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# Yereruyk: A Site Rich in Enigmas and Promises. The Armenian-French Archaeological Mission of LA3M in Armenia (2009-2016)

Patrick Donabédian

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Patrick Donabédian. Yereruyk: A Site Rich in Enigmas and Promises. The Armenian-French Archaeological Mission of LA3M in Armenia (2009-2016). Pavel Avetisyan; Arsen Bobokhyan. Archaeology of Armenia in Regional Context. Proceedings of the International Conference Dedicated to the 60th Anniversary of the Institute of Archaeology and Ethnography (July 9-11, 2019, Yerevan), Institute of Archaeology and Ethnography, pp.342-365, 2021. halshs-03368777

**HAL Id: halshs-03368777**

**<https://shs.hal.science/halshs-03368777v1>**

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Communication

**« Yereruyk: A Site Rich in Enigmas and Promises.  
The Armenian-French Archaeological Mission of  
LA3M in Armenia (2009-2016) »**

in

***Archaeology of Armenia in Regional Context.  
Proceedings of the International Conference  
dedicated to the 60<sup>th</sup> Anniversary of the Institute  
of Archaeology and Ethnography (2019)***

Edited by

Pavel AVETISYAN and Arsen BOBOKHYAN

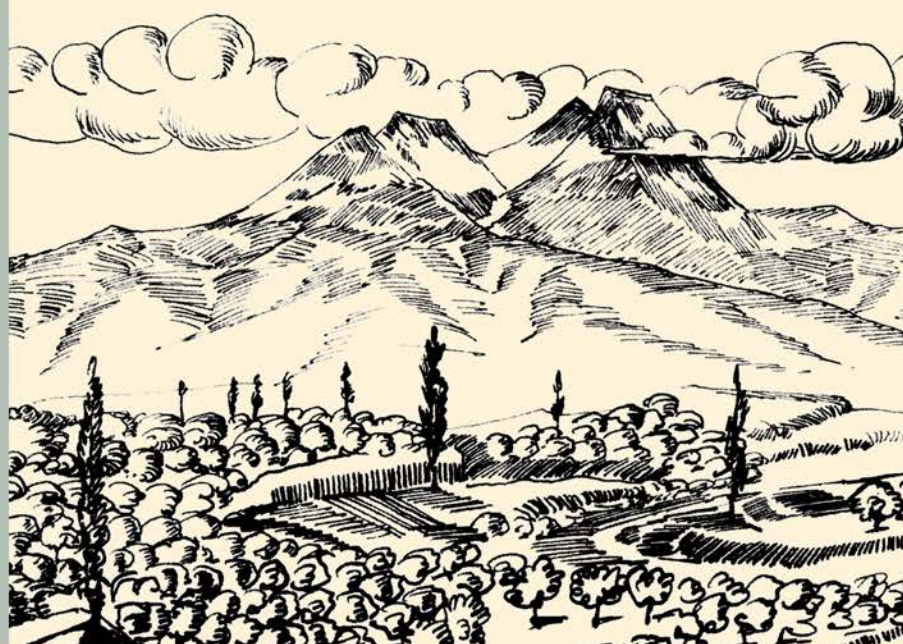
Erevan

Publishing House of the Institute of Archaeology and Ethnography

2021

p. 342 - 365

ARCHAEOLOGY OF ARMENIA  
IN REGIONAL CONTEXT



National Academy of Sciences of Republic of Armenia  
Institute of Archaeology and Ethnography

# **ARCHAEOLOGY OF ARMENIA IN REGIONAL CONTEXT**

Proceedings of the International Conference dedicated  
to the 60<sup>th</sup> Anniversary of the Institute of Archaeology and Ethnography  
Held on July 9-11, 2019 in Yerevan

Edited by  
**Pavel Avetisyan and Arsen Bobokhyan**

To be published by decision of the Scientific Council  
of the Institute of Archaeology and Ethnography, NAS RA

This publication was made possible by the support  
of the All Armenian Foundation Financing Armenological Studies

The present volume reflects recent achievements of Armenian archaeology realized by local and international specialists. It is the result of a conference dedicated to the 60th Anniversary of the Institute of Archaeology and Ethnography, NAS RA held in Yerevan during 2019. The Institute is a multi-profile scientific organization, which conducts fundamental and applied investigations in the fields of archaeology, cultural anthropology, folklore studies, ethno-sociology, epigraphy, archaeobiology, physical anthropology. As the national center of investigation of material and non-material cultural heritage, the Institute tries to provide scientific parity to the leading regional and international centers in the above-mentioned spheres.

Cover - Martiros Saryan, Mt. Aragats, 1929  
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Designed by  
Arthur Harutiunyan

Publishing House of the IAE  
432 pages

ISBN 978-9939-886-04-6

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# Yereruyk: A Site Rich in Enigmas and Promises. The Armenian-French Archaeological Mission of LA3M in Armenia (2009–2016)

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*In memory of Larisa Yeganyan and Georges Marchand*

*Abstract.* The aim of the article is to present the main results of the investigations carried out from 2009 to 2016 on the Early Christian and Medieval site of Yereruyk, located in the Shirak province at the northwestern extremity of the Republic of Armenia, by the LA3M laboratory of medieval archaeology, from Aix-Marseille University, in cooperation with the Institute of Archaeology and Ethnography of the Academy of Sciences of Armenia, represented on the spot by the Regional Museum of Shirak. The survey concerned notably the Yereruyk basilica, its dating, architecture, carved decor, its place in Early Christian Armenia and its links with Syria, as well as the hypothesis of a pre-Christian stratum. A special attention was also paid to the memorial area south of the church, with remains of monuments once supporting cross-topped stelae. The excavations in this zone brought to light a cemetery, in which the examination of more than seventy graves yielded twenty-nine dates obtained by radiocarbon analysis of human bones. It allowed the exploration of the hitherto poorly studied area of funerary archaeology in medieval Armenia, providing a first picture of the evolution of a Christian cemetery from Late Classical period almost to the 20<sup>th</sup> century. Geomorphological and archaeological studies carried out on the remains of monuments located to the east of the basilica allowed to better understand the function of these constructions and to approach their dating. The presentation reviews the results achieved by the mission, the questions raised by its investigations, some answers that could be brought, as well as the enigmas that still remain to be elucidated.

*Keywords:* Armenia, Yereruyk, Late Classical and Medieval periods, basilica, architecture, art, funerary archaeology.

## Introduction: An Armenian-French Archaeological Cooperation

The remains of Yereruyk are found in the northwestern part of the Republic of Armenia, at the southwestern end of the present-day “marz” (province) of Shirak, 45 km southwest of the capital of province Gyumri, on the eastern edge of the village of Anipemza. This village and the archaeological site of Yereruyk are located on the eastern bank of Akhuryan river (“Arpa Chay” in Turkish), which marks the current border between the Republics of Armenia and Turkey. The medieval capital of Armenia, Ani, is a few km north-west of Yereruyk, on the other side of the border. The deep canyon dug into the lavas by the Akhuryan crosses from north to south a volcanic plateau with an average altitude of 1400 m that stretches from the Gyumri region to that of Kars in the Republic of Turkey, and roughly corresponds to the province of Shirak of ancient and medieval Armenia.

The eight archaeological campaigns of nearly

one month each that took place from 2009 to 2016, which this article will attempt to report briefly, are the result of a fruitful cooperation between the Institute of Archaeology and Ethnography of the National Academy of Sciences of Armenia, represented on site by scientists and members of the Shirak Regional Museum of Gyumri, and the Laboratory of Medieval and Modern Archaeology in the Mediterranean basin (LA3M, Aix-en-Provence, France), a scientific structure under the dual tutelage of Aix-Marseille University (AMU) and the French National Centre for Scientific Research (CNRS).

This mission was made possible by the continuous financial support of the French Ministry of Foreign Affairs, and contributions from the CNRS, AMU and private foundations. It also benefited greatly from the assistance of Armenian administrations, in particular the government department then called the Ministry of Culture. It could not have been achieved in the excellent conditions it enjoyed without the constant solicitude of the Institute of Archaeology, and in particular



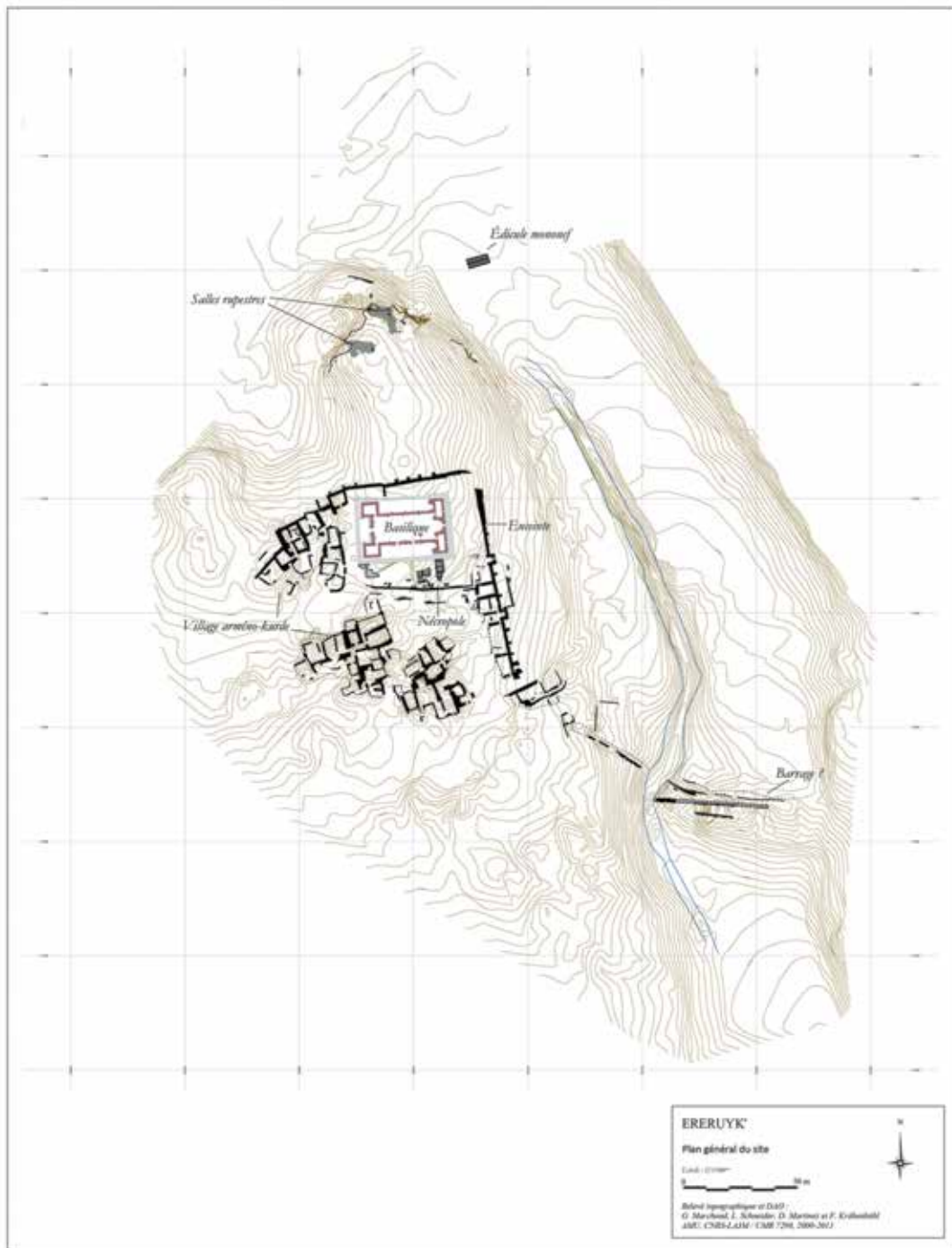


Fig. 1. Yereruyk. General plan of the site, (Topographical survey and CAD: G. Marchand, L. Schneider, LA3M, 2009–2011).

its director Pavel Avetisyan. The 60<sup>th</sup> Jubilee that this publication contributes to celebrate is a good opportunity to pay tribute to this venerable institution and to salute the dedication of its collaborators to their noble mission of enabling us to deepen our knowledge of the past and discover its hidden layers.

The campaigns of the LA3M expedition in Yereruyk were carried out with the participation, friendly assistance and watchful care of the Armenian co-responsible of the mission, the archaeologist, former

director of the Shirak Regional Museum, Hamazasp Khachatryan, and of the late archaeologist Larisa Yeganyan, then regional heritage inspector, and collaborator of the museum. It is a duty of gratitude and respect to dedicate this article to the memory of Larisa Yeganyan. The mission also benefited greatly from the valuable help of the museum's team of archaeologists, with countless talents as conservators, drivers, mechanics and in a wide range of technical, artistic and other unsuspected specialties.

