difficult to account for the presence of huge blocks under the debris of the main church, refectory, and other cave facilities. A large number of fragments of wall painting came to light during the clean-up of the interior of the church. The images and their colours on these fragments have survived without any change or damage. All this must be indicative of the cave having been destroyed rather soon – within a few decades – after it was painted. It should also be borne in mind that the work on the perfection of the overall architectural planning of the monastery had not yet been completed. Such an abrupt cessation of construction work in the monastic life of the Kolagiri monastery would have been caused by some major occurrence – a natural disaster or a devastating invasion. Here we may recall the example of the main church of the Bertubani monastery in the extreme south of Udabno (in modern-day Azerbaijan). Its wall paintings must have started toward the end of King Tamar’s life or in the beginning of the reign of her son, Lasha-Giorgi (1210-23). However, the work ceased abruptly, parts of the painting remaining unfinished. It is also worth mentioning that the physical destruction of the main Bertubani church, together with its frescos, was caused by a
wrongly aimed shell fired by Soviet soldiers in the 1950s and not by an older natural catastrophe (fig.4). Kolagiri apparently shared the same fate as befell part of the Gareji monasteries in the first half of the thirteenth century, becoming desolate as a result of enemy invasions. Somewhat later, a strong earthquake reduced the cave complex to rubble.

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G. Gaprindashvili, The inscription regarding the 1089 earthquake at Garejis Tsamebuli “Kharitoni Kvabi”, Herald (History series), 2 (1976),


SITE MANAGEMENT AND PRESERVATION
Georgia is a country distinguished by an ancient and rich culture going back for millennia. Despite the small size, the landscape of Georgia demonstrates drastic differences, which to a certain extent, has shaped the cultural diversity of the country. Its heritage is favorably endowed with sacred and secular sites: fortresses, historical settlements, and different types of the urban structures going back to deep antiquity. The inhabited cultural landscape of Georgia witnesses the harmonious co-existence of people and nature. It is well-known that cultural heritage is one of the main factors that have defined the national identity. The monuments stand as witnesses and can tell a lot about the epoch, environment, people, their knowledge, beliefs and culture, so that this heritage becomes a medium of collective historical memory.

Acknowledging that some heritage beyond the national importance might have the Outstanding Universal Value that needs the consolidation of the international efforts toward protecting these distinguished assets for future generations – the Convention Concerning the Protection of the World Cultural and Natural Heritage has been introduced. Georgia joined the convention in 1992 and soon after, the Georgia submitted three nominations to be listed on the World Heritage List. In 1994, the World Heritage Committee approved two of them: the Mtskheta Historical Monuments, and Bagrati Cathedral and Gelati Monastery – while Upper Svaneti was also enlisted, in 1996.

The “Mtskheta Historical Monuments” was listed on the World Heritage List in 1994 on the basis of criteria (iii) and (iv). The key components of Mtskheta WHS are as follows: Svetitskhoveli, Jvari Monastery and Samtavro Monastery, while the Bagineti-Amrazistskhe and Samtavro Valley Archaeological Monuments alongside the cultural landscape of the city itself are included in the buffer zone of the WHS.

The “Gelati Monastery” was enlisted on the list in 1994 (criterion (iv)). It constitutes the religious and educational complex from the medieval period. The interior of the main Church is decorated with exceptional mosaics and wall paintings. It also includes the Gelati Academy, which was the main educational center in medieval Georgia.

There are up to 200 unique traditional residential structures and towers preserved in the Ushguli Community that was designated World Heritage status (criteria (iv) and (v)) in 1996. The Outstanding Universal Value of Upper Svaneti is mostly a result of the significant cultural landscape, which has

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3. The Criteria for Selection to be included on the World Heritage List, defined in the Operational Guidelines for the Implementation of the World Heritage Convention;
5. Following the reconstruction of Bagrati Cathedral, the World Heritage Committee at its 37th Session (Phnom Penh, 2013), considered “that the Bagrati Cathedral has been altered to such an extent that its authenticity has been irreversibly compromised and that it no longer contributes to the justification for the criterion for which the property was inscribed” and therefore requested the State Party “for a major boundary modification for the property to allow Gelati Monastery to justify the criterion on its own.” As a result, in conformity to the Committee request and based on the Significant Boundary Modification submitted by the country, since 2017, Bagrati Cathedral is not a part of the nomination.
been preserved since the medieval period together with a traditional lifestyle. “Preserved by its long isolation, the Upper Svaneti region of the Caucasus is an exceptional example of mountain scenery with medieval-type villages and tower-houses.”

Other than these sites monuments, Georgia has nominated fifteen heritage sites and monuments for inscription on the UNESCO World Heritage Tentative List. The List was updated in 2007 eleven monuments out of the fifteen were submitted as cultural sites; six are Monastic complexes, and five include the wider landscape; one site – Colchis Wetlands and Forests – are nominated as a Natural Site, the nomination of which has already been submitted for review by the World Heritage Committee; three remaining sites are of mixed type: Mta-Tusheti, Vardzia and the Davit Gareji Hermitage. All three of these sites are cultural landscapes that meet both cultural and natural criteria.

The Davit Gareji Hermitage, with its distinguished natural characteristics of flora and fauna, represents the cultural landscape as an exceptional sample of the harmonious interaction of human and environmental features throughout the centuries. The file submitted to the UNESCO World Heritage Tentative List notes that the “…site is characterized by a unique combination of historic architecture, prehistoric archaeological sites, rich paleontological fields and important bio-geographical features widely spread within the arid and semiarid landscape of the river lori plateau. The dozens of cave monasteries decorated with unique frescoes are the best examples of harmonious interaction man-made structures with the dramatic landscape…” and that the “…Davit Gareji area as a distinguished sacred site and a prominent monument of cultural heritage has never lost its importance. The historical value of Davit Gareji deserts monastic complex as well as uniqueness of biodiversity of its site still remains a reason for the urgent need for their care…”

The unique combination of the natural and cultural heritage of this site presents a great potential to end up as a success story within the field of heritage-based economy, both for the region and for the entire country, if it succumbs to well-thought out program of sustainable use.

Heritage is considered to bean important economic aspect of a region and creates opportunities to attract additional investment. Therefore, the State, the local government, or the community that is willing and ambitious to maintain their unique heritage and to utilize these resources effectively for the further development of the local economy, must first of all study and ensure proper preservation of its environment, with its natural and cultural, tangible characters and intangible traditions. It is a matter of harmonization of the key principles for cultural heritage protection with the development plan; how to make it an economically profitable instrument while preserving its authenticity, integrity, and context.

The basic task of the UNESCO World Heritage and Sustainable Development policy is to ensure the sustainable development and thus, ensure the welfare and economic growth of local communities, through the proper protection and reasonable use of the heritage resources. Preservation of the historical setting in the modern world should be considered the goal of development strategies. It is particularly relevant under modern globalization conditions: there are culture and traditions of a particular nation or local community that attract visitors who wish to get familiarized with the natural or cultural heritage of that country.

