

BANGANARTI

SDRS SEASON 2003

Bogdan Żurawski

The sixth field season of the Southern Dongola Reach Survey ran from 16 January through 16 March 2003.¹⁾ Foremost on the agenda was the excavation, conservation and restoration work at the site of the Banganarti mausoleum-church, coupled with extensive documentation work on recording the inscriptions and murals from the church.

The excavation program ran concurrently with an aerial reconnaissance in the Fourth Cataract region combined with photographing the entire SDRS concession from above (Figs. 1, 2). The flight, organized jointly with the Sudan Archaeological Research Society Mission to the Fourth Cataract region (Amri-Kirbekan Survey) and the German Mission at Naga, was approved by the National Corporation for Antiquities and Museums. The AN-2 plane was provided by the Sudana-PZL crop-dusting company, based at Hassa Heissa.

1) The staff, directed by the present author, comprised: Dr. Karol Piasecki, physical anthropologist; Dr. Adam Łajtar, epigraphist; Ms Jackie Phillips, archaeologist, ceramologist (who further undertook to give an intensive 'master's course' in ceramic identification, terminology and recording to interested team members); Mr. Piotr Osypiński, archaeologist, lithic specialist; Mrs. Marta Gauza-Osypińska, archaeologist, archaeozoologist; Mrs. Magdalena Lapaś, archaeologist, art historian; Mrs. Edyta Klimaszewska-Drabot, archaeologist; Mr. Jacek Poremba, photographer; Mrs. Gabriela Chmiel, restorer; Mr. Maciej Kurcz, archaeologist, ethnographer; and Mr. Hyder Hamid Mukhtar, restorer. The National Corporation for Antiquities and Museums was represented by Ms Nahla Mustafa Suliman.

Augmenting the staff were student-volunteers from Warsaw University who assisted in the pottery drawing: Ms Anna Jaklewicz and Ms Olga Białostocka. We were also glad to host, briefly, Ms Caroline Rochelod from the University of Toronto. Mrs. Melanie Blackmore was greatly busy documenting the activities of the mission on digital movie camera.

The SDRS team also conducted a high-intensity survey and preliminary paleo-environmental studies between Ed-Diffar and Ed-Deiga, including testing and surface sampling at the Middle Palaeolithic site of Affad 23.²⁾

Finally, anthropological analyses of the skeletal remains from the SDRS 1998 excavations at Hammur Abbasiya and other sites were completed, concurrently with studies on the skeletons from the graves beneath the Upper Church at Banganarti.

Substantial progress was made on the study collections of pottery and lithics, as well as other material from the survey. All finds were re-bagged and coded with the final identification reference, based on location by administrative district. Improved storeroom facilities provided the proper conditions for completing the study of individual site ceramic collections with a view to the final survey publication. Work on the Banganarti material was also initiated.



Fig. 1. Aerial view of the Banganarti site looking west. Tangasi Island in the background (Photo B. Żurawski)

2) Published in the first volume of the survey publication, cf. M. & P. Osypiński, in: B. Żurawski, Survey and Excavations between Old Dongola and Ez-Zuma, *Nubia II* (Warsaw 2003), 270-272 and 490-491.



Fig. 2. Aerial view of the Great Enclosure Wall at Old Dongola (at extreme right), 19th-century fort and the Mosque in the left background (Photo B. Żurawski)

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Field activity began with the removal of the protective sand cover.³⁾ Excavations continued in the eastern part of the church before shifting to the west and north. A test pit was dug outside the church and later continued to the south in order to section the entire mound along its N-S axis (Figs. 3, 4). Digging between the northern

dome supports brought to light an elaborate pulpit raised on four pillars with accompanying stairs (Fig. 5).

Removal of structural debris accumulated in the central part of the church revealed three successive floor levels made of hastily laid bricks and stone slabs. They apparently corresponded to the latest



Fig. 3. *Aerial view of the Baganarti church seen close-up from the east, with excavations proceeding in the southern part of the architectural complex (Photo B. Żurawski)*

3) The murals and inscriptions, protected after the 2002 season with a layer of red brick bonded in a hard mud plaster with gum Arabic, were found intact despite a torrential rainfall in August 2002 that lasted for three consecutive hours (but not a drop fell on Old Dongola only 9 km downriver).

phases in the use of the church interior before the collapse of the central dome. The layer immediately above the original pavement turned out to be a leveling of the original floor surface, which had subsided in several places due to differences in density and stability of the deposits underneath. It was soon discovered that wherever the floor had subsided it was over a substratum composed of loose constructional debris and sand, whereas it stood firm above still standing walls of an unknown structure buried beneath.

