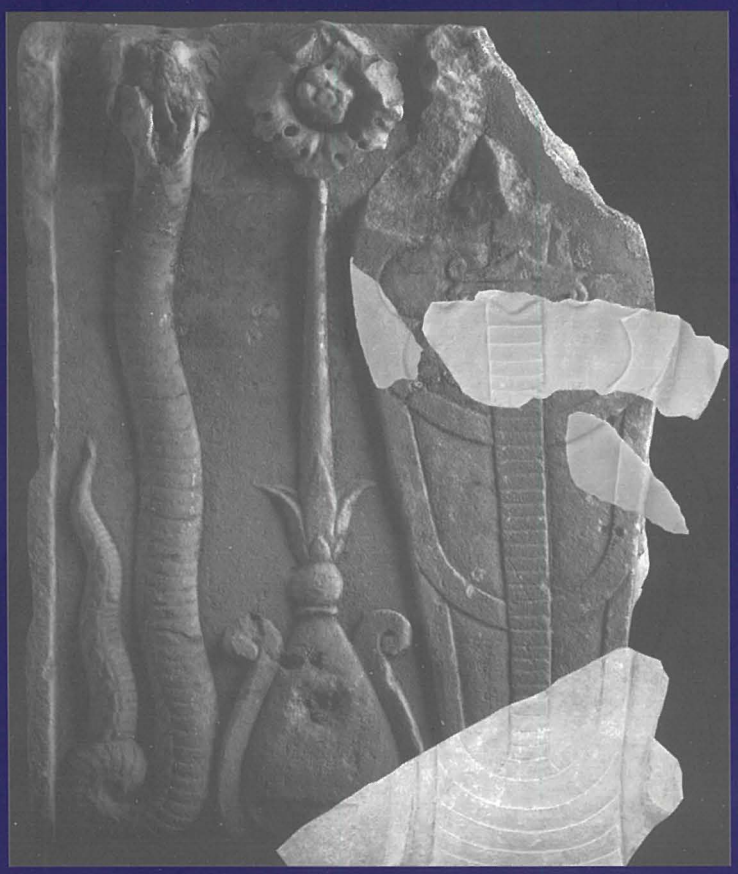
MALTA ARCHAEOLOGICAL REVIEW



THE JOURNAL OF THE ARCHAEOLOGICAL SOCIETY, MALTA ISSUE 8, 2006-2007

THE ARCHAEOLOGICAL SOCIETY

The Archaeological Society is formed of members with a genuine interest in archaeology in general and that of the Maltese Islands in particular. Anyone with such an interest, whether a professional archaeologist or not, is welcome to join. The Society is concerned with all matters pertaining to archaeology. One of its principal objectives is to promote and enhance the study of archaeology at all levels. It is not a pressure group. It believes that it is only when there is a sufficient interest in, and understanding of, our archaeological heritage among the public at large, that this priceless heritage can be protected and prese

The Society organises s site visits both in the Maltese Islands It endeavours to maintain close relatio Heritage and also the Department of Cla their activities. It also maintains a netwo broad.

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MALTA ARCHAEOLOGICAL REVIEW

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From the President

Anthony Bonanno

There has been some discussion as to who should sign the President's Address for this issue, the president who was in office in the years covered by the issue, or the current one. The final decision of the Society committee was for the latter. As the new President of the Society since May 2010 I am, therefore, honoured and pleased to present you with the 2006-2007 issue of the Society's journal.

I take this opportunity to put on record my words of thanks and appreciation, delivered at the AGM of May 2010, to Patricia Camilleri for her two terms of office as President, during which the Society grew from strength to strength and took on board several novel ideas. One of these was the organisation in October 2006 of an EU Grundtvig course for educators entitled *Malta: an archaeological treasure house in an island context,* which attracted a number of participants from different European countries.

As promised in the last editorial of the MAR, this is the first peer-reviewed edition. The Editorial Board is convinced that this will raise the profile of the journal which is one of the only venues for scholarly writing on archaeology available in Malta. I thank the Editorial Board for bringing this new policy to fruition. I am sure that their efforts will be appreciated by the contributors themselves, by our regular readers and by the scholarly world in general.

