The Rock-Hewn Churches of the Garalta Monasteries (Tigray, Ethiopia): the Comparative Analysis of Three Monuments of the Second Half of the 13th to the First Half of the 15th Centuries*

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Abstract—In the focus of this article there are three large monastic churches, carved out in the rocks of Garalta in Ethiopian region of Tigray: Maryam Dabra Qorqor, Maryam Dabra Tsion and Giyorgis Dabra Maar. Their creation dates back to the period from the second half of the 13th century (the dating of the church in Qorqor) to the first half of the 15th century (the dating of the church in Debre Maar). In many ways, these monuments are significantly different from each other: both in the different interpretation of the basilica plan and the forms and features of the decoration placement. According to hagiographic sources, each of these monuments is associated with the names of remarkable devotees. The article provides a comparative analysis of the architectural features of these three monuments, reveals their relationship with each other. The article also considers their relation to the local tradition of Aksumite architecture, innovative trends. The influence of these monuments on other rock-hewn churches of Tigray is also noted.

Keywords—Ethiopia; Tigray; rock-hewn; churches; Garalta; monasteries

I. INTRODUCTION

There are about thirty rock-hewn churches carved on the top of the Garalta cliffs [1]. The largest part of them is monastic churches dating no earlier than the second half of the 13th century [2]. They demonstrate the continuation of the ancient monastic tradition of creating communities in hard to reach places on the tops of the rocks, such as one of the oldest monasteries in Tigray — Dabra Damo (the 6th - 10th century) [3].

In the period from the middle of the 13th century, a new rise of monasticism has been observed in Tigray [4]. Practically at the same time, another change of a ruling dynasty took place in Abyssinia: a new dynasty — the Solomonides — overthrew Zagwe. Despite the fall of Aksum kingdom in the 7th — 9th century, the city of Aksum continued to remain the most important religious center for both Zagwe and the Solomonides [5]. Garalta was located on the way between the political center of the country in the Lasta region and the ancient religious center in Aksum with its Cathedral of Maryam Tsion (probably the 4th century) [6].

The three large rock-hewn churches of the Garalta monasteries considered in this article are: Maryam Dabra Qorqor (second half of the 13th - the first part of the 14th century), Maryam Dabra Tsion (the end of 14th century) and Giyorgis (probably originally Gabriel) Dabra Maar (the first part of the 15th century) [7]. They have a close geographical location and a large amount of the interior space of the church. The history of each of these churches is connected with a remarkable ascetic monk who left their mark in the history of Tigray and the Ethiopian Church.

II. MARYAM DABA QORQOR

The earliest of these three churches is the church of the monastery Dabra Maryam on the mount Qorqor [8]. According to hagiographic information and inscriptions in the church itself, it has been founded by Saint Abba Daniel (1260 -1320) [9]. He was also known for becoming the spiritual father of Ewostatewos – the founder of the monastic congregation of non-possessors, which was popular in Tigray during 14th - 15th centuries but persecuted by the government for keeping the Old Testament Sabbath on par with Sunday [10].

The church has a traditional three-aisle division of the qedest\(^1\). The central nave consisting of five bays has a three-partite structure different in height — that is not typical for traditional monuments of the Aksumite and early post-Aksumite period\(^2\) [11]. Probably, it has divided the inner

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1 Qedest — a space in Ethiopian churches very similar to the naos of Byzantine churches.
2 Christian Aksumite period — a period from the 4th until 7th-9th centuries, Post-Aksumite period can be defined till the 13th century.
space of the church into the zones of different liturgical significance ("Fig. 1"). Two western bays of the nave are combined by the equal height (they are the lowest among the bays of the central nave), a flat vault and a decoration of Aksumite frieze on three sides (except the eastern, where the arch is located) [12].

Such a decision may indicate the functional purpose of this space of the central nave as the narthex of the church, not separated from the qeddest by walls, but distinguished by decorative means³. To the east from "narthex", in the central cell of the vault, there is a deep carved dome with four wide ribs tapering to the central ring. Here we can note a certain similarity with the rock-hewn church of the Lasta region — Bilbala Tcherqos (12th-13th centuries), where a similar dome is located in the nave in front of the triumphal arch [14]. In the composition of the church of Maryam Qorqor, this dome turns out to be central and serves as a "step" to a rising double cell of two eastern bays, which consists of two elements: a deep dome and a lantern with a cross inside ("Fig. 1"). The Aksumite two-tier frieze in this part of the nave is present only on the eastern wall above the triumphal arch. In the second bay of the southern aisle, close the southern wall; there is a cubic-shaped volume. According to the legend, this is the tomb of Abba Daniel, the abbot of the monastery [15]. Burial of this type was also made in the church of Wuqro Maryam at Amba Seneiti (1350-1450) in the eastern end of the Northern aisle [16].