In order to define the form and character of this lower structure, a trial pit

was dug between the altar-like structure and the row of eastern chapels.

The apsidal curvature that emerged from the sounding left no doubt that below was another church having an entirely different layout. It was constructed of stone and red brick, and plastered twice. On both layers of plaster, faint and fragile traces of painted decoration were noted.

Thus, the earlier building was labeled 'Lower Church', and consequently the memorial church was termed 'Upper Church'. Raised upon red-brick foundations laid on clean sand,⁴ the Lower Church walls still stand to a height of 3.50 m.



Fig. 4. View of the central part of the Upper Church during excavations, seen from the west (pulpit concealed behind the pillar on the left) (Photo B. Żurawski)

4) Clean sand is a most unusual feature on a Nile island composed entirely of alluvium, and geological sections nearby revealed no sand stratum at the corresponding level.



*Fig. 5. Pulpit between the northern dome supports of the Upper Church
(Photo B. Żurawski)*

The discovery of the Lower Church solved some enigmas encountered while testing beneath the pavement of the Upper Church back in 2002. Firstly, the inscribed and painted wall found buried beneath the thresholds to the eastern chapels gained justification; undoubtedly, it enclosed the

Lower Church at this end, forming a typical eastern passage behind the apse.

A row of tombs was dug along the eastern wall of the Lower Church, at the level of its foundation (Figs. 6, 7). The chambers were provided with solid mastabas made of red bricks bonded with