The inscription in the World Heritage List Herit will provide the highest international recognition to the exceptional Davit Gareji heritage site and if properly managed, it will result in a highly efficient use of heritage resources.

The inscription of the site on the World Heritage List will ensure better protection of the site and contribute to raising the awareness of the site at an international level. But for successful nomination of the site on the List it is required that, aside from the physical preservation of the site, that there be proper legal and management mechanisms to ensure the proper protection of the site. It is necessary that the regulatory instruments, institutional and/or of traditional management system, be established at the national, local and regional levels. Accordingly, it is urgent to develop the complex documentation for the heritage preservation and spatial development of the site, based on national and the international methodological approaches and based on the analysis of the challenges, *inter alia*, regarding the physical stability of the site given and increasing tourist flows. All interested parties and stakeholders – in particular, governmental institutions, the local authorities, professional society, the Orthodox Church of Georgia (as the dominant owner) must be part of the discussion of proper management in order to ensure a dignified place for this rich and diverse heritage site among world cultural spaces.

The organization of the conference “Davit Gareji: Multidisciplinary Studies and Development Strategy” (April 2019, Tbilisi) can serve as one of the first steps to discuss and start planning for future actions that will ensure the proper protection of this particular heritage.
As a tolerant country, Azerbaijan’s attitude toward monuments based on different religious beliefs in different periods has always been positive. One of those monuments is the Keshikchidag caves complex. The steps taken by the President of the Republic of Azerbaijan, Ilham Aliyev, by his’ orders and decrees are worthy of noteworth regard to the preservation and protection of historical sites and monuments. Therefore, on 12th of November, 2005, while attending the opening ceremony of boundary customs in the north-western regions of the Aghstafa district that borders the Republic of Georgia, he note the Keshikchidag caves complex with its many relics and archaeological monuments and, for the purpose of further study, protection and propagation, he declared a part of the Keshikchidag ridge located in Aghstafa district as a “Keshikchidag” State historical-cultural Reserve. On a peak of one of the highest strategic places in the western region a monument was erected and named after Ilham Aliyev in honor of his visit to the region. The complex of cave chapels and cells, which offers stone book of important aspects of ancient and medieval life, and which fascinates people today with its magnificent appearance, is one of the unique historical and cultural monuments inherited from our great ancestors. The territory of the reserve extends 25 kilometers along the border with Georgia.

The reserve is located 75 km from the center of Aghstafa, 28 km north-east of the last settlement. The cave complex is located in Jeyranchol, at a distance of 15 km north-east of the Jandar lake and 750-950 m above sea level, on the southern and southeastern slopes of the mountains. Those who have passed on that culture to us, Zoroastrians and Christians, essentially have the same moral values and ethical perfection, propagating the philosophy of the goddesses and they became its followers. Visiting the cave-temples as a sacred place, or as an attraction for tourists, the complex can serve as a symbol of religious freedom and tolerance, as well as the introduction of these monuments to the world. Rich frescoes based on Biblical scriptures, on the walls and ceilings of the caves located in the territory of the reserve, are a magnificent monument, a significant part of the art history of the republic. Regardless of whom they are depicting, these images are outstanding examples of monumental wall painting as a part of Christian art.

Maintaining these works in well-preserved condition is a visual proof of tolerance in our republic. But over time, a valuable monument, subjected to physical exposure, loses its visual effect. Besides, during the period of the Soviet military presence in the area, various parts of the images were scattered with blunt tools, and the site was left in a rough condition. This is explained by the fact that during the period from 1948 to 1990, the USSR’s largest landfill resides in the Caucasus, and heavy artillery exercises took place for decades, with a negative impact on the monuments, and the various parts of the image array were damaged by the military and left in a ruinous condition. There are even graffiti left by soldiers in the Russian language, in scattered places. During the military exercises, a large number of explosive and unexploded ammunition was often located in the area from time to time. Due to the location of the military landfill, it was impossible to study this area and carry out scientific and archaeological research during the Soviet era.

There are about 70 natural and artificial caves that have been inherited from our great ancestors in difficult-to-access rocks. These include, two medieval temples dating back to the early Middle Ages, built from local stone materials, and rebuilt at the beginning of the 20th century. They are 1500 meters from one another. There is, a place known as the Gudrat Spring, which was used as
a source of healing by the Zoroastrians, about 10 km from the cave complex, to the south, dating from the end of the Bronze Age-early Iron Age. There are also, about 100 barrows dating from the beginning of the second millennium BCE, and a three-storey castle at a height of 11 meters built into the mountain. Overall, 262 architectural, archaeological, religious, natural and funerary monuments have been discovered and presented to the Ministry of Culture of the Republic of Azerbaijan for registration and authorization as local, national and internationally-recognized monuments.

I would like to note that Keshikchigala, located on the Azerbaijan-Georgia border, is in an emergency condition and this unique monument is in great need of joint repair and restoration work on the basis of an international project (involving both Azerbaijan and Georgia). In 2008-2011, the road from the peak named after Ilham Aliyev to the Caves underwent major restoration. The 600-meter-long road was cleared of rocks, and the road was restored along its entire length at a width of 1 meter 40 cm and to a depth of 35 cm. The staff of the Reserve cut the large rocks with large hammers and gradually laid out a usable tourist path. Additionally, a green park area was built around the high peak that offers the region’s most strategic point of view, and greenery was planted on both sides of the 600-meter tourist path to the cave complex-temples, a total of about 3000 drought-resistant Eldar pine trees were planted.

Since the Reserve is located in boundless Jeyranchol, road signs were installed, with on the monument, with the purpose of encouraging more tourists to visit the site. In order to ensure the safety of tourists a rope up to the caves and a guardrail or safety fence along the 300 m long steep cliffs was also installed, secured by iron pillars. Since 2008, a good deal of further work has been done to extensively promote the site, and the well-kept secrets of the history of the Keshikchidag cave complex, in accordance with instructions and recommendations offered by the Ministry of Culture. A documentary movie about the cave complex-temples by screenwriter Yusif Sheikho, directed by Rafiq Guliyev “The Stone Book of the Ancient Dwelling – was shot in “Memory” studio. The film will soon be, translated into Russian and English. In 2018, a virtual panoramic tour of “Virtual Keshikchidag” was put into operation and posted on the website of the Reserve.

