

# Ain Sa'af, Kharga Oasis, Egypt Preliminary Survey, 2002-2003

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Members of an Australian archaeological mission associated with Deakin University and the Melbourne College of Divinity conducted preliminary survey work at the site of Ain Sa'af in the Kharga Oasis of Egypt's Western Desert, over two short seasons in 2002 and 2003. In addition to the authors, the team included Dr Youhanna Nessim Yossef and Prof Ian Edwards.

The site of Ain Sa'af is located three kilometres north of the famous early Christian necropolis of Bagawat, on the plain at the foot of the western side of the Gebel al-Teir, and five kilometers north of the ancient town of Hibis, the capital of the Great (Kharga) Oasis. (Figure 1) The site was named by the Kharga Antiquities Inspectorate when they investigated the area in the 1980s and 1990s. The ancient name of the site is not known.

### The Kharga Oasis

The Western Desert forms some two thirds of the total land area of Egypt. The oases of the Western Desert are a series of depressions in the desert floor formed by geological subsidence during the Pliocene period. The floors of these depressions have fallen sufficiently below the average elevation of the desert that they are near, or at, sea level and, hence, subterranean artesian water is accessible, either percolating to the surface through natural springs, or accessed by man-made wells. It is this fact – the accessibility of artesian water – which makes them oases.

The Kharga Oasis is the largest of the Western Desert oases. In antiquity, Kharga was known as the Great Oasis. Today, the modern town of Kharga is the capital of the New Valley Governate, the Egyptian administrative division encompassing the majority

of the Western Desert settlements. There is evidence of human settlement in Kharga Oasis from as early as the Neolithic period (Caton-Thompson 1952). Although, the

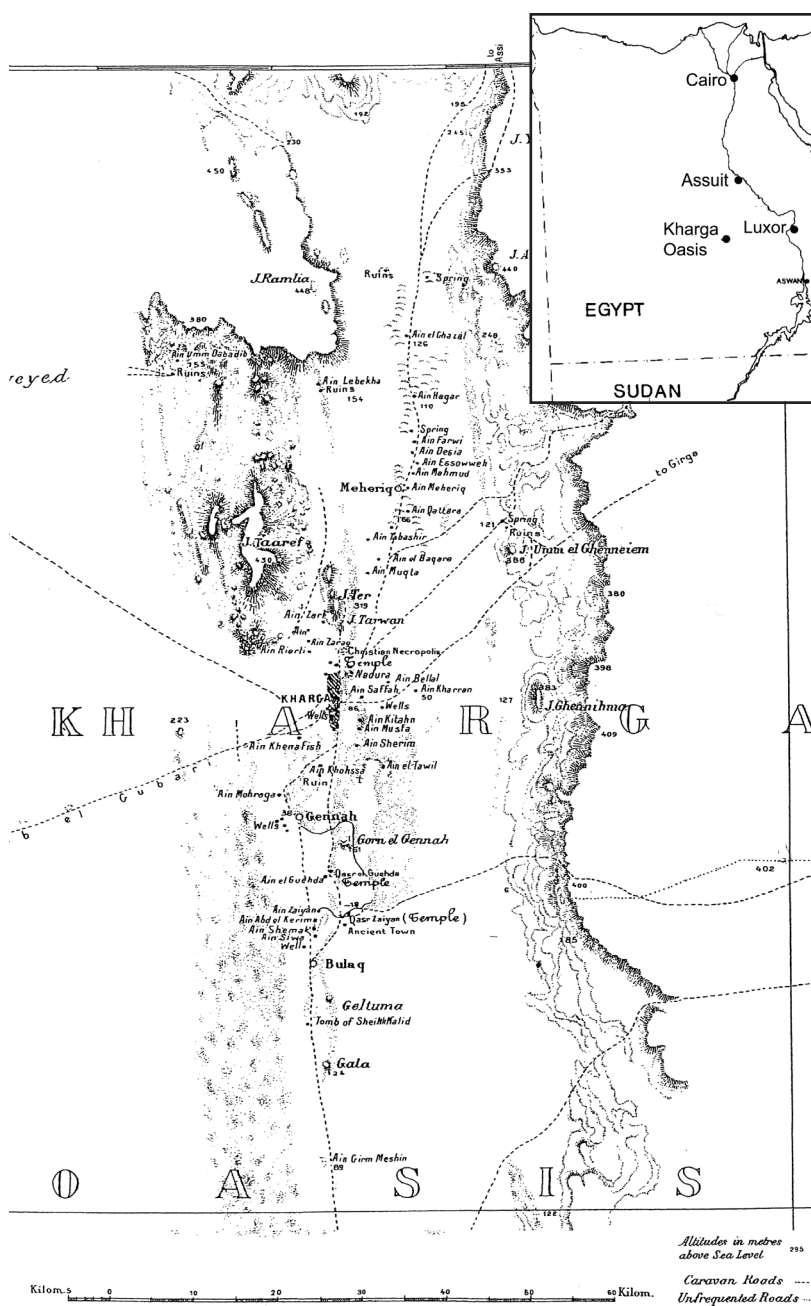
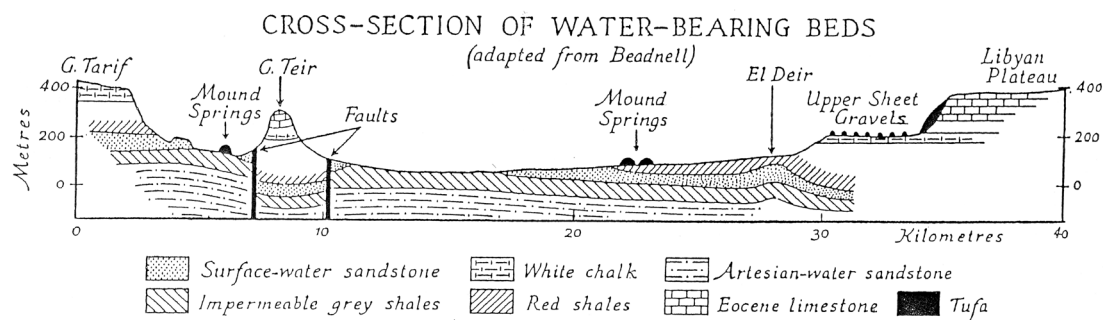