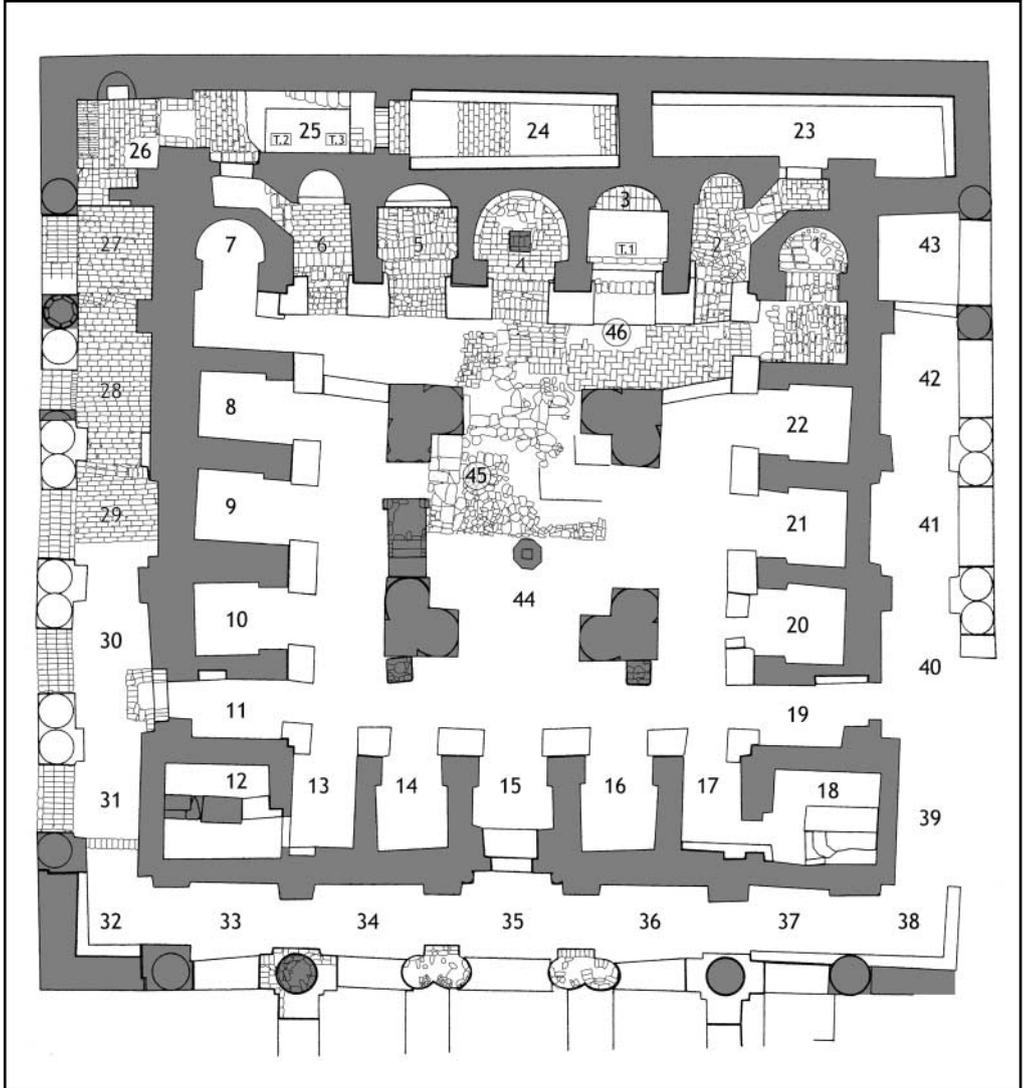


Fig. 6. Plan of Baganarti Church after the season in 2003
(Drawing B. Żurawski)

mud and plastered with very hard lime plaster slightly shading to yellow. Their upper surface was either flat or rounded.

In grave T.1, water entering the crypt, some three meters beneath the present floor level, had destroyed the vault and caused the bones to decay. Many traces were found of robbers' tunneling down to the graves from the space behind the eastern chapels. The tomb was provided with a semi-cylindrical superstructure whose flattened side walls resembled a sarcophagus, raised on a rectangular platform. Both superstructure and platform were covered with a very hard layer of lime plaster. The usual lamp niche and stela on the western side of the grave mastaba were lacking. A blocked entrance to the burial chamber was exposed after cutting through the platform blocking the entrance to the access shaft from above.

In the crypt, originally intended for a single individual, two skeletons were

found, both in typical Christian mode, with their heads to the west (i.e., towards the entrance) and arms laid alongside the body. That on the north side of the crypt likely was buried elsewhere originally and later transferred to the crypt under Chapel 3, after the individual from the south side had already been interred. This hypothesis may explain the inferior state of preservation of the skeleton.

A sepulchral stela of the *begemon* Markos was found in the filling above the graves T.2 and T.3. It apparently once belonged to one of the eastern tombs.⁵⁾ Another stela⁶⁾ was found in the filling of the Lower Church apse, a meter or so below the Upper Church pavement. It was an epitaph of a woman (name not preserved) whose death came sometime between AD 783 and 884.

The reasons for the destruction of the Lower Church are unknown. The high Nile floods in the mid-10th century, which

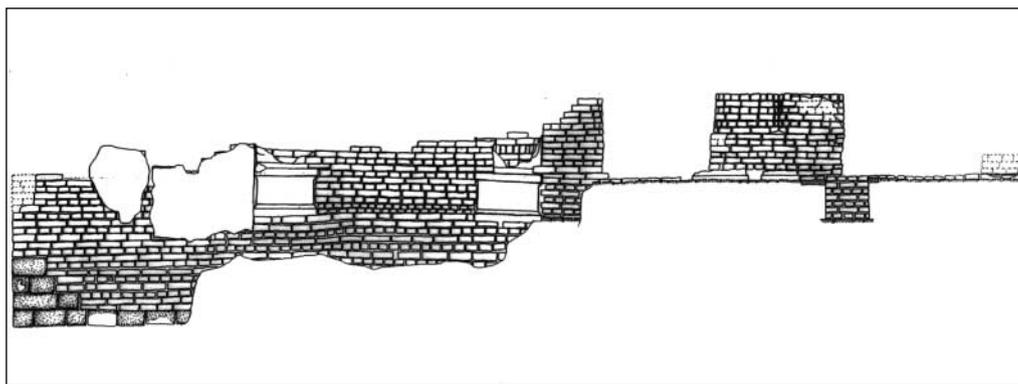


Fig. 7a. Section through the Upper and Lower Churches at Baganarti (N-S) (northern end)
(Drawing B. Żurawski, P. Osypiński)

5) Cf. Fig. 2 on p. 258 in this volume. Most plausibly, it could belong to the grave with very high superstructure that was found behind Chapel 5. According to A. Lajtar, the stela of *begemon* Theodoros (said to be found on Tangasi and now in the Sudan National Museum) could have originated from the Baganarti church. Markos died on the second day of the month of Phamenoth, in the year 502 of the era of Diocletian (27 February 786).