In order to provide a better understanding of the Keshikchidag cave complex, the projects “Recognizing Keshikchidag”, “The Memory of the Centuries”, “Our Cultural Heritage: Keshikchidag”, “Keshikchidag Through the Eyes of Young Artists,” and “Keshikchidag in the Brushes of Painters” were realized in secondary schools of Aghstafa district. In recent years more than 300 paintings by young artists have been exhibited in painting competitions and displayed at the Heydar Aliyev Center in Aghstafa. Further, the Reserve initiated a project with around 90 representatives of the Knowledge Foundation under the auspices of the President of the Republic of Azerbaijan and the Baku International Multiculturalism Center, together with mass media; this was the, “We Are Studying Caucasian Albania” project, that involved, representatives of the Scout Association, Friends of Nature Youth Organization, and the climbers’ group, “March to the peak.”

At the request of the Reserve, the International Council of Museums has created a page for the “Keshikchidag” State historical-cultural reserve on ICOM’s World Museums page. The main purpose of the creation of page is to expand publicity and education work and to cooperate with other museums and reserves. Under the umbrella of “Civil Society for Development and Partnership: Increase of Tourism Potential in the Border Areas of Azerbaijan and Georgia” project, joint implementation by the KODA Community Education Center (Georgia) and the Ganja Regional Women’s Center Public Association in Aghstafa Heydar Aliyev Center has proceeded. The main goal of the project is identification of existing problems in tourism development in the region and ways of their solving them, together with finding ways of effective use of the tourism infrastructure in Aghstafa. The classification and assessment of resources; drawing and applying of tourism and excursion routes in the region; innovative approaches of advertising; and - implementation of information support – was discussed.
A training program to consider the potential of the Keshikchidag State historical-cultural Reserve in the development of tourism, identifying existing problems and ways to solve them was also implemented. The Keshikchidag Reserve represented Azerbaijan at the Seventeenth and Nineteenth Annual Mediterranean Archeological Exposition, held in Paestum, Italy, in 2014 and 2016. From the beginning of the activation of interest in the “Keshikchidag” cave-temples complex, the Reserve appealed to relevant structures of ANAS for assistant with scientific research. As a result, since 2008, several specialists have been engaged with the Reserve for several scientific studies with the organizational support of the Director of the Institute of Architecture and Art of the Azerbaijan National Academy of Sciences, docent Imash Hajiyev. Of these, Ph.D. Sabir Alihuseynli, Ph.D. Vugar Karimli, Ph.D. Rizvan Bayramov, Deputy Director of the Institute of Archeology and Ethnography, Ph.D. Najaf Museyibli, Ph.D., prof. Arif Mammadov, Ph.D. Yunis Nasibli, Ph.D. Mansur Mansurov, Ph.D. Anar Aghalarzade, Ph.D. Dmitri Krichenko might be in particular.

In addition, foreign experts have been regularly involved with the research at the Reserve, working for scientific research, together with local scientist. Thus in early 2015, an international scientific expedition led by Tokyo University professor and head of the Stone Age Archaeology Department, doctor Yoshihiro Nishiaki; and in 2016, several Russian scientists, including the scientific secretary of the REA Institute of Material Cultural History, Paleolithic history specialist, history philosopher archaeologist Sergei Kulakov (St. Petersburg) and geologist Idris Idrisov from the REA DEM Institute of Geology, geologist Idris Idrisov (Makhachkala) both visited the territory of the Keshikchidag cave complex.

One of the purposes of the scientific researches was to register, via GPS, the location of open paleolithic camps discovered in the territory of the Keshikchidag cave complex in the western part of Azerbaijan and in the 1960s and to offer ageomorphological description of the monuments. During the exploration-oriented research, stone and fauna residues were collected from paleolithic camp sites located near the area of the cave complex; these included, the Jeyrancholes, Gadirdere, Yatagyeri, Garaduz, Garabigh, and Sakkizli paleolithic camps, and geomorphological descriptions of these sites have been made and registered via GPS. As a result of these scientific-archaeological investigations, the vases, water glasses, cubes and other material-cultural samples of the history of these sites have been discovered and studied, and afterwards, these items have been exhibited in small groupings; the number of objects reached 3765 in total.

As a result of these scientific-archaeological investigations, the Reserve staff has also participated in conferences in the country and abroad, in order to introduce the monuments in the territory of the Reserve to a wider audience.

Conferences abroad:


2. International Scientific-Practical Conference: How to protect the intangible cultural heritage of Turkic Nations as a monument; Kazan, Republic of Tatarstan, 2014.


4. Conference on “International experience of protection, preservation and promotion of cultural monuments included in the world heritage list of UNESCO; in Kyiv-Pechorsk National Historical and Cultural Reserve in Kyiv, Ukraine, 2015


The web-site, facebook page, youtube channel and twitter page of the Reserve are available in the Azerbaijani, Russian and English languages.

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3. Mammadov T.M. Caucasian Albania in the Middle Ages, Baku, 2006, p. 399


5. Institute of Archeology and Ethnography of ANAS Leading researcher, Ph.D., Mansur Mahammadson Mansurov, Paleolithic Archeological Expedition, head of the Jeiranchol group.


Introduction

Davit Gareji is designated as a Protected Landscape and in 2007 guidelines were made as the basis for a future Management Plan. The purpose of the establishment of the Davit Gareji Protected Area is to preserve, protect and rehabilitate the ecological features of the area and its historical-cultural heritage (architectural and painted monuments, stone- and bronze age archaeological sites, and rich paleontological areas) and to facilitate a harmonious coexistence between humans and the environment by restoring a traditional lifestyle based on the principles of sustainable use of natural and historical-cultural resources.

Although there is a considerable overlap in objectives, management of nature and culture have long applied different techniques and tools to realize these objectives. Only recently was it understood that a landscape is the product of a strong and dynamic interaction between man and nature that makes it difficult if not impossible to separate man-made and natural components from each other. This has led to the concept of a mixed landscape, such as the category V protected landscape of the IUCN and the Cultural Landscape of The World Heritage Convention (Ref.1 and 2).

Davit Gareji meets most of the criteria for a world heritage monument. There is no discussion about its authenticity, and its function as a religious center has ensured its integrity throughout centuries. Protection and conservation of the monument is there for a first priority. Davit Gareji is a typical mixed landscape with universal cultural and iconographical values. These values should be evaluated against the criteria of IUCN and the World Heritage.

Presently the category of a mixed landscape is not included in National Georgian legislation. The protected landscape (category V) as described in the law is, however, fully compliant with the IUCN criteria and offers possibilities to include World Heritage Sites.

In the publication, Managing Cultural World Heritage (Ref. 3) the WHC stated:

The recognition that heritage places are not isolated has led to their surroundings being addressed both as a physical setting and as a series of social, economic and environmental threats and opportunities.

For that reason, management should not only focus on the cultural values of the area, but should address also the ecological and socio-economic aspects. Calcareous karst offered opportunities for building the monuments and the natural environment still determines the visual appearance of the monuments. Weathering and threats from invaders are threats from both the natural and the human environment.

Both IUCN and UNESCO WHC recommend such a holistic approach that integrates natural, cultural, social, and economic aspects. A system analogy of the environment is a useful tool to support this approach. This paper describes how such an approach was used for Davit Gareji.