Figure 1: Portion of the 1:500,000 Survey of North Kharga Oasis, dated 1900 .



**Figure 2:** An illustration of the hydrology of the spring mounds (after Beadnell 1900)

oasis is mentioned in official documents of the Pharaonic period originating in the Nile valley, little evidence has yet to come to light in the oasis itself concerning this period.<sup>1</sup> This is in contrast to the neighbouring Dakhleh Oasis where extensive Old Kingdom remains have been discovered.<sup>2</sup> There is considerable evidence of Persian presence in Kharga, most notably the Temple of Amun at Hibis (the ancient capital of the oasis, slightly north of the modern town of Kharga), completed by Darius I in 522 BCE (Cruz-Uribe 1988; Evelyn-White & Oliver 1939; Winlock 1941). The temples of Ghueita and Qasr al-Zayyan testify to Ptolemaic presence in the region (Cruz-Uribe 1999; Sauneron 1955), but it is for the Roman – and later Christian Byzantine – period in the oasis that we possess the most information. A series of substantial military installations across the oasis speak of a formidable official Roman presence in the region (Reddé 1999).<sup>3</sup> This is not a situation which should cause much surprise. The oases of Egypt's Western Desert formed part of the southernmost frontier of Roman presence in Northern Africa and movement of barbarian peoples in this border region required close monitoring. Furthermore, the chain of Western Desert oases were important parts of a network of African trade routes, both east-west between Libya and the Nile valley, and north-south between Egypt and the Sudan, and Kharga occupied a key position in this network (Morkot 1996).

From the fourth century CE onwards, a predominantly Christian presence is to be found in the Kharga Oasis. The extensive necropolis of Bagawat, although apparently of pre-Christian origin (Hauser 1932: 50), appears to have become a wholly Christian cemetery and demonstrates the presence of a large Christian population in the oasis, many of them people of means and social pretension – so their elaborate tomb chapels would seem to indicate (Fakhry 1951). Similarly, numerous monastic establishments were founded throughout the oasis, bespeaking a sizeable monastic population. Many of these monastic communities established themselves in structures which had served as pre-Christian temples or as fortresses. This phenomenon is indicative of important and far-reaching social transformations. In particular, the conversion of military installations into monasteries and churches indicates profound changes in the nature of the presence of the Romano-Byzantine state in the Western Desert oases.

The site of Ain Sa'af represents an example of such a Christian monastic site in the north of the Kharga Oasis.

