

The Byzantine monastic / pilgrimage center of St. Aaron near Petra, Jordan¹

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Introduction

Although Petra, the ancient capital of the Nabataean Kingdom, located in southern Jordan, has always attracted the attention of historians and archaeologists, the Byzantine period (4th-early 7th century AD) there was poorly known and understood. However, the 1990s have witnessed a considerable expansion of archaeological activities in Petra and its vicinity. This recent interest in the Byzantine period also includes the investigations of Christian monuments in the Petra area.² In this context, of particular importance is Jabal an-Nabi Harûn (the mountain of the Prophet Aaron) located ca 5 km SW of Petra, and often referred to as the Biblical Mount Hôr by the early explorers of the area. According to the Jewish, Christian and Muslim traditions, the mountain is considered to be the place of burial of Moses' brother Aaron. Currently, the peak of the mountain is occupied by the 14th century Muslim shrine (*weli*)³, with a sarcophagus believed to contain Aaron's remains. Furthermore, there is an extensive, ruined architectural complex located ca 70 m below and ca 150 m to the west of the peak with the *weli*, on a wide plateau of the mountain, and at ca 1270 m above sea level. The extant historical information, albeit limited, and the results of the early explorations at the mountain indicated that

a Byzantine monastery should be located there.

Historical Information and Previous Exploration

Eusebius, the 4th century Church historian, mentioned Mount Hôr near Petra.⁴ Some Byzantine records refer to Mâr Harûn as a place frequented by monks during their walks around the Dead Sea during Lent,⁵ but the location of this toponym is uncertain. An important information was provided by Al-Mas'ûdî (mid-10th century) who specified Jabal Hârûn as a holy mountain of the Christians in the possession of the Melkites.⁶ The place was visited by the Crusaders during the expedition of Baldwin I to Transjordan in 1100: "...Furthermore we found at the top of the mountain the Monastery of St Aaron where Moses and Aaron were wont to speak with God. We rejoiced very much to behold a place so holy and to us unknown..."⁷ Other Crusader records mentioned the presence of a church there.⁸ The last reference is that by Magister Thetmarus who noted a church and two Greek monks living there in 1217.⁹

The mountain was briefly mentioned by the 19th century explorers, among them Burckhardt, Irby and Mangles, and Palmer.¹⁰ Only in the early 20th century, important explorations were conducted there by Musil

(1900) and Wiegand (1916). The latter concentrated on the structure of the *weli*, dated by the dedicatory inscription to 1363. Wiegand provided a plan and the description of the *weli*, noting pieces of church-related, marble furnishing and *opus sectile* pavement, either reused in the *weli* construction, or discarded nearby. He proposed that the extensive masonry upon which the *weli* was constructed represented the remains of a large memorial church built on the central plan and associated with side rooms. As for the ruined complex on the plateau below the mountain's summit, some explorers admitted a possibility that the ruins related to a Byzantine monastery. However, it was the 1991 exploration by Russell, Peterman and Schick, which resulted in a first sketch-plan of that site, its description, and a proposition that the ruins should probably be identified with the monastery of Saint Aaron mentioned in historical sources.¹²

This proposition was further reinforced by the information provided by the Petra Papyri. The 1993 discovery of the carbonized archive of the 6th century Greek Byzantine papyri in a room adjacent to the Petra church has opened an entirely new avenue of research on Byzantine Petra. The texts are mainly legal documents concerning transactions and registrations of property, and they also mention local towns, churches, and dwellings, as well as the agricultural hinterland of Petra.¹³ Papyrus Petra inv. 6 (Papyrus Petra Daniel C. and Nancy E. Gamber) dated to 15 June, A.D. 573, also mentions "the House of our Lord the Saint High-Priest Aaron" outside of the city of Petra.¹⁴ This institution is mentioned in the will of a person, as one of the two beneficiaries in the event of his death (*donatio propter mortem*). Because of the occurrence of the terms *Hagios Oikos*, in Greek, and *Domus*, in Latin, and of the title of *Hegoumenos*, the papyrus almost certainly refers to a monastery of Saint Aaron near Petra.

The Finnish Jabal Harûn Project - Objectives and Results

The combination of this information with the aforementioned religious tradition associated with Jabal Harûn, and the results of the early exploration in the area, would strongly suggest that the architectural remains on the high plateau, which were otherwise recognized as remains of a monastic complex, can indeed be identified as the Monastery of Saint Aaron. However, the ultimate confirmation of this hypothesis could come only through the archaeological excavations of the ruined complex. To this effect, the Finnish Jabal Harûn Project (FJHP) began the comprehensive investigation of the site and its environs in 1997. The project is directed by Prof. Jaakko Frösén, University of Helsinki, and sponsored by the Academy of Finland. The participants include archaeologists and cartographers from the University of Helsinki and the Helsinki University of Technology, respectively, as well as archaeologists and conservators from the USA, Sweden, and Italy.