Description of the site.

General information

The Davit Gareji protected landscape is located in the Kakheti region and is part of several administrative districts: Sagarejo, Gardabani, Sighnaghi, and Dedoplistskaro. Topographically it is part of the Iori Plateau, situated in the southeast part of Georgia along both sides of the river Iori. It includes a total area of 173,000 ha that extends over some 160 km from northwest towards...
The southern border of the Davit Gareji protected landscape follows the Georgia-Azerbaijan state border (see Figure 1). The area is sparsely populated, its main village, Udabno, has about 600 inhabitants. The main economic activities are agriculture and animal husbandry, mainly used for subsistence.

**Nature**

**Landscapes**

Due to differences in relief, soil composition and micro-climate in the Iori Plateau, a large variety of landscape types is found here. The following distinctive types have developed within the northern edge of the Iori Plateau.

- Bothriochloa ischaemum-Stipa pulcherrima valley landscape
- Bothriochloa ischaemum-forb and shibliak valley
- Arid sparse forest landscape
- Flood-plain (Tugai) landscape

<table>
<thead>
<tr>
<th>Landscapes</th>
<th>Arid sparse forest.</th>
<th>Bothriochloa ischaemum-Stipa pulcherrima valley</th>
<th>Flood-plain.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Along the foothills of the Saguramo-Ialno mountain ranges</td>
<td>Part of Iori plateau and Iori steppe.</td>
<td>Along the Iori river</td>
</tr>
<tr>
<td><strong>Relief</strong></td>
<td>Hills and valleys running NW to SE, Elevation 500 – 1000 m</td>
<td>Hills and valleys running NW to SE, Elevation 550-700m</td>
<td>Wide floodplain in the N; narrow canyon in S, Elevation of river bed 300 – 450 m</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td>Arid dry</td>
<td>Moderate humid subtropical</td>
<td>Moderate humid, high discharge in winter, low in summer</td>
</tr>
<tr>
<td><strong>Vegetation</strong></td>
<td>Moderate humid subtropical</td>
<td>Moderate humid subtropical</td>
<td>Moderate humid, high discharge in winter, low in summer</td>
</tr>
</tbody>
</table>

**Vegetation**

The vegetation ecosystem is developed with entirely different origins and structures. There are steppe, desert, arid open woodland (xerophytic forest), phryganoid vegetation, hemixerophilous shrubbery of shibliak type, mesophilous and xerophilous shrubbery and floodplain forest ecosystems. Besides these, there are exposed mother rock florocomplexes and wetland habitat fragments (Ref. 4).
The following zonal types of vegetation are present within Davit Gareji:

- Steppe
- Desert
- Arid open woodlands.

Each vegetation type is characterized by certain formations (beard-grass, spear grass, wormwood, mastic tree dominated communities, etc.). Some of these have a fragmentary distribution, dependent on soil and climatic conditions.

The following azonal vegetation types are also found:

- Phryganoid vegetation
- Shibliak
- Rock xerophytes
- Halophyte communities
- Tugay forests of the Iori floodplain.

Azonal types of vegetation have a fragmentary distribution dependent on soil and climatic conditions.

Most of the area is covered with steppe and desert vegetation. Steppe vegetation is dominant, especially in the eastern part of the plateau. Desert vegetation is found on the SE side of the plateau. Remnants of old mastic vegetation can still be found here.

Further to the east, the presence of the Ioni river determines to a large extent the vegetation. In the flood plain a variety of deciduous tree species are found (Tugai forest).

Throughout the area rare and endangered species can be found.

|------------|-------------------------------------------------|---------------------|-------------------------------------------------|--------------|

Fauna.

Species and populations are widely spread over the area. Little is known, however, about the fauna in the area. Foxes, jackals, badgers have been observed, bears and wolves can also be found in remote areas.

Predators and Cherioptera are the leading communities in the area. It should be noted that the region is fairly significant for Cherioptera.

The Iori Plateau and adjacent territories are well known, however, for their diversity of ornithofauna. About 200 different species of different ecological groups are found in a relatively small area. It is possible to observe birds common in open valleys, mountains, shrubbery and floodplains.
The following areas are especially rich with avifauna: the Kotsakhura ridge, the Eldari ridge with juniper forests, Kajiri Mountain and the Iori River floodplain. The diversity of avifauna increases near the floodplain and reservoirs in the eastern part. Also, rare birds of prey can be found in remote corners. The Eldari Ridge is the only area where the Vulture (Aegypius monachus) nests; it does not breed in areas of medium anthropogenic pressure.

The area is notorious for its snakes, many of which are poisonous. Among them, the Vipera libetina obtusa should be mentioned.

**Culture.**

As a result of historical-geographical, archaeological, architectural and art historical research, various chronological stages have been revealed in the Davit Gareji deserts – Paleolithic, Bronze, and Iron monuments, along with medieval rock hewn monasteries. Monuments of the historical-cultural heritage are scattered all over the territory of the Davit-Gareji Protected Landscape.

**Land use.**

The area is scarcely populated; animal husbandry is the main source of livelihood. The area is extensively used for grazing but also deforestation has changed the natural vegetation over the years.

**Assessment and Evaluation**

**A system analogy of the environment**

Both IUCN and UNESCO WHC recommend an overall approach that integrates natural, cultural, social and economic aspects. A system analogy of the environment is a useful tool to support this approach. The system analogy describes the elements and their interaction: i.e., **buzz words** PLANET, PEOPLE, AND PROFIT and the interaction among these elements. These two aspects are mentioned in the statement of the WHC.

The scheme, shown in Figure 2, will be used in this paper to evaluate the environmental characteristics of the area. The circles represent the following elements of the environment:

- PLANET represents the Abiotic and biotic components of nature
- PEOPLE represent human society with its cultural and social attributes
- PROFIT is a buzz word to cover the economic system, the integration of natural and human resources and capital to generate profit.

Properties of these elements are expressed in the value of characteristic attributes. The overlap between the circles and the double arrows show the interaction among the elements. These interactions may represent both opportunities and threats.

**Value of elements.**

A wide range of tools and techniques is available to evaluate the components. Only in the last decades have techniques been developed to express value in monetary terms. Characteristic attributes of the various components are:
**PLANET.** Evaluation criteria: IUCN, Value of Nature. IUCN guidelines

- A. Abiotic resources. Presence of non-renewable resources. Rare geological formations
- B. Biotic resources and functions. Rare and endangered species

**PEOPLE.** Evaluation criteria: WHC-UNESCO Operational guidelines.

- C. Cultural values of monuments and social values of civil society

**PROFIT** Evaluation criteria: Main economic indicators

- D. Development potential
- E. Economic characteristics

A provisional spatial plan was made to evaluate the various territorial units, using the natural and cultural characteristics of the area. For each unit, socio-economic attributes were assessed as an indicator of their value for the inhabitants. Results are summarized in the tables below.