### Ain Sa'af and its Surrounds

There are a number of sites of archaeological interest in quite close proximity to Ain Sa'af. The nature of the relationship between Ain Sa'af and these other sites quite clearly deserves investigation. A longer-term goal of the current mission is to develop a model of the regional relationships between the various occupation sites on the plain to the north of modern Kharga, looking in particular at issues like hydrology, water usage and agriculture, military installations and their intervisibility, and the transformations in architectural structures reflecting changes in the religious traditions of the local populations.

The plain upon which Ain Sa'af stands is today desiccated and devoid of vegetation, with dunes encroaching from the scarp across the landscape. It is clear, however, that at various periods in the past, much of the plain in the vicinity of Ain Sa'af was under cultivation. Irrigation channels bringing water to fields are clearly visible around most of the occupation sites on the plain. The age of these irrigation works is not entirely clear and it is possible that some of them may be of twentieth century origin. However, some of them must be ancient. In general, ancient monastic communities exercised self-sufficiency in food production, just as they continue to do in Egypt today. Agriculture was an important part of a monastery's activities. The monastic communities of Ain Sa'af undoubtedly engaged in farming, and we might reasonably expect to find some evidence for such activities, including irrigation works.

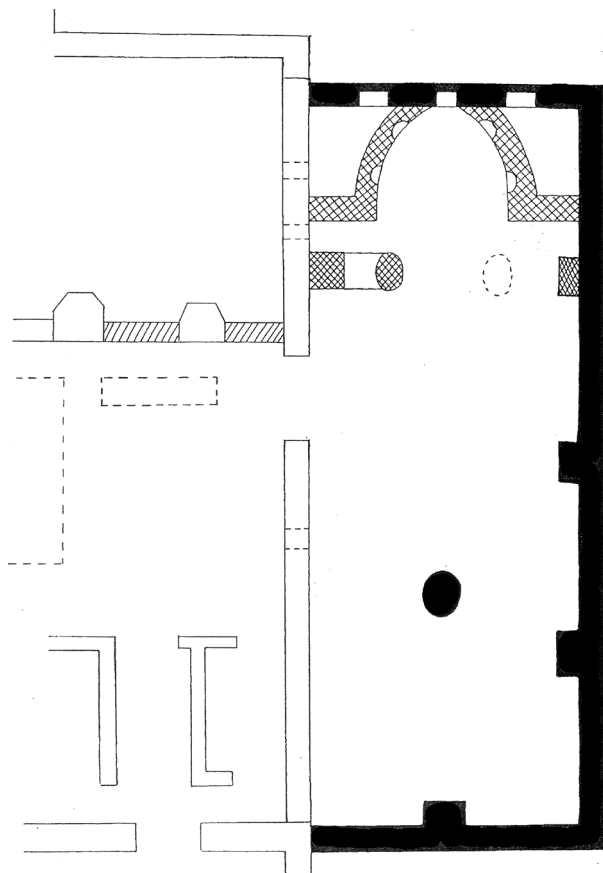
Irrigation of course requires water. A feature of the region between the Gebel al-Tarif and the Gebel al-Teir is the occurrence of spring-mounds. These occur where faults in the impermeable grey shale layers allow artesian water from the water-bearing sandstone layers beneath to percolate to the surface, forming a characteristic mound on the plain (Figure 2). These spring-mounds were exploited as water sources in antiquity, the water being allowed to collect in a surface pool from where it could be channelled off into irrigation (Parsons 1971:173-174).

On the plain, some 300m to the west of Ain Sa'af, stands a large mound with clearly visible architectural remains. These include what appear to be substantial mud-brick



**Figure 3:** *Ain Sa'af II*

fortifications, as well as a small church. In 2002-2003, a sand dune was progressing across the southern side of this mound, rendering detailed investigation of the surface architectural remains impossible (Figure 3). However, a sketch plan was made of the church (Figure 4). As both the site of Ain Sa'af proper and the mound on the plain fall within the limits of the concession granted by the Supreme Council of Antiquities, it was decided to conventionally name the site at the foot of the Gebel al-Teir, Ain Sa'af I and the mound on the plain, Ain Sa'af II. Initial indications are that Ain Sa'af II, with its evidence of substantial mud brick fortifications encircling the upper part of a large earthen mound rising above the level of the plain, may be built on



**Figure 4:** *A sketch plan of the Church of Ain Sa'af II*



**Figure 5:** *Tahunet al-Hawa*

such a spring mound. This accords well with the remains of irrigation channels visible on the plain surrounding Ain Sa'af II, but the presence of fortifications around the spring mound suggest that control of the water source may have been an issue of significance.