This 8th edition has been a long time in the making and we do hope that the next edition, for which we have already received contributions, will take much less time to produce. For this purpose, may I urge whoever has an article on a subject that falls within the remit and ethos of the MAR to submit it in accordance with the Authors' guidelines and send it without delay to our Editor.

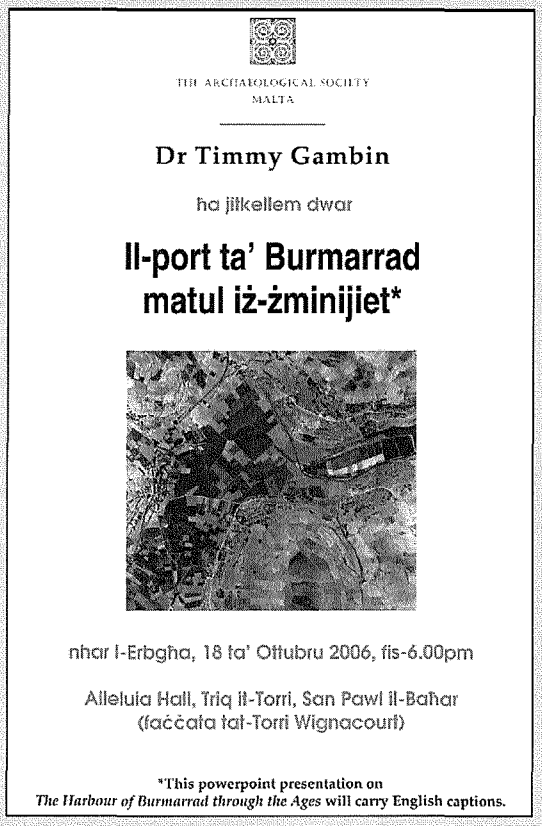
We may have been slow to publish the MAR but our lecture and site visits have continued to be regular and very popular as the list in this edition, with accompanying photos and images, will testify.

We are now trying to increase the membership of the Society and particularly the younger members who will be the future leaders of the ASM and we are all very pleased to see new faces amongst our committee members – including relatively young ones!

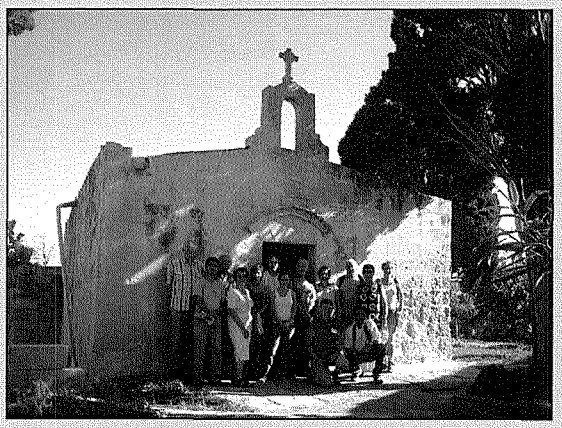
May 2011

ARCHAEOLOGICAL SOCIETY MALTA

Society Activities



18 October 2006



25 October 2006 (Grundtvig course)

26 October 2006 (Grundtvig course)

2006

LECTURES

Wednesday 11 January
On site lecture by a museum curator at the National Museum of Archaeology, Valletta
A Museum artefact 360

Wednesday 8 February
Lecture by Mgr George Mifsud Montanaro
North Africa in Later Antiquity

