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# Medieval Presence at the Periphery of the Nubian State of Makuria: Examples from the Wadi Abu Dom and the Jebel al-Ain

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## Introduction

This paper presents some medieval material from remote areas within the Bayuda and the Western Deserts in Sudan, and draws several conclusions about the presence of Christianity and the Makurian administration within them.<sup>1</sup> First, the general topographical setting of the different areas are described in order to define the geographical frame of the paper. The Wadi Abu Dom is an ephemeral fluviatile valley situated within the central and western Bayuda between the Sudanese provinces River Nile State and Northern State. It drains several dendritic khors in volcanic mountains of the central Bayuda – the most prominent of them named “Ras ed-Dom,” whose name refers to its role as the uppermost offspring of the (Wadi Abu) Dom. It flows at its very beginning from north to south, and later in western or northwestern direction. North of the modern town of Merowe directly opposite the Gebel Barkal, it meets the River Nile.

The project “Wadi Abu Dom Itinerary” (WADI) was inaugurated in 2009 by Angelika Lohwasser at the Free University Berlin, and in 2010 transferred to Münster University. The survey of the Wadi Abu Dom was finished in 2016. Altogether, roughly 150 km of wadi banks were surveyed – in most cases a strip of 2–4 km along the left and right side of the wadi. The survey was intensively prepared with

<sup>1</sup> The authors wish to express their gratitude to Artur Obłuski, Friederike Jesse, Elżbieta Kołosowska, Dieter Eigner, Henryk Paner, and all collaborators and students taking part in the field activities at the Wadi Abu Dom and the Jebel al-Ain.



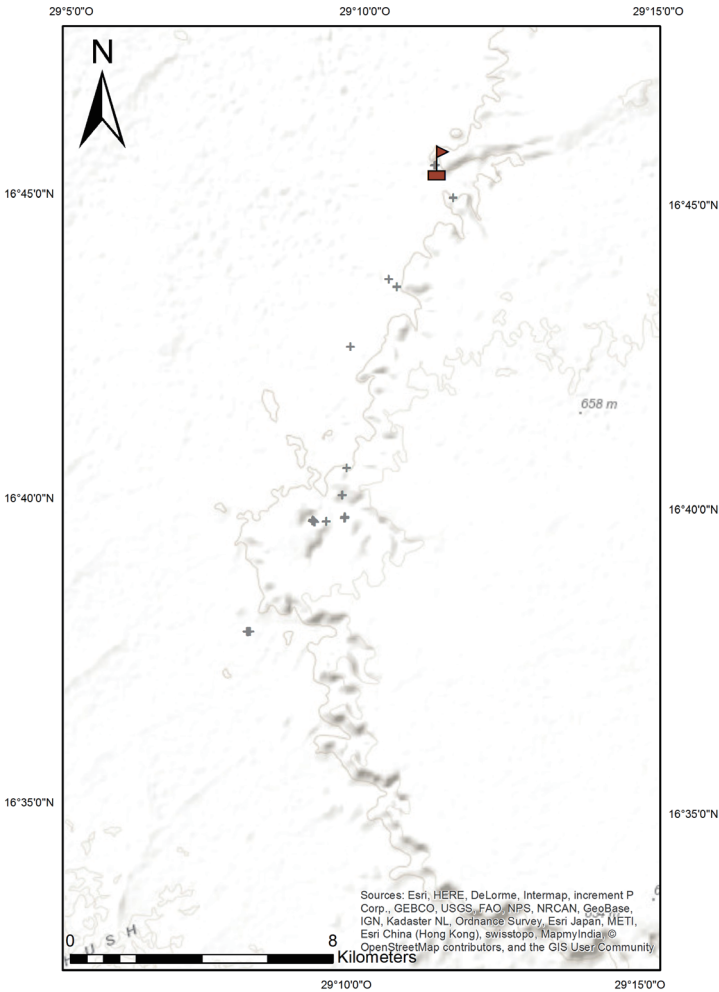


Fig. 2. Medieval sites at the Jebel al-Ain (legend: see fig. 1).

remote sensing data (satellite and UAV-based) and ground truthed in a dense survey on foot, whose working speed was significantly increased by a mobile GIS run on programmable GPS-devices.<sup>2</sup> The chronological range of the recorded archaeological data reaches from the late Paleolithic until the Funj period. Out of 13,794 documented archaeological features, 849 can be clearly dated to the medieval period (Fig. 1). No church was discovered during the survey activities (the only church within the Wadi Abu Dom is the already known monastery at Ghazali). The Christian-medieval sites of the Wadi Abu Dom consist mainly of graveyards (most of them containing more or less elaborate versions of the typical box graves), some camp and settlement structures, and surface finds of medieval pottery. Another major task of the project was the reconstruction of ancient traffic and communication patterns. At the beginning of the survey, theories about a possible function of the Wadi Abu Dom as a long-distance traffic route played an important role. During the investigations, it turned out that ancient paths and other communication infrastructure followed not linear, but network-shaped patterns adapted to short-range rather than long distance mobility strategies.<sup>3</sup> This is true for the Meroitic and Napatan period (which was, at least at the beginning, a major focus of the project), but also for the medieval period, since some of the path remains detected in the cultural landscape were datable to this time.<sup>4</sup> The other area to be described here, the Jebel al-Ain, is situated north of the Wadi Milik, roughly 240 km southwest of the town of Dabba at the Nile. The Jebel al-Ain, despite its location in some distance from the main wadi, is an ecologically favorable zone. The plateau of the jebel functions as a rain catchment area, with several small khors floating downhill and forming alluvial fans which are floating into a tributary khor system of the Wadi Milik.