The FJHP is designed as a multi-season and interdisciplinary investigation. The most important goal of the Project is the study of the spatial and temporal variations in human occupation in the area of Jabal Harûn, with the special emphasis on the extent and nature of occupation at the site recognized as a Byzantine monastery. Furthermore, the Project investigates patterns of human adaptation in the area, the palaeo-environmental variations, aspects of land-use, ancient agriculture and resource exploitation. Ultimately, the Project will address the issue of the relationship between the Jabal Harûn area and the city of Petra, from the Nabataean through the Early Islamic periods. To meet these objectives the project utilizes archaeological excavations and survey, cartographical fieldwork and research, architectural studies, geoenvironmental

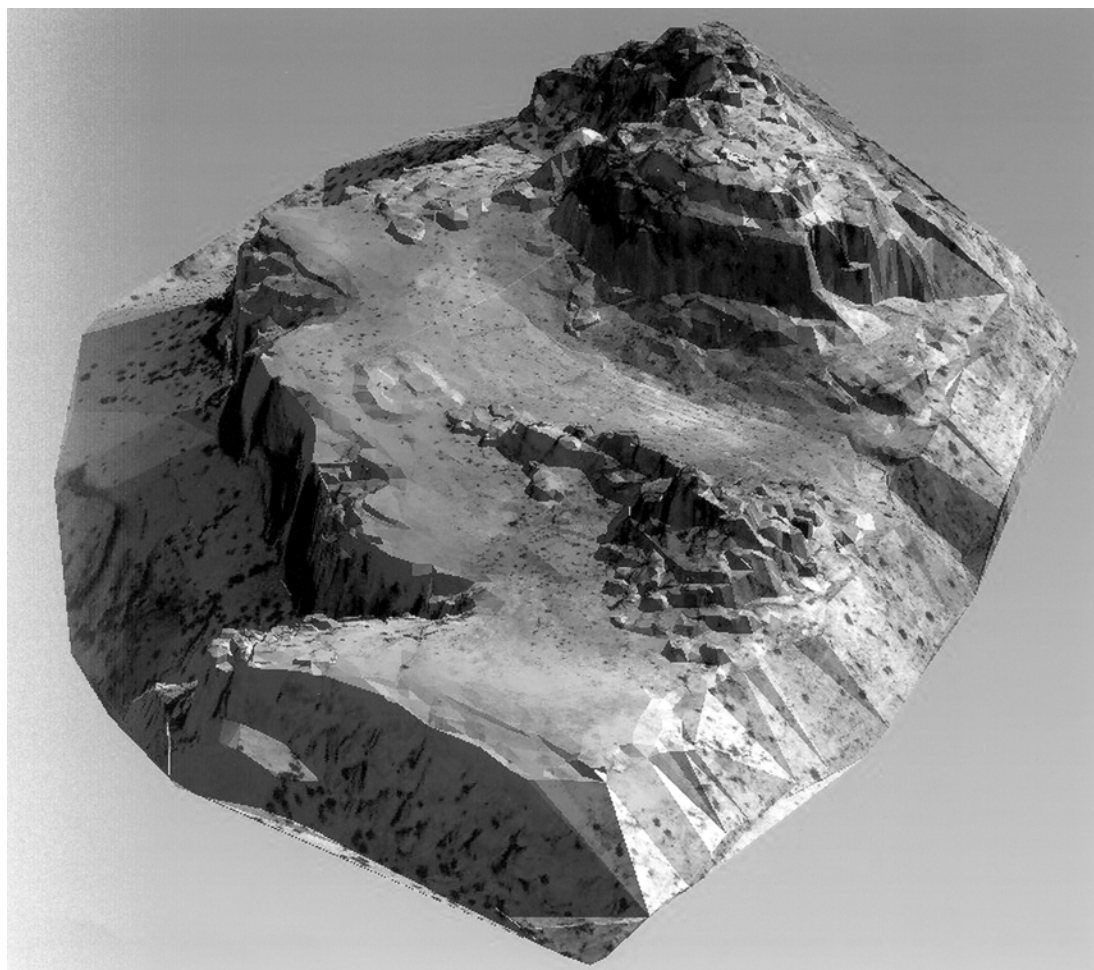


Fig. 1. Visualization of the 3D model of the Jabal Harûn mountain. The excavation site is visible as a rectangular, slightly elevated contour in the central-left (close to the edge of the plateau). Drawing: R. Karjalainen.

exploration, paleoethnobotanical and paleozoological research, and ethno-archaeological survey (Fig. 1).

So far the FJHP conducted an archaeological reconnaissance (1997) and five full excavation seasons (1998-2002) at the site of the ruined complex at the high plateau of the mountain (Figs 2 and 3).¹⁵ The excavations partially exposed a large basilican church and a chapel, and some auxiliary structures and rooms. The research on the data and finds provided by the fieldwork indicates that the complex, in addition to its monastic function,

had most probably also served as a pilgrimage center dedicated to the veneration of St. Aaron. This monastic-pilgrimage center appears to have existed between the later 5th and the early 8th century AD., if not later.

The Site Description

The site of the complex measures ca 62 m N-S x 48 m E-W. Generally, the complex can be divided into four main components or wings situated around three courts. The



Fig. 2. The plan of the Byzantine monastic/pilgrimage center at Jabal Harûn - the results of the 2002 campaign are not included. Drawing: K. Koistinen and V. Putkonen.



Fig. 3. The appearance of the excavation site after the 2002 campaign. View from the weli. Photo: Z.T. Fiema.

asymmetrical location of the western wing vs. the eastern, southern and northern parts of the complex may indicate that the former is not contemporary with the other three components. The central location is occupied

by the church and a chapel, the former preceded by a narthex and then by a court with a cistern cut in the bedrock. Farther west is the western wing - a long, N-S oriented composite structure which consists of separate rooms (Fig. 4). One of these rooms, recently excavated, is a solid stone-filled compartment, ca 6 x 5 m, which appears as a podium or platform. The structure is associated with two



Fig. 4. The monumental composite building located in the western side of the monastic site. Photo: Z.T. Fiema.