6) Cf. Fig. 3 on p. 260 in this volume.

might have triggered a Nubian attack on Aswan and the Oases,⁷⁾ could have raised the water level in the foundation trenches and made the walls subside.⁸⁾ Probably the church did not collapse, but was abandoned after cracks became apparent in the vaults and dome. The pavement in the central part of the church, mostly of well polished stone, was patiently dismantled. One cannot imagine this being done after the collapse of the dome. The mid-10th century also is the most plausible ceramic *ante quem* date for the deliberate destruction of the Lower Church.

The church walls were purposely leveled to a height of c. 2.80 m. above the original pavement, and almost immediately another church was built above it. The pavement of this new church, now labeled the 'Upper Church', was laid directly on the leveled walls of its predecessor.

The disaster that happened to the Lower Church must have been well

remembered, since the foundations of the new church were particularly soundly built. The tombs alongside the eastern wall of the Lower Church were overbuilt with a huge mud brick mastaba. It resulted in the creation of an artificial terrace, into which the foundation trench was sunk and foundations laid.

All outer wall foundations were laid on a layer of well-worked stones. Additionally the most vulnerable parts, such as the northwestern corner, were abutted with solidly built mastabas made of red bricks and stone.

The space below the four central supports that carried the dome was filled with constructional debris and additionally stabilized with pebbles. These precautions proved effective since the central tetrapylon survived at least one widespread destruction within the Upper Church.

The Upper Church was raised on the most unusual plan of a square, perfectly

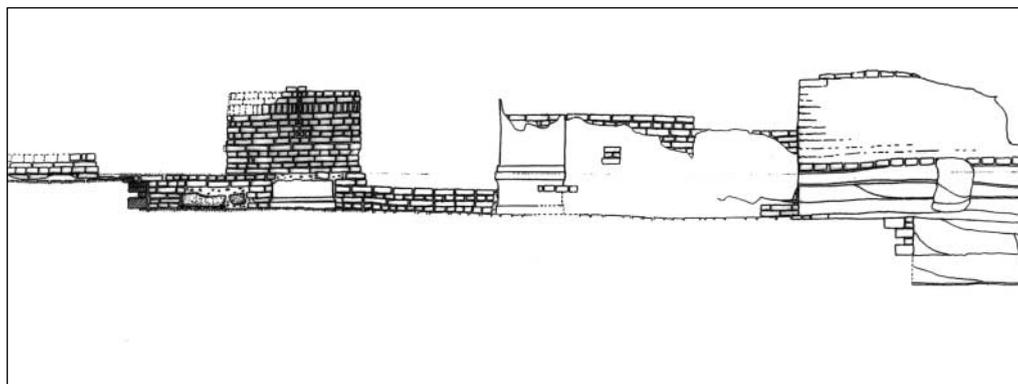


Fig. 7b. Section through the Upper and Lower Churches at Banganarti (N-S) (southern end)
(Drawing B. Żurawski, P. Osypiński)

7) Derek A. Welsby, *The Medieval Kingdoms of Nubia* (London 2002), 75, after W.Y. Adams, *Settlement Pattern in Microcosm: The Changing Aspect of a Nubian Village during Twelve Centuries*, ed. K. Chang, *Settlement Archaeology* (Palo Alto 1968), 189 n. 16.

8) The Lower Church was particularly vulnerable to underground water as it was founded on Nile alluvium slightly above the regular flooding level.

symmetrical edifice, topped with a huge dome, surrounded on the southern, western and northern sides with porticos.

The original hypothesis that the Upper Church was dedicated to the Archangel Raphael (*Fig. 8*) has been massively built up by a plethora of inscriptions with references to Raphael. Significantly enough, the Lower Church also seems to have been dedicated to Raphael as the inscriptions found so far might suggest. The Archangel Raphael is the most common addressee of the invocations and prayers recorded on the walls of both the Upper and Lower Church, including the

longest one on the lower part of the wall in the Chapel 4.⁹⁾

The Upper Church was planned and executed with significant consideration for the set of graves located along the eastern wall of the Lower Church. It was raised in such a way that the row of seven chapels was constructed directly above them. It is on the walls of these chapels that the portraits of the Nubian kings and high dignitaries (*begemones*) were painted.