Wednesday 8 March
Lecture by Mr Peter Donath
The history of guiding in Malta

Wednesday 10 May
Lecture by Ms Patricia Camilleri
War in Malta's museums

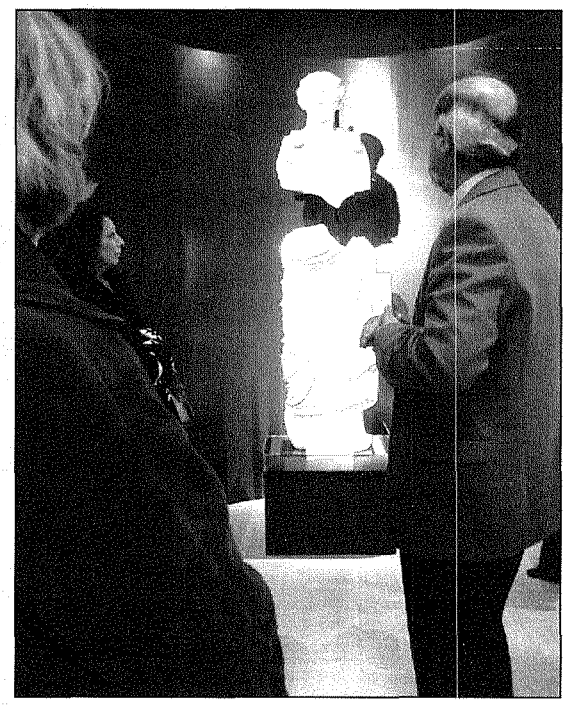
Wednesday 18 October at 6 pm
Lecture by Dr Timmy Gambin, maritime archaeologist
Il-Port ta' Burmarrad matul iż-żminijiet.

Wednesday 15 November
Lecture by Professor Anthony Frendo, Head of the Department of Arabic and Near Eastern Studies, University of Malta.
An archaeological and philological solution for the location of the house of Rahab the prostitute (Joshua 2:15)

25 November 2006

24 February 2007

25 November 2006



25 February 2006

SITE VISITS

Saturday 28 January
Visit to the Franciscan Friary in Republic Street, Valletta, led by Fr Eugene P. Teuma OFM Conv.

Saturday 25 February
Visit to the Domus Romana, led by Prof. Anthony Bonanno.

Saturday 25 March
Visit to the Palace Armoury, Valletta, led by Mr Michael Stroud, Collection and Site Executive at the Armoury.

Saturday 13 May
Visit to Wied Garnaw, led by Ms Anne Zammit, journalist and environmentalist.

Saturday 6 May
Annual General Meeting at 10 am

Saturday 28 October
Tour around the Grand Harbour, as part of our Grundtvig Course in Archaeology, in a traditional Luzzu boat with Dr Timmy Gambin.

Saturday 25 November
A walk through the plain of Burmarrad, led by Dr Timmy Gambin.

2007

LECTURES

Wednesday 17 January
Lecture by Ms Katrin Fenech
Human impact on the Maltese environment from the Neolithic to the 15th century AD, inferred from a scientific study of sediments from Marsa, Malta.

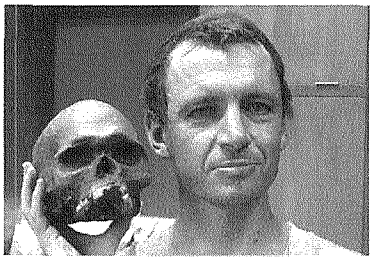
25 February 2006

THE ARCHAEOLOGICAL SOCIETY
MALTA

Dr Chris Hunt
Reader, Queen's University, Belfast

will be delivering a lecture entitled

NIAH CAVE:
EVIDENCE FOR THE EARLIEST MODERN HUMANS IN THE FAR EAST



at 18.00 on Wednesday, 7th November 2007

Palazzo De La Salle
Malta Society of Arts, Manufactures and Commerce,
219 Republic Street, Valletta

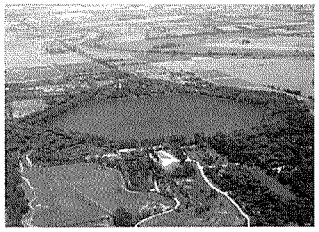
7 November 2007

THE ARCHAEOLOGICAL SOCIETY MALTA
with the kind support of
Middlesea Insurance p.l.c.

presents a lecture by

Professor Simon Keay
University of Southampton/British School at Rome

RECENT WORK AT THE *PORTUS ROMAE*: THE PORT OF IMPERIAL ROME



at 18.00 on Tuesday, 27th November 2007

Conference Hall,
Middle Sea House
The Granaries, Floriana

27 November 2007

Wednesday 21 February
Lecture by Professor Robert Ghirlando of the Department of Manufacturing Engineering, Faculty of Engineering, University of Malta
The wealth of Malta's industrial heritage – a plea for its conservation.

Wednesday 21 March
Lecture by Mr Godwin Vella of Heritage Malta, Manager Gozo Sites
Man-land relations in Gozo.