This essay is based on the mission's annual reports, online on the LA3M website, as well as on published reports in which the reader will find a detailed bibliography on the subject (Bailet et al. 2012; Donabédian 2014a,b).

### A Site Studied Since the 19th Century

As early as the 19<sup>th</sup> century, the site of Yereruyk and the ruins of its basilica attracted the attention of travellers and scholars. Sent on an archaeological mission to Ani by the Academy of St. Petersburg between 1892 and 1917, the Russian scholar Nikolai Marr organized, in 1907 and 1908, two campaigns in Yereruyk. He is the author of the first monograph on the basilica, which includes valuable photographic documentation (Marr 1968). Since then, the Yereruyk site has continued to impose its presence in the study of Armenian architecture. In 1977, the Italian collection *Documenti di Architettura Armena* (DAA) devoted a volume to it. The Yereruyk site was one of the first, as early as 1928, to benefit from the attention of the communist authorities of Armenia. A series of consolidations took place during the 20<sup>th</sup> century. In 1958 architect Alexander Sahinyan undertook a partial clearing and a brief study of the presumed dam, southeast of the basilica. In 1985–86, investigations were carried out by archaeologist Felix Ter-Martirosov on the two rock rooms north of the basilica, on the small building of the valley to the north-east, and again on the “dam” (Ter-Martirosov 1987; 2001). In the last years of Soviet rule (1987–88), an extensive campaign was conducted by the architect Vahagn Grigoryan on the entire site and in particular on the houses and stables to the south and west of the church. A general scheme for the valorisation of the site was envisaged, which was however interrupted by the strong tremors, first telluric, then political, of December 1988 and following months and years. This intervention remained very little documented and the site was almost abandoned.

With the violent 1988 earthquake endangering the stability of the Yereruyk basilica, urgent interventions were undertaken by the World Monuments Fund of New York and by the Centro Studi e Documentazione della Cultura Armena (CSDCA) of Milan/Venice. At the invitation of the latter, between 1989 and 2005, specialists carried out several interventions on the basilica: studies of building archaeology by Cristina Tonghini and Nadia Montevicchi (Montevicchi, Tonghini 2012), analyses of the construction technique by Jean-Claude Bessac (Bessac 2011; 2012), surveys and consolidations. Finally, from 2009 to 2016, the LA3M of Aix-Marseille University conducted its program.

### Preparatory Work: 2009–2010

During an exploratory trip in 2008 by a group of LA3M members including the art historian and specialist in building archaeology Andreas Hartmann-Virnich, the archaeologist and medievalist Laurent Schneider and the author of these lines, the choice of a site for future investigations was focused on Yereruyk, a complex obviously rich in enigmas and promises. The first two campaigns in 2009 and 2010 were devoted to indispensable preparatory tasks. The mission first collected documents on works previously undertaken on Yereruyk site, from specialized institutions in Armenia, as well as in St. Petersburg (Marr archives) and in Milan and Venice (CSDCA documentation), and began to study on the spot the questions raised by the different remnants of this complex. Priority tasks included the laying out of an accurate topographical survey of the entire site, as such a plan did not exist. The overall plan of the site (Fig. 1), which is the result of a thorough work by one of the expedition's dedicated members, the geometer engineer Georges Marchand, is both a valuable achievement of the mission and a tribute to the memory of this colleague and friend, who died during the 2014 campaign.

### A Vast and Enigmatic Ensemble

The archaeological complex of Yereruyk includes the remains of several buildings:

- in the centre: the basilica;
- to the north, east and south of it: walls forming a partial “enclosure” or “rampart”;
- on the southeastern edge of the basilica: a funerary and memorial area with several square pedestals and, to the east: remains of sarcophagi;
- to the south and west of the church: a group of houses and barns or sheepfolds;
- to the north-east, in the valley: a small vaulted building;
- further to the southeast: a set of parallel walls that served in the 19<sup>th</sup> century as a dam.
- two rock rooms under the rocky platform to the north of the basilica.
- in addition to numerous scattered building blocks, two hundred fragments of carved stones, many of them deposited on the northern rocky platform.

This complex raises many questions. The first one concerns the choice, for its location, of an area now deprived, at the end of the plateau, near the Akhuryan canyon. Would the presence of an ancient place of

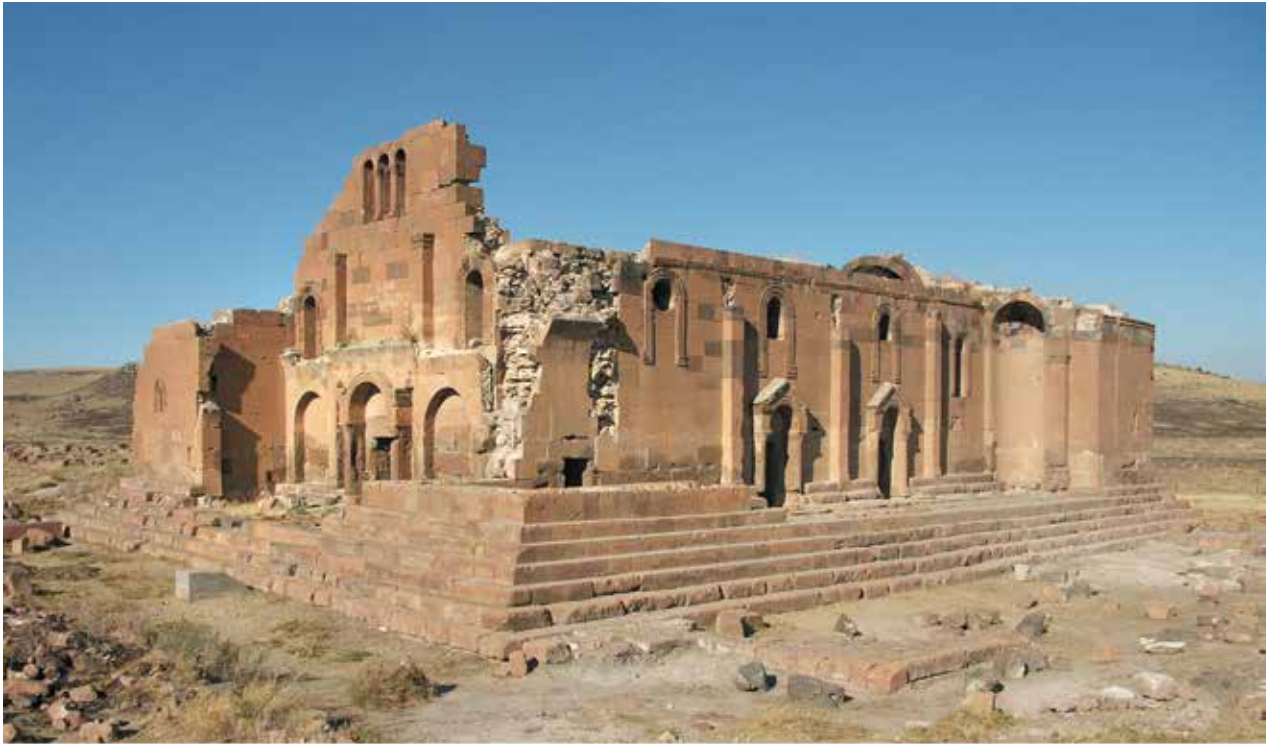


Fig. 2. Yereruyk basilica. General views from south-west and north-west (Photos: Author, LA3M, 2011 – 2014).

worship have already sanctified the site, justifying this choice? Another question arises logically in front of such a large group of remains: could it be a monastic complex, as northwestern Syria gave many examples in the Early Christian period (4–6<sup>th</sup> centuries), while Armenia, and Yereruyk particularly, had close ties with this country? Ani's proximity cannot be ignored either: what could the nature of the connection that necessarily existed with the great city of Ani be in the Middle Ages, especially at the time of its zenith, around the year thousand?

Another difficulty is the absolute and relative chronology of the various components, which remains largely uncertain. The sources are almost silent as to the circumstances of their construction, which is surprising, knowing the density, in this central province of ancient Armenia, of the written and epigraphic testimonies relating to the numerous foundations. Fortunately, the dating of the basilica can, thanks to a comparative study of its composition, technique and decoration, be located with a good probability during the Early Christian period. Can a more accurate dating be proposed?

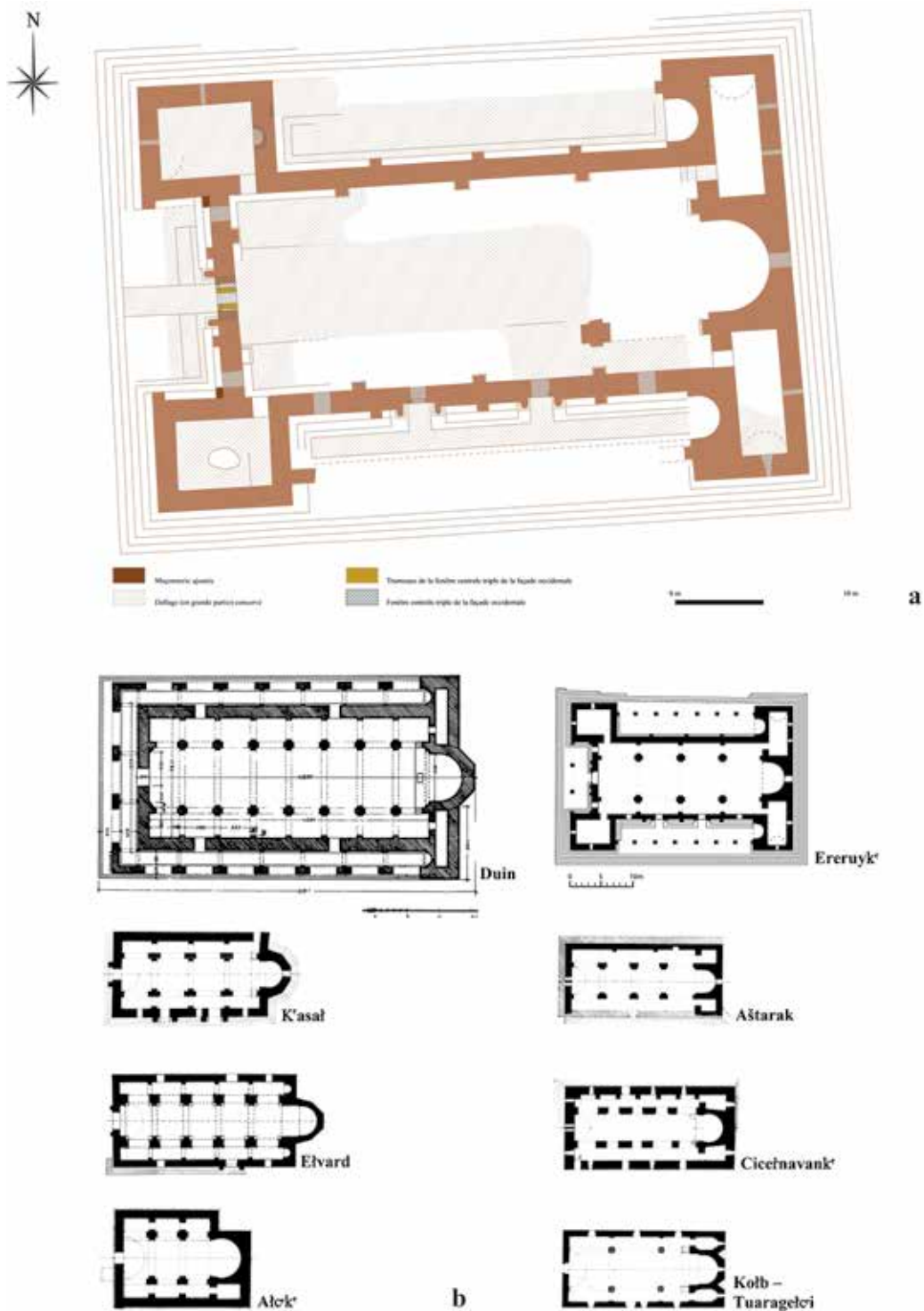


Fig. 3. a. Yereruyk basilica. Plan of the current state (Survey and CAD: G. Marchand, P. Donabédian, H. Hansen, L. Maggiori, LA3M, 2013–2015); b. Plans of Yereruyk (Drawing: F. Krählenbühl, LA3M 2013) and three-nave basilicas of Early Christian Armenia (K. Ghafadaryan (Dvin) and P. Cuneo 1988, II, 716).