Fig. 5. The masonry-built basin in the SW area of the site. Photo: Z.T. Fiema.



staircases. Directly north is a room with three arches, while a similar room is located also to the south of the stone-filled room. A large, well-built stone scarp (*glacis*) was uncovered on the slope west of the structure. North of the chapel is a large court surrounded on three sides by 14 rooms of a substantial size. Both construction techniques and the material used there appear somewhat inferior to these used in the construction of the church. The plan and appearance of the northern part of the complex is not unlike that of a caravanserai. Probably the court and the rooms functioned as a hostel for pilgrims. Two rooms were excavated there so far. Both had the multi-phased occupation and they provided an excellent stratigraphic sequence of ceramic and glass material. South of the church is another court also limited by series of rooms on its southern side.

In the SW corner of the site a large, two-arched room was excavated. It's interior provided evidence for multi-phased occupation which probably had some economic significance. A large fragment of a rotating grain mill was found there. Directly south of this room a water channel and a masonry-built basin were uncovered, the latter probably a threading floor for the production of oil or wine (Fig. 5). Both installations were found covered by strata of ancient trash and debris. Apparently, this area went out of use at a certain point of time, and it became a general disposal place. The latest there was a midden which contained large quantities of fish scales and bones, primarily of *Scaridae* (parrotfish) and *Serranidae* (groupers).

Although the main entrances were not excavated yet it is strongly suspected that there were two: one on the western side, north of the room with three arches, and another one near the SW corner of the complex. The court with the cistern appears to have been the main communication hub of the entire complex, through which one could proceed from the South to the North Court. The area around the cistern was paved with large flagstones. Two phases of pavement were discerned there. Three channels carried out rainwater from the area of the church (and under the narthex) into the cistern. One of these was an elaborate construction with capstones and a settling tank lined up with hydraulic mortar. A few meters NE of the cistern, there is a multiroomed structure which featured several phases of occupation and an extensive evidence of remodelling and changes in function. During the later phases of existence, the central part of the structure received waterproof plaster and thus was probably related to some sort of activities including water storage. Still later, this area became a dump of lime slags and a collection point of stone tesserae and glass shards. As in other parts of the complex, the evidence of very late temporary or casual occupation is abundant here.

Phasing of the Church and the Chapel

Although the relative chronology of particular structures at the site is well established, and significant chronological indicators (ceramics, lamps, and glass) were found in well-stratified deposits, it is not possible at this time to offer an overall chronological sequence for the entire site. The excavated structures are often distanced from each other. Discrete strata or specific modifications can be dated there but the general phasing can be proposed only when the physical connection between these structures is achieved. The exceptions are the church and the chapel which form one unit and the excavations of which provided most of the information available so far. Following is a preliminary phasing of the occupation and modifications of these ecclesiastical structures, preceded by short comments on the pre-Byzantine phases at the site.

Nabataean-Roman Phases

Initially, the pre-Byzantine period at the site was known only from the Nabataean ceramics and few architectural stones - limestone lintels with elaborate mouldings, which were re-used in the church construction. Very similar mouldings were found in some buildings in Petra, dated to the first century AD. The composite structure in the western wing of the complex appears to be the only building known so far at the site, which apparently originated in the pre-Byzantine period. Its masonry, consisting of large ashlars, is unlike any other at the site. Also, the evidence of plaster on the exterior, probably an inner layer for stucco decoration, and the overall appearance would all strongly indicate a monumental Nabataean design. The function of the structure is uncertain, both during the Nabataean-Roman period and after it was incorporated into the Byzantine monastic complex. But the elaborate character

of the structure suggests something more substantial than a simple observation or defensive tower. The structure is located in a very conspicuous place - on the plateau of the most prominent mountain in the Petra area - and overlooking the area of the Wadi 'Araba, which may support a sacral character of the structure. Evidently, such function of the structure ceased in the Byzantine period.

Phase I: Early Church and the Chapel

Although the church experienced several phases of remodelling, it is most probable that its structure belongs to the earliest phase of the Byzantine occupation at the site. In this phase, the church was a tripartite, monoapsidal basilica, internally measuring ca. 22.6 m (max) x 13.6 m, with seven columns in each of the two rows. Comparing with the size of the Petra church, dated to the later fifth century AD., which is internally ca 23.21 m. long and ca 15.35 m. wide,¹⁶ the Jabal Harûn church is of close dimensions. Therefore, the ratio of the inner length to inner width, being 3 : 2 for the Petra church, is comparable for the the Jabal Harûn church. This length to width ratio is relatively typical for earlier churches in Palestine (4th-5th century), characterized by long and narrow aisles.¹⁷ The later 5th century date for the Jabal Harûn church is also supported by the ceramic material recovered from the inner fill of the main walls of the church, which was not later than the mid-5th century.

The apse, ca 5.2 m long at the chord, was flanked by two pastophoria, similarly to the Petra church in its early phase. The south pastophorion contained a cupboard installation in its northern wall. Marble floor was laid out throughout the church. Marble slabs, some recognized as Proconnesian marble, were apparently taken from the disused monumental structures in Petra. It is not certain whether or not the church was preceded by a simple narthex in this phase.

The early, marble-clad, rectangular bema was unusually narrow but fully contained within the nave, as in the Petra church.¹⁸ The apse had a two-tiered synthronon installation, which shows affinities with the five-tiered synthronon of the Petra church. The clearly preserved remains of the bishop's throne in the Jabal Harûn church were accessed by the set of steps centrally superimposing the synthronon tiers. However, while the Jabal Harûn synthronon is clearly an original installation, and not added later, as in the Petra church, the throne appears to have been added later (*infra*). The one-to-three tier synthronon types are generally better attested before the 5th century - an observation which also supports the 5th century date for the Jabal Harûn church.