The Upper Church, already in its first phase, was furnished with a pulpit between two northern piers. It is composed of massive stairs and two octagonal pillars set



Fig. 8. Reconstruction drawing of the painted composition representing a Nubian monarch under the holy patronage of the Archangel Raphael in Chapel 3 (upper part of the archangel reconstructed based on analogies from Kom H in Old Dongola (Drawing W. Chmiel)

9) Cf. note 12 below.

against the northeastern pier (cf. *Fig. 5*). Both the stairs and the pillars once supported the horizontal platform that is now missing. Nonetheless, it provides some measure of the original height of the building, calculated as more than 12 m under the dome.

The octagon was one of the principles used in the church's decoration, as octagonal pillars also flank the main western entrance to the church. Inserted in the late pavement in front (south) of the pulpit is the sandstone epitaph of a king whose name is difficult to decipher, however the surviving letters strongly suggest the name David. It is dated by Adam Łajtar on paleographical grounds to the 11th-13th centuries.

The Upper Church had a coating of very good plaster with high lime content (the same mortar composition used to bond the bricks in the central piers). The original pavement of the church was laid with red bricks in a regular pattern. The bricks were replaced subsequently with polished stones (possibly *spolia* from the Lower Church) in the space between the eastern piers and in front of the entrance to Chapel 4.

In the central part of the nave, the focal point of the church as a whole, a curious object was constructed of red brick and plastered with lime render (for the sake of convenience it is called an altar). It was raised on an octagonal plan and contained a subterranean cache plastered on the inside, presumably for the relics (?), however it could also have served as a socket for a standing wooden (?) object that might have been a cross. No *bigab* dividers or any type of *cancelli* slabs to screen the would-be altar from the nave have been found. The object (reliquary?)

simply stood in the middle of the central nave, easily accessible from all directions.¹⁰⁾

The Upper Church was first entered through an elaborate portal placed in the middle of the western wall. It was provided with a stone threshold, stone jambs and probably a stone arch that has not survived. It was blocked during the first reconstruction of the church interior. In lieu, two entrances were opened in the southern and northern walls. Both were made with perfectly worked sandstone blocks. The northern portal collapsed, together with the northern wall, and its easternmost part was reconstructed although the blocks were repositioned in the wrong order.

The enormous bulk of inscriptions left by visitors is strongly suggestive that Baganarti was one of the most important pilgrimage centers in the Middle Nile between 1200 and 1350. Altogether 650 inscriptions have been documented, transcribed and preliminarily translated by Adam Łajtar.¹¹⁾ They are a rich trove of information on the late history, administration, topography and political structure of the Kingdom of Makuria.

Baganarti, as other pilgrimage centers in the Nile Valley, was visited also by people who expected miraculous healing. It is hard to estimate, based only on archaeological data, what healing procedures were performed here. The literary sources from elsewhere mention incubations, scratching lime and paint from the holy paintings, drinking holy water, etc.¹²⁾ The faith-healing function is to some extent suggested by a splendid mural found in the northern staircase vestibule. It depicts two standing figures of the anargyroi saints, Kosmas and Damianos.¹³⁾

10) It was partly reconstructed in 2003 in order to protect its scanty and fragile remains.

11) For a discussion, see contribution by A. Łajtar in this volume.

12) It must be said that the system of small chapels and chapel-like spaces favors such procedures as incubation.

13) For this mural and others discovered this season, see contribution by M. Łapraś in this volume.

The Upper Church underwent at least one major reconstruction, which did not affect the general layout, but new walls, abutments and dividers were introduced. The general purpose was to narrow the spaces spanned by the arches and vaults, and was achieved by doubling the wall thickness and extending the pillars. It was on these new additions that most of the graffiti were found.

The church was re-plastered as a result of these modifications and repainted. The last murals in Banganarti, painted in the late 12th and 13th centuries, bear all the characteristics of decadence in the Nubian visual arts.