Wednesday 18 April
Lecture by Ms Maria Elena Zammit, curator, National Museum of Archaeology
A field-walking survey of Baħrija.

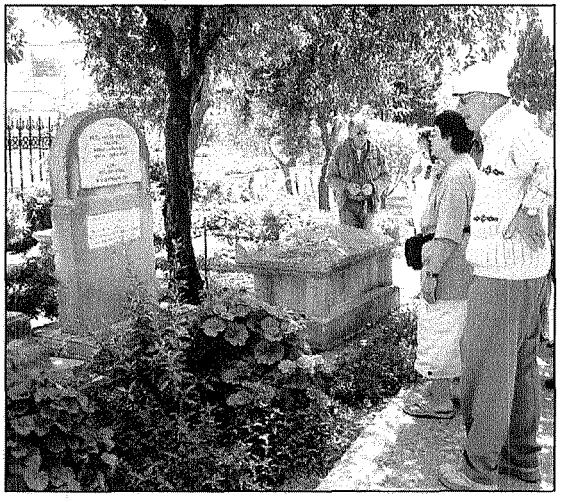
Wednesday 16 May
Lecture by Mr Keith Buhagiar, teacher of History
Baħrija: its archaeological significance, followed by AGM

Wednesday 17 October
Lecture by Mr Charles Mifsud
Bones in archaeology

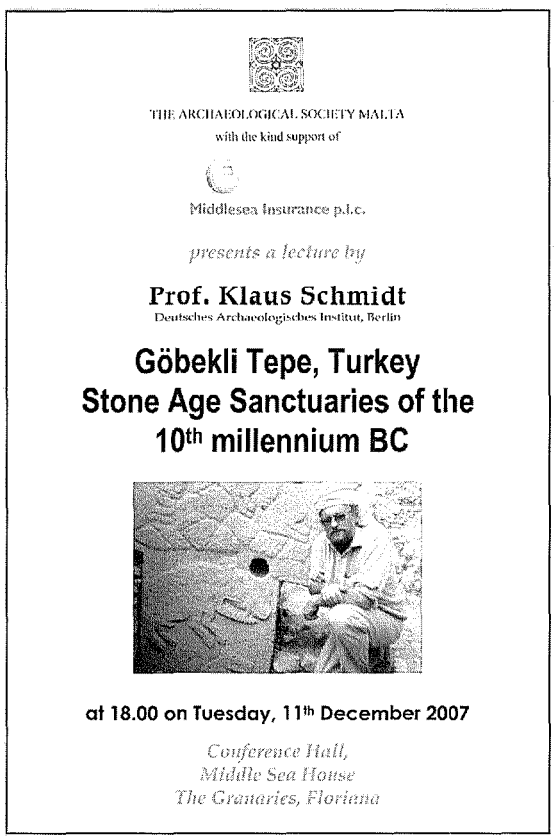
Wednesday 7 November
Lecture by Dr Chris Hunt
Niah Cave: evidence for the earliest modern humans in the Far East

Tuesday 27 November
Lecture by Prof. Simon Keay University of Southampton/British School at Rome
Recent work at the Portus Romae: the port of Imperial Rome

27 January 2007



28 April 2007



11 December 2007

Tuesday 11 December
Lecture by Prof. Klaus Schmidt
Deutsches Archäologisches Institut, Berlin
Göbekli Tepe, Turkey: Stone Age sanctuaries of the 10th millennium BC

SITE VISITS

Saturday 27 January
Visit to St Francis Friary, the Marian Sanctuary and Hospital, Rabat, led by Fr Eugene Teuma OFM Conv.

Saturday 24 February
Visit to Fort Mosta, by kind permission of the Commander, Armed Forces Malta, led by Dr Stephen C. Spiteri.

Saturday 24 March
Visit to il-Qolla tal-Bidnija, led by Dr Timmy Gambin.

Saturday 28 April
Visit to the Msida Bastion Garden of Rest, led by Dr Andy Welsh.

Saturday 26 May
Visit to Baħrija, led by Mr Keith Buhagiar.

Saturday 1 December
Visit to Baħrija, led by Mr Keith Buhagiar.