So far only the southern half of the chapel's apse and the western end of the structure have been excavated. Apparently, the chapel was built in the same time as the early church, and sharing the wall between

them. The eastern end featured an apse flanked on the south by a high cupboard or cabinet with three shelves. Remains of a floor made of marble slabs have been found in the sounding in the apse. In the proximity of the extant western wall of the chapel, a roughly octagonal pit was chiselled out of the bedrock and the cruciform baptismal font with the masonry-built upper part was installed and further integrated with the bedrock using mortar (Fig. 6). The font is small in size: ca 0.92 m (N-S) x 0.89 m (E-W) at the opening, and no more than 0.6 m deep. No floor remains associated with this phase were found in this area of the chapel. Possibly, the font was almost entirely sunk below the floor level, but perhaps with an elevated rim.

The font belongs to the cruciform type which is usually masonry-built and generally earlier in date than the monolithic fonts.¹⁹ A close parallel is the large, canopied cruciform font found in the baptistery of the Petra church. Cruciform fonts were popular in

Fig. 6. The cruciform baptismal font in the chapel. Photo: Z.T. Fiema.



southern Palestine and especially in the Negev, e.g., in the East Church at Mampsis, the North Church at Oboda/'Avdat, and the North and South Churches at Sobata/Shivta; the first two masonry-built.²⁰ With proposed later 5th century dating for the beginning of Phase I of the church and the chapel at Jabal Harûn, the baptismal font there should be considered, together with that at the Petra Church, as one of the earliest known structures of this kind in Jordan.

Baptismal fonts are not uncommon in the monastic context and, in fact, they tend to occur in the monasteries associated with a holy place or a pilgrimage center, and often in a non-urban location.²¹ But the location of the font in the western part of the chapel, and the overall function of the chapel during Phase I remain puzzling, even if the western wall of the chapel was in that phase located farther west. In baptisteries with no apse, font was usually located toward the eastern end of the room, as to emulate the relationship between the community and the altar, symbolized by the font.²² A good example is provided by the cruciform font located near the eastern end of the apse-less Old Diaconikon at the Memorial of Moses on Mt. Nebo.²³ However, the Jabal Harûn chapel in this phase had an apse (and an altar?), yet the font was located far away from it. Presumably, some, still not exposed installations or partitions existed between the font and the apse of the chapel during Phase I. In fact, the location of the Jabal Harûn font may resemble that at the church in Horvat Karkur, north of Beersheva. There the font was situated in the westernmost of the series of rooms directly adjacent to the church proper.²⁴ On the other hand, the Phase I architectural arrangement at Jabal Harûn well reflects the requirement that the baptismal rooms should be attached to the church and provided with direct communication with it.²⁵

The collapse of the extant (later in date) western wall of the chapel revealed the rubble of the wall's core and some ashlar which probably belonged either to the original

(early) wall of the chapel, or to the structure of the baptismal installation. Fragments of painted plaster were still attached to some ashlar. In addition to some floral and geometric designs, Greek letters or parts of them were also preserved. One such stone contained a plaster fragment with the beginning of the line, reading ΠΡΟΔΡΟΜΟ[which can be interpreted as the epithet of John the Baptist - πρῶδρομος "the Forerunner." This epithet well corresponds to the baptismal function of this part of the chapel during Phase I.

Phase II: Major Remodelling

It appears that a disaster, probably of seismic nature, ended the Phase I occupation in the entire complex. The church was restored but also subdivided by a wall into the eastern and the western part. The eastern part, internally ca 13 m (max) long, retained its ecclesiastical function but the columns were removed and replaced with free-standing pillars probably supporting E-W arches rather than architraves.²⁶ Curiously, instead of a pillar, the second support from the east in the southern row of support is a column. Later, this column received stone facing on all sides, resembling a cross. Throughout this phase numerous changes and modifications took place in the bema area. The bema itself was raised and laterally enclosed by two "counter-like" low walls, somewhat similar to those in Petra church in Phase V, or in the sanctuary of the monastic church at Deir 'Ain Abata.²⁷ Inside the apse, a *thronos* was inserted in the middle of the synthronon. A marble floor was laid out inside the apse. Only small fragments of the floor are preserved *in situ*, but the mortar bedding impressions show that the slabs next to the synthronon were arranged in a curve parallel to the lower row of the synthronon.

Inside the south pastophorion, a sandstone floor was laid out. Close to the northern wall, a

large “tomb-like” underground space covered by slabs was discovered but found empty. The size of that space (1.30 m long, 0.9 m wide, 0.55 m high) appears small for a burial, but an ossuary might be conceivable. East of the “tomb,” and directly in front of the cupboard, an equally enigmatic installation was constructed. It included a rectangular enclosure made of thin sandstone slabs, with a round hole (diameter 0.16 m) giving access to a sizeable pithos-like container under the floor level, and a stela-like construction made of sandstone and marble fragments, set upright in the middle of the enclosure. Given the presence of the “tomb” next to it, the upright installation might have been some kind of a memorial stone. The central feature appears to be the pithos-container constructed of five separate carved blocks of stone. The contents of the container gave no indication what was stored there (liquid?), but an ecclesiastic function seems possible. Probably during this phase the interior of the pastophorion was plastered over and a fragment from Psalm 90 (91) was painted over in large Greek letters. This is probably one of the oldest, archaeologically recovered examples of Old Testament text.