Another kilometre west of Ain Sa'af II, there stands a fortified mud-brick tower, known locally as Tahunet al-Hawa, "the wind tower" (Figure 5). The tower rises through four storeys and is approximately 11.5m tall (Wagner 1987: 170). Of Roman origin (Gascou & Wagner 1979: 13-14), the tower is now a hollow shell, although the sockets in the walls wherein sat the wooden support beams for the (presumably wooden) internal floors of the tower can be clearly seen. The function of this tower and its relationship to the other sites in the region is not wholly clear and will be the subject of future investigation. However, the clear line of sight which exists between the tower and the nearby fortress of Deir Mustafa Kasheph hints at its function as a watch-tower, providing a visual relay point between the fortress and other sites to the north of Kharga.

The fortress of Deir Mustafa Kasheph itself is a substantial mud-brick structure preserved to at least five storeys in height, situated in an elevated position above the plain, approximately two kilometres north of the Bagawat Necropolis and one kilometre south of Ain Sa'af I. The structure appears to have functioned for a long time as a fortified monastery, but its origins as a Romano-Byzantine period military installation seem clear. Wagner suggests that the fortress is to be identified with the *kastron* of Hibis spoken of by John Moschus in *The Spiritual Meadow* and mentioned in a fourth century ostrakon from Doush in the south of the oasis (Wagner 1987: 171).<sup>4</sup>

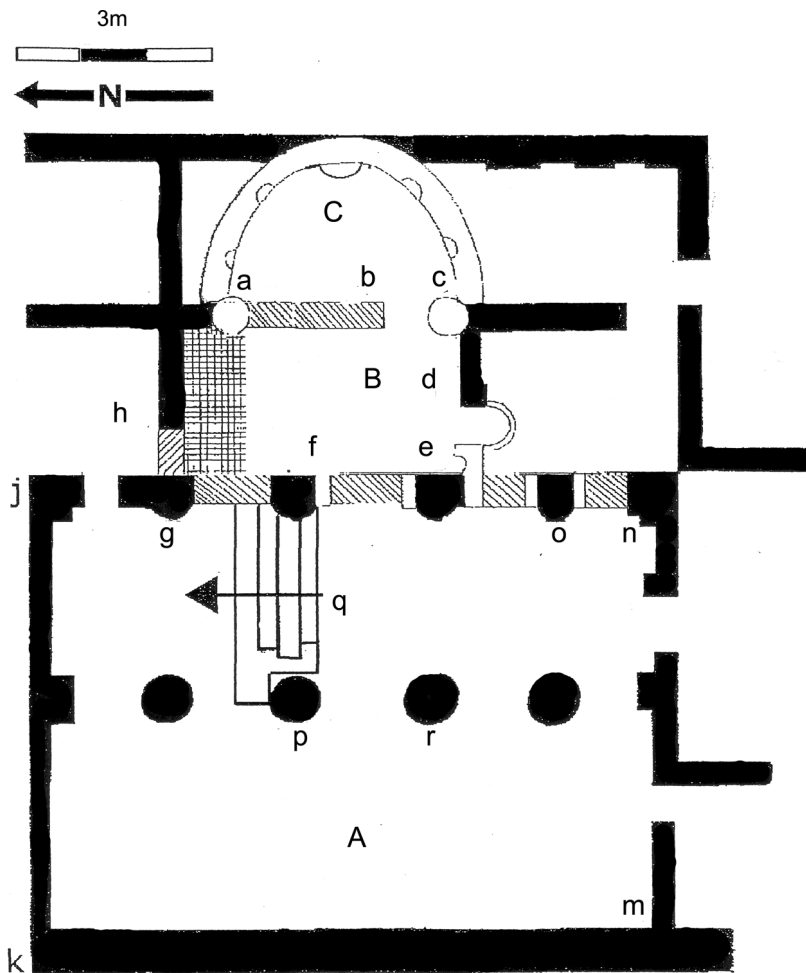


Figure 6: A sketch plan of the Church of Ain Sa'af I

Also in the general vicinity of Ain Sa'af, about one kilometre west of the Bagawat necropolis and two and a half kilometres south of Ain Sa'af, lie the remains of the extensive *laura* of Deir el-Bagawat. This monastic complex contains, within its perimeter wall, numerous monks' cells, kitchens, a refectory and a church with a complex architectural history, containing a large number of Coptic inscriptions. The complex is preserved to two storeys in height in some parts.