At the Jebel al-Ain area, a number of archaeological sites (mostly cemeteries) were discovered by satellite imagery analysis (Fig. 2).<sup>5</sup> One of these sites with complex Christian remains was exemplarily surveyed in 2011<sup>6</sup> by the authors during an expedition of the University of Cologne.<sup>7</sup>

2 KARBERG & LOHWASSER, "The Wadi Abu Dom Itinerary (W.A.D.I.) Survey Project."

3 Ibid., pp. 102–103.

4 Ibid., p. 81.

5 EGER, *Archaeological Satellite Imagery-Based Remote Sensing in the Bayuda and the Western Sudan*.

6 EGER, "Ein mittelalterliches Kloster am Gebel al-Ain?"

7 The authors thank Frederike Jesse for the opportunity to fulfill this task during the employment of Jana Eger and Tim Karberg at the 3rd campaign of the excavation project at the Kushite fortress of Gala Abu Ahmed in the Wadi Howar.

### Medieval fortifications within the Wadi Abu Dom?

Beside the monastery of Ghazali, medieval presence in the Wadi Abu Dom before the research activities of Münster University was often associated with four larger buildings within the lower Wadi Abu Dom: Umm Ruweim I and II, Quweib, and Umm Khafour. Some authors describe them as medieval fortifications.<sup>8</sup> In 2011 and 2012, the architecture of these buildings was documented, including some small-scale, preliminary soundings. In 2011, research was focused on the site of Umm Ruweim I.<sup>9</sup> At the beginning of the investigations, the presence of some Christian medieval graves (especially at the nearby building Umm Ruweim II) led to the assumptions that also the buildings themselves might date to the medieval period. The detailed architectural survey, nevertheless, revealed that all the building elements which could be, at the first glance, related to fortification purposes in fact lacked any military character. Additionally, some C14 dates and ceramic material recovered within the small architectural sounding from the construction stratum of the outer walls pointed to the late or post-Meroitic period, disproving the medieval dating of the building. These C14 dates, of course, are only valid for the structure of Umm Ruweim I (and, to be really precise, only for its outer walls). But there is also an indication that at least the enclosures of Umm Ruweim II and the very similar one at Umm Khafour might also date in the pre-medieval times. Some of the Christian box graves immediately outside the building turned out to be built from material taken from the outer walls of the enclosure.<sup>10</sup> The same is true for at least one of the box grave cemeteries at Umm Khafour. Here, some breeches in the western wall of the enclosure are clearly to be seen as results of stone quarrying activities at the (therefore then unused) building walls, in order to gather building material for the graves at the northern box grave cemetery. This might lead to the assumption that at the time these box graves were constructed, the walled buildings had already lost their intentional function and had possibly even fallen to ruins.<sup>11</sup>

### *Christian presence around the monastery of al-Ghazali*

The monastery of Ghazali and its surrounding graveyards are not part of the concession area of Münster University, but excavated by a team of the Polish Centre of Mediterranean Archaeology, led by Artur Obłuski.<sup>12</sup> Nevertheless, it is of much importance to the whole

8 WELSBY, *The Medieval Kingdoms of Nubia*.

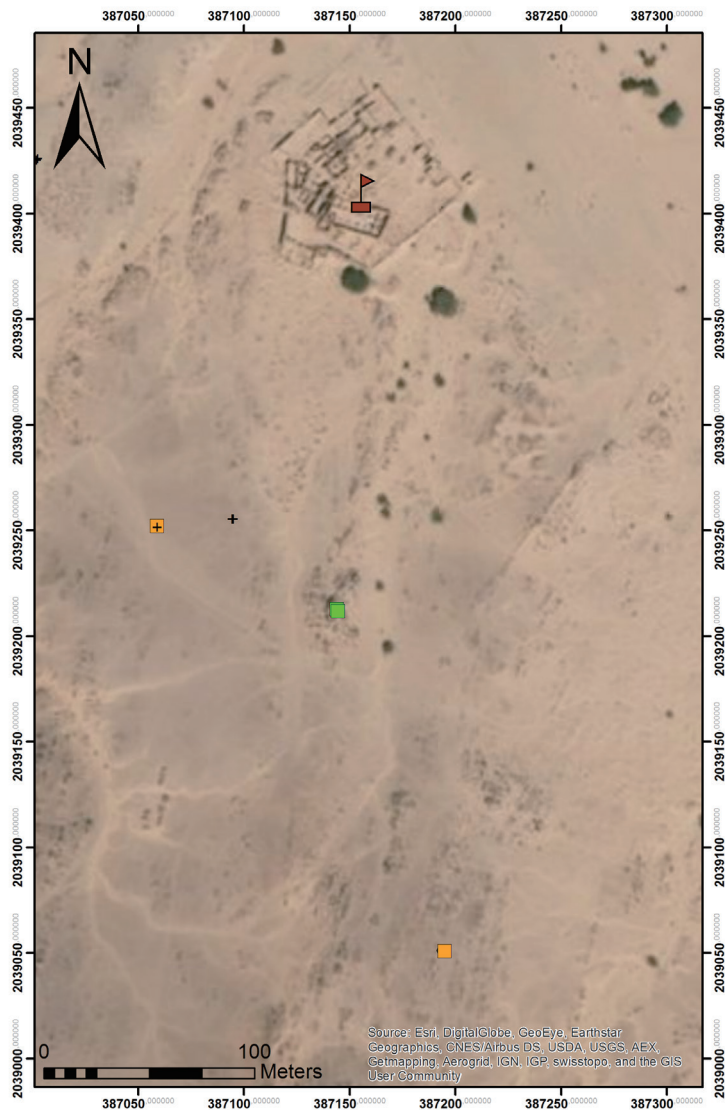
9 EIGNER & KARBERG, "Die Bauaufnahme in Umm Ruweim."