The western part of the original church, ca. 9 m long, was apparently turned into an open court (atrium) with two original E-W rows of columns supplemented by the eastern row running N-S. No evidence for the western row of columns was detected so far, thus the atrium must have had two porticoes located opposite each other, and probably one on the eastern side. Initially, the old marble floor was presumably in use. But later, that floor was partially removed and replaced by the new (extant) floor which consisted of irregular sandstone slabs supplemented by broken marble pieces. This floor, laid out ca 0.2-0.25 m above the level of the marble floor, is markedly sloping westward, as opposed to the original floor. Apparently, heavy rains might have caused excessive flooding of the open atrium area. The new floor facilitated the

channelling of rainwater out of the atrium, and toward the cistern.

During Phase I, some kind of an entrance porch might have preceded the church proper, being then followed by the courtyard with the cistern. In Phase II, a formal porch was erected - an enclosed space with a portico of four columns in the front. The three channels which discharged rainwater from the atrium, run under the mosaic floor of the narthex. Originally, the mosaic featured an almost symmetrical arrangement of designs on both sides of the central door to the atrium, including armed humans and wild animals (Fig. 7). Except for the bordering chevron pattern, the geometric design in the center, and the occasional fragments of human or animal bodies, the designs are not preserved since the mosaic was heavily altered by later iconoclastic activities. Hunting scenes are well represented in the mosaics of the 6th century, e.g., the mosaics at the Hippolytus Hall (6th century),²⁸ or at the Old Diakonikon-Baptistry in the Memorial of Moses on Mt. Nebo (AD. 530).²⁹ The central medallion of the Jabal Harûn mosaic - a complex geometric design of interlacing squares and ribbons - is strikingly similar to the central panel of the narthex mosaic in the church at Gharandal, tentatively dated to the 6th century.³⁰

Major changes occurred also in the chapel. A new marble floor was laid out in the apse and in the area of a new transversal bema located in front of it. On the bema, a large altar masonry base or pedestal was erected. Since the other half of this installation is still within the unexcavated northern balk, its dimensions (length ca. 0.88 m, width ca. 1.4 m, height ca. 0.78-0.97 m) are approximate. The structure is hollow inside, having a small compartment (0.54 m x 0.45 m x 0.65 m) with the opening towards the apse. The marble fragment of an inscription, which reads ARVN, was found in front of the pedestal. The fragment could have belonged to a marble sheathing of the installation or to an edge of an altar table placed on top of it. The small compartment



Fig. 7. The mosaic of the Jabal Harûn church.
Photo: J. Mononen.

inside the masonry pedestal might have served as a depository of reliquaries which would be easily accessible and available for display on various occasions. This would be generally consistent with the practices observed in *Palaestina I, II and III* and *Arabia* during the Byzantine period.³¹ Although in this particular case the reliquary would not be located in a shaft or fosse under the structure of the altar on the bema,³² but rather under the altar table, such cases are also known.³³ Other reason for such location may be a relatively high level of the bedrock under the chapel and a shallow buildup for the bema and the apse's floors. The appearance of the fixed altar location in Phase II is also consistent with the chronological observations. The fixed altar appears relatively late in the 6th century, and only at the end of that century special panels or mosaic arrangements clearly marked the emplacement of the fixed altar's supports.³⁴

During the same phase, the baptismal font in the chapel was abandoned and backfilled. The extant western wall of the chapel and a bench against it were built then, the bench slightly overlapping the top of the font. The western wall probably reduced the original length of the chapel, and the new floor in this part of the chapel completely covered the remaining part of the font. Probably, the installation of the masonry-built altar pedestal in the apse and the abandonment of the baptismal font mark a significant redefining of the function of the chapel, perhaps in relation to the church or a chapel on the summit of Jabal Harûn, recorded by Wiegand (*supra*). It is not possible to establish its construction date but equally nothing prevents this upper church to be considered coexistent with the early monastery in Phase I. If the upper church originally housed important relics, its possible damage or destruction at the end of Phase I could have caused the translation of the relics down to the rebuilt chapel of the monastery.



Fig. 8. Southern aisle of the church, looking west. The mixed column/pilaster supports of Phase III are visible on both sides of the paved area. Photo: Z.T. Fiema.

As such the chapel during Phase II would have become a memorial chapel and with that new function it might have been considered unsuitable to retain the baptismal installation and practices there.

Phase III: Later Modifications

It is less certain whether Phase II was also ended by a disaster but this remains a distinct possibility. Resulting changes in the church included the replacement of the pillars as roof support by pilasters and the N-S arches which spanned the spaces of the nave and side aisles. Accordingly, the spaces between the free-standing pillars were walled up and pilasters built against these walls and against the main northern and southern walls of the church. In the southern aisle, two columns were used instead of the pilasters (Fig. 8). The bema area seems to have been enclosed by a thick, poorly

built wall. Secondary walls built directly on the pavements of the north pastophorion and in the area in front of the narthex may belong to this or later phases. Notably, such barriers and partitions are well-known from other Palestinian churches in the Umayyad period. In the church of St. Mary at Rihab, and in the Upper Church at Quweisma, a secondary wall which connected the columns, effectively separated the nave from the north aisle.³⁵ A similar wall connected the pillars of the north row in the church of St. John the Baptist (# 95) at Khirbet as-Samra.³⁶

A massive buttress was built on the atrium's side against the wall that partitioned the early church in Phase II. The buttress built as a wall-enclosing space filled with layers of debris, stones and reused material (including column drums) is currently ca 2.18 wide and ca 2 m high. It stands directly on the upper floor of the atrium.