#### Ain Sa'af I

The surface architectural remains at Ain Sa'af I were cleared by the Kharga Antiquities Inspectorate over a number of seasons during the 1980s and 1990s.<sup>5</sup> The visible remains consist of an extensive complex of mud-brick walls, generally preserved to around one metre in height. At the northern end of this complex there is a church. The presence of a mud-brick stairway indicates that at least a part of the complex originally possessed one or more further stories. Directly to the east of the church is a structure which, in construction and architectural style, is clearly related to the mud-brick funerary chapels of the Bagawat Necropolis.

As a part of the preliminary description of the site, a survey of surface pottery sherds was carried out in 2003. Diagnostic sherds were collected from the surface within and around the site of Ain Sa'af I and photographed. Much of this material had clearly been brought to the surface by the excavations carried out by the Kharga Antiquities Inspectorate and no context was recoverable. In 2004, study periods in the Al-Wady Al-Gadid Museum in Kharga allowed the comparison of these ceramic materials with materials from other sites excavated in the Oasis and held in the museum's collections. This comparison revealed the presence at Ain Sa'af I of ceramic material from the late Ptolemaic period, through the Roman and Coptic periods and into the early Islamic period. The nature of the collection and the mode of recording allowed no comment to be made on proportion of pottery present from any particular period relative to any other period, but the range of periods evidenced at the site is clearly indicated – late Ptolemaic through to early Islamic.

#### The Church of Ain Saaf I

The church of Ain Sa'af I (Figure 6) evidences three clear occupation phases. An original large rectangular room, its long axis oriented North-South, appears to have had a screen wall with engaged columns added to form a nave and a *haikal* on the east side, with a semicircular mud-brick apse added to the sanctuary. At some later point, when the church was clearly no longer functioning as a place of community worship, access between the nave and the *haikal* was closed off to form a self-contained unit consisting of the former *haikal* and apse. This small architectural unit appears to have been put to use as an hermitage. Its interior, including floor, was finished in fine white plaster and outside access was provided by a small, south-facing doorway. The plastered interior of the apse contains a number of Coptic inscriptions in red-brown paint, though these have suffered considerable deterioration due to exposure. Whether all of these inscriptions are to be associated with the phase when the apse functioned as part of the church, or whether some may derive from the period when the apse formed a part of the monastic cell is not yet clear.<sup>6</sup>

The nave of the church of Ain Saaf I reveals an anomalous architectural feature in the form of a short flight of stairs (Figure 7). The stairs, marked *q* on the plan, do not seem



Figure 7: A view of the stairs in Room A of the Church of Ain Sa'af I

to relate architecturally in any clear fashion to the rest of the room around them. The stairs are on a north-south orientation, descending from north to south. The stairs are of stone ashlar construction (Figure 8), contrasting with the mud brick construction of the later alterations to the church.

Further detailed investigation of the floor levels in the nave A is required, but preliminary observations suggest that there is no abrupt change in floor level between the north and south ends of this room that would require the presence of a stairway. More important, however, is the fact that the eastern end of the stairs lies beneath the level of the wall with engaged columns *gfeo*. This can be seen clearly in Figure 7. The wall section *gfeo* clearly belongs to a phase of the building's use later than that of the stairs. The visible bases of the engaged columns *e* and *f* appear to be at approximately the same level as the top of the stairway. There is currently no clear indication that any sort of step has existed at the secondarily blocked doorway *fe*. It would appear that, during the phase when the doorways ornamented by engaged columns in the wall section *gfeo* were in use, the stone stairway *q* might well have been at least partially, if not wholly, concealed beneath the floor.