10 EIGNER & KARBERG, "Die Großbauten Umm Ruweim 2."

11 Cf. also EIGNER, "Fortified Sites?"

12 OBŁUSKI, "Ghazali Site Presentation Project 2012–2014"; OBŁUSKI & OCHALEA, "La redécouverte d'un monastère nubien"; OBŁUSKI, et al., "The Winter Seasons of 2013 and 2014

Fig. 3. The vicinity of the monastery of Ghazali (legend, see fig. 1).





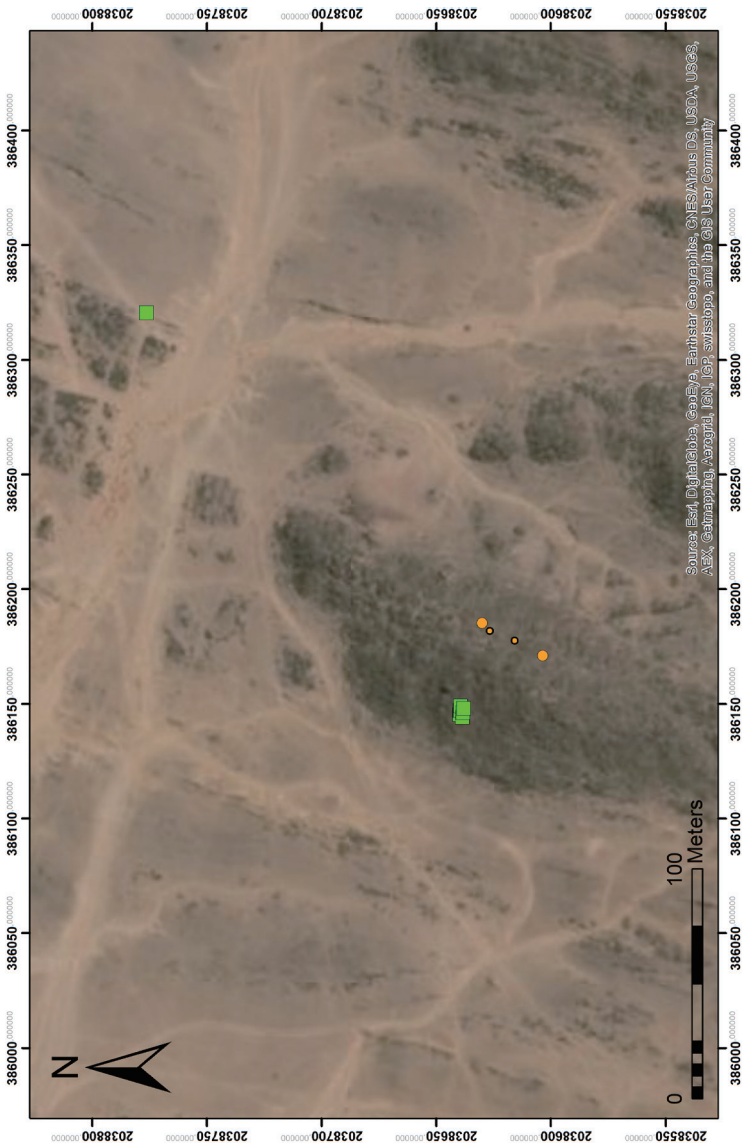


Fig. 4. The  
anchoretic  
hermitage  
southwest of  
Ghazali (legend:  
see fig. 1).



lower Wadi Abu Dom during the medieval age, since it is a Christian center which influenced its direct neighborhood to a great extent (Fig. 3). However, indications that it played a role as a central place to the wider vicinity are lacking, since clearly identifiable traffic patterns connecting it to the central Bayuda were not recorded during the survey. Around the Ghazali monastery, the density of Christian sites is much higher than in any other area of the Wadi Abu Dom. Most interestingly, almost all rock art with Christian motifs, as well as Christian inscriptions, is concentrated around this Christian center. Additionally, the largest Christian medieval graveyards found within the wadi are also directly associated with the cemetery and the adjacent settlement structure.

Some of the rock inscriptions immediately surrounding the monastery show inscriptions in Greek letters,<sup>13</sup> indicating that the monastery was integrated into the educational and religious tradition of the Nubian Nile valley culture, and despite its topographical position oriented to the standards of the major centers of Nubian Christianity. Therefore, it might be misleading to interpret Ghazali as a peripheral site. Nevertheless, it influenced at least Christian practices in the direct neighborhood. Some Christian rock art is concentrated along a most probably historical path cutting a bend of the Wadi and bypassing the immediate vicinity of the monastery. The target of this path was probably an area where the WADI survey team discovered an anchoretic hermitage, maybe a side branch of the monastery.

### **An anchoretic hermitage in the lower Wadi Abu Dom**

To get back to the most western parts of the Wadi Abu Dom, we should take a closer look at some of the rock art and related archaeological features within a rocky area west of Ghazali and south of the main Wadi (Fig. 4). The site consists of some surface features around a flat plateau on the top of a rocky jebel, and another rock art panel near the pediment of the rock. The plateau bears some habitation structures, such as stone rings and medieval pottery. Immediately below this formerly inhabited plateau, there are some rock art panels, the main one showing some Christian motifs, such as crosses, one of them placed together with another object under some kind of baldachin. Parts of this rock were also used as a rock gong.<sup>14</sup> Next to this main rock art panel, there are some inscriptions in Greek letters, mainly featuring the name of the archangel Michael.<sup>15</sup>

in the Ghazali Monastery.”

<sup>13</sup> TSAKOS, “Inscriptions in Greek Script on Rock Outcrops in the Wadi Abu Dom.”

<sup>14</sup> KARBERG, “The Rock Art Landscape of the Wadi Abu Dom.”

<sup>15</sup> TSAKOS, “Inscriptions in Greek Script on Rock Outcrops in the Wadi Abu Dom.”