It seems that during that period the

damage had been inflicted upon the mosaic floor. The iconoclasts had removed not only almost all tesserae forming faces but also main parts of human and animal bodies, and replaced them with plain large-size tesserae. The damaged areas appear as a result of a careful obliteration rather than a wanton destruction. Notably, this damage relates to the images of animals and ordinary people, in opposition to the eighth century Byzantine iconoclasm that specifically targeted sacred images. However, the perpetrators cannot be easily identified since the destruction phenomenon is also present in some Jewish synagogues in the region.³⁷ At any rate, this kind of deliberate damage which, nevertheless preserves the mosaic in its entirety, is generally dated to the 8th century (late Umayyad-early Abbasid period), and is known from other churches in Jordan and Palestine. Particularly notable, deliberate but not complete damage can be observed at the Church of the Lions in Umm ar-Rasas.³⁸ The evidence of careful mosaic obliteration, as at Jabal Harûn, should indicate that by the 8th century, the church would have been still functioning in the ecclesiastical capacity.³⁹

Later Phases

It is uncertain which parts of the entire structure still retained their ecclesiastical function during the later phases of the complex's existence. Structural integrity of the building is also not supported as the apse's semidome seems to have collapsed by then if not earlier. Notable is the evidence of the collection of marble fragments, glass and stone tesserae, and glass shards. Dumps or collection points of such material have been found in the south pastophorion, in the ruined apse of the church, in the cupboard next to the chapel's apse, in various spots of the atrium, and in other places of the excavated parts of the complex. Some spaces within the church and the atrium were temporarily or casually

occupied during later periods, a fact exemplified by ashy spots, fireplaces and the abundance of bones (primarily, fish) in strata above the original marble floor. Finally, substantial stone tumbles, including the collapsed arches were documented everywhere. These episodes, either reflecting natural decay and deterioration of structural parts or subsequent seismic-related destructions, had definitely terminated the occupation in the church area.

Historical Observations

Although the Byzantine monastic presence at Jabal Harûn was already indicated by the extant historical sources and early explorations, the activities of the FJHP substantially contributed to a better understanding of the function and the significance of the site. Although a direct evidence is lacking, the association of the monastic presence at Jabal Harûn, with a pilgrimage center related to the veneration of St. Aaron appears reasonable. The lack of literary evidence specifically mentioning pilgrimages to the Mountain of Aaron may be disturbing when comparing with the neighbouring Negev which certainly benefited from the pilgrim traffic to Sinai.⁴⁰ But the sanctity of the place continued to attract the pilgrimage traffic, whether Christian, Jewish or Muslim, also in the Medieval period,⁴¹ and it continued in the recent times. Therefore, the Byzantine period should not be considered an exception. The presence of a large church with an associated chapel is certainly also an important indicator of the nature of occupation. Notably, large, basilican churches are rare in the monasteries of the Judaean Desert.⁴² Additionally, the rooms around the northern wing of the complex appear to be relatively large; almost twice in size in comparison with known monks' cells in some Judaean Desert *coenobia*.⁴³ Most probably, these could be better interpreted as pilgrim

hostel. Furthermore, the discovery of the installations serving food producing and processing activities suggests that the Monastery of St. Aaron was a self-sufficient economic unit of a *coenobion* type.

Of great interest seems to be the SW area of the complex which, at a certain point of time became a disposal place. The largest deposits in there were debris, including broken stones, ash, charcoal, mortar and plaster fragments and large quantities of broken ceramics. It seems that some strata might have originated from the clearance after a major fire which must have affected the site. Quite possibly, they may relate to the destruction of the church in the early 6th century AD.

The ecclesiastical occupation in the Jabal Harûn church appears to be much reduced in space during later periods, yet some parts of the church seem to have continued in that capacity. But other, non-ecclesiastical (?) structures at the site, feature considerable differences in the intensity and character of occupation, often reduced to casual/temporary character. A distinct feature, notable in almost all structures, including neglected or functionally modified parts of the church, is the presence of concentrations of material such as broken marble and glass fragments and glass and limestone tesserae. Some concentrations may be interpreted as dumps of disused material but other as caches of material for remelting or burning for lime. In this respect, the later periods at the Jabal Harûn complex reflect practices also noted on other Late Byzantine-Early Islamic ecclesiastical sites in Jordan. Even more elusive are the latest occupational periods for which the ecclesiastical occupation can no longer be archaeologically confirmed. For example, it is impossible to establish a reliable dating of partitioning walls, simple enclosures and campfires. But certain phenomena are of particular interest, such as the presence of Red Sea parrot fish (*Scaridae*) among these late remains, including the midden in the SW part

of the site. Notably, *Scaridae* appear common in monastic contexts with a strong pilgrimage character, e.g., at Dayr al-Qattar.⁴⁴ Also, parrot fish appears in the earlier deposits at Jabal Harûn. This should indicate the continuity of the pilgrims' traffic to Jabal Harûn (and the continuous use of the midden), and the preservation of traditional diet, even during periods when the monastic/ecclesiastical structures there were seemingly no longer in use.

Although the post-Byzantine periods in the history of the Jabal Harûn complex are particularly enigmatic, some chronological indicators have been recovered. Both ceramic and glass material support the continuity of occupation throughout the 7th century AD, and the extension into the early 8th century appears to be attested by the presence of certain glass types, and by the specific type of the iconoclastic destruction of the narthex mosaic. Even the later 8th century may be considered through the presence of some ceramic lamps, generally dated to the Abbasid period.⁴⁵ Finally, the Crusader period, implied in the written sources, seems to be now confirmed at the site by the presence of the stone scarp (*glacis*) on the western ridge bearing resemblance to the military architecture of the Crusaders, Ayyubids and Mameluks.