Cremation burials in early Bronze Age Malta: evidence from Tarxien and Ġgantija

George Azzopardi

A common way of disposing of the dead across the entire Mediterranean (and even beyond) from prehistoric down to late Roman times was to bury the corpse – or the burnt remains, if cremated – in a built chamber or in a floor cavity and then cover it up under a mound of stones and/or earth, usually encircled by a kerb or retaining stone wall. Sizes varied and larger ones might even have a passage providing access to the burial chamber. In many cases, these burial mounds or tumuli used to be circular, having an overall appearance of a cone, hut, or hill.

It is worth investigating whether the resemblance of burial mounds to huts was intentional or merely accidental (something which I do not intend to do in this contribution). If it was intentional, was it meant to convey an idea of the tomb as a house of the dead? For instance, Richard Bradley supposes that cairns were regarded as houses of the dead.[1] Cited by Robert Layton and Peter J. Ucko,[2] Colin Richards argues that as the living resided in houses where the central hearth contained the life-maintaining fire, the dead resided in tombs whose perpetual darkness signified their role as residences of the dead. Richards continues to elaborate on the late Neolithic passage grave of Maeshowe in west Mainland, Orkney, in northern Britain by describing it as a place being conceptually below but physically above ground, thus placing the dead in an ambiguous position located between two worlds. He sustains his argument first by highlighting the resemblance of the mound to the surrounding topography where a number of similar-looking natural knolls are to be found. Leading on from this point, he further argues that the physical constitution of the Maeshowe mound mirrors that of the earth itself. As it is constructed of stone but is then covered by a mound of natural clay, the chamber resembles the geological formation of the earth whose bed-rock is covered by natural till. According to Richards, this structure to house the dead might have been intended to be visible as a monument, yet, at the same time, it positioned the dead below the surface of the world inhabited by humans.[3] Richards' argument in respect of Maeshowe's burial mound may, perhaps, also be applied to other similar burials. Quite plausibly too, Chris Scarre suggests that the low rounded form of the artificial burial mounds may replicate the shape of the natural hills in which previous burials took place, thus manifesting a shift from a tradition of burial in natural hills to a tradition of artificial burial mounds.[4] This theory may also complement Leif Sahlqvist's suggestion that a barrow can be viewed as a sacred mountain in miniature and/or a metaphor for a sacred mountain.[5] Nonetheless, other forms of burial different from the above were also encountered.[6]

In this contribution, I shall be dealing with cremation burials on the Maltese islands in the early Bronze Age (Tarxien Cemetery phase: 2400-1500 B.C.), focusing, towards the end, on a type of clay figurine associated – as yet, exclusively – with this early Bronze Age practice. Some new interpretations are attempted in respect of both the burials

themselves as well as the mentioned figurines. To this end, I shall be resorting to evidence from two temple sites: those at Tarxien and Ġgantija, with the richer corpus of evidence coming from the former.[7] To begin with, I derive insights for my interpretations by initially resorting to the earliest literary evidence we have and which concerns the Aegean region where it comes from. But I also draw on comparisons with some other sites and/or materials outside the Maltese islands. It is mainly this comparative approach that, for the greater part, provides the backbone of my arguments.

Literary evidence

The earliest literary description we seem to have of cremation followed by burial under mounds or barrows is provided by Homer. Though he probably lived and wrote in the 9th or 8th century BC, Homer displays good knowledge of the funerary practices of Bronze Age Greece with which he vividly colours his narrative.

The narratives which give us the relative descriptions are to be found in his *Iliad*. The first concerns the death and burial of Patroklos. We are first given a brief account of the funeral preparations in Book XVIII: after having been washed and treated with olive oil, Patroklos' corpse was laid on a bier and covered with a thin light cloth from head to feet, over which a white linen shroud was finally laid.[8] Book XXIII gives us a fuller and more detailed description of what went on in the funeral: wood was heaped up and a pyre was built, on top of which the corpse was laid. Fat sheep and oxen were skinned, dressed, and made ready for the pyre. The corpse was covered from head to feet with fat extracted from the dead animals, while their flayed carcasses were heaped around the corpse. Twelve slain Trojans and more animals were cast upon the pyre, along with jars of honey, oil, and unguents which were leaned against the bier, and all was set on fire.[9]