The group of dwellings and stables seems essentially modern, but what is known about their origin? The dating of the other remains is obviously very difficult to establish, and the function of many of them is uncertain...

### Archaeological Campaigns of 2011–2015

From 2011, in parallel with the continuation of the surveys on history of art and architecture, on building archaeology, and on the lapidary material scattered on

the site, the mission, anxious to implement a global and environmental archaeology, launched several investigations of underground archaeology. To this end, the mission added to its expertise the competences of archaeologists medievalists Damien Martinez and Fabien Krähenbühl, anthropologist and archaeologist Paul Bailet, and archaeologist geomorphologist Christophe Jorda.

Through this multidisciplinary approach, the expedition sought to advance knowledge on several points concerning both the whole of Yereruyk complex and, separately, its various components. In assessing these advances, however modest they may be, it is necessary to take into account that they were achieved despite the negative legacy of the disturbances suffered by the site during the Soviet period as a result of poorly documented interventions and, more recently, of wild “excavations”.

### One of the Largest Basilicas in Armenia

The Yereruyk complex is dominated by the imposing remains of the St. John the Baptist and St. Stephen Basilica (Fig. 2). It belongs to the group of structures elongated from west to east, without a dome, which predominated in Armenian religious architecture of the first Christian period. It is more exactly part of the group of eight or nine three-nave basilicas, a type which ceased to be used at the end of the 6<sup>th</sup> century (Fig. 3). It is built of local ochre volcanic tufa, according to the traditional local technique, close to the Roman *Opus caementicium*, which consists of a formwork with two sidings of blocks carefully cut on their outer face, in which is poured a lime mortar filling mixed with sand and shards of stone.

The roofing of the naves is gone. N. Marr reports that, during the 1907 visit and after clearing the basilica, no trace of stone vault was discovered in the main nave (Marr 1968, 10–11). For this reason, and given its width, it is assumed that the central nave was covered with a wooden ceiling and a wooden frame, as may have been the case in the initial phase of other Early Christian basilicas in Armenia like Aghtsk and Ashtarak. On the contrary, the two lateral naves, given their width twice as small, and an ancient trace of a vault, now erased, were probably covered with stone vaults.

Within its group, Yereruyk has a singular place. It measures, at the level of the crepidoma, more than 40m in length and nearly 30m in width, and it had, along its north, west and south facades, galleries (Fig. 6/a), now destroyed. These galleries were opened outside by an arcade on a colonnade (16 fragments of

shafts lie on the site, most north of the basilica); the north and south galleries have retained, at their eastern end, a high niche-apse (Fig. 2). By these features, Yereruyk approached the patriarchal cathedral of Dvin, exceptionally large (Fig. 3/b), according to the criteria of Armenia (53 m in length), after its restoration at the end of the 5<sup>th</sup> century.

### Crepidoma: Characteristic of Church-Martyrium

Attention is drawn to the wide platform, with five or six steps around/under the basilica. This reminiscence of the Greco-Roman crepidoma, relatively rare in monumental architecture of Early Christian Armenia, probably had a special meaning. A similar platform was present under another church, St. Sergius of Tekor, built in all probability a little earlier than Yereruyk, at the end of the 5<sup>th</sup> century (Donabédian 2008, 54–57). Located about 20 kilometres south-west of Yereruyk, now in Turkish territory and destroyed, Tekor had a remarkable structure for its time: an inscribed cross crowned by an archaic dome, but despite this difference, it had a close kinship with Yereruyk. Both were located on the lands of the Kamsarakan, a great Armenian dynasty of the Late Classical period and shared a series of features, both architectural and decorative (Donabédian 2014a, 252–253).

Tekor was named in its dedicatory inscription “martyrium of St. Sergius”. For its part, Yereruyk, in an inscription engraved inside the basilica, is called “martyrium of the Precursor and the Protomartyr”, that is of St. John the Baptist and St. Stephen. Sergius, John the Baptist and Stephen are among the most revered saints in Armenia. A third example of such a platform, a little later (middle of the 7<sup>th</sup> century), can be seen, restored, under the cathedral of Zvartnots. The latter is dedicated to St. Gregory the Illuminator, whose relics had in all probability been placed in the centre of the church, and his head, in the eastern annex (Donabédian 2008, 190–198). These three churches, preceded by their high stepped crepidoma, thus have in common a very important characteristic: their martyrial function. It is highly plausible that, like Zvartnots, the great martyria of Tekor and Yereruyk, dedicated to the memory of particularly venerated saints, sheltered their relics. It is interesting to note that, inside the basilica, in front of the northwestern engaged pillar (south of it), a small monolithic, slightly trapezoidal chest<sup>1</sup> is placed under

1 External length: 71 cm; external width at the west end: 36 cm; at the east end: ca. 30 cm; height/depth: ca. 15 cm.



Fig. 4. Yereruyk basilica. Foundations of the south part of the apse (Photo: D. Martinez, LA3M, 2013).



Fig. 5. Yereruyk basilica. Masonry leaning against the western facade for the addition of a new gallery, lowered (Photo: Author, LA3M, 2013).

the pavement, torn off there (Fig. 7/a). This chest could be either the sarcophagus of a child, against the canons of the Armenian Church, or, more probably, a reliquary. Partially broken, it is deprived of a lid and has been emptied of its contents; nevertheless, it could be an indirect argument in favor of the presence of relics in Yereruyk.

Coming back to the crepidoma, it should be noted that it is not a real one that is found in Yereruyk, but its imitation. Excavations carried out under the south

end of the apse revealed that there was no platform under the construction, the walls of which are laid on the bedrock through very modest foundations (Fig. 4). Likewise, investigations under the southwest corner chamber showed that its pavement rested directly on the rock (Fig. 7/b). Earlier soundings by Italian specialists had already suggested this. The important thing was therefore the impression produced: that of a high stepped platform, probable mark of an important martyrial function. The same principle of a podium with several steps was observed, we will evoke it later, at the foot of vertical monuments with cross topped stela or column.

### Galleries of the Basilica

It is assumed that the galleries that lined some Early Christian chapels and basilicas were intended for unbaptized catechumens and penitents not allowed to enter the church (Donabédian 2008, 37, 43). As these galleries often have a niche-apse at their eastern end, it can be assumed that specific liturgies were celebrated there. At Yereruyk, in the north gallery which is totally isolated from the interior of the church (Figs 2, 3), it is permissible to consider, among these particular rites, the exhibition and veneration of relics, perhaps kept the rest of the time inside the sanctuary.

On the contrary, the south gallery communicated widely with the internal space of the church and preceded the two doors that open there. At the same time, it also formed, like the north gallery, a relatively autonomous liturgical space, with an eastern niche-apse. As for the west gallery, tightened between the two angular chambers, it initially had the same height as the two side galleries, but a redesign, probably completed shortly after construction, significantly changed its appearance. As shown by the masonry leaning against the west facade and the departure of the vault that rested on it, the height of this new gallery was significantly lowered (Fig. 5). It may have been surmounted by a kind of balcony, as was frequently practiced in the 5–6<sup>th</sup> centuries on the western facade of Syrian basilicas.

A hypothetical reconstruction of the basilica attempts to give an idea of the original height and appearance of the galleries in the overall volume of the building (Fig. 6/a). As attested by a portion of the south wall preserved at its junction with the top of the west facade, at the south-west corner of the basilica, the central nave was raised relative to the lateral naves. One can therefore imagine that the lateral walls, at the top of the central nave, were pierced with a clerestory, a form attested in Armenia on Tzitzernavank basilica,

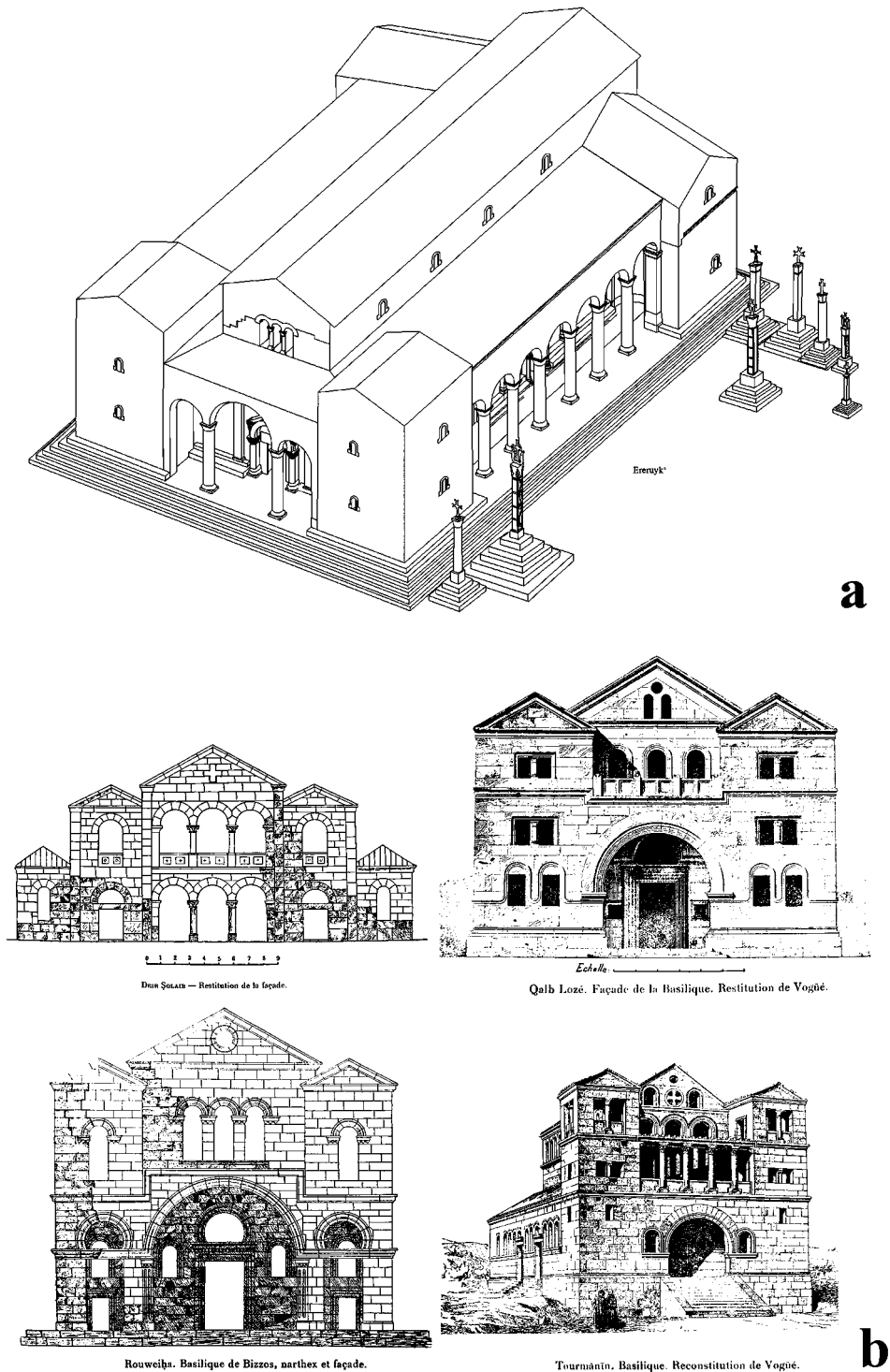


Fig. 6. a. Yereruyk basilica. Three-dimensional hypothetical reconstruction. General view from south-west (Design: Author; CAD: D. Ollivier, LA3M, 2013), b. Reconstructions of four Early Christian Syrian basilicas (5<sup>th</sup>–6<sup>th</sup> centuries): Deir Solaib, Kalb Loze, Ruweiha and Turmanin (Drawings: J. Mattern and M. de Vogüé; Mattern 1944, pl. LVI).

as well as on several basilicas of Georgia. As mentioned above, the central nave was probably topped with a wooden roof. A little further down, starting from under the clerestory, a roof, also wooden, continuous, sloping (a long pent roof), probably passed over the two side aisles and covered the galleries, necessarily

surmounting the top of their eastern niche-apse. These roofs were covered with tiles, many of which were discovered during the excavations.

Observations and calculations by the mission allowed to advance, for the north and south galleries of Yereruyk basilica, the hypothesis of seven or eight



Fig. 7. Yereruyk basilica. a. Northern aisle of the basilica. Small chest (reliquary?) in the ground, in front of the northwestern engaged pillar (Photo: D. Martinez, LA3M, 2011); b. Southwestern chamber. Two superposed floors (Photo: Author, LA3M, 2013).

arches on six or seven columns. But in a country with high seismic activity such as Armenia, the lack of connection between the arcades-colonnades and the walls of the building is surprising. Indeed, the pillars engaged in the facades certainly did not have the function of wearing anything and there were no vaults or arches starting from the walls and falling on the arcades. The colonnades and arcades of the galleries were therefore very weak. This is likely the reason why they collapsed, probably very early. Their destruction may reflect the foreign origin of this device, rare in Armenia.