At the pediment of the ridge, there is a solitary, free-standing boulder with another rock art panel with Christian motifs. Besides a large number of crosses, it shows a three-nave church and the depiction of an armed rider. Since no other churches than the monastery of al Ghazali were found in the Wadi Abu Dom, it could be assumed that the church depictions does not show just an abstract idea of a Christian church, but a depiction of the central church of Ghazali nearby.<sup>16</sup>

Another problem is the identification of the armed rider. At the first glance, the popularity of knight-saints in the Nubian as well as in the Coptic Church might lead to the assumption that the rock picking might depict St. George, St. Merkurios, or other knight-saints. Nevertheless, the rock picture lacks a clear aureole, which in other areas, such as the fourth cataract region, forms a part of many Christian rock art pictures.<sup>17</sup> So it could be the case that the armed rider does not show a saint, but instead a secular figure. There are examples of the Nubian king Merkurios depicted in the style of the saint with the same name, but without an aureole.<sup>18</sup> Nevertheless, according to the simple and abstract style, no iconographical details connected with Nubian royalty within official art are visible, so other interpretations as a secular (non-royal) figure are also possible. It is noteworthy that this rock picture – whether a saint, a ruler, or any other heavily armed person connected with a social elite – is found within the immediate vicinity of the Ghazali monastery, while deeper in the Wadi Abu Dom comparable depictions are lacking.

Interpreting the whole complex of findings, the following facts are important: a) the settlement remains at the plateau on top of a ridge are clearly medieval; b) not very suitable for a regular habitation site; and c) closely connected with a large amount of religious symbols. They might lead to the conclusion that the place of the small settlement was voluntarily chosen as separated from the daily life, so following the ideals of an anchoritic lifestyle. Additionally, the (probable) depiction of the church of Ghazali, together with the fact that the settlement was, at least, located close to some paths which might have eased bringing supplies indicates some connections to the outside, in particular the monastery. Altogether, this might lead to the assumption that this assemblage of archaeological material could be interpreted as the hermitage of an anchorite.

16 KARBERG, "Rock Art from Wadi Abu Dom."

17 E.g., in Kirebkan, personal observation of the authors; cf. also BUDKA, "The Kirebkan Survey," pp. 61–62.

18 SCHOLZ, "Merkurios aus Faras."

Fig. 5. Box grave cemetery in the upper Wadi Abu Dom.

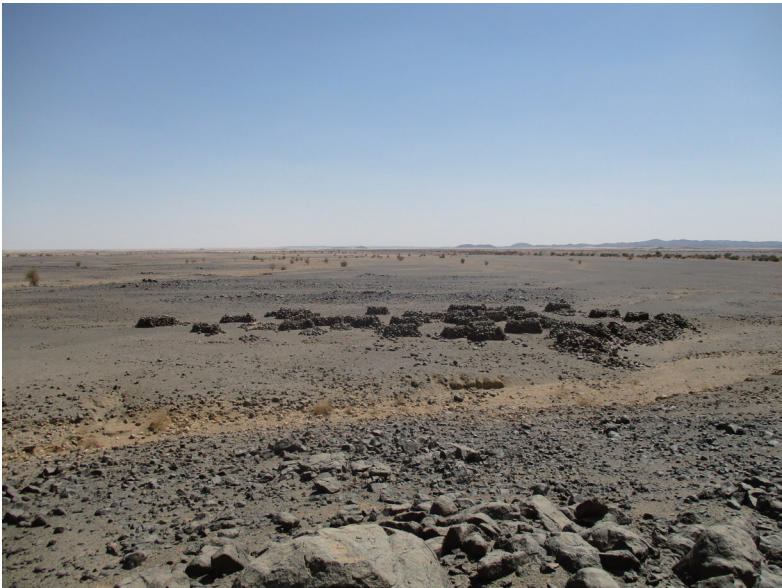


Fig. 6. Box grave near Ras ed Dom.



## Medieval cemeteries of the Wadi Abu Dom

By far the largest record of Christian medieval presence in the Wadi Abu Dom consists of graves, most of them already at the surface clearly recognizable by their typical construction as box graves (Fig. 5). These graves are sometimes isolated, but in most cases agglomerated in box grave cemeteries of up to 50 graves. Some are constructed in an elaborated style, while others look quite rough, which in many cases is the result of heavy erosion continuing until recent times.

An interesting topic are box grave assemblages found together with late or post-Meroitic tumulus graveyards, which occur quite often within the middle Wadi Abu Dom. Most large-tumulus cemeteries show a – mostly relatively small – box grave compartment, often densely packed with several single graves. In other cases, box graves are erected directly close or even on top of the rim of earlier tumuli. One of the main aims of the graveyard excavations conducted in 2015 was to evaluate whether these close association of box grave and tumulus graveyards might indicate a direct evolution between these grave types, and thus no clear gaps within the historical development of the Christian medieval culture of Nubia and its late and post-Meroitic predecessors.

Especially within the upper Wadi Abu Dom, several box grave cemeteries were found that had no obvious tumulus predecessors, often with exceptionally large grave superstructures (Fig. 6). Often they were associated with habitation structures (see below). In these cases, the settlements were situated at an elevated terrain on the rocky jebel flanks, while the associated cemeteries were erected in the valley at the pediment of the jebels, widely visible for travelers coming along the wadi.

At two cemeteries with box graves as well as tumuli near Bir Merwa excavations were carried out in 2015.<sup>19</sup> At site 5500, the WADI team excavated box graves as well as late and post-Meroitic tumuli. The tumuli were clearly datable to the time up to the very early 5th century CE.<sup>20</sup> The four excavated (out of 36) box graves date most probably to the 7th to the 9th century CE.<sup>21</sup> Additionally, the bone material probed from the tumuli as well as the box graves turned out to be too fragmentary for a meaningful DNA analysis, so that neither a gradual evolution of this cemetery, nor a relationship between the two groups of individuals buried under the tumuli nor the box graves could be proved.