The vast majority of the pottery gathered on the surface within the fortified en-

closure of Banganarti is of Early Dongola date, although some sherds were Classic, Later and even Terminal. A few Transitional/Early Dongola, Post-Classic Dongola and Funj sherds also can be recognized. The collection bears all the hallmarks of a habitation site. Handmade fragments include domestic *tishits*, large storage-pot rims and numerous *dokas*. Many of the *dokas* are red-washed and have the underlying herringbone impressed-pattern on the exterior. Included are several locally-made amphorae of both Early Dongola Period and later (Post-Classic to Late) Dongola Period forms, *qullas*, *qawadis*, numerous bowls and vases, and several closed forms. Painted fine wares were numerous, but combed and impressed designs also were recovered.

CONSERVATION AND RESTORATION WORK¹⁴⁾

An important component of excavation activity was restoration and preservation of the murals, inscriptions and walls. Altogether some 150 m² of murals, inscriptions and plaster fragments were examined, treated, repaired and consolidated. Open cracks and holes only were sealed and the air pockets stabilized with local injections of filler, as injecting larger amounts of the filler could affect the stability of mural surface layers. Injections were of a liquid solution of 6% PRIMAL AC-33 only when necessary, mostly where swellings appeared in the plaster. Lacunae and cracks were filled with a paste composed of two units of lightly colored soil, one unit of sand, one unit of kaolin (*djir*), one unit of liquid solution of 3% KLUCEL G with some LICHENCIDE fungicide added.

The plaster surface was cleaned with glass fiber brushes where a thick mud

incrustation covered it. Cleaned surfaces were protected with a 3% solution of PARALOID B-72 in toluene, sprayed in thin layers over the treated surface.

A different procedure was applied to lime plasters. Following initial consolidation of the disintegrated wall with a liquid solution of 10% PRIMAL AC-33, mud and salt was removed usually with clear desalinated water. The washed surface was additionally consolidated with a second layer of the same solution. Large cracks were filled with a paste composed of two units of ground lime plaster and one unit of soil (both collected from the debris heap), 1 unit of 10% PRIMAL AC-33 liquid solution.

An attempt was made to remove the latest layers of plaster containing some of the latest inscriptions scratched by pilgrims in the 14th century. These were on the latest

14) The following remarks are based on information provided by Gabriela Chmiel.

additions to the church structure, and were founded on pavement without sub-structures. Inevitably, the cracks and dilatations that appeared posed a real threat to workers and visitors in the church. Secondly, they concealed earlier wall surfaces, also frequently inscribed and commonly painted. The most dangerous was the abutment built against the northern pillar of Chapel 3. Since the ground could not be stabilized around it, this abutment needed to be dismantled after the inscriptions had been removed.

The inscription surface area was protected first with a solution of 6% PARALOID B-72 in toluene, then they were strengthened by gluing two layers of Japanese tissue to the surface with a 6% liquid solution of carboxymethylcellulose. After this had thoroughly dried, two layers of gauze were applied over the Japanese tissue layers. Then



Fig. 9. Restorer Gabriela Chmiel and anthropologist Karol Piasecki at work, St. Damianos looks on (Photo B. Żurawski)

the inscriptions were carefully cut from the wall by means of a long thin saw and thin cutting string. The fragments were placed face down in one of the chapels and covered with sand. The reverse side of the fragments will be strengthened in the coming season, before being attached to walls in the roofed passage behind the apses where an *ad hoc* gallery is to be created.

The whole interior of the Upper Church was exposed in the 2003 season. A thorough investigation of the foundations that had begun in 2002 was completed and a reconstruction schedule was designed. In fulfillment of Phase 1 of this project, a partial reconstruction of walls and roofing (some 200 m² in all) with corrugated iron was accomplished. The entire eastern and southern parts of the building were roofed, after their walls had been raised to a height necessary to provide a slope to direct rainwater to the west. In order to stabilize the building, which had suffered at least two building disasters due to wall subsidence, the walls have been overbuilt and braced with a welded frame constructed of iron pipes. This frame prevents the walls from separating, a threat most apparent for the northern wall.

The graffiti and murals that were not roofed, mostly the latest, very damaged and fragmentarily preserved compositions, were coated with polyester film and protected with red brick walls bonded with mud, either vertically against the paintings or a short distance away. It must be stressed at this point that the murals and inscriptions exposed in 2003 have all been documented, copied, photographed using a variety of techniques, and their condition carefully described.

Further work is planned in later seasons, to roof the entire building and to create a local museum at Banganarti.