### Nature

<table>
<thead>
<tr>
<th>Nature conservation area 58.847 ha</th>
<th>ABIOTIC</th>
<th>BIOTIC</th>
<th>CULTURAL</th>
<th>DEVELOPMENT</th>
<th>ECONOMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nature education</td>
<td>Conservation of rare and endemic species</td>
<td>Eco tourism</td>
</tr>
<tr>
<td>Nature rehabilitation zone 1024 ha</td>
<td></td>
<td>Floodplain forest Iori basin</td>
<td>Restoration of degraded biotopes</td>
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<tr>
<td>Sustainable/traditional use area 90.912 ha</td>
<td>Calcareaous stone</td>
<td>Arid, steppe and meadows. Rare species</td>
<td>Sustainable use regime</td>
<td>Grazing for animal husbandry</td>
<td></td>
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<tr>
<td>Iori and Chachuna Managed Reserves</td>
<td></td>
<td></td>
<td>No development</td>
<td>Eco tourism</td>
<td></td>
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<tr>
<td>Total 150,782 ha</td>
<td></td>
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### Cultural

<table>
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<tr>
<th>ZONE</th>
<th>ABIOTIC</th>
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<th>CULTURAL</th>
<th>DEVELOPMENT</th>
<th>ECONOMIC</th>
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</thead>
<tbody>
<tr>
<td>archaeological sites</td>
<td></td>
<td>Scientific-historic-cultural value</td>
<td>Protection, conservation and research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rock-hewn monastery complexes</td>
<td></td>
<td>Scientific-historic-cultural value; Religious function</td>
<td>Protection and conservation and research; Controlled development of tourism</td>
<td>Cultural tourism</td>
<td></td>
</tr>
<tr>
<td>Total 17.212 ha</td>
<td></td>
<td></td>
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</table>

### Territorial functional zoning

The outcome of the above evaluation was used to prepare a final territorial functional plan. The objective of this plan is to assign an appropriate space for the often conflicting functions. This is the basis for strategies and measures.
Areas with a high natural and cultural importance should be protected and human activities should be restricted or even prohibited. In other areas, such activities will be allowed albeit that such activities need regulation and control.

Zoning is based on the following criteria:
- ecological value of the area
- historical-cultural value of the area
- level of degradation
- rehabilitation potential of natural and historical-cultural environment
- type and intensity of anthropogenic threats
- tourism development potential
- potential for sustainable use of natural resources,

The following functional zones are proposed:

- **Nature conservation area**
  These are protected zones where human activities are restricted or forbidden. In these areas, rare or endangered species are found. There are four of these:

  1. The Kotsakhuri ridge and its southern areas that comprise the Iori floodplain
  2. The Iori floodplain between Mt. Pirukugma and Kvabebi
  3. The Tetri Udabno hills
  4. The area located in the vicinity of the Jikurebi, Kupatadze and Sakhare lakes is significant for migrating birds and waterfowl.

- **Culture conservation area**
  The southern part of the plateau is the area where most of the archaeological sites and monuments are located that will be protected.

  The culture conservation area, where a strict protection regime will be enforced to protect the monuments and archaeological sites, covers about 35% of the total area. It includes two parts with distinctive historical-cultural features:

  1. The zone of rock-hewn monastery complexes – the center of this zone is St. Davit’s Church and some complexes located in the vicinity, namely: St. John the Baptist’s, St. Dodo’s and the Bertubani monasteries
  2. The zone of archeological sites

The first zone, the zone of rock-hewn monasteries, comprises the area of the Udabno-Baptist-Lavra monastery complexes and also the Gareji zone of Iori: the Sabereebi, Kolagiri, Didi Kvabebi, and Pirukughma monastery complexes; the center of this zone is St. Davit’s Church and some complexes located in the vicinity, i.e., St. John the Baptist’s, St. Dodo’s and the Bertubani monasteries. These last three are renowned for the diversity of their architectural structures, highly artistic murals, many inscriptions (graffiti) of pilgrims and local monks. The area adjacent to St. Davit’s church is of paleontological importance. The eastern part of Davit Gareji is also of historical-cultural significance; it comprises several cave complexes (Berebi, Sabereebi, Kolagiri, Didi Kvabebi, and two complexes of Mt. Pirukughma). Sabareebi with its unique murals is totally different from the other cave complexes located along the Iori River. Zezvtakhevi and also the Udabno and Didi Kvabebi paleontological sites are located in this area.

The second zone, the zone of archaeological sites, comprises the area located northwest of the protected landscape that extends from the village of Krasnogorski located in the northern part of
the planned protected area to the village of Udabno and the Naomari Gori area. It also includes the Chamzvrali gorge and Tsitsmatiani area along the Iori River.

- **Traditional / sustainable resource-use area,**

A traditional sustainable resource- and land-use regime is proposed for about half of the area. The key objective is to restore and establish traditional pasture turnover, using the carrying capacity as a means to determine the maximum number of cattle and sheep that can graze there.

### Rehabilitation area

An approximately 500 m wide zone along both sides of the Iori River within the planned protected area and outside the Iori and Chachuna managed reserves.

Remains of the Tugay flood plain forests are still preserved in the Iori floodplain, although they are severely degraded due to anthropogenic pressure. The Sabereebi, Kolagiri and Didi Kvabebi area, in addition to the cultural importance of the territory, are significant habitats for more than 25 species of mammals and birds protected by Georgian legislation.

### Strategies and measures

A suitable management regime and appropriate strategies and measures should be developed for each zone.

The first objective of management is to protect and conserve the characteristic values of the units. Various natural and human factors tend to change these values as shown schematically by the

![Figure 3: Proposed zoning](image-url)
double-sided arrows in the system analogy diagram of Figure 4. Some are positive (opportunities), others are negative (threats); the latter should be eliminated or mitigated wherever possible.

An impact matrix is often used as a basis for action. The impact matrix represents in tabular form the interactions shown in Figure 4. An impact matrix for Davit Gareji is shown below. Actors are the system element where an activity is initiated and its initiators. The receptor is the element where the effect is felt. For example, when inhabitants of the planet cut wood, the planet and the inhabitants are both the actor. Woodcutting affects the planet as forests disappear. The planet is also therefore the receptor, and the impact is a threat. With a sustainable forest management program threats may be changed into opportunities.