19 LOHWASSER, EGER & KARBERG, "Das Projekt Wadi Abu Dom Itinerary (W.A.D.I.). Kampagne 2015."

20 EGER & KOŁOSOWSKA, "From the Late Meroitic to the Makurian Period," pp. 198–219.

21 Ibid., pp. 222–226.



Fig. 7. 3D-Model of the Christian tumulus 5364-9 from the middle Wadi Abu Dom.



Nevertheless, at least an interesting detail from one of the excavated box graves came up, i.e., a small ceramic bowl placed at the head of the grave. Obviously, it was repaired already in antiquity, so the first assumption of the excavators that the bowl might have been used as a lamp is to be questioned, despite the fact that other functions cannot be attributed to it so far.<sup>22</sup>

Another cemetery was excavated at site 5364. Here, as at site 5500, tumuli were closely associated with box graves. Unlike cemetery 5500, the box graves at 5364 were constructed without much elaboration, and thus are today quite badly eroded. Similarly to site 5500, a small ceramic vessel was found placed at the head of one of the box graves.

Interestingly, some rough stone assemblages turned out to consist of two small tumuli after their cleaning – their superstructure would have dated them most probably to the Meroitic or post-Meroitic period (Fig. 7). Surprisingly, after excavation the burials below the tumuli showed clear attributes of the Christian era: narrow grave pits oriented in east-western direction, the burial itself blocked by stone slabs, and the body of the buried individual set in dorsal position on their back. In one case, the body was wrapped in a reasonably well preserved shroud.

At first, it was assumed that these tumuli could probably represent the expected transitional phase between the post-Meroitic and the medieval era in the Bayuda. To prove this, one sample from the shroud and another from a part of wood within the burial were dated by the Poznań radiocarbon laboratory. But the results of these datings revealed that there was a timespan of roughly 300 years

22 The ceramics are under detailed investigation which will be published forthcoming.

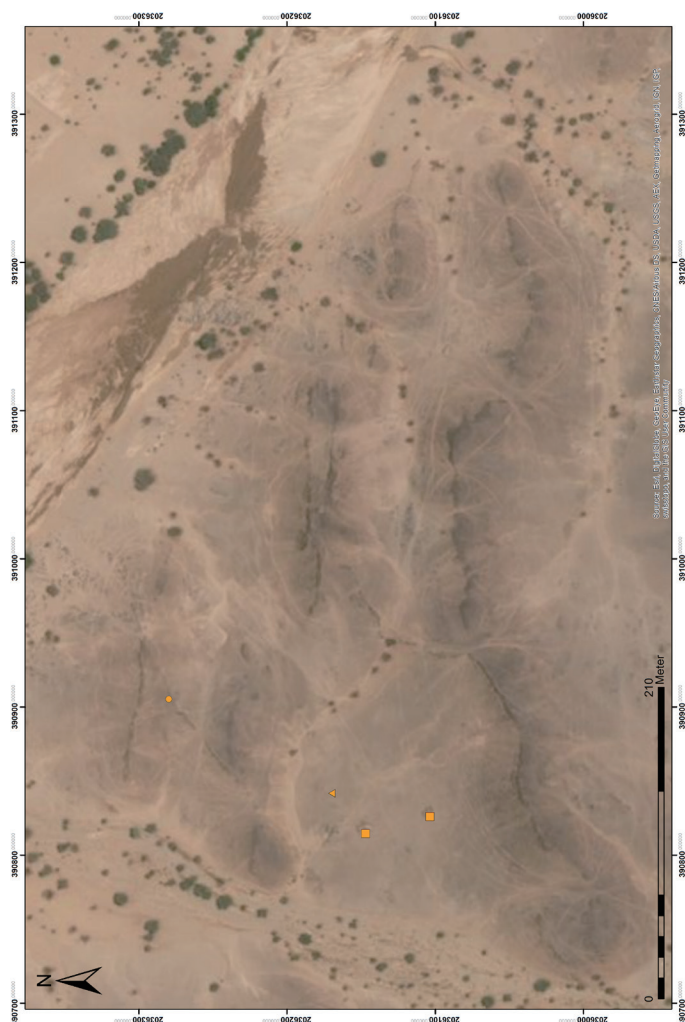


Fig. 8. Medieval settlement 469 in the lower Wadi Abu Dom.

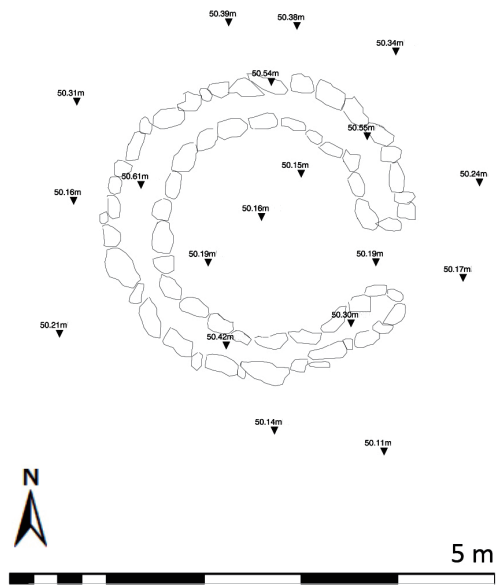
between these Christian tumuli and the end of the post-Meroitic phase, so that they definitely do not represent a transitional phase.<sup>23</sup>

### Medieval habitation structures within the Wadi Abu Dom

Another type of medieval archaeological record within the Wadi Abu Dom consists of settlement structures. They can be divided into periodic camp remains and permanent settlement sites.