### Two “Pastophoria” of the Basilica

As in Dvin and in several Armenian basilicas, the apse of Yereruyk is flanked by two sacristies, partly preserved. These angular chambers or “*pastophoria*” in which, in Armenia as elsewhere, priestly garments and objects of worship were stored, are here cross-stretched, narrow and laterally protruding. These peculiarities were also found in Dvin, as well as in the

domed churches of Echmiadzin and Tekor. The laterally elongated eastern sacristies are observed elsewhere in the Early Christian world, especially in Syria, but their marked narrowness seems to be an Armenian specificity.

Each of the eastern sacristies of Yereruyk had two floors. The upper floor of the northeast corner is partially preserved, although it has lost its roof. Each floor was covered with a stone vault, carefully fitted, with a transverse orientation (north-south). Moreover, these sacristies had a unique feature, still visible today on the second floor of the north-east *pastophorion*: while the vault of the first level is a horizontal barrel and is surmounted by a horizontal floor, the upper vault is steeply inclined (Fig. 2/b). It is significantly higher on the nave side (south) and lower outward (north). On such a vault, one can imagine, in Armenia, only a saddle-roof, necessarily inclined, that is to say lowering outwards (Fig. 6/a).

### Two Western Rooms of the Basilica and its Close Link with Syria

The Yereruyk basilica also has several peculiarities that link it to Syrian churches of the 5–6<sup>th</sup> centuries and make it, in Armenian context, a singular monument (Donabédian 2014a, 249–250). One of these features is the presence, at the ends of its western facade, of two protruding angular chambers, very poorly preserved. These oblong chambers open to the side aisles inside the basilica. Some signs show that they had two floors, so a turret appearance. Unknown in Armenia, such turrets are on the contrary frequent at the western corners of around fifteen Syrian basilicas, among which Deir Solaib, Turmanin, El Bara, Kalb Loze, St. Sergius of Resafa and the Church of Bizzos in Ruweiha (Fig. 6/b). One of the hypotheses put forward by Jean Lassus as to the function of these rooms in Syria, that of a stairwell, is confirmed by the Georgian example of Tsromi (7<sup>th</sup> century) (Chubinashvili 1969, 26–27, 35), partly comparable to Yereruyk, but it does not seem to be appropriate here. In Yereruyk, unlike Tsromi, there was certainly no narthex nor tribune upstairs; as for the redesign of the western facade, which may have resulted in the addition of a kind of “balcony” in Syrian fashion, it is obviously posterior to the construction of the two chambers. The question of their function therefore remains open.

By the position of its four angular chambers protruding from the sides, the Yereruyk basilica, like Tsromi in Georgia, is similar to two almost contemporary monuments: the basilica of Deir Solaib in Syria (prob-



ably end of the 5<sup>th</sup> century) and the basilica n° 32 in Binbir Kilise, Asia Minor (probably 6<sup>th</sup> century). Given that Deir Solaib (Mattern 1944, 151–155) housed a baptismal basin in its southwestern angular chamber, it was tempting to imagine that this might also have been the case in Yereruyk. This is why the archaeological expedition, taking advantage of the fact that a missing portion of the pavement allowed an intervention, carried out a survey under this ground (Fig. 7/b). This investigation revealed the existence of two superimposed pavements, the lower of which rested directly on the mother rock. Traces of a partial destruction of the old pavement were discovered, probably as the result of a fire, after which a second paving, coarser, was laid on it. Radiocarbon analysis of lumps of charcoal collected at this location determined that the fire and pavement repair likely occurred in the 8–10<sup>th</sup> centuries. However, the survey showed no trace of baptistry, nor of any stratum prior to the current construction.

Other traits of kinship with Early Christian Syria, as well as with Asia Minor, including Cappadocia, can be seen at Yereruyk in the treatment of the facades, traits by which this basilica, together with Tekor, stands out from other churches in Armenia. This is the case of the continuous moulded strips, independent of any architectural element, which run horizontally through the building, and those that surround the windows to the bottom of their bay where they form two horizontal folds (Fig. 2/a). The triple window at the top of the western facade is also a common feature with Syria, where it is observed for example on the church of Baqirha (546). Lastly, a Greek inscription engraved on the southern facade of Yereruyk, on which we will return later, creates a precise link with a Syrian church.

These affinities with Syria should not, however, obscure the features that clearly situate the basilica of Yereruyk within the Armenian tradition, such as its technique and building material, the use of stone vaults, the narrowness of the eastern sacristies, the shape of the portals and most of the motifs of its ornamentation.

### Notes of Building Archaeology Concerning the Basilica

The preserved elevations of the basilica were submitted to an in-depth analysis of building archaeology<sup>2</sup>, including a survey by tacheometer, a systematic stone-

2 The author is grateful to his colleague Andreas Hartmann-Virnich for his valuable contributions in the field of building archaeology.

to-stone study of the walls and an examination of the links, chains and ruptures of courses, of the changes and combinations of bond, and certain characteristics of the stone cutting. These detailed observations revealed, beyond certain irregularities, the conceptual and metrological homogeneity of the building. This constructive cohesion of the building's components, which reflects the coherence of an overall project, concerns the main phase of construction, that is the three-nave building, with its angular parts and crepidoma. These observations seem to disprove the assumptions of long ruptures and major reconstructions.

Clearly visible alignment fractures on the west facade of the church and on the internal wall of the main apse were likely corrected immediately after probable subsidence of the rocky soil. The facing, both exterior and interior, of the masonry shows changes in the bond, in the colour of stones and in the size of blocks, as well as variations in the treatment of the edges of blocks, bevelled on some portions of the walls and of engaged pillars. But these differences do not seem to be related to a significant stopping of the building process, accompanied by a change in design. Similarly, the destruction of the cornice under the semi-dome in the main apse, to lay a coating and probably a mural painting, and the hammering, for unknown purposes, of part of the sculpted decoration on the eastern end of the south facade do not appear to be related to structural changes.

However, one can find traces of interventions after the first construction phase:

- Redesign of the western facade with a new lowered gallery (perhaps in addition to a renovation of the top of the south facade after the collapse of the galleries).
- Walling and partial scraping of the southern windows, at an indeterminate period in the Middle Ages.
- Restoration and filling in the 20<sup>th</sup> century, especially at the bottom of the east and south facades, at the bottom of the apse, on the angular chambers and on the crepidoma.

### Sculpted Decoration and the Inscriptions of the Basilica

The limitations of this article do not allow to extend to all aspects of the basilica. In its sculpted decoration, we mentioned features of closeness to Early Christian Syria, such as moulded strips and windows frames. An important role in the decoration of the monument

belongs to the portals (Fig. 2/a). Their form, which goes straight back to Roman models, without any Syrian intermediary, illustrates the most widespread type of Armenian portal from the beginning of the Christian period up to the 7<sup>th</sup> century included. One of their main features is the vigorously moulded and slightly horse-shoe arch connecting the two jambs. Its role is so important that the gable which should have leaned on the two stylized Corinthian capitals is “propelled” upwards.

The inscriptions of the basilica, without providing information on the circumstances of its construction, lift some of the veil on the political-dogmatic and socio-economic context of its history and of the interventions it has undergone (Donabédian 2014a, 262–279). The double dedication to two very popular saints sheds new light on the attractiveness that the sanctuary must have had. The term *martyrium* applied to it underlines its eminent functional specificity. As the text containing mentions of dedication and of martyrial function may date from the 10–11<sup>th</sup> centuries, this could explain a significant change at the turn of these centuries in the life of the sanctuary and its cemetery, on which we will come back later. The existence attested in the Middle Ages, near the church, of a village that probably lived from its agricultural activity gives special weight to the role that could have played the device that blocked the valley, downstream of the ecclesial area. This gives a slight glimpse of the reasons for the presence, in a region now underprivileged, of such a prestigious sanctuary, within a large ensemble, probably actively integrated into regional life. Finally, the Greek inscription engraved at the eastern end of the southern facade, very similar to a late 5<sup>th</sup> century Syrian inscription, and probably contemporary with the consecration of the basilica, in addition to numerous architectural and decorative features already mentioned, attests to the very close link between Yereruyk and Syria, and offers a complementary argument for dating the church to the 6<sup>th</sup> century.

### The Memorial / Funerary Area. Tiered Pedestals

The area south and southeast of the basilica attracts attention by remains of sarcophagi and square-plan pedestals. These correspond to the lower part of a type of vertical cruciferous monuments, widespread in Armenia and Georgia, attributed to the Early Christian centuries and considered in all cases prior to the 8–9<sup>th</sup> centuries. They were composed of several superimposed elements: on a square-plan podium with a few steps, a cubic base is laid, on which is fixed a quadrilateral and sculpted stele (more rarely a column), surmounted by a

stone cross, through a capital and sometimes an intermediate element called “cross-bearer” (Mnatsakanyan 1982; Grigoryan 2012; Tchakerian 2016).

This type of monument, preserved only in the state of remains (except some recent attempts of reconstruction), was often erected near the chevet of an Early Christian church or chapel. It is usually represented on the same site by only one, two or three items. On the contrary, in Yereruyk there are six to eight pedestals of this type, on the southern edge of the basilica, which suggests a memorial complex of unusual magnitude (Figs 2/a; 6/a). A main row of four cruciferous monuments stood, almost in line with the chevet of the basilica, south of its crepidoma, near its southeast corner. A fifth monument was located a little further west, a sixth one further south, and finally, the traces of two others can be seen at the western end of this area. Nowhere else in the South Caucasian region (it is not known whether such vertical memorials also existed in Western Armenia<sup>3</sup>) is such a “forest” of cruciferous monuments known on the same site. In addition to the pedestals, many other elements of such monuments are present: bases and fragments of stelae, capitals and stone crosses, most of which are deposited on the rocky platform to the north of the basilica.

Uncertain indications from a brief study of such a pedestal at Kasagh (Sahinyan 1955, 55) led to question the function of these devices: were they simple podiums supporting cross topped monuments, or did they also serve as tombs? Examination of the second one, in the row of four pedestals near the south-east corner of the basilica, provided an answer, at least partial: the pedestal, unviolated, was empty of any burial and its internal space was only filled with earth (Fig. 8/a). Thus, the funerary hypothesis can be rejected, for the time being on the basis of this case alone: the pedestals were used to highlight the cross topped memorials they bore. As for the monuments themselves, it can be assumed that, in addition to their main mission of glorifying the victorious cross (as well as for the *khachkars* that will multiply from the 9<sup>th</sup> century), they could also carry a memorial message related to individuals or families whose members were buried nearby. Indeed, the study of the area revealed the presence, near these pedestals, of many tombs, obviously attracted by them. Study also showed that the cross topped monuments were certainly erected after the basilica and before the graves surrounding them immediately. This

3 The fragments found in the Kars region (Agarak, Ani, Çengelli, Kars, Keçror, Mren...) belong to Eastern Armenia.



Fig. 8. a. Yereruyk. Memorial zone south of the basilica. Excavation into pedestal n° 2 (Photo: Author; LA3M, 2013), b. Schematic section of such a memorial (Mnatsakanyan 1982, 44, pl. XIII).

allowed to propose, for these monuments, a dating hypothesis between the 6<sup>th</sup> and 8<sup>th</sup> centuries.

### Burial Area: Chronology of Funerary Sequences

Archaeological survey of the cemetery began since the first excavation campaign in 2011. The study of 72 tombs provided an accurate image of the evolution of the site, both chronologically and in terms of mode and density of occupancy in the vicinity of the basilica<sup>4</sup>. Two surveys were carried out within the funerary area. The first one, with an area of about 50 m<sup>2</sup>, was located south of the basilica, between it and the wall marking the cemetery's south boundary. The second survey, in the form of a 3 m wide trench, was executed east of the church, between it and the eastern wall. Twenty-nine radiometric analyses were carried out on bones. On this basis, and through stratigraphic arguments, seven funerary sequences were individualized, from the Early Christian period to the early 20<sup>th</sup> century (Fig. 9).

The earliest funerary sequence must be placed at the widest between the second half of the 3<sup>rd</sup> century and the beginning of the 6<sup>th</sup> century, thus potentially before the construction of the current basilica. How-

ever, the cross-referencing of radiocarbon analyses invites to tighten this chronological range in the 4–5<sup>th</sup> centuries. This first phase is represented by five tombs including a reduction (Tomb no. 44 A) laid out at the end of a tomb of the next burial horizon. Four of them are located east of the basilica (Tombs no. 44A<sup>5</sup>, 72<sup>6</sup>, 73<sup>7</sup> and 121<sup>8</sup>), while the fifth one is isolated south of it (tomb no. 70<sup>9</sup>). The latter, beyond its position, is distinguished by the presence of two individuals – an adult and a child – buried simultaneously, perhaps with a kinship (Fig. 10).