Notes

- 1 I am thankful to Prof. Jaakko Frösén, FJHP Director, and the entire FJHP team, including the Swiss ez-Zantur Project experts, for their comments and advice. All errors of omission and interpretation are mine.
- 2 See, R. Schick, "The Ecclesiastical History of Petra," forthcoming in the *Petra Church Project*, for the historical information and archaeological data specifically concerning the Christians in Petra.
- 3 Palestinian grid coordinates of the shrine: 188.64E x 969.667N; UTM coordinates 731200E x 3356470N.

- 4 Eusebius, *Das Onomastikon der biblischen Ortsnamen*, E. Klostermann, ed. Die Griechischen Christlichen Schriftsteller der Ersten Drei Jahrhunderte, vol. 11 (Leipzig, 1904), 176, 177.
- 5 Leontios of Damascus, *Vita di Santo Stefano Sabaita*. Bartolomeo Pirone, ed. and trans. (Jerusalem 1991), 16: 96-99
- 6 Abû al-Hasan 'Alî al-Mas'ûdî, *Kitâb al-Tanbîh wa-al-Ishrâf*. ed. M. J. de Goeje (Leiden, 1894), 143-4.
- 7 Fulcher of Chartes, *Fulcheri Carnotensis historia Hierosolymitana (1095-1127)*, ed. Heinrich Hagenmeyer (Heidelberg, 1913), 2.5, 381.
- 8 Gilbert the Abbott, "Gesta Dei Per Francos", in *Recueil des Historiens des Croisades - Historiens Occidentaux, Tome IV* (Paris, 1879), 255. See also, "Gesta Francorum Expugnatium Iherusalem", in *Recueil des Historiens des Croisades -Historiens Occidentaux, Tome III* (Paris, 1866), 523, and "Historiae Hierosolimitanae Secunda Pars", in *Recueil des Historiens des Croisades - Historiens Occidentaux, Tome III* (Paris, 1866), 556.
- 9 *Magistri Thetmari Iter in Terram Sanctam anno 1217*, ed. T. Tobler (St. Gallen, 1851), 30-33.
- 10 E.g., Ch. Irby and J. Mangles, *Travels in Egypt and Nubia, Syria and Asia Minor* (London, 1823) 433-9; E. H. Palmer, "The Desert of the Tih and the Country of Moab", *PEF Quarterly Statement* (1871), 50-1.
- 11 A. Musil, *Arabia Petraea II. Edom I.* (Wien, 1907), 113-8, 161; Th. Wiegand. *Sinai. Wissenschaftliche Veröffentlichungen des Deutsch-Türkischen Denkmalschutz-Kommandos*, Heft 1 (Berlin, 1920), 136-45.
- 12 G. L. Peterman and R. Schick, "The Monastery of Saint Aaron", *ADAJ* 40 (1996), 473-480.
- 13 The documents are studied by the team from the University of Helsinki (Finland), which also undertook the conservation of the papyri, and from the team from the University of Michigan, headed respectively by Profs. Jaakko Frösén and Ludwig Koenen. The first volume of the publication series has just appeared: J. Frösén, A. Arjava, and M. Lehtinen, *The Petra Papyri I*, (Amman, 2002).
- 14 J. Frösén and Z. T. Fiema, "The Petra Papyri", *ACOR Newsletter* 6.2 (1994), 1-3; T. Gagos and J. Frösén, *Petra Papyri*, *ADAJ* (1998), 476-77, inv. 6a; 480, inv. 86.
- 15 For the results, see J. Frösén et al., "The Finnish Jabal Haroun Project Report on the 1997 Season", *ADAJ* 42 (1998), 483-502; J. Frösén et al., "The 1998 Finnish Jabal Harûn Project. A Preliminary Report", *ADAJ* 43 (1999), 369-410; J. Frösén et al., "The 1999 Finnish Jabal Harûn Project: A Preliminary Report", *ADAJ* 44 (2000), 395-424; J. Frösén et al., "The 2000 Finnish Jabal Harûn Project: Preliminary Report", *ADAJ* 45 (2001), 359-376, and J. Frösén et al., "The 1988-2000 Finnish Jabal Harûn Project: Specialized Reports", *ADAJ* 45 (2001), 377-92.
- 16 Z. T. Fiema, "Reconstructing Culture History of the Petra Church: Data and Phasing," in Z. T. Fiema, Ch. Kanellopoulos, and T. Waliszewski, *The Petra Church*, (Amman, 2001).
- 17 J. W. Crowfoot, *Early Churches in Palestine*, (London. 1941), 54, 61; R. H. Smith, and L. P. Day, *Pella of the Decapolis*. Vol 2. (Wooster, 1989), 84. See also A. Negev, "The Churches of the Central Negev - An Archaeological Survey", *RB* 81 (1974) 400-11. The monoapsidal type in Syria is generally dated to the fifth century, see H.C. Butler, *Early Churches in Syria. Fourth to Seventh Centuries*. Part One. History, ed. E. Baldwin Smith (Princeton, 1929), 48-82
- 18 Generally, the type of bema does not constitute any significant chronological marker (R. Rosenthal-Heginbottom, *Die Kirchen von Sobota und die Dreiapsidenkirchen des Nahen Ostens*. Wiesbaden, 1982, 149, 151).
- 19 M. Ben-Pechat, "The Paleochristian Baptismal Fonts in the Holy Land: Formal and Functional Study," *LA XXXIX* (1989), 173-4; "Baptism and Monasticism in the Holy Land: Archaeological and Literary Evidence," in *Christian Archaeology in the Holy Land. New Discoveries*, eds. G. C. Bottini, L. di Segni, and E. Alliata (Jerusalem, 1990), 510; M. Piccirillo, "I Battisteri Bizantini di Giordania," in *Noscere Sancta Miscellanea in Memoria di Agostino Amore OFM (+1982)*. Volume primo: Storia della Chiesa, Archeologia, Arte. I, ed. V. Janeiro (Roma, 1985), 355.
- 20 Ben-Pechat, "The Paleochristian," fig 1; Rosenthal-Heginbottom, *Die Kirchen*, 174-200 (baptisteries in the Negev).