The presence of the stairway *q* within the church of Ain Sa'af I raises some interesting questions. The stairway obviously predates the construction of the screen wall *gfeo*, and therefore also predates the phase of use of the building when rooms *A*, *B* and *C* functioned as a church. Its position within room *A* suggests that this room has, at some point, extended further in an easterly direction, encompassing in part, or in whole, the area which now forms rooms *B* and *C*. Moreover, the stairway does not appear to serve any clear function in room *A* during the phase when this room served as the nave of the church. If one were to omit from consideration the later uses of rooms *B* and *C*, the presence of the stone stairway *q* would seem to indicate that, in an earlier phase, room *A* has been a larger room, extending

further to the east than it does now, with a north-south primary orientation. This is all highly suggestive of a pre-existing structure, potentially of pre-Christian origin, which has been taken over and modified for use as a place of Christian worship at a later date.

This scenario provides a good fit with the pattern of Christian appropriation of earlier pre-Christian structures observed throughout the Kharga Oasis—for example, the series of monastic foundations established in structures which have quite clearly been military installations of Roman period construction.

The probable north-south orientation of room A in its earlier form, together with the use of stone in the construction, associated in the oasis with construction

elements of the Roman period fortresses and Temples and the funerary chapels of the Bagawat necropolis (Fakhry 1951: 23), lends weight to the suggestion that the church of Ain Sa'af I may well have been built into a structure which was not originally built as a Christian place of worship and which, in addition, may have been possessed of some pre-Christian religious function. That the building may always have had some religious association is suggested by its location—an isolated position, away from the ancient town of Hibis, at the western foot of the Bagawat hill with its large and impressive necropolis.

### Inscriptions from Ain Sa'af I and II

A number of inscriptions, in both Greek and Coptic, have been recorded at Ain Sa'af I and Ain Sa'af II. Preliminary readings of a number of these have been made. The most interesting of the Coptic inscriptions, found on the wall of the plastered apse of the church of Ain Sa'af I, includes a list of the names of the apostles. The inscriptions found to date evidence an interesting distribution of languages employed. The inscriptions from Ain Sa'af I are in Coptic, the inscriptions from Ain Sa'af II in Greek. Whether this has significance for the liturgical language of the communities employing these two churches is not, as yet, clear. It has not been possible to date any of the inscriptions as yet, although a Copto-Greek graffito from Ain Sa'af II includes a *Xi Rho* monogram which is of a form similar to one to which Leclercq attributes a 4<sup>th</sup> century date (Leclercq 1907-1939: Col.2516).

### Regional Relationships and Future Research

The plain lying between the Gebel al-Tarif and the Gebel al-Teir to the north of ancient Hibis is distinguished by the presence of a large number of occupation sites, clearly indicated by visible surface remains, including both architectural structures and pottery scatters. An important

question for future investigation is the relationship between the various sites in the region of Ain Sa'af. Already, the relationship between Ain Sa'af I and Ain Sa'af II, sites located only 300m apart and both possessed of churches, raises intriguing questions. The two churches evidence quite different floor plans and both are clearly possessed of complex architectural histories. It is of note that, to date, whilst Coptic inscriptional material has been recorded in Ain Sa'af I, the inscriptions discovered in the church of Ain Sa'af II are Greek. Imperative is to establish the relative dating of these two churches. This is an essential preliminary to determining what, if any, significance the internal renovations to these churches might have in terms of reflecting changes in the liturgies enacted within them. It is also necessary to consider whether the notable differences in the floor plans of the two buildings might reflect differences in the character of the liturgies which took place therein, and therefore, theological and/or ecclesiological differences between the groups who used the buildings. That there might have been various Christian groupings with their own distinctive theological orientations present in the oasis at any given time between the fourth and eighth centuries should not surprise us. It must be borne in mind that the Great Oasis served the Byzantine state as a favoured place of exile for heretical ecclesiarchs and other political opponents of the court (Schwartz 1966). Amongst the notable exiles to have sojourned in the Oasis, mention might be made of the Patriarch of Constantinople, Nestorius and, at various times, the Alexandrian Patriarch, Athanasius.<sup>7</sup> The addition to the church of Ain Sa'af I of a screen wall creating a choir, or *khurus*, between the nave and the apse indicates a transformation in the liturgical life of the church. This particular architectural transformation is a phenomenon encountered in Christian churches throughout Egypt, beginning in the seventh century CE (Capuani et al 2002: 44). Herein may lie a dating criterion for the renovation of the church of Ain Sa'af I. By contrast, it may be noted that there is no clear evidence for the creation of a *khurus* in the church of Ain Sa'af II. Renovations to the church appear to have been carried out to form a semi-circular apse, screened by two columns supporting small arches from the nave, but there is no indication of a separate choir having been created. This suggests that, either the church of Ain Sa'af II had fallen out of use before the period of the seventh century, or that the liturgical life – and hence, ecclesiastical community – of the church of Ain Sa'af II remained distinct from that of the church of Ain Sa'af I (and the majority of the Egyptian church) in the period of the seventh century. This relationship will be a focus of future investigation.