The distribution of the tombs of this first burial sequence invites us to consider, already for this period, the existence of an extensive burial area, within a zone

5 CDRC, Université Lyon I, Lyon 10640 (OxA) R\_Date (1696,26) : 95,4% probability 256 (17,8 %)-299 cal AD / 318 (77,6 %)-407 cal AD.

6 CDRC, Université Lyon I, Lyon 9588 (GrA) R\_Date (1625,35) : 95,4% probability 345 (5,6 %) -372 cal AD / 377 (89,8 %) -539 cal AD.

7 CDRC, Université Lyon I, Lyon 11889 (GxA) R\_Date (1690,36) : 95,4% probability 256 (16,3 %) -299 cal AD / 318 (79,1 %) -416 cal AD.

8 CDRC, Université Lyon I, Lyon 11868 (SacA-40378) R\_Date (1620,30) : 95,4% probability 382 (95,4 %) -539 cal AD.

9 CDRC, Université Lyon I, Lyon 10639 (OxA) R\_Date (1683,22) : 95,4% probability 256 (13,7 %) -298 cal AD / 319 (81,7 %) -421 cal AD. From the beginning, the stratigraphic study had shown that it predated the pedestals.

4 With regard to the study of funerary archaeology and the cemetery, the author draws on the analysis and reports of his colleague Damien Martinez, a member of the Yereruyk expedition, whom he sincerely thanks.

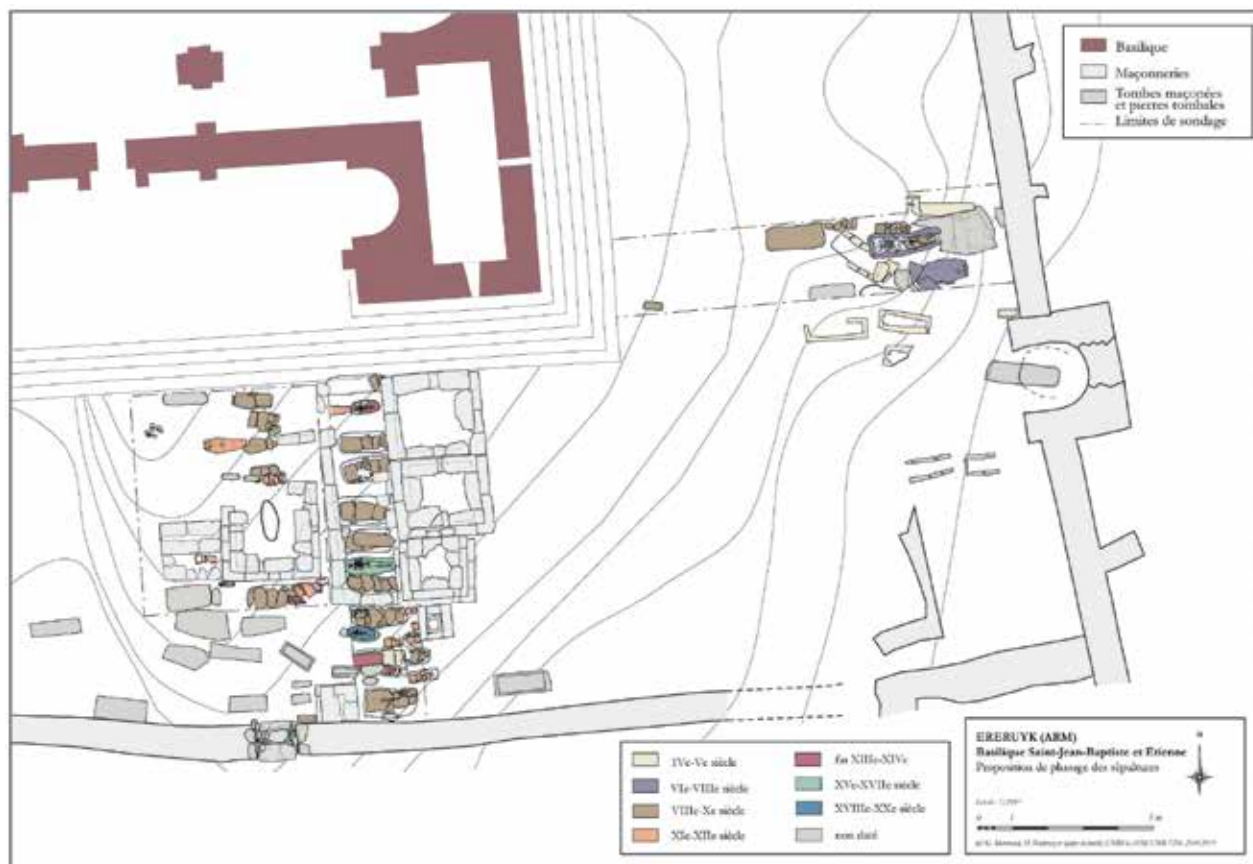


Fig. 9. Yereruyk. Funerary zone south-east of the basilica (Proposal of phasing (periodization) of graves: D. Martinez, LA3M, 2015).

already bounded by the eastern and southern walls. The south wall, in which a gate with a threshold built above a gutter was discovered (Fig. 11), belongs to a stratum in which the double burial is installed. This offers a *terminus ante quem* of the 4–5<sup>th</sup> centuries for the wall's construction. It is not known, in the present state of research, whether the location of these tombs is related to a monumental complex or a religious building. Nevertheless, one may assume an attraction by the horseshoe apse of the eastern wall, in the direction of which the tombs east of the basilica are partly turned.

The second funerary sequence is represented by two graves (Tombs no. 44B and no. 46: 7<sup>th</sup> century). These follow the axis marked by the church. The individual from Tomb no. 46<sup>10</sup> was buried dressed, as evidenced by the presence of a belt buckle with a stylized decoration (Fig. 12/b). The second tomb (no. 44B)<sup>11</sup> belongs to an immature individual; its funerary archi-

tecture is distinguished by the arrangement, at the end of the container consisting of vertically placed slabs, of a reduction box housing the bones of an adult from a grave of the previous funerary phase.

The third sequence reflects the establishment, between the 8<sup>th</sup> and 10<sup>th</sup> centuries, of a real cemetery whose organization is conditioned by the basilica and the pedestals. The tombs are distributed to the south and east of the church. If the attraction of the sanctuary remains the norm, the role of tiered monuments, intended to carry steles or columns surmounted by crosses, is evident in the general organization of the burial area. While magnifying the cross that crowned them, they probably also served commemorative purposes. Their appearance may reflect the diffusion of a liturgy centred around the memory of the dead. However, there remains the question of the patrons of these monuments. Do they honour the memory of the “dead” in general, or that of a particular person (prelate, prince...)? Archaeological analysis, coupled with anthropological survey of the tombs, allows to identify some avenues for reflection.

The study of the graves located directly to the west of the three adjoining memorials is particularly

10 CDRC, Université Lyon I, Lyon 9587 (GrA) R\_Date (1365, 35) : 95,4% probability 606 (91,00 %)-709 cal AD / 747 (4,4 %) -766 cal AD.

11 CDRC, Université Lyon I, Lyon 10641 (OxA) R\_Date (1497,26) : 95,4% probability 427 (1,1 %) -445 cal AD / 473 (2,1 %) -486 cal AD / 535 (92,2 %) -638 cal AD.

interesting (Fig. 9). Six of these tombs are placed in a privileged area within the burial zone, delimited, on about 10 m<sup>2</sup>, by reused blocks of tufa. The memory of this privileged location seems to have endured, as suggested by the small number of graves placed in this space between 8–10<sup>th</sup> and 20<sup>th</sup> centuries. Indeed, if in the other areas of the cemetery the density of tombs is high, with many overlaps, the space located at the foot of the three pedestals is scrupulously respected. Only three post-8<sup>th</sup> century graves, two of which date back to the Late Middle Ages, were installed within this area. In addition, their location does not disturb the previous tombs and fills vacant spaces. The tiered monuments thus play an undeniable structuring role within the burial area. They are the main markers of the cemetery. Obviously intended to attract attention, they also organize the circulation within the cemetery.

This third funerary sequence provides the image of a heterogeneous population, where women and men of all ages, as well as adolescents, children and infants, are found. This image reflects a “parochial” recruitment, probably linked to the presence of a village on the outskirts of the basilica. In addition, it underlines the vitality of the basilica complex between the 8<sup>th</sup> and early 11<sup>th</sup> centuries, during which there seems to be a phase of partial redevelopment of the western block of the basilica, attested in the south-west angular chamber by the upgrading of the floor, and probably of restoration, evidenced by an inscription inside the church.

The fourth funerary period, dated from the 11<sup>th</sup> to the 12<sup>th</sup> centuries, is distinguished from the previous one by a change in the recruitment of the cemetery. While the density of individuals appears to be equivalent, this phase is characterized by an over-representation of infants and young children. Among the tombs of this period there is only one adult, a woman who died after the age of 50. This image of the cemetery in 11<sup>th</sup> to 12<sup>th</sup> centuries contrasts significantly with that of the previous sequence and raises questions about a possible change of the cemetery’s destination. It may also reflect particular liturgical practices, perhaps related to burial of small children who died before baptism, as well as a possible change in the basilica’s dedication.

The inscription engraved inside the basilica, which, according to epigraphists, dates back to the 10–11<sup>th</sup> centuries (perhaps to 951: CIA 2017, 17), must be recalled here. It mentions the “true believers” and the restoration of the church called “martyrium” and dedicated to “the Precursor and the Protomartyr”. This “restoration” can be interpreted both as an architectural repair and as a re-establishment of the dedication,



Fig. 10. Yereruyk. Funerary zone. Tomb no. 70, south of the basilica, with double burial, dated between 256 and 421 AD (Photo: D. Martinez, LA3M 2013).



Fig. 11. Yereruyk. Funerary zone. South wall, gate with a threshold (Photo: L. Harutyunyan, LA3M 2013).

that is to say the reaffirmation of a dedication a time forgotten or deleted (Donabédian 2014a, 269–275). In the context of dogmatic and military crises of which medieval Armenia is customary in its relations with Byzantium, such a jolt can be envisaged, before the restored sanctuary and the reconfirmed dedication are returned to the “true believers”. This allows the hy-

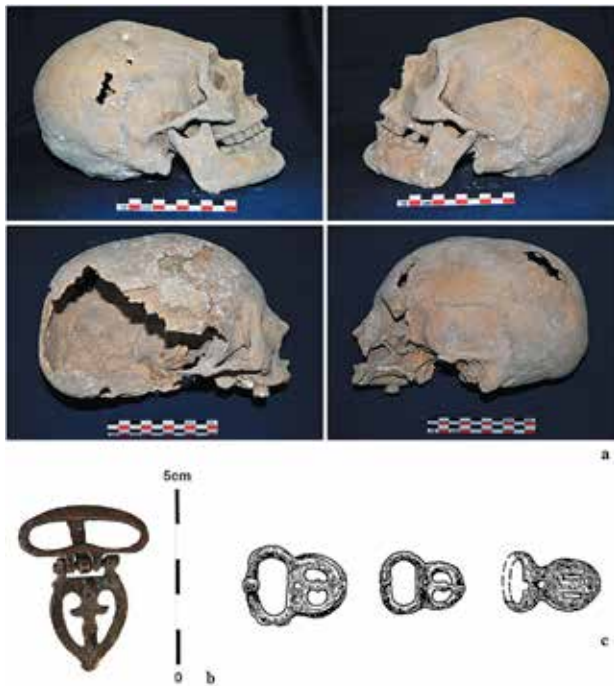


Fig. 12. Yereruyk. Funerary zone. a. Intentional deformation of two skulls from Tomb no. 44A, dated between 256 and 407 AD (Photo: P. Bailet, LA3M 2013); b. Belt buckle found under a bone dated between 606 and 766 AD (Photo: D. Martinez, LA3M, 2013); c. Dvin. Buckles dated to 9<sup>th</sup>–13<sup>th</sup> c (Arakelyan 2003, 443, tab. 157/26-28.).

pothesis that the restoration of the dedication to saints directly related to baptism and to newborns may have constituted a derogatory permission for burying, in the cemetery of Yereruyk, near the chevet of the famous shrine, infants who died before baptism. Indeed, John the Baptist, the Forerunner, is the saint who baptized Christ, and Stephen, as the first martyr, is, according to apocryphal tradition (*Protevangelium of James* and *Armenian Gospel of the Infancy*), the leader of the “heavenly firstborns” (*andraniks*)<sup>12</sup>.