- 21 Ben-Pechat, "Baptism," 501-2.
- 22 B. Bagatti, *The Church from the Gentiles in Palestine. History and Archaeology* (Jerusalem, 1984), 305; Ben-Pechat, "Baptism," 508-9.
- 23 M. Piccirillo, "Campagna Archeologica nella Basilica di Mose Profeta sul Monte Nebo Siyagha," *LA XXVI* (1976), 305-12; A. Michel, "The Liturgical Installations," in *Mount Nebo. New Archaeological Excavations 1967-1997*, eds. M. Piccirillo and E. Alliata (Jerusalem, 1998), 405.
- 24 P. Figueras, "L'église byzantine de Karkour dans le Néguev," in *Acta XIII Congressus Internationalis Archaeologiae Christianae III* (Città del Vaticano - Split, 1998), 263-4, Fig. 2.
- 25 Ben-Pechat, "Baptism," 508-9.
- 26 Notably, the same roof-supporting arrangement is known from the Lower Church (C101) at Humeima, see R. Schick, "Christianity at Humayma, Jordan," *LA XLV* (1995), pp. 324-5.
- 27 For Petra, see Fiema, "Reconstructing;" for Deir 'Ain Abata, see, K. D. Politis, "The 1992 Season of Excavations and the 1993 Season of Restorations at Deir 'Ain 'Abata," *ADAJ* 37 (1993), 507, fig. 6.
- 28 M. Piccirillo, *The Mosaics of Jordan* (Amman, 1993), 23-24; 58-59.
- 29 Ibid., 135, 146
- 30 N. Ricklefs, "The Church Mosaics," in A. Walmsley, "The Church at Arindela (Gharandal) of Palaestina Tertia," *Liber Annuus XLVII* (1997), 501-3, fig.5.
- 31 P. Donceel-Voute, "Le rôle des reliquaires dans les pèlerinages," in *Akten des XII. Internationalen Kongresses für Christliche Archäologie* (Münster, 1995), 198-200; "La mise en scène de la liturgie au Proche Orient IVe-IXe s.: les 'provinces liturgiques'," in *The Christian East, Its Institutions & Its Thought*. ed. R. F. Taft (Roma, 1996), 328.
- 32 As at Umm al Rasas, see E. Alliata, "I Reliquari e Altri Elementi Architettonici," in *Umm al-Rasas—Mayfa'ah I. Gli Scavi del Complesso di Santo Stefano*, eds. M. Piccirillo and E. Alliata (Jerusalem, 1994), 312-14; and A. Michel, "Le Installazioni Liturgiche," in *Umm al-Rasas—Mayfa'ah, I*, eds. M. Piccirillo and E. Alliata (Jerusalem, 1994), 117, 119, note 15.
- 33 Michel, "The Liturgical," 394.
- 34 N. Duval, "L'architecture chrétienne et les pratiques liturgiques en Jordanie en rapport avec la Palestine," in *Churches Built in Ancient Times. Recent Studies in Early Christian Archaeology*, ed. K. Painter (London, 1994), 170, 203.
- 35 M. Piccirillo, "The Umayyad Churches of Jordan," *ADAJ* 28 (1984), 338.
- 36 J-P. Humbert and A. Desreumaux, "Huit campagnes de fouilles au Khirbat es-Samra (1981-1989)," *Revue biblique* 97/2 (1990), 261. See also partitioning walls built in the nave and the aisles at the Anchor Church (the Abbasid phase) at Tiberias, which effectively divided the interior into several rooms or compartments (Y. Hirschfeld, "The Anchor Church at the Summit of Mt. Berenice, Tiberias," *Biblical Archaeologist* 57/3, 1994, 126, 132).
- 37 Piccirillo, *The Mosaics*, 42.
- 38 Ibid., 211.
- 39 Ibid., 42.
- 40 P. Figueras, "Pilgrims to Sinai in the Byzantine Negev," in *Akten des XII. Internationalen Kongresses für Christliche Archäologie*, (Münster, 1995), 756-762.
- 41 As attested by Hebrew medieval inscriptions left on the stone sarcophagus inside the weli.
- 42 E.g., Y. Hirschfeld, "List of the Byzantine Monasteries in the Judean Desert," in *Christian Archaeology in the Holy Land. New Discoveries*, eds. G. Claudio Bottini, L. Di Segni and E. Alliata, (Jerusalem, 1990), 63-65, Site 57; *The Judean Desert*, 130.
- 43 Hirschfeld, *The Judean Desert*, 176-7.
- 44 R. Holmgren and A. Kaliff, "The 1995-1996 Excavation of Dayr al-Qattar al-Byzanti: Preliminary Report," *ADAJ* 41 (1997), 324.
- 45 See, A. Karivieri in Frösén et al. "The 1998," 389-91. See specialized pottery and glass studies in *ADAJ* 45, 2001.