<table>
<thead>
<tr>
<th>RECEPTOR</th>
<th>ACTOR</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planet</td>
<td>Internal ecological processes</td>
<td>Animal husbandry, agriculture, Deforestation, degradation and loss of biodiversity and rare species</td>
</tr>
<tr>
<td></td>
<td>Natural hazards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fuel wood, Deforestation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hunting, poaching</td>
<td></td>
</tr>
<tr>
<td>People</td>
<td>Landscape values</td>
<td>Stewardship of cultural heritage. Internal resource-usage conflicts</td>
</tr>
<tr>
<td></td>
<td>Regulation of human living conditions</td>
<td>Negative impact of human activities on monuments</td>
</tr>
<tr>
<td></td>
<td>Subsistence</td>
<td>Usage conflicts, religious function, visitors and cultural conservation</td>
</tr>
<tr>
<td></td>
<td>• Space</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Food</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visual appearance of monuments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weathering of monuments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural hazards</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>Animal husbandry</td>
<td>Internal resource-usage conflicts</td>
</tr>
<tr>
<td></td>
<td>• Grazing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Water of the Iori River</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based upon the valuation of the units and the results of the impact assessment, operational objectives can be formulated and an action program can be prepared. Political and public support and available funds determine the feasibility of the project.

**Bibliography:**

1. Guidelines for Protected Area Management Categories, IUCN Gland 1994


4. Lachashvili N., Kereselidze K. Floristic and Ecosystem Diversity of the Davit Gareji Protected Landscape
Abstract.

The present paper describes the recent support activities implemented during last year. More in detail the research activities summarise last field missions in Georgia (June and November 2018). The Davit Gareja half-desert monastery complex area is located in Kakheti region (Eastern Georgia), about 60-70 km southeast of Tbilisi. During last decades, the growing cultural interest in the rock hewn monasteries founded in the 6th century has been constantly accompanied by conservation and management problems due mainly to weathering and rocks collapse. In order to verify instability processes affecting the several monasteries in the area (e.g. Lavra, Natlismtssemi Sabereebi, Dodo, Udabno), detailed geo-matic Terrestrial Laser Scanner (TLS) surveys jointly with Thermographic, (IRT) analysis, geological and geomorphological field surveys were performed (June and November 2018). Detail geo-structural analyses were implemented in order to collect and define the landslide types and processes, while a kinematic analyses were performed in the most important monasteries in order to define the most frequent instability mechanism affecting the sites. IRT revealed thermal anomalies potentially connected to erosion, weathering and instability. The outcomes of the performed analyses highlighted that geo-structural setting, joint and stress released promotes rock instability processes in all the Davit Gareja monastery complex. For each of the monasteries a detailed map of the critical areas affected by potential instabilities was created. At the same time a preliminary master plan for adopting low impact mitigation measures, monitoring systems and conservation strategies was implemented.

1. Geographical and Geological setting of the area.

The Davit Gareja half-desert monastery complex area is located in Kakheti region (Eastern Georgia), about 60-70 km southeast of Tbilisi (Figura1). From geological point of view the Mount Gareja is formed of lower Miocene sandy clays, dark-brown and brownish-gray clays with inter-bedded sandstones, and rare conglomerate inter-layers. The upper Miocene is represented mostly by shallow and coastal sediments, but there are also deep-sea sediments represented by yellowish-gray calcareous sandstones. There are also inter-layers of sandy clays as well as motley continental clays with inter-beds of thick coarse-grained sandstones, conglomerates, and a thin layer of volcanic ash. Pliocene sediments are represented by continental and marine facies consisting of coarse-grained yellowish-gray sandstones with numerous small pebbles, and thick basal conglomerates with volcanic ash inter-beds. From a structural point of view the stratigraphic sequence is characterized by a monocline structure, with strata dipping SW with low-gentle angles. This setting deeply shapes the geomorphology of the area, which in terms is characterized by cuestas ridges, corresponding
to the sandstone-rich portion of the sequence, alternating with flat highlands and badlands, where the more silty-clayey portion widely outcrops. Paleo-geographical and geo-botanical data show that anthropogenic modification of the forest, forest-steppe, and steppe natural landscapes of the Gareja-Iori’s (Eastern Georgia) physical geographical sub-region began in the Early Bronze Age. Due to an increase in economic activities, modification of regional natural landscapes took place under semi-arid climatic conditions. This intensified the desertification process in antiquity. Bronze and Iron Age archaeological sites are found in the region, which was intensely populated at that time. Economic activities (animal husbandry) caused a gradual transformation of the landscape of light arid forests into a semi-desert landscape. From a preliminary geotechnical point of view the whole area is constituted by soft sedimentary rocks.

**Landslide processes affecting the complex**

During the second half of 2018, two separate field survey were carried out in the Davit Gareja monastic complex area. More in detail, the sites of Dodo Gareji, Lavra, Natlismcemeli and Sabereebi (see fig.1) were investigated. For each sites the following studies have been carried out: laser scanning topographic survey and drone-based digital photogrammetry with the aid of UAV (Unmanned Aerial Vehicle); structural and geo-mechanical surveys; Infrared thermographic surveys and global kinematic analyses, samplings for laboratory tests.

For all the monasteries, the distribution, typology and frequency of the potential instabilities have been identified, highlighting the possible triggering factors and/or predisposing factors, both endogenous (e.g. lithology, structural setting) and exogenous (e.g. water infiltration, thermoclastism, weathering) as well as the triggering ones (e.g. heavy rainfall).

Only after the definition of the potential instability processes it is possible to assess a suitable monitoring plan for these causes and a general master plan intervention in order to take into account the specificity of the individual phenomena. In general it can be assumed that there is not a predominant instability process: in fact, they can all be reconducted to rock collapses directly dependent on local structural setting jointly with related slope face.

1. **Landslide kinematics global analysis**

In order to define the main instability processes, a spatial kinematic analysis can be performed by using discontinuity orientation data, semi-automatically and manually extracted from the obtained slope 3D surface models. Given the slope geometry and discontinuity orientation, this kind of analysis is capable of establishing the location and the probability of kinematically feasibility of the following mechanisms: i) plane failure (PF) (Hoek and Bray, 1981); ii) wedge failure (WF) (Hoek and Bray, 1981); iii) block toppling (BT) (Goodman and Bray, 1976);
iv) flexural toppling (FT). Casagli and Pini (1993) introduced a kinematic hazard index for each
instability mechanism. These values are calculated by counting poles and discontinuities falling in
critical areas of the stereographic projection. By using specific software, such as KARS, Rock Slope
Stability, or specifically designed Matlab tools such as DiAna-k it is possible to load a great number
of discontinuities with different friction angles. Intersection lines are calculated automatically,
together with the equivalent friction angle, based on the friction angles of the intersecting planes
and the shape of the wedge. The analysis can be performed for specific slope orientations, or for
each cell of a 3D surface (true 3-D kinematic analysis). This method overcomes many limitations
of the traditional approaches, as it is possible to employ true 3D surfaces, and the kinematic
conditions leading to the investigated instability mechanisms have been extended to overhanging
slopes. Moreover, a global kinematic index (GKI) has been introduced, to quantitatively define the
rock instability hazard for each sector of the slope, whatever the effective instability mechanisms.
The input data of this method are the high-resolution 3D meshes obtained from interpolation of
point cloud data obtained by TLS or photogrammetric surveys and the discontinuities extracted with
the manual and semiautomatic methods. As the orientation of fractures is related to the tectonic
processes that have been acting in the investigated areas, a kinematic analysis can be useful to
highlight the rock wall sectors which are more prone to instability processes. One of the limits
of the graphic kinematic analysis is that of considering an infinite persistence, zero friction angle,
not taking into account the variability of the parameters that determine the friction angle, in fact,
the roughness, the uniaxial compression strength and the eventual filling of the discontinuities
differ according to the fractures. These are identified by combining fracture dip and dip directions
with local slope orientations. Regarding the kinematic analysis, the adopted 3D models, previously
acquired through TLS survey, drone photogrammetry provided by Ilia University, were visualized
by means of CLOUDCompare® software, while the kinematic analysis was performed by means of
the DiAna-k Matlab toll. During the field surveys structural data (discontinuity and bedding planes
orientations), were collected in order to obtain input data for the kinematic analysis.