The following burial sequences run from late 13<sup>th</sup> to early 20<sup>th</sup> centuries. They are difficult to approach because they concern only a few tombs that seem anecdotal. This could reflect the presence of a small population near the basilica or a moving of the cemetery<sup>13</sup>.

### First Attempt of Typo-Chronology of the Tombs

The 72 tombs exhumed in the burial area allow a first typo-chronology of the funerary methods encountered

at the site of Yereruyk. The first three burial sequences (from 4<sup>th</sup> to 10<sup>th</sup> centuries), apart from the use of sarcophagi, are exclusively marked by the presence of rock and masonry tombs, all sealed by butt-jointed tufa slabs. The morphology of the two oldest tombs, of the 4<sup>th</sup> century (Tombs no. 70 and no. 72), is significantly different from that of the later graves. They are strictly rectangular, while those of the following sequences adopt a trapezoidal form. The passage from rectangle to trapeze in the tombs architecture seems to have happened no later than the 6<sup>th</sup> century<sup>14</sup>.

The fourth funerary sequence, from 11<sup>th</sup> to 12<sup>th</sup> centuries, is marked by a gradual passage from the masonry chest with vertical slabs set on edge, to burial in a simple pit dug in the ground. While the presence of covering slabs remains the norm, the deceased are gradually buried directly in the earth, often wrapped in a soft linen. The only adult burial identified for this phase is a simple pit grave, with only three blocks set on edge at the bedside (the western end) of the tomb. The last three funerary phases (from the end of the 13<sup>th</sup> to the 20<sup>th</sup> century at the latest) are characterized by very sober practice, the deceased being buried directly in the pit.

### Anthropological Observations

The archaeological study of the cemetery went along with an anthropological examination of the exhumed skeletons, facilitated by their very good conservation<sup>15</sup>. In addition to details on pathologies that the population of Yereruyk had suffered from, this survey highlighted the existence of a practice that was known in Classical Armenia and the Iranian world, but which had never been observed in a Christian context: a deliberate ovoid elongation of the skull, resulting from a bandage of the head since an early age. This deformation was observed on two subjects in a grave (Tomb 44A) where several individuals had been re-buried: it concerns a male adult between 20 and 49 years of age and an 8–9 years old child (Fig. 12/a). Given the radiocarbon dating between 256 and 407 of the adult's skeleton, the original burial might predate the adoption of Christianity and the deformation could still be a pagan practice.

<sup>12</sup> The author thanks Jean-Pierre Mahé for his comments and explanations on this issue.

<sup>13</sup> The present cemetery is located at the foot of a small hill located about 200 m southeast of the basilica. The tombs do not predate the 1930s.

<sup>14</sup> This is also true in western European cemeteries.

<sup>15</sup> For these observations, the author thanks his colleague, the anthropologist Paul Bailet, a member of the Yereruyk mission.

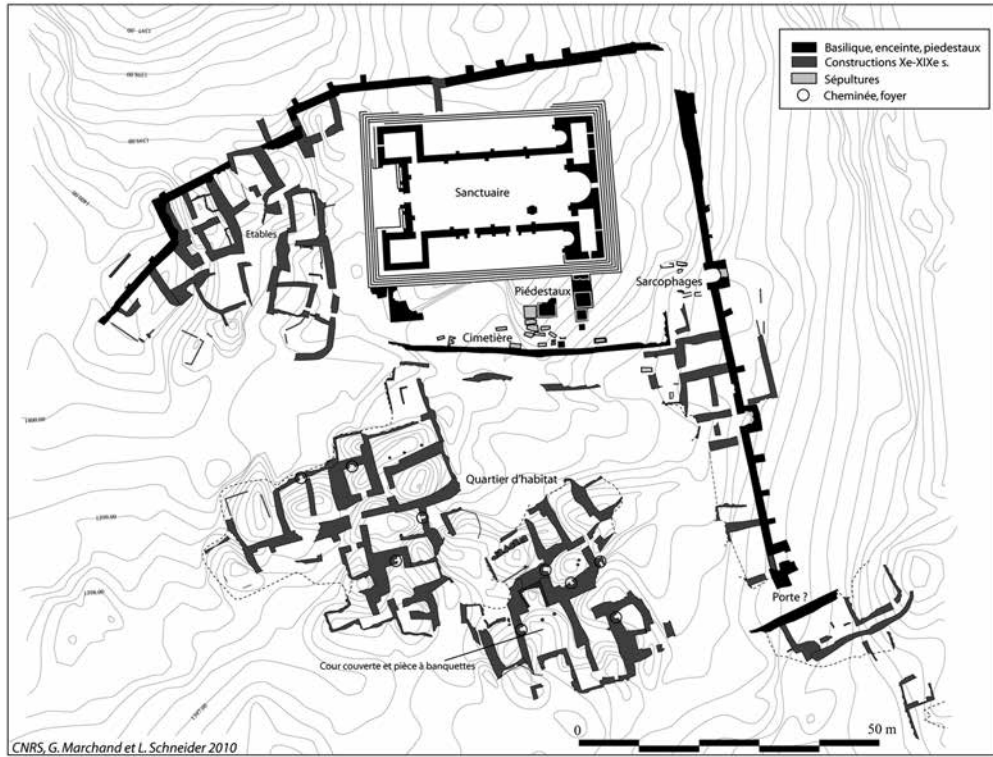


Fig. 13. Yereruyk. Plan of the central part of the site with “pseudo-rampart” (Topographic survey: G. Marchand, L. Schneider, LA3M, 2010).

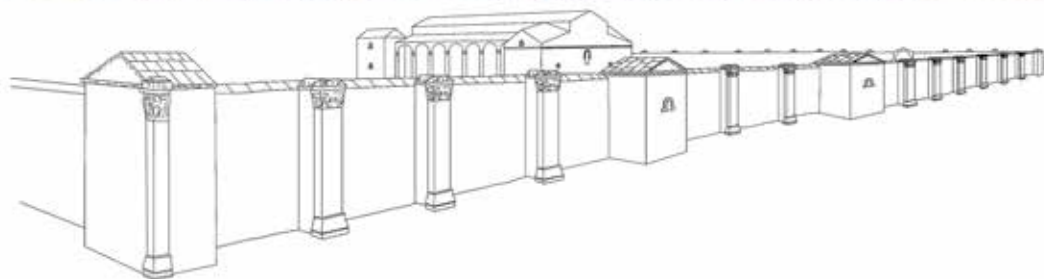


Fig. 14. a. Yereruyk. The “pseudo-rampart” from south-east (Photo: Author, LA3M, 2014); b. Eastern “pseudo-rampart”. An Attempt of hypothetical reconstruction (Design: A. Hartmann-Virnich; CAD: D. Ollivier, LA3M, 2019).



Fig. 15. Yereruyk. Eastern “pseudo-rampart”. Northern “exedra”. a. Schematic reconstruction (Design: A. Hartmann-Virnich; CAD: L. Maggioli, LA3M, 2018); b. View from east to west (Photo: Author, LA3M, 2015).

## Funerary Furniture

Only five graves delivered objects accompanying the deceased. This apparent sobriety must, however, be nuanced by the looting that affected the majority of the graves. In a few cases, the covering slabs were put back in place after the desecration. A belt buckle was present, as we said, in a tomb dated to the 7–8<sup>th</sup> centuries (Tomb no. 46), a knife appeared in an 11–12<sup>th</sup> centuries tomb, and two pearl necklaces were found respectively in tombs dated to the 13–14<sup>th</sup> and 16–17<sup>th</sup> centuries. A bell was also found in a child's tomb dated between the 4<sup>th</sup> and 6<sup>th</sup> centuries. Concerning the belt buckle of the 7–8<sup>th</sup> centuries, its radiocarbon dating allowed to revise the chronological allocation of analogous objects: buckles of the same type, discovered in Dvin, had been imprecisely attributed to a period between 9<sup>th</sup> and 13<sup>th</sup> centuries (Arakelyan 2003, 443) (Fig. 12/b, c).

## “Rampart” of the Basilica Area

The basilica and its memorial-funerary zone are bordered, on the north, east and south sides, by portions of very eroded walls (Fig. 13)<sup>16</sup>. The “enclosure” thus formed is incomplete, since it does not have a fourth component to the west, while its eastern portion draws a long line descending to the south-south-east. The hypothesis of a defensive function of this set of walls, moreover of a small thickness, seems therefore excluded. We will see that several arguments support the idea of an ostentatious device designed to enhance the ecclesial and funerary area.

The south wall, particularly eroded and deformed, looks so coarse today that it is impossible to propose any dating. However, as mentioned above, the stratigraphy revealed by the archaeological study of this part of the cemetery, near the pedestals, indicates that, in its ancient state, this wall dates back at least to the 3–5<sup>th</sup> centuries, which means that it probably preceded the basilica. During the excavations, in front of the fifth pedestal, as already mentioned, a door was discovered, which opened the area of the basilica on the village further south (Fig. 11). A street apparently stretched along the outer face of this south wall.

The north and east “rampart”, partially eroded to its foundation or even to the bedrock, is kept only at a maximum height of two to three courses. Curiously, the northern segment, which has undergone several changes, is gradually approaching within 5 m the foot of the church podium, beyond which it continues westward through a line several times disoriented and tilted. The noticeable shift in orientation between the northern and eastern walls, and the basilica suggests a lack of synchrony between the two structures and the anteriority of the former in relation to the second. However, the constructive and monumental analogies that link the “rampart” and the basilica suggest rather a common project, in which case the “rampart” would probably have been built on the site of a more modest anterior enclosure, which existed before the construction of the current church. It could also be assumed that this disagreement is the result of taking into account the axis of a pre-existing place of worship. However, the surveys carried out inside the basilica have not identified any trace of it.

The “rampart” and its salients represent an irregular but coherent whole, marked by the same

<sup>16</sup> The author is indebted, for the following chapters, to the contributions of his colleague Andreas Hartmann-Virnich, a member of the Yereruyk mission.



connections and discrepancies that characterize the implementation of the basilica. Although a metrological system is not clearly detectable, the relative regularity of certain dimensions shows an orderly design, and the quality of the ashlar bond reflects a desire to partially surround the site of the basilica with a wall whose monumentality would be comparable to that of the great religious building. The thickness of the wall corresponds to the average of that of the walls of the basilica, which varies in the vast majority of cases between 112 and 122 cm, another fact that argues for the relative contemporaneity of the “rampart” and the church despite their orientation divergence.

### Eastern Section of the “Rampart” and its Salients

The eastern section of the wall cleared for almost 100 m is the best preserved. It is punctuated by a series of buttresses spaced about 3 to 5 m apart and by two small rectangular protruding chambers, open toward inside like exedras (Figs 13, 14). Despite their formal, dimensional and constructive variety, these salient structures form a coherent whole whose morphological differences are similar to those of the many changes in courses and foundation level within the “rampart” wall itself. The recurrence of a 57.7 cm module observed both in the sizing of the plan and certain walls of the basilica, as well as in the ordinance and construction of the small building in the valley, corroborates the other ties with the basilica, and the probability of a proximity in time, despite their discordant orientation.

At uneven intervals, but at a fairly regular pace, the outer side of the wall was marked by a series of powerful protruding buttresses that alternated with two rectangular-plan aedicules, whose interior had the shape of a slightly horseshoe “apse”. The intentional integration into the eastern wall of the two salients, opened on the interior of the ecclesial area, confirmed by the study of the construction, raises the question of their function; it should be noted that the excavations revealed in the centre of the larger chamber to the north, in the south-east corner of the basilica enclosure and in the alignment of a group of sarcophagi, a deep natural cavity in the rocky soil, which had been artificially enlarged (Fig. 15).

The strong erosion of the “rampart” and the dispersion of the components of its superstructure and decor deprive us of the elements necessary for a reconstruction of its elevation. Thus, the height of the wall and that of its pilasters to which one is led to attribute certain fragments of monolithic shafts and carved



Fig. 16. Yereruyk. Vaulted building in the valley. East and west facades, and internal view from west to east (Photos: Author, LA3M, 2010–2014).