<sup>23</sup> EGER & KOŁOSOWSKA, "From the Late Meroitic to the Makurian Period."

Fig. 9. Elaborated medieval round hut 12204-5 in the upper Wadi Abu Dom.



Both categories of archaeological material are characterized by the difficulties to date them properly. Nevertheless, at least some of them can clearly be attributed to the medieval period. Camp remains can be dated by the find material associated with them – in the case of a medieval date, mainly pottery. An example for this is site 211, which was excavated in 2016.<sup>24</sup> This at first glance unimpressive agglomeration of fire places was dated by two ceramic concentrations and the C14 dates of lenticular ash concentrations of ancient fire places to the medieval period. Most probably, these camp sites represent a mobile and pastoral part of the society, who practiced a transhumant economy besides, but also closely associated with, the horticultural oases of the main Wadi.

Permanent settlements consisted of many cases of round huts. However, at some sites, several houses were constructed in a more elaborated and durable manner. For example, settlement site 468 shows – besides the before mentioned round huts – two buildings with a rectangular ground plan (Fig. 8).<sup>25</sup> One of them has an L-shaped ground plan, a building concept also known from other medieval sites from remote areas in the Sudan, especially from the Western Desert (see below). Interestingly, this settlement is not

24 LOHWASSER, KARBERG & EGER, “Das Projekt Wadi Abu Dom Itinerary (W.A.D.I.) Kampagne 2016.”  
25 LOHWASSER & KARBERG, “Das Projekt Wadi Abu Dom Itinerary (W.A.D.I.) – Kampagne 2012.”





Fig. 10. The monastery complex of Jebel al-Ain.

placed directly on the banks of the wadi, but hidden between two gneiss ridges.

In the upper Wadi Abu Dom, some other settlement structures can be, at least partly, dated to the medieval period. Site 12204 is a large habitation site of several round huts (Fig. 9).<sup>26</sup> Similar to site 468, the settlement itself was hidden between the rocks, but a cemetery of large, well-built box graves at the pediment of the jebel indicated its place already from the valley, so it cannot be assumed that

<sup>26</sup> LOHWASSER, KARBERG & EGER, "Das Projekt Wadi Abu Dom Itinerary (W.A.D.I.) Kampagne 2016."

Fig. 11. The church at Jebel al-Ain from the west.



the place should have been hidden from other humans. Maybe the locality of the settlement should have protected it from sandstorms and other meteorological phenomena.

Although the settlement was built of round huts, at least a part of them was also constructed quite elaborately. Three of the round huts show a solid technology of masonry almost resembling a double-skin wall construction filled with rubble. Within settlement 12204, concentrations of medieval and post-Meroitic pottery were found close to each other, indicating that the habitation site was used during both periods. This in some way contradicts the observations at the larger residence buildings of the lower Wadi Abu Dom.

### **A Christian complex at the Jebel al-Ain**

In 2011, an agglomeration of Christian medieval buildings was discovered on the western flank of the Jebel al-Ain. The complex was given the temporary survey number FJE2010-1 (Fig. 10).<sup>27</sup> The structure consists of a three-naved sandstone church, another building of dry stone masonry based on an L-shaped ground plan, and several box grave and tumuli graveyards. The buildings are separated from the surrounding landscape by a wall made of dry stone masonry.

The church, with its three-nave ground plan, has an outside apsis to the west and the main entrance on the eastern side (Fig. 11). The overall measurements are 11m by 7m. According to the classification given by Adams, the church follows type 1a by the position of the

<sup>27</sup> EGER, "Ein mittelalterliches Kloster am Gebel al-Ain?"



Fig. 12. The monastery complex at Jebel al-Ain. Overview from the east.

entrance, or 1b by the number of naves, and could thus be dated in the early Christian period.<sup>28</sup> It has to be stated, anyway, that this dating is primarily based on the position of the entrance in line with the building's main axis, which in this case could be due to topographical necessities (and thus more or less coincidental), so that the dating of the building must be seen as preliminary at present. The elaborate esing and the use of sandstone blocks, nevertheless, also indicate a rather early date of the church.

Another building with an L-shaped ground plan, constructed of dry-stone masonry, is located northwest of the church (Fig. 12). Its dimensions are roughly 20m by 16m. The entrance is situated on the longer, inner side of the "L" of the ground plan, pointing to the east. Behind the entrance, there are traces of at least one room. Other than that, the original room structure remains unclear due to the ruined condition of the building and the amount of debris. Interestingly, this building is much larger than the L-shaped building at site 468 within the lower Wadi Abu Dom (which measures only 7 by 8 meters).

North of the church, there is a bucket-shaped pit lined with clay dug into the ground (possibly for storage purposes), which is similar to a storage facility which has been documented close to church Sur 22a at the Fourth Cataract.<sup>29</sup>

Inside the church a broken lintel with cross-shaped and floral decoration was found. There was a graffito of a human figure and

28 ADAMS, "Architectural Evolution of the Nubian Church 500-1400 AD," pp. 103-105.

29 BILLIG, "H.U.N.E. 2007," p. 94.

geometric motives at the eastern wall of the church. Additionally, on the northern wall we found a poorly conserved inscription. Despite this poor state, the language was identified as Greek, mentioning the title of an eparch.<sup>30</sup> Scattered across the whole area large quantities of medieval ceramics comparable to the wares of the Nile valley and the Bayuda were found.