2. Thermal analysis - Infrared Thermography (IRT)

Thermography is a remote sensing imaging technique accomplished by using Infrared (IR) calibrated
cameras (thermal cameras), which sensors are capable of detecting the thermal radiation. The
product of an IRT survey is a digital image acquired by the thermal camera array detector (called
“thermogram” or “thermographic image”), which following the correction of the sensitive
parameters (such as object emissivity, path length, air temperature and humidity) is converted by
the built-in processor in a surface temperature map of the investigated scenario. In the analyses of
slope instability phenomena mapping surface temperature can lead to the detection of irregular
thermal patterns (called thermal anomalies) which can reveal the presence of potential criticalities
such as: i) structural discontinuities (due to the cooling/heating effect of air circulating within
open fractures; different thermal transfer capacity of the infilling material with respect to the
exposed sound rock); ii) moisture or a seepage zones (due to the surface cooling caused by water
evaporation. The obtained surfaces temperature is represented by means of a colour scale in which
the higher temperatures are displayed by the lighter colours, whereas the colder temperatures by
the darker ones. The thermographic surveys were performed by using a hand-held thermal camera
(FLIR SC620 model; FLIR, 2009), characterized by a focal plane array (FPA) microbolometer sensor.
The obtained surface temperature are represented by means of a color scale in which the higher
temperatures are displayed by the lighter colors, whereas the colder temperatures by the darker
ones. A built-in 3.2 Mpixel digital camera allowed for the comparison between the thermograms
and the corresponding optical images, in order to improve the interpretation of the thermal data.
Local weather data (e.g. air temperature and relative humidity) was acquired by means of a pocket
thermo-hygrometer (the survey parameters used for the image correction are reported in Table 1).
### Table 1. Characteristics of the analysed sites.

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Lithology</th>
<th>Slope aspect</th>
<th>Sensor-Target mean distance (m)</th>
<th>Image resolution (cm)</th>
<th>Average air temperature(°C)/Relative humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natlismcemeli</td>
<td>Very coarse-grained, pebbly thick-bedded sandstones</td>
<td>S</td>
<td>110/20</td>
<td>7.1/1.2</td>
<td>13.4/65.9</td>
</tr>
<tr>
<td>Lavra</td>
<td>Coarse-grained thick-bedded sandstones</td>
<td>S/NW</td>
<td>40</td>
<td>2.6</td>
<td>14.4/63.4</td>
</tr>
<tr>
<td>Dodo Gareji</td>
<td>Coarse grained soft sandstones/siltstones/clays</td>
<td>S</td>
<td>90/20</td>
<td>5.8/1.2</td>
<td>16.9/52.6</td>
</tr>
<tr>
<td>Saberebi</td>
<td>Very soft coarse-grained sandstones/clays</td>
<td>SW</td>
<td>100</td>
<td>6.5</td>
<td>22.6/39.8</td>
</tr>
</tbody>
</table>

**Figure 2**
Kinematic analysis on the top. Mechanism with the highest index (red: plane failure; yellow: wedge failure; magenta: flexural toppling) and mosaicked surface temperature map of the rock slab overlooking the Lavra monastery.

### 3. Preliminary assessment: Lavra, Natlismcemeli and Sabereebi monasteries

#### 5.1 Davit Gareja Complex – Lavra monastery

Considering the complex morphology of the area (the monastery complex is built within the intersection of two rock slabs) there is not a predominant instability mechanism (fig.2), but depending on the local lope face orientation these are represented by plane failure, wedge failure, flexural toppling and free fall in correspondence of the overhangs. The thermographic analysis assessed dry conditions for both the analysed rock slabs, while warm thermal anomalies were detected on the top of potentially unstable niches. An inspection inside a chapel located at the lower level of the monastery complex highlighted cold thermal anomaly connected to moisture in correspondence of vaulted ceiling.

#### 5.2 Davit Gareja Complex – Natlismcemeli monastery

The Natlismcemeni monastery area is affected by different landslide typologies (in terms of type, size, magnitude and activities). The performed analyses allowed to assess the main instability mechanisms affecting the rock cliff, which is represented by plane failure, followed by wedge failure, and subordinately by flexural toppling and free fall (fig.3). The latter can be locally predominant in overhanging sectors, such as...
the cave niches. In general, the rock slopes are highly prone to kinematic instability mechanisms (GKI max > 60%).

5.3 Davit Gareja Complex — Sabereebi monastery

The material in which this cave complex was carved is represented by a transition between a weak sandstones and partially-cemented sediments (sands and clays). For this reason, the discontinuities are not particularly evident nor frequent; nevertheless, some recent collapses seem to be locally deeply influenced by the structural setting. The graphical kinematic analysis confirms high plane and wedge failure indexes (fig. 4). Infrared thermography showed warm thermal anomalies in correspondence of the left slope talus sectors, where erosion has exposed bare soil, and of a recently detached sand block. Cold thermal anomalies were detected in correspondence of caves and open fracture in the slope right sector (fig. 4 a, b).

The erosion of the basal clay and silt layers reduces the support of the overlying sandstone layer, triggering mechanism of collapse of some portion of the complex (in correspondence of the pillars). A general fracture system along the entire slope flank (parallel to slope face) was also recognized due to general stress release. Water infiltration and general collection of rainfall should be implemented in order to reduce the dismantling processes and deformation of basal clay and silt layers. Consolidation measures must be implemented in a very controlled way due to low strength parameters of the rocks.

5.4 Davit Gareja Complex — Dodo Gareji monastery

In this site a 3D surface model was not available, therefore the kynematic analysis was performed by graphical stereographic projections considering a slope mean orientation. The main detected instability processes are wedge and plane failures, displaying a probability of occurrence of 51% and 31%, respectively (fig.5). The infrared thermographic analysis revealed cold thermal anomalies in correspondence of the slope talus; the latter are related to rills eroding the accumulated loose excavation material (fig.5).