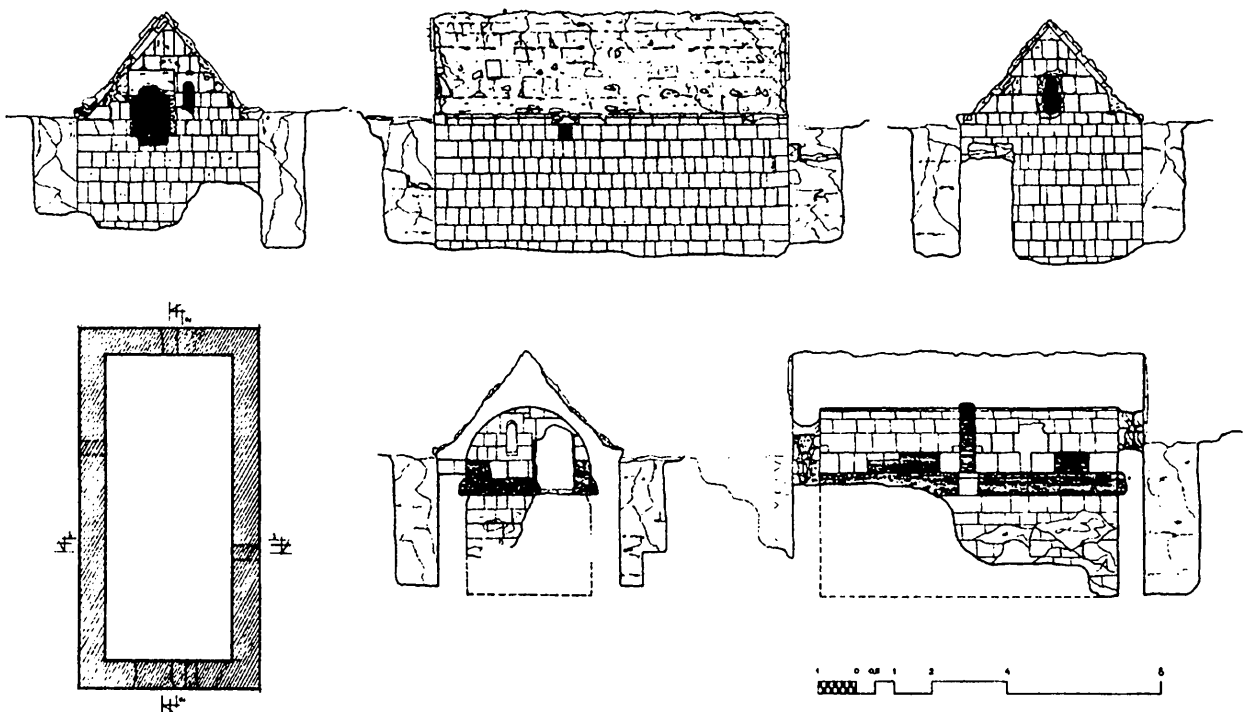


Fig. 17. Yereruyk. Vaulted building in the valley (Architectural survey: H. Sanamyan (1985), Ter-Martirosov 2001, 241, fig. 3).

capitals, the height of the protruding chambers and the shape of their vaulting, as well as the shape, order and trajectory of the wall to the south of the basilica remain speculative. There can be no doubt, however, that the eastern and northern “rampart” must have strongly marked the landscape by the solemn cadence of the ornate buttresses, and prepared the visitor mentally and spiritually for the approach to the sacred place and its necropolis. The draft restitution, purely hypothetical, that we propose has only the ambition to give a summary idea of its appearance (Fig. 14/b).

Several modifications suggest that the “rampart” remained in elevation and function, but without retaining its original monumental character. At a later time, the south-angle salient was incorporated into a larger structure that can be interpreted as the remains of a monumental gate, closed in a third time by a wall in the extension of the eastern line. The southern foothills of this passage were made up of a larger massif, the starting point of an extremely thick wall (about 250 cm) that followed an oblique trajectory towards the valley. The rough and irregular technique of these buildings composed of reused stones is quite different from that of the basilica’s “enclosure”, and their ordinance implies a substantial reorganization of the site and its access, at an indeterminate period. The same is true of the many parasitic constructions that have been raised against or at the expense of the “enclosure”.

### Small Vaulted Building of the Valley

Less than a hundred meters north-east of the basilica, a rectangular, vaulted, oriented building of small dimensions (9.25 m × 4.75 m; 6 m high) is partly drowned in the sedimentary deposits of the valley. It is the only architectural structure of the Yereruyk complex that has retained much of its elevations (Fig. 16). However, its roof has lost its covering plates—only two fragments remain—, and its interior is severely damaged. Its vault was further deteriorated by heavy rains in the spring of 2012, especially at the eastern end of the north wall. A temporary wooden support was installed in 2016, pending a more sustainable consolidation. This small building, partially cleared in 1985–1986, was the subject of an archaeological and architectural study (Ter-Martirosov 2001). It was then identified as a medieval cistern (Fig. 17).

As part of the LA3M mission’s program, the building was submitted to further investigation. The study of building archaeology identified a metrological kinship between the vault of this hall and the basilica. The courses of the barrel vault mostly respect a module of 57.3 to 57.7 cm in tangential dimension. At the eastern bay, two courses of a larger size (70.3 and 71.2 cm) intersperse symmetrically on either side, a dimension that responds exactly to the thickness of the peripheral walls. For its part, the 57.3–57.7 cm module corresponds, with a variation of four centimetres, to

the sixth of the width within the perimeter of the room (337–339.5 cm) and, with a variation of six centimetres, to the 16<sup>th</sup> of the length without the perimeter. The same module is also identified in the construction of the basilica where it corresponds to half the average thickness of the walls<sup>17</sup>.

The small vaulted hall remains problematic, both in terms of dating and function. With regard to dating, as we have just seen, the metrological and technical kinship of the internal bond, especially of the vault, with the masonry of the basilica, speaks in favour of a first building phase towards the 6<sup>th</sup> c. On the other hand, a few indications seem to reveal a second step. Indeed, as F. Ter-Martirosov had observed, the steep incline of the roof and the vertical position of several stones on both external and internal masonry suggest a repair of the walls and roof at an imprecise period of the Middle Ages. Nevertheless, the analysis of building archaeology favours the hypothesis of a coherent design, as it has not identified any evidence of partial modification or reconstruction.

As for the function of this construction, a religious (liturgical) use can be ruled out from the outset, since, although oriented west-east, it is deprived of apse, its eastern wall being flat, and was apparently deprived of door. Because it is partially drowned in the valley and almost devoid of openings, it was assumed to be a cistern. Presumably it indeed performed this function at a late period because the lower edge of the small bays pierced in the west and east walls shows marks of wear likely due to the friction of a rope. But the absence of any trace of waterproof plaster on its internal walls seems to exclude a main and durable function of cistern. On the other hand, the hypothesis of a funerary function seems plausible: the kinship of this building with a series of Armenian mausoleums, first of Early Christian and pre-Arab period (4–7<sup>th</sup> centuries: Zovuni, Jrvezh, Nakhtjavan, Mren), then Medieval (11–14<sup>th</sup> centuries: Ani, Sanahin, Dzagavank, Urtsadzor/Zinjirli, Noravank), which present a rectangular, often underground hall, deprived of apse, with limited access (in Urtsadzor, early 14<sup>th</sup> century, the burial chamber of the three-storey funerary chapel, although built above the ground, was deprived of any access) and reduced lighting, could argue in its favour.

17 In the basilica, the multiples of a 57.3–57.4 cm module are in keeping with certain dimensions: double (thickness of the walls), 12 (length of the nave bays, north-south width of the western corner chambers), 20 (width of the nave), 42 and 63 (dimensions of the building without perimeter), but it does not appear to be a coherent system in the strict sense of the word.

This would explain why the building was partially buried in the valley<sup>18</sup>.

The precarious stability of the building and especially the poor condition of its vault forbid any excavation in its interior, as well as in its immediate surroundings. On the other hand, the mission was able to conduct a geo-archaeological survey outside, in the lower layers of the area almost immediately to the east of the building. This survey revealed the presence, a few meters further east, of a thick artificial pile of rocks. Presumably, this device was intended to protect the construction by forcing the seasonal stream of the valley to bypass it. This finding could disprove the hypothesis of a cistern from the beginning and instead confirm that of a mausoleum designed (at least in part) as a *hypogeum*.

### The Row of Walls Downstream, Southeast of the basilica

At the south-east end of the site, the imposing ensemble of three (or four) walls whose remains, perpendicular to the valley, seem to have crossed it, with a portion of wall to the north-west appearing to outline a junction with the “enclosure” of the basilica area (Fig. 1), had been reported, as early as 1907, as a water retention dam in use in the 19<sup>th</sup> century. Here, too, there is the same double question of original function(s) and dating(s). The clearings and excavations undertaken in 1958 by A. Sahinyan, and the brief examination by F. Ter-Martirosov in 1985–86 could not provide convincing answers. After several interventions, mainly geomorphological, along with surveys of underground archaeology and building archaeology, the LA3M expedition, without deciding on the exact dating of successive phases, was able to propose a nuanced interpretation.

It considers that the row of walls was gradually formed from south to north, from downstream to upstream. The southern wall, probably the oldest, very rustic in its part that could be studied, had a function of hydraulic dam, since the mission discovered fragments of ceramics of Classical period deposited at the foot of its north face. According to H. Khachatryan, these shards date back to a period between the 1<sup>st</sup> century BC and the 1<sup>st</sup> century AD. This initial use, which

18 A different functional hypothesis was suggested at the Yerevan international conference of 24–26 June 2019 by Walter Kuntner: that of a cooler, as is sometimes found in ancient and medieval Middle East. An original lead which would require further investigation, notably excavations to verify the existence of an indispensable sump. However, the absence of a door already seems prohibitive.



Fig. 18. Yereruyk. “Dam”. North face of the two north walls: the middle wall, at the top and the one upstream, at the bottom (Photos: Author, LA3M, 2015).

was perhaps not the only one, was then combined, in two stages, with a function of strong viaduct spanning the valley, by the successive addition of two walls upstream, forming a much more accurate and monumental work. The spaces between these walls were filled in. To this second function was apparently added a third one. Indeed, by their very neat and lively north faces, with pilasters on the second wall and powerful bleachers at the foot of the third one, the two successive north walls were likely intended to underline the perspective towards the ecclesial area (Fig. 18). In addition to the effect produced by the “rampart” to the east of the basilica, the multi-walled structure thus highlighted the approach of the site from the south-east, where one of the main accesses to the site was probably located. It is thus probable that the structure had also an ostentatious function, that of bringing out the solemnity, the sanctity of the place.

Regarding dating, in addition to the information given by the southern wall, the study of building archaeology provided an indication, although still thin, but worthy of attention: the north face of the intermediate wall shows, by the quality of its bond, its pilasters and the arrangement of its courses, a design and

technique similar to those of the basilica. From these observations and results, an approximate and hypothetical picture emerges: the first wall to the south was erected at an “ancient” period (Classical, Early Christian?); the second wall was erected a few metres further north, at a time perhaps close to the 6<sup>th</sup> century<sup>19</sup>; finally, the third wall was built north of the previous one, at a later period, impossible, for the time being, to fix, itself modified in its lower sections and diverted to the north-west.

### Rock Halls and Dwellings

Two irregularly shaped rock rooms are dug into the rocky platform about sixty-eighty meters north of the basilica. Roughly arranged in natural cavities, these more or less parallel oblong spaces of approximately equal length are oriented roughly west-east. F. Ter-Martirosov surveyed them in 1985–86, interpreted them as Early Christian chapels on the basis of their orientation, and considered that they could have preceded the basilica. There is however no confirmation of this hypothesis, neither for the function, nor for the dating.

A group of irregular ruins can be seen to the west and south of the basilica. Their uncovering is the result of an extensive excavation campaign undertaken in 1987–88 by the architect Vahagn Grigoryan, but interrupted in December 1988 and left undocumented. The remains of these coarse constructions evoke modest, late (modern–ca. 19<sup>th</sup> century) dwellings, with, in the southern zone, the remains of chimney houses and, in the western zone, attachment devices proper to barns or sheepfolds. The ensemble corresponds obviously to the “wretched hovels of a poor village” seen by N. Marr in 1907. However, there is little doubt that an ancient village existed here, and also well beyond, as attested by inscriptions, archaeological evidences and tombs dating. This was the large medieval (probably Late Classical) village of Yereruyk.