Both the fact that such an elaborated and massive sandstone church is located in a remote area like the Jebel al-Ain without any traces of a larger settlement, as well as the wall around the complex, could indicate that the structures could be identified as a monastic complex. Surrounding walls are often regarded as a typical component of Nubian monasteries, either for reasons of fortification,<sup>31</sup> or (more presumably) as symbolic separation of the secular from the religious realm.<sup>32</sup> Of course, there are also other, non-monastic churches in Nubia connected with walls (i.e., at Banganarti),<sup>33</sup> but at the Jebel al-Ain the function of the wall seems to be different, since an elaborated church, together with at least one domestic building directly connected with it, is separated from its direct vicinity, while no settlements or other habitation structures around it would justify the construction of such a church in a function for a congregation of a local resident community.

### Medieval cemeteries along the western flank of the Jebel al-Ain

At the western flank of the Jebel al-Ain, several box grave cemeteries were found during satellite imagery analyses.<sup>34</sup> Some of them consisted only of Christian box graves, while others were obviously used over a longer period and contained large tumulus as well as box graves, resembling the large cemeteries within the middle Wadi Abu Dom.

Although none of these sites was ground-truthed so far, at least the satellite images show no traces of any settlement structures nearby. This is quite interesting, since the general topographical and ecological situation of the western Jebel al-Ain area is quite comparable to the jebels of the upper Wadi Abu Dom. In both cases, the more elevated areas of the jebels function as rain catchment areas, leading surface water down to the wadis by narrow khors which widen to alluvial fans at the pediment of the jebels. Despite that similar ecological situation, the settlement structure during the medieval period seems to be quite different in both areas.

<sup>30</sup> At present, the inscription is under more detailed investigation.

<sup>31</sup> ANDERSON, "Monastic Lifestyles of the Nubian Desert," p. 76.

<sup>32</sup> ADAMS, *Nubia*, p. 479; JEUTÉ, "Monasteries in Nubia," pp. 93–94.

<sup>33</sup> DRZEWIECKI, "The Medieval Fortifications at Banganarti after the 2016 Season."

<sup>34</sup> EGER, "Archaeological Satellite Imagery-Based Remote Sensing in the Bayuda and the Western Sudan."

## Comparisons and Discussion

The medieval presence within the Wadi Abu Dom and the Jebel al-Ain area answers, but also raises several questions about the special circumstances of the Middle Age in remote areas of the Sudan.

### *The role of monasticism*

The main Christian site within the Wadi Abu Dom is the well-known monastery of Ghazali. Since the time of the Prussian expedition of Karl-Richard Lepsius it was clear that monks incorporated into the elaborate, literate Christianity of the Nile valley lived here, but the concentration of several Christian-medieval sites around the monastery within the lower Wadi Abu Dom also leads to the assumption that the monastery played an important role for the Christianity within the region of the lower Wadi Abu Dom. Another fact implying that the religious life of the lower Wadi Abu Dom was significantly influenced by the monastery is the probable existence of external branches of the monastery, where anchorites lived along paths forming integral parts of local communication patterns. Nevertheless, traces related to Ghazali (similar to its immediate vicinity) are not present in faraway areas like the middle and the upper wadi, and it is rather doubtful whether the monastery influenced these remote areas directly.

At the western Jebel al-Ain, another (probably) monastic complex seems to have functioned as a main regional center of Christianity. Unlike Ghazali within the Wadi Abu Dom, the Jebel al-Ain monastery is situated in a very remote place (whereas the former is situated already within the desert, but still easily accessible from the Nile). Nevertheless, it is not clear to what extent the Jebel al-Ain monastery influenced the local Christian communities, since no large-scale ground explorations were carried out in this area so far.

### *Rock art and rock inscriptions*

Especially surprising is the fact that rock art with Christian motifs within the Wadi Abu Dom is concentrated mostly in the direct vicinity of Ghazali. This contradicts, at least for the medieval period, the assumption that rock art in this area was dependent on a mobile lifestyle which covered larger areas. No rock art sites with Christian motifs are known around the medieval camp sites of the tributary khors of the lower Wadi Abu Dom. The (few) other Christian motifs within the rock art of the Wadi Abu Dom are concentrated within its upper part, where there are indications for sedentary settlements during the Middle Age. Interestingly, no traces of rock inscriptions were found at all within the whole Wadi Abu Dom except the direct



vicinity of Ghazali. This leads to the assumption that literacy played no important role for the specific Christianity practiced within the remote areas of the Wadi Abu Dom, or even that these communities might have been completely illiterate.

At the Jebel al-Ain, however, there is no reliable information about the distribution of rock art and rock inscriptions, since no large-scale ground survey was carried out so far. Nevertheless, at least in other parts of the area of the Wadi Milik there are traces of Christian rock inscriptions: At the Jebel Abu Negila, closer to the Nile than the Jebel al-Ain but still at a distance from the river at least comparable to the upper Wadi Abu Dom, a rock inscription in Old Nubian was discovered and documented by Peter Hogg.<sup>35</sup> Of course, this is still only a solitary find and its role remains rather unclear, but at least it demonstrates the possibility that even the remote areas of the Sudanese western desert were reached by some extent of literacy, while indications for that in the remote areas of the Wadi Abu Dom are still lacking.

### *Churches and liturgy*

Surprisingly, except the monastery of Ghazali, no other churches have been found within the whole Wadi Abu Dom. This differs significantly from the evidence from otherwise similar regions like the Fourth Cataract area, where a large number of smaller, brick-built churches have been excavated,<sup>36</sup> and churches are a common motif within rock art.<sup>37</sup> Additionally, no traces of Christian pottery connected to ritual use were found so far within the Wadi Abu Dom outside the direct vicinity of Ghazali.<sup>38</sup> Together with the probable illiteracy of the local Christians, this lack of ritual pottery raises the question as to what extent the local Christian rites followed examples from the Nile valley, and thus how “canonical” Christianity was in these remote areas.