The distinction between liturgical spaces in the interior of the church is of particular interest: the rise of the floor level — a bema nowadays occupies only the eastern bay ("Fig. 2"). The bema does not protrude into the central nave to the west, that is not typical for the churches of the early period of 7th - 12th centuries (such as Mikael Dabra Selam, Selasse Degum, Maryam Beraqlit), as well as the churches of Lalibala (the first part of 13th century) [17].

³ The term "narthex" may be incorrect, as we don’t know the real purpose of this space in Ethiopian churches. But a three-partite plan of early Axumite churches is very similar to early Christian basilicas of such parts of Byzantine Empire as Great Syria and Egypt.

Fig. 1. Plan of Maryam Dabra Qorqor (after C. Lepage and J. Mercier, 2005) [13].

Fig. 2. The central part of bema in Maryam Dabra Qorqor (photograph: Sergey Klyuev).

Unfortunately, the original floor level in the nave is unknown due to the "restoration works". It is important to note that, on the bases of two elbow pillars located between the "narthex" zone and the central dome, traces that could be the fastening joints of two columns are found. But whether they could relate to a wooden partition remains a question.

The Triumphal arch has a shape close to a horseshoe. It reveals the similarity of its silhouette with the arches of the church of Mikael Amba (12th - 13th centuries) [18]. Probably, in the eastern ends of the aisles additional manbara-tabots⁴ "open" into the qeddest could be. In the maqdas (the sanctuary), the vault represents the conch of apse with the Aksumite frieze passing over the surface of the eastern wall, which is typical of some of the early churches. The ornamental decoration of the intrados (inner vaulted parts of arches) in most cases represent the alternations of Greek and multi-faceted crosses. That reveals analogies with the decoration of the cell vault of the central nave above the bema of the church of Mikael Amba.

Scholars who have studied the paintings of the church note the characteristic influence of the Coptic Egypt (the monastery of St. Anthony (the cycle of paintings of the first half of the 13th century) and Nubia (Banganarti, 11th - 12th centuries), also they note the fact that these paintings were made by the Ethiopian masters [19]. They date between 1260 and 1320, probably close to the time of the creation of the church [20].

Probably, the church of Maryam Qorqor was a prototype for the rock-hewn church of Jesus Gibjet (the end of the 14th century) in Tigray. The type of its maqdas, "narthex" and the location of a deep dome in the third bay of the central nave speak in favor of this assumption [21].

⁴ Manbara-tabot – altar in an Ethiopian church.
III. MARYAM DABRA TSION

One of the characteristic features of this church’s plan is the presence of an ambulatory separating the church from the rock on three sides ("Fig. 3"). Lepage and Mercier note the close resemblance between Debra Tsion and Yesus Gibjet church ("Fig. 4"). The plan (including the ambulatory), the type, and the location of the decoration of vaults as well as walls (in the form of arched niches) speak for it [22].

In the church of Maryam Dabra Tsion, a full-fledged three-partite narthex was built, separated from the central space of the church by a wall. This is a significant difference from the plan of Yesus Gibjet. The qeddest of the church is divided into three aisles roughly equal in height by three pairs of tall, elongated pillars with small rectangular capitals. All slab imitations in the naos are arched. The northern and southern entrances to the church are located traditionally — in the western bays of the naos. The three-partite sanctuary belongs to the "open type", there is no bema there, unlike in Yesus Gibjet, where the bema juts out into the central nave to the west [23]. In the central part of the maqdas of Dabra Tsion, a monolithic "high" altar with a ciborium is located, there is a cubic monolith-altar in the southern nave, while a manbara-tabot is absent in the northern nave [24]. However, from the northern part of a maqdas, there was a passage (now blocked with masonry) leading to a small room to the northeast and, then to a passage outside. This room could be funerary, and the relics of the founder of the church — St. Abuna Abreham (approximate 1350 - 1425) could have been kept here. If it's true their placement in this part is somewhat similar to the placement of the tomb of Abba Daniel in Maryam Qorqor and the burial in Wugro Maryam Amba Senetiti [25], Dabra Tsion is probably the first absolutely "open type" basilica in Tigray, where maqdas does not have a central apse, and all the manbara-tabots are aligned in the easternmost bay. Unlike the Yesus Gibjet church, where, as noted above, a central part of a maqdas occupies the apse, and additional manbara-tabots are located in the eastern bays of the aisles [26].

Fig. 3. The Plan of Maryam Dabra Tsion (after C. Lepage and J. Mercier, 2005) [27].

Fig. 4. Plan of Yesus Gibjet (after R. Plant, 1985) [28].