### Headstones near the Basilica

The Yereruyk site has a high number of tombstones (ca. fifty) of a type common in Early Christian and medieval Armenia. Many of these stones have been assembled north of the basilica (Fig. 19). These are monolithic blocks, rectangular at their base; their upper part has the appearance of a more or less inclined saddle-roof, while the lower part has the shape of a small shelf, a

<sup>19</sup> A fragment of charcoal taken from this location and dated by radiocarbon between 340 and 535 seems to confirm such contemporaneity.

sort of plinth, usually a little wider. Sometimes, at the junction of the “saddle-roof” and the “plinth”, one or two degrees are cut, and the lateral ends of the saddle-roof are underlined by a slightly protruding band. The largest tombstone on the site—204 cm long—is located south of the south-east corner of the basilica (Fig. 20/a). It may have remained in its original location and may have belonged to an eminent figure in the history of the site, perhaps distinguished by his piety, since it is the only one to present a carved cross on its western pediment. The cross, slightly elongated, with a simple design and moderately flared arms, is slightly protruding on a barely recessed background, which constitutes a slightly oval medallion.

The archaeological study showed that these stones were surface markers for tombs placed a few dozen centimetres below the ground. They indicated not only the location, but also the dimensions of the grave, that is the age range of the deceased. The tombstones of medieval Armenia constitute a large and quite diverse category that has not yet been the subject of a detailed and comprehensive typological study. The high number of those preserved in Yereruyk and the comparison of their forms allow some observations. The main one is that a number of apparently archaic pieces are distinguished by their reduced height and in particular a very low incline of their “saddle-roof” (Fig. 20/b). Similar headstones can be seen at other Early Christian sites in Armenia, for example in Aghts/Aghtzk. This must be compared to the shape of the little-marked saddle-roof of the sarcophagi lids of Late Classical and Early Christian period recently discovered in Tigranakert of Artsakh. This leads to the hypothesis of an evolution from almost flat volumes, still close to sarcophagi lids, towards significantly higher parallelepipeds, with a sharper saddle-roof. Examples of this kind of rather high and tapered headstones can be seen here and, sometimes with even greater height and incline, in other medieval cemeteries in Armenia. It is curious to note that this evolution leads, no longer to a slightly raised representation of the sarcophagus lid, but, in a monolithic piece, to a symbolic reminder of the entire volume of the sarcophagus surmounted by its lid.

In Armenian medieval cemeteries, another type appeared alongside the previous one, apparently later. It has the shape of a parallelepiped with a top rounded in cradle. In the Late Middle Ages and modern times, other types spread: stones in the shape of rams, and simple parallelepipeds often decorated with sculptures. In Yereruyk, only variations of the old type, “saddle-roof on plinth”, are attested.



Fig. 19. Yereruyk. Sculptured stones and tombstones gathered north of the basilica (Photo: Author, LA3M, 2015).



Fig. 20. Yereruyk Tombstones. a. Tombstone (Lap. n° 78) south of the basilica's chevet (L-204 x W-76 x H-36cm) (Photo: Author, LA3M 2015); b. Two “archaic” tombstones on the northern platform, with relatively small height (Lap. 22: L-93 x W-60 x H-24 cm; Lap. 23: L-53 x W-61 x H-24 cm) (Photos: Author, LA3M, 2015).

## Lapidary Collection

More than two hundred moulded and/or carved ochre tufa stones are scattered on the site. Most of them have been laid on the ground on the rocky platform north of the basilica. The campaigns of the LA3M's mission were also devoted to the census and study

of these fragments, with a view to create a comprehensive catalogue of Yereruyk's lapidary collection. Their study is obviously of great importance for a good knowledge of the constructions that stood here. They can be divided into two groups: a) architectural fragments, especially from the basilica; b) elements from the memorial sphere, especially from the monuments with a cross-topped stele or column on a stepped pedestal. However, many of these stones are heavily eroded, which does not allow an accurate attribution. They have benefited from the meticulous work of the archaeologist-designer Anna Azizyan, a collaborator of Erebuni Museum of Yerevan, whose drawings will significantly enrich this catalogue. Four examples of the second category (stelae fragments) were exhibited some years ago in the History Museum of Armenia (Grigoryan 2013).

### **Have at Least Partial Answers to Questions and Enigmas be Found?**

We mentioned in the introduction the many questions posed by the enigmatic site of Yereruyk. Regarding the hypothesis of an ancient, pre-Christian place of worship, which could have justified the choice of location, the study showed that this entirely logical hypothesis remains weak. The place was undoubtedly occupied before the construction of the current basilica, but there is no tangible evidence of a previous shrine built on its site. Concerning the assumption that the Yereruyk ensemble, given the close links between its basilica and Syria's Early Christian churches, could correspond to a Syrian-style monastic complex, a rather negative position can be defined. Indeed, the study of the site, the comparison with Syrian monasteries, and the absence in Armenia at the time and at least until the 9<sup>th</sup> century, of any trace of coenobitic organism make the monastic hypothesis improbable. On the other hand, important arguments make it quite plausible that Yereruyk, along with Tekor, was a place of pilgrimage with great attractiveness due to the presence of highly revered relics, not only for Armenians, but probably also for Syrians. The link that necessarily existed in the Middle Ages between Yereruyk and the large nearby city of Ani also required to be clarified. The epigraphic data revealed the attention paid by Ani authorities to the agricultural capacities of Yereruyk. The fertility of its land was probably aided by an effective irrigation in which one can easily imagine the role of a water retention dam. The current aridity of the plateau should not prevent us from imagining an agricultural production intended for the population of the neighbouring city.

As previously stated, the basilica must obviously be dated to the first Christian centuries, before the radical change introduced in Armenian architecture at the end of the 6<sup>th</sup> century by the generalization of domed compositions. But the study brought together a series of arguments including comparative analyses of architecture, sculpted decoration, kinship with Syria, epigraphic data... which allowed to tighten the focus of dating on the 6<sup>th</sup> century. With regard to the group of dwellings and stables near the basilica, whose present state is essentially modern, research conducted by the LA3M mission, with examination of many elements including epigraphy, dating of tombs and other archaeological arguments, showed that a medieval (or perhaps even Late Classical ) origin is very likely. For the rest of the vestiges, as we saw, dating remains difficult. Nevertheless, in several cases, a chronological relationship could be detected between them, and archaeological data and kinship with the basilica gave some dating elements. This was the case with the walls around the basilica, the small building in the valley and the presumed dam. Finally, the delicate question of the function of several components of the ensemble was also partly resolved thanks to the multidisciplinary approach of the LA3M expedition. In this regard, the observations on the north and east walls of the "rampart" and on the two northern walls of the "dam" created a new perception of the Yereruyk complex: an original prospect linked to the hypothesis of a wide bridge over the valley and an access road from the south-east, with an ostentatious function for these two large wall ensembles.

In the field of funerary archaeology, it is worth noting the novelty of the investigations carried out in Yereruyk with, probably, a first in the archaeology of medieval Armenia: the systematic study of a cemetery that had operated for more than a millennium and a half. It does not seem an exaggeration to consider that the progress thus made have had a useful impact on Armenian archaeology. This experience, it seems, contributed to the awareness of archaeologists of Early Christian and medieval Armenia on the usefulness of funerary archaeology, which until recently remained outside the main field of view. Several recent investigations undertaken in Armenia and new publications bear witness to this (Nalbandyan *et al.* 2015; Mirijanyan 2017 (and, by the same author, several articles in press); Simonyan *et al.* 2017–18; the part of the 2018 conference on "The Rite of Burial" devoted to Middle Ages). Thus, the idea of promoting "the archaeology of Christian death in Armenia" to the status of a subject worthy of special attention began to make its way.

## Bibliography

- Alpago Novello A., Paboudjian P., Kouymjian D. 1977, *Documenti di Architettura Armena* 9, Ererouk, Milan: Edizioni Ares.
- Annual Reports of the Yereruyk Mission:  
[http://la3m.cnrs.fr/pages/recherche/axes/axe-2/A2\\_Prog3/ereruyk/ereruyk.php](http://la3m.cnrs.fr/pages/recherche/axes/axe-2/A2_Prog3/ereruyk/ereruyk.php)
- Arakelyan B. 2003, Armenia in the 9<sup>th</sup>–13<sup>th</sup> Centuries, in: Makarova T., Pletneva S. (eds), *Archaeology. Crimea, North-Eastern Shore of the Black Sea and Transcaucasia. 4<sup>th</sup>–13<sup>th</sup> Centuries* (in Russian), Moscow: Nauka, 335–350.
- Baillet P., Donabédian P., Hartmann-Virnich H., Jorda C., Marchand G., Martinez D., Schneider L. 2012, Nouvelles recherches sur l'ensemble paléochrétien et médiéval d'Ereruyk en Arménie, *Antiquité Tardive* 20, 315–341.
- Barkhudaryan S. 2017, *Corpus Inscriptionum Armenicarum: Shirak*, liber X., Yerevan: Academy of Sciences Press (in Armenian).
- Bessac J.-C. 2011, Observations sur la construction monumentale dans le nord-ouest de la république d'Arménie, *Syria* 88, 379–415.
- Bessac J.-C. 2012, Observations sur la construction de la basilique d'Ererouk en République d'Arménie (2<sup>e</sup> partie), *Syria* 89, 331–366.
- Chubinashvili G. 1969, *Tsromi*, Moscow: Nauka (in Russian).
- Cuneo P. 1988, *Architettura Armena*, Roma: De Luca Editore.
- Donabédian P. 2008, *L'âge d'or de l'architecture arménienne. VII<sup>e</sup> siècle*, Marseille: Parenthèses.
- Donabédian P. 2014a, Ereruyk': nouvelles données sur l'histoire du site et de la basilique, in: Mardirossian A., Ouzounian A., Zuckerman C. (eds), *Mélanges Jean-Pierre Mahé (Travaux et Mémoires 18)*, Paris: Association des Amis du Centre d'Histoire et Civilisation de Byzance, 241–284.
- Donabédian P. 2014b, Results of Archaeological Investigations of 2013–2014 on the Site of Yereruyk, *Herald of Matenadaran* 21, Yerevan, 279–291 (in Armenian).
- Donabédian P. 2020, *Ererouyk, un site archéologique majeur, haut lieu de l'Arménie chrétienne*, Yerevan: Sargis Khachents – Printinfo (in French and Armenian).
- Grigoryan G. 2012, *Early Medieval Four-Sided Stelae in Armenia*, Yerevan: History Museum of Armenia (in Armenian).
- Grigoryan G. 2013, *A Time to Gather Stones: Exhibition Album–Catalogue*, Yerevan: History Museum of Armenia (in Armenian and English).
- Lassus J. 1947, *Sanctuaires chrétiens de Syrie*, Paris: Paul Geuthner.
- Marr N. 1968, *The Basilica of Yereruyk*, Yerevan: Academy of Sciences Press (in Russian).
- Mattern J. 1944, *Villes mortes de Haute Syrie*, Beirut: Imprimerie Catholique.
- Mirijanyan D. 2017, The Sarcophagus-Reliquary of the Apostles Andrew and Matthew from the Monastery of Karenis, in: Hakobyan A., Bozoyan A., Safrastyan R. (eds), *Armenia and Oriental Christian Civilization: Proceedings of the 2<sup>nd</sup> Conference*, Yerevan: Academy of Sciences Press, 182–186 (in Armenian).
- Mnatsakanyan S. 1982, *Armenian Memorial Monuments of Early Middle Ages* Yerevan: Academy of Sciences Press (in Armenian).
- Montevecchi N., Tonghini C. 2012, Lo sviluppo costruttivo della basilica di Ererouk (Armenia), secoli VI–X: una ri-lettura archeologica, *Arqueología de la arquitectura* 9, 29–56.
- Nalbandyan A., Aleksanyan T., Mirijanyan D. 2015, *Chichkhanavanq*, Yerevan: Gasprint (in Armenian).
- Sahinyan A. 1955, *The Architecture of the Kasagh Basilica*, Yerevan: Academy of Sciences Press (in Armenian).
- Simonyan H., Safaryan M., Simonyan T., Kalantaryan N., Atoyants E. 2017–18, Results of the 2015–2017 Excavations of the Royal Mausoleum of Aghtzk, *Monument* 12–13, Yerevan, 5–52 (in Armenian).
- Tchakerian S. 2016, Toward a Detailed Typology: Four-Sided Stelae in Early Christian Caucasus in: Foletti I., Thunø E. (eds), *Convivium, Supplementum. The Medieval South Caucasus: Artistic Cultures of Albania, Armenia and Georgia*, Lausanne-Bрно, 124–143.
- Ter-Martirosov F. 1987, Archaeological Researches on Monuments in Yereruyk, in: Zaryan R. (ed.), *The Issues of Culture and Art of Armenia: Proceedings of the 6<sup>th</sup> Republican Scientific Conference*, Yerevan: Academy of Sciences Press, 216–218 (in Russian).
- Ter-Martirosov F. 2001, Poorly Studied Monuments of Yereruyk, in: Kalantaryan A., Harutiunyan S. (eds), *Armenian Saints and Sanctuaries*, Yerevan: Hayastan, 234–243 (in Russian).