A further focus of future investigation will be the inter-site relationship between the monastic settlements and the military installations on the plain. The monastic settlements all appear to be in line of sight of the various military structures, and protection from brigandage, a common problem of the period, may be a motivation for

this arrangement. But the fortifications at Ain Sa'af II, which may be associated with a water source, suggest that the function of the military installations may have involved more than simply the protection of local populations and that water supply and irrigation for agriculture may have been of sufficient concern to attract military protection. This potential connection between the positioning of the fortified structures and agricultural activity on the plain is reinforced by the fact that one of the small “watch-towers” on the plain to the north of Ain Sa'af incorporates a columbarium. A primary function of columbaria was – and is, to this day in Egypt – the collection of *guano* to be used as fertilizer. The location of this columbarium suggests that cultivation on the plain was taking place in the immediate vicinity of this structure.

As part of a comprehensive investigation of the inter-relationship between monastic structures, military installations and agriculture and water-use in the region in late antiquity, a thorough examination of ancient environmental factors will be undertaken, including paleobotanical investigation of the sites in the region and a plotting of water sources and remains of ancient irrigation systems.

The site of Ain Sa'af in the Kharga Oasis clearly possesses the potential to provide important insights into the social processes and ramifications of Christianisation on the Roman frontier in Egypt's Western Desert. Christianisation was a complex phenomenon with far more than simply intellectual or philosophical implications. The appropriation of earlier architectural structures, and the creation of new ones, imprinted Christianity on the local urban landscape. The foundation of monastic communities wrought, and reflected, significant social change in the broader oasean population and clearly impacted on local economic life. This must have had concomitant effects on agriculture and resource management. The role of the Great Oasis as a place of exile served to bring this distant frontier zone into direct contact with the political and theological wrangling of the imperial capital. The oasean peoples cannot have been untouched by these intellectual disputes being thrust right into their very midst. We find all of these aspects of ancient Christian presence in the Kharga Oasis represented in some fashion or another at Ain Sa'af and the sites in its immediate vicinity. The hope of our mission is that future investigation of this site will allow us to cast some light on these complex issues.

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## Endnotes

- <sup>1</sup> Although see now Rossi, C. & Ikram, S. 2002 Petroglyphs and Inscriptions along the Darb Ayn Amur, Kharga Oasis, *Zeitschrift der Ägyptischen Sprache* 129, 142-51, for recently published Old Kingdom Grafitti in Kharga Oasis.
- <sup>2</sup> The IFAO has excavated at Balat, with its impressive mastabas of the Old Kingdom governors of the oasis, since 1977. See Valloggia, M. 1986 *Balat I. Le mastaba de Medou-Nefer*. Fasc. 1. Texte. Fasc. 2. Planches, Paris: IFAO; Minault-Gout, A., Deleuze, P. 1992 *Balat II. Le mastaba d'Ima-Pépi*, Paris: IFAO; Soukiassian, G., Wuttmann, M., Pantalacci, L., Ballet, P., Picon, M., 1990 *Balat III. Les ateliers de potiers d'Ayn Asil. Fin de l'Ancien Empire, Première Période intermédiaire*, Paris: IFAO.
- <sup>3</sup> This may be compared with the far less obvious military presence in Dakhleh
- <sup>4</sup> *O.Doush* 220,3: κάστρα ἰβεως
- <sup>5</sup> The details of these excavations have yet to be published.
- <sup>6</sup> It may be noted that a recently published plan of the church of Ain Sa'af I gives absolutely no indication of the complex sequence of building phases clearly evidenced for the structure: Capuani, M., Meinardus, O., Rutschowskaya, M-H. & Gabra, G. 2002 *Christian Egypt. Coptic Art and Monuments through Two Millennia*. Cairo: American University in Cairo Press, 255.
- <sup>7</sup> Nestorius: Socrates Scholasticus *Ecclesiastical History* 7.34; Athanasius: *Apol.ad Const.*,32; *Apol. de fuga mea*, 7.