Probably, by reason of the absence of walls between the maqdas and the qeddest, certain decorative elements become the delimiters of the liturgical space, as in the case of the decoration of the vaults over the absent bema-place and the imitation of paired ceremonial crosses on the eastern pair of pillars. A second bay of the nave represents a semicircular vault with three ribs perpendicular to the central axis of the church ("Fig. 3"). That can, probably, symbolically represent a vault of a transept. A similar element, with a similar arrangement, is made in the church of Yesus Gibjet above the central western part of the bema [29]. It can be interpreted as the boundary of the church’s liturgical zonality. The church has an Aksumite frieze, divided by parts of four windows in the bays of the north and south walls. The Aksumite frieze of the churches of an earlier period commonly located in the nave, in this case, occupies the walls of the naos. Perhaps that can symbolize the unity of the interior space of the three-altar church. In a number of Tigray churches, dated from the 14th century, like Wugro Maryam Amba Seneyti, Giyorgis May Kado, Maryam Bahera the Aksumite frieze is placed on the sides of the nave as well as other walls [30]. The most remarkable feature of Maryam Dabra Tsion is the arched niches combined in groups of three or four in three tiers in a manner of a blind arcade located on northern, southern and eastern walls ("Fig. 5"). This composition seems to be very untypical. This type of decoration is almost identical to the one presented at Yesus Gibjet [31]. The idea of depicting saints in arched niches is also known in Coptic art [32]. For Ethiopia, paintings and, more rarely, carvings of saints inside the arches or arched niches are also quite typical. Lepage and Mercier note that the symbolic basis for such a composition of murals in this church is the illustration of the theological idea of Mount Zion as an eschatological toponym, the place of the Last Judgment – a concept popular in that period in Ethiopia [33]. However, this idea does not clarify the genesis of "stacked" arched niches as a method of decoration.
The church of Maryam Dabra Tsion probably has had the greatest influence on the Tigray rock-hewn churches of the 15th century. Perhaps, the most apparent impact can be traced in the church of Gabriel Wukien, which has an ambulatory, an "open" type maqdas without an apse, where manbara-tabots are lined up. There are the vaults of equal height and a frieze of a blind arcade in the border zone of the maqdas [34]. Another church very similar to the Maryam Dabra Tsion church is the church of Mikael Baraka with its decorative features (a fragmentary Aksumite frieze on the walls in qeddest), an "open" maqdas, with, however, a "shortened" plan (there are only three bays of rock-hewn part) [35].

IV. GIYORGI (GABRIEL) DABRA MAAR

It is an open-type church, but with a slightly different than Maryam Dabra Tsion church plan ("Fig. 6"). The central nave's vault is elevated and highlighted with the decoration, the maqdas is "open" to the naos, but the arches separating the maqdas are rather low. These elements demonstrate a combination of features of the early basilicas (until the middle of the 13th century) and "open-type" basilicas, such as Maryam Dabra Tsion. From the west to the rock-hewn part of the church, a three-partite narthex was attached (nowadays it is enclosed inside a later external structure). Its interior is of great interest. Two wooden square pillars, supporting two wooden bearing beams, decorated with an arched frieze are preserved here. A double door in the Aksumite wooden frame leads to the rock-hewn naos of the church. The destruction of the rock has heavily damaged the church.

The western part of the central nave consisting of two cells combined by a semicircular vault differs from aisles in height and decoration. This part of the nave is bounded by a high partition from the east. Probably, the paintings placed here testify to the border of liturgical zones. The image possibly of Theophany, preserved in fragments, was located on the pier. The semicircular vaults of the nave are present in most of the churches of Lalibala (except for Dabra Sina and Bet-Giyorgis), as well as such churches as "Tigray cross-in-square" and for example the church of Maryam Bahera [37]. It is important to note the absence of the Aksumite frieze in the church in general. It is replaced by a frieze of a blind-arcade carved in this western part of the central nave on the northern and the southern sides. Its arches hold traces of fragments of some figurative images 5 [38]. An arched frieze with figurative images is found in different places on the walls of Wuqro Tcherqos, Dabra Tsion churches, and the murals in the niches of Madhane Alam in Adi Qasho and Yesus Gibjet have not survived [39]. A frieze of a blind-arcade of a similar type without paintings can be found above the arches and on the architrave in such Tigray churches.

5 One of the survived images can be identified as a portrait of Alexandrian Patriarch Matewos I (1378-1409?). It can indicate the dating of the paintings of the church.
churches as Gabriel Wukien, Maryam Hibiito, and Abba Yohanni [40]. We should also mention the arched frieze with late paintings in the nave of the Yohannes Ma’akuddi church, the creation of which, like Dabra Maar, is attributed to Gabra Mesqal [41].