5.5 Davit Gareja Complex — Udabno monastery
The majority of the Udabno monastery complex is affected by rock slope instability, both outside and inside the caves. Collapses have generally occurred in correspondence of the overhangs located at the entrance of the niches. The fragility and vulnerability issues of the area are also due to the proximity of the border between Georgia and Azerbaijan.

4. Conclusions

The present paper describes recent support activities implemented during last year. More in detail the research activities summarise last filed missions in Georgia (June and November 2018). During last the decades, the growing cultural interest in the rock hewn monasteries founded in the 6th century has been constantly accompanied by conservation and management problems due mainly to weathering and rock collapses. During the mission periods, different monasteries were surveyed in order to collect additional parameters, verify and calibrate preliminary stability model, define preliminary mitigation measures and monitoring system implementation. IRT and global kinematics surveys, were carried out in all of the selected sites during last mission in order to define preliminary landslide processes affecting the sites and potential instability factors (e.g. ledges-niches system, moisture sectors, erosional patterns). As preliminary conclusion the following main instability predisposing factors were recognised:

- Davit Gareja monastery complex area is constituted mainly by soft sedimentary rock promoting instability processes and weathering especially under climate change prospective;
- Geo-strucutral setting, joint and stress released promote rock instability processes in all the investigated monasteries complex;
- Rock samples collection and laboratory tests are in progress and they will define the main strength and deformation parameters useful for future stability models;
- Geological and geomechnical models are a useful tool to define landslide mechanism and activities as well as the priority of mitigation measures;
- Monitoring system is one of the main non structural, sustainable and low impact mitigation measure for the management of the tourist exploitation of the sites;

Only a multi-disciplinary approach can define a new paradigm for the conservation and mitigation measures. The final target will be the protection, tourism safety and future sustainable exploitation polices. Understand the processes is the main target in order to define general master plan of mitigation measures and most suitable and sustainable mitigation measures. All the above mentioned activities were carried out jointly with the Geological survey of Italy (ISPRA), the University of Florence (UNESCO Chair), the University of Milano-Bicocca and ILIA University.

5. Acknowledgment

Authors are very grateful to all the National Agency for Cultural Heritage Preservation of Georgia staff members for their support and continuous help and to the Tblisi ILIA University.
Bibliography


In 2015, at the Dodorka Monastery of Davit Gareji Desert a single-naved rock-cut church, that had been unknown up to that point, was discovered. It contained unique wall paintings dated to the thirteenth century.

Visual observation shows that the church was originally painted completely, but now the wall paintings are severely deteriorated or altogether lost.

The structure of the church is complex and consists of a combination of rock, stone and brick. The plaster material is gaji. In areas of plaster losses, different phenomena of rock deterioration can be seen: horizontal and vertical cracks, delamination and powdering.

On the upper part of the southern wall there is a large loss of plaster, 11cm x 42cm in size, caused by stone masonry deterioration and losses.

In the most part of the church interior, the plaster shows vertical and horizontal cracks of various sizes, and adhesion failure. On the western wall, where one of the scenes of St Demetrius life is depicted, there is a large loss of the plaster, stretching for about a third of the wall, and also a vertical crack, that goes from the western wall onto the north wall. The western wall is one of the most difficult areas, with the plaster layer delamination due to deterioration of the rock.

For years, water accompanied with powdered rock and soil was flowing in to the structure through cracks, and therefore the paintings have become covered with a layer of mud.

The wall painting show different phenomena of deterioration, but the most significant is that engendered by plant roots covering much of the surface of the walls. Intense vertically and horizontally spreading root systems from plants that grow on the slopes above and adjacent to the cave chamber may be observed on the northern part of the ceiling, the north wall and adjacent parts of the eastern and western walls.

Above-ground and below-surface parts of the growing plants were removed along with the soil layer during excavation of the cave entrance.

Some of the roots, however, have grown between the rock and the plaster, in the cracks of the plaster, and some of them have expanded along the ceiling and walls and are attached directly to the surface of wall paintings.

The roots anchor the plants in the ground and absorb water and minerals from the soil. The construction, depth of penetration, and distribution of the root system into the soil is different in various plant species, depending upon climatic conditions, the type of substrate, its physical structure, the distribution and availability of water nutrients. Drought-tolerant vegetation covers the entire Dodorka surrounding area.

Plant roots have penetrated into the cave through cracks, their growth - both vertically and horizontally on the surfaces of northern part of the ceiling, the northern wall and the adjacent parts
Figure 1
Western wall, Holy rider, Church of St Demetrius of Thessaloniki at Dodorka Monastery, 13th century.
of the eastern and western walls is related to the water gradient that is created due to the specific structure of the chamber. Water concentration is higher in the northern part of the cave because it adjoins the slope of the rock and water evaporates more slowly from the solid rock compared to the southern wall, which is comprised of stone masonry with openings and was covered with a loose layer of soil, thus permitting water to evaporate faster.

On the other hand, drought is a harsh abiotic factor associated with water and nutrient deficiency. One of the mechanisms of plant adaptation to drought is the development of a deep-penetrating and widely branched root system that allows the plant to obtain more water from deep layers of soil.

Root growth on surfaces creates obvious undesirable aesthetic effects, and causes physical damage to the plaster of the wall painting layer due to mechanical pressure that affects the substrate during root expansion. Physical deterioration maybe facilitated by the gradual drying and squeezing of already non-functioning roots that lead to a weakening of the plaster.

In the areas of root attachment, biochemical deterioration processes of the substrate occur due to extraction of metal ions from the substrate as a result of cationic exchange. The hydrogen ions present on the surfaces of root tips can be exchanged with cations in solution following the lyotrophic series (Ba^{2+}>Ca^{2+}>Mg^{2+}>Cs^{+}>Rb^{+}>NH_{4}^{+}>K^{+}>Na^{+}>Li^{+}). The transfer of cations takes place through a net of colloidal particles by a mechanism of contact exchange. Extracted cations are utilized by the plant in the process of mineral nutrition. These physical and chemical processes may explain the biological damage of the plaster and the wall paintings in the church of Dodorka.

Based on the information collected, an emergency stabilization of the wall paintings was implemented:

Root cover was removed from the surface of the paintings, except the areas with pigment powdering since the process of root removal could damage the paint layer. The methodology for the consolidation of paint layer will be developed during the next stage of remedial conservation.

An urgent stabilization of the primary and secondary supports was also carried out.

A complete conservation of the wall paintings is planned for 2019.

Bibliography:


Figure 2
The arch, existing cracks condition before conservation works

Figure 3
Western part of the church, condition before conservation, delamination of plaster layer

Figure 4
The wall painting covered with plant roots
Figure 5
The wall painting covered with plant roots, detail

Figure 6
Northern wall, painting before conservation

Figure 6.1
Northern wall, conservation process