Within the Jebel al-Ain area and, generally, the western desert, these questions cannot be answered before large-scale archaeological explorations may have revealed the occurrence of ritual ceramics or additional written sources in wider parts of the area. The satellite imagery analyses carried out so far did not show any traces of churches besides the abovementioned monastery.

35 OCHAEA, “A King of Makuria in Kordofan.”

36 BILLIG, “H.U.N.E. 2007.”

37 KLEINITZ, “Rock Art Landscapes of the Fourth Nile Cataract,” p. 224, fig. 6.

38 This is based on the ceramics analysis carried out by Jana Helmbold-Doyé, cf. KARBERG & LOHWASSER, “The Wadi Abu Dom Itinerary Survey Project.” The ceramics from these graveyards are currently under detailed investigation, the results will be published forthcoming.

*Profane Architecture*

The larger profane buildings in the lower Wadi Abu Dom, sometimes addressed as medieval fortifications, turned out to be late and post-Meroitic elite residences with some ideological elements, like altar-like platforms.<sup>39</sup> Concerning the Christian box graves constructed from stone slabs taken from the walls, it is quite obvious that the buildings were not in function and perhaps already ruined in medieval times.

Despite these monumental buildings not originating from medieval times, at least some settlement structures seem to date to this period. Within the lower Wadi Abu Dom, many camp sites also date to the medieval period, and prove that, beside the oasis farmers, in this period there was also a mobile, maybe pastoral segment of the Christian society.

Also some permanent habitation sites can be dated to the medieval period. The wells of the lower Wadi Abu Dom were able to support a horticultural oasis economy which enabled the population to construct elaborated houses, at least one with an L-shaped layout. Despite the fact that the wells were situated in the wadi bed, some of these settlements were built away from the wadi and the wells, and hidden between rock ridges. But since water supply as well as horticulture was only possible in the clearly visible wadi bed, forcing the inhabitants of the village to enter the wadi frequently, camouflage cannot have been the primary reason for choosing this dwelling place.

Also in the upper Wadi Abu Dom medieval settlements are situated between rocky jebels. But in this case too it seems unlikely that the purpose of this position was to conceal the habitat, since cemeteries contemporary and most probably directly connected to the settlement were found at the pediment of the jebels, clearly visible from quite a distance.

Within the Jebel al-Ain area, no comparable permanent settlement structures are known so far. No complex and elaborated architecture was detected outside the monastic complex (while in the Wadi Abu Dom, these structures are quite clearly visible in comparable satellite images). Some ideas about the general layout of medieval profane architecture, however, are shared between both regions, since within the Jebel al-Ain monastery one building is constructed on a similar L-shaped ground plan like in the Wadi Abu Dom (even if the example from the Western desert is situated in a completely different context and much larger). Nevertheless, no traces of prominent round-hut settlements to be connected to box

39 EIGNER & KARBERG, "Die Bauaufnahme in Umm Ruweim," p. 77; EIGNER & KARBERG, "Die Großbauten Umm Ruweim 2," pp. 52–53.



grave cemeteries were found so far, despite the fact that topographical and ecological circumstances are rather comparable to the upper Wadi Abu Dom.

### *Cemeteries*

It is still unclear whether a possible gap between the post-Meroitic and the medieval period of the Wadi Abu Dom (maybe indicated by the usage history of the monumental buildings compared to the adjacent box grave cemeteries) is also present within the graveyards, where larger late and post-Meroitic tumuli are associated with Christian box grave agglomerations. The close connection between these two grave types leads us to the assumption that these mixed cemeteries might represent a gradual transition between the post-Meroitic and the Christian period without a cultural gap. But first preliminary excavations at some of these graveyards neither proved nor disproved the idea of a gradual transitional period and a relationship between the populations buried at the different grave types.

Interestingly, some old-fashioned burial customs like tumulus-shaped grave superstructures survived in the remote area of the upper Wadi Abu Dom long into the Christian period.

Within the Jebel al-Ain area, most box grave cemeteries are connected with (earlier) tumulus graveyards, comparable to the middle Wadi Abu Dom. As already stated in the previous paragraph, agglomerations of box grave cemeteries with associated settlements are lacking. Satellite images show at some cemeteries also small numbers of rather small tumuli in the direct vicinity of box graves, but without any invasive investigations it is rather speculative whether these could be Christian tumuli comparable to cemetery 5364 within the Wadi Abu Dom.

### **Conclusions**

To summarize our results so far, the Christian communities within the Wadi Abu Dom present themselves as partly sedentary, partly mobile, and using small-scale traffic patterns, as pointed out above.<sup>40</sup> Outside the Ghazali area, churches or other main religious centers are not present, so the Christian rituals of these people had to function without them. Single pre-Christian traditions remained in use over longer periods, like in other remote areas. Of course, theological questions cannot be answered by the material presented, but the fact that the Christian aspects of the cultural landscape in the immediate vicinity of Ghazali and other parts of the Wadi Abu Dom

40 Cf. KARBERG & LOHWASSER, "The Wadi Abu Dom Itinerary Survey Project," p. 82.

differ significantly from each other shows some inhomogeneity regarding the different forms of Christianity in the lower and upper parts of the wadi. The question of the existence of a gap, or rather a evolutionary transitional period between the post-Meroitic and the Christian period in the region is still open.

At the Jebel al-Ain, despite its location far away from the Nile, aspects of Christianity (like box graves, but especially a small, but elaborated church with probable monastic character) are projected far into the desert. It is still unclear to what extent the monastery influenced local Christianity, though it proves that close connections of this area with the riverine heartland of Makuria were once established (maybe closer than from remoter areas of the Wadi Abu Dom). Despite that fact, many questions about a possible role of that region as an outpost of the Nile-based Christian culture (and maybe also the Makurian state) and as a transitional frontier zone towards the contemporary cultures of Kordofan are still completely open.

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