Another peculiar feature of the Dabra Maar church is circular pillars, located in the qeddest of the church ("Fig. 7"). Despite the widespread use of circular form pillars in neighboring Egypt and Nubia, this is not typical for Ethiopia [42]. The only analogy we know in historical Ethiopia is probably the Enda Maryam church in Asmara, built in the 6th - 10th century [43]. The vaults of the aisles are decorated with various types of imitations of caissons, lanterns, and domes. The western bays of the aisles are separated by an architrave, which also compositionally unites the space of two western bays. In the western bay of the north aisle, there are caissons arranged in a checkerboard pattern. Analogies are found in a number of Tigray churches of 14th - 15th centuries. Among them is Maryam Ayrefeda, Madhane Alam in Adi Qasho, that is, mostly in the churches attributed to the authorship of Abuna Abreham of Dabra Tsion and his followers [44]. In the south wall, a passage into the Gabra Mesqal cell with a cubic manbara-tabot and arched niche on the southern side is made. Near the passage to the cell of Gabra Mesqal, there are two shallow domes carved in the vault of the third and fourth bays of the southern aisle. Both are decorated with the imitation of eight ribs and a round element or a ring with a cross in the center. The western dome is similar to the domes in the churches of Maryam Qiyat (13th - 14th centuries) and Mikael Bareka (15th century); the east dome is similar to presented at Yesus Gibjet [45]. Probably, a previously used passage or a doorway in the north wall opposite to the cell was laid in masonry. The location of Gabra Mesqal tomb is similar to the location of the tomb of Abba Daniel in Maryam Qorqor [46]. Particular attention is attracted to Greek crosses on capitals in the maqdas of the church. A similar motive can be found in the paintings of Gannata Maryam (1270-1285), as well as in the carving on the capitals in the church of Dabra-Sina Lalibala (possibly 14th century) [47]. Perhaps, the use of the motive of paired crosses on capitals in maqdas is the replacement of ceremonial crosses as limiters of the sanctuary-zone in Dabra Tsion. The analysis of church murals suggests the time of the cutting of churches as well as murals themselves. The ornamental and figurative murals of the church are similar to those made in the churches of Maryam Dabra Tsion and Maryam Bahera. It could be performed by the same workshop [48].

V. CONCLUSION

The plan of the church of Maryam Dabra Qorqor is a mixture of traditional principles of Aksumite and early post-Aksumite basilical rock-hewn architecture, and new tendencies of the 13th century, which possibly came from the Lasta region. Probably, the "Tigray cross-in-square" type church of Mikael Amba is similar to the church of Maryam Qorqor in Tigray. But in Maryam Qorqor we can already see a number of innovations: multi-domedness, division by different levels of the nave, the open type of narthex, separated by decorative means, changes in the maqdas zone and bema, the absence of a pastophorium on the south side. The significance of the church of Maryam Qorqor is great as it is one of the first among Tigray and Garalta churches stepping away in its plan from traditional forms. Dabra Tsion continues the tradition of the Yesus Gibjet church with its very atypical decoration. In both of these churches, there are unique decorative elements and plan features. It is the use of blind-arcades of arched niches in the decoration of the church, the ambulatory, the "open" type of maqdas. The influence of the architecture of Maryam Dabra Tsion seems to be significant to the later rock-hewn churches of Tigray. The third monument of this article — Giyorgis Dabra Maar has a number of features that are not typical for the tradition of Ethiopian architecture: there are circular pillars, the frieze of blind-arcades in the central nave. These features may be of Egyptian origin. The most similar to the church of Giyorgis Dabra Maar is the church of Yohannes Ma’akuddi, located in Garalta [49]. Its plan suggests similarity with the church of Maryam Dabra Qorqor and may also be a link between these two monuments. Giyorgis Dabra Maar bears a certain resemblance to another Garalta’s church — Maryam Ayrefeda church, which is attributed to the authorship of Abuna Abreham and his followers [50].

A comparative analysis reveals the variable deviation of these three churches from the traditional basilica’s principles of the ancient period (until the middle of the 13th century). The common characteristics of these monuments are indicated earlier: closer geographical location and large size, a multitude of domes, variability in the interpretation of the location of certain decoration elements of the vaults, the placement of the tomb of the great monastic community leaders in the church near the maqdas area. But the interpretation of the Aksumite frieze, a type of the central nave and its decoration, the arrangement of the liturgical zones of the narthex, maqdas and bema, the decoration of the churches are different. All three monuments demonstrate the transformations in the monastic churches architecture of Tigray and are of high importance for the study of the history of Ethiopian church architecture.
REFERENCES


[13] Ibid., p.117.


[18] Ibid., p. 97.


[24] Ibid., p.47.


[26] Ibid., p.82.

[27] Ibid., pp. 82-83.


[29] Ibid., p.154.


[35] Ibid., p.102.

[36] Ibid., p.45.


[40] Ibid., pp.153-154, 162, 156.


[45] Ibid., pp. 188,102,82-83.


[50] Ibid., p.54.