The next day, upon instructions of Achilles, the fire was quenched with gleaming wine, the bones of Patroklos were singled out (as he lay in the middle of the pyre) from the rest of the bones and gathered in double-layered fat inside a golden urn covered with a linen shroud. Then, the circle of the barrow was marked off, the stone revetments set around the pyre, and a mound of earth was immediately heaped up.[10]

Finally, towards the end of the *Iliad*, we are given another account: that of Hector's burial following his death in retaliation for the death of Patroklos. Book XXIV gives us a similar, albeit shorter, description of Hector's funeral: great heaps of wood were gathered, Hector's corpse was laid on top of the high pyre and set on fire. On the following day, the fire was quenched with wine and his bones were gathered, wrapped in soft purple cloths, and placed in a golden urn. The urn with his bones was then laid in a hollow grave, covered over with large stones closely set together, and immediately after by a barrow.[11]

The cremation cemetery at Tarxien

Like much of the rest of the Mediterranean, the Maltese islands may not have been alien to this type of funerary scenario, nor are they expected to have been. Furthermore, the possible existence of this kind of burial in Malta and Gozo has never, to my knowledge, been seriously explored or possibly even thought of.

The first season of Temi Zammit's excavations at Tarxien in 1915 was to provide us with the first and, as yet, the most substantial evidence of Bronze Age cremation burials.[12] Just about 1.20 m below the field surface, Temi Zammit came across a deposit c. 30 cm thick consisting of dark soil and ashes. It contained cremated bones, burnt fabrics, pottery, and figurine fragments amongst other material. A large number of *in situ* crushed jars were also found. On the basis of their relation to the cremated bones and other material, they appeared to have been urns holding the cremated remains and accompanying grave goods. In fact, in addition to bones and pottery, they contained carbonised seeds and plant remains, bronze implements/weapons, personal ornaments, and lumps of both fine and coarse tissues from burnt dyed fabrics with which the cremated bodies were evidently dressed or wrapped.

This 'cemetery'/cremation deposit, which covered a relatively small part of the area occupied by the whole Neolithic temple complex (in fact, it was only found within the Tarxien South temple), rested on a fine sandy soil deposit devoid of stones. This last deposit itself lay over the temple floor and over any stone blocks and other debris from the temple ruins. According to Evans, it may have been an artificial fill intended to produce a level floor for the 'cemetery'. Moreover, the area covered by the 'cemetery'/cremation deposit seems to have been roughly circular, with a diameter of about 12.2 m.

From the outset, it appears that the stone enclosures of the already ruined Tarxien temples quite conveniently accommodated the cremation burials of the early Bronze Age people. It is quite difficult to ascertain whether the cremation of the corpses was undertaken on the site of the 'cemetery' itself. The amount of ash in the 'cemetery'/cremation deposit and the evidence of burning on the stones in and around the area convinced Zammit that it was. But the burning does not seem to have been restricted to the 'cemetery' area. It was evident also in other areas which must have had nothing to do with the 'cemetery'. Therefore, it is likewise possible that, while the cremation took place elsewhere, the cremated bones along with the other grave goods were placed in urns and buried in the 'cemetery' area. It is also unclear whether any mounds (or, perhaps, a communal mound?) were raised above the burials. The roughly circular form of the 'cemetery' area may be indicative, but any remaining traces might have been cleared away as a result of agricultural activity, to the extent that Zammit found no such traces at all. On the other hand, the stone enclosures of the earlier temple structure might have been found to accommodate the burials so well that no mound or mounds were needed. This may explain, in this case, the choice of the site for the 'cemetery'.[13]

The ashy deposit at Ġgantija

Less obvious, but quite indicative, is an interesting piece of evidence from Ġgantija. In 1936, the Museums Department resumed investigative works at this site. The clearance of an amount of stones and earth in front of the north temple entrance exposed an undisturbed deposit of 'dark grey earth and ashes'. This deposit contained many sherds described as 'neolithic', flint and obsidian flakes, stone objects, bone points and, very interestingly, small fragments of carbonised matter. The deposit extended along the entire length of both temple facades, apparently reaching the western wall too.[14]

More recently, in 1999, a discoid figurine fragment was discovered by Mr John Bajada while on duty as a Museum Officer at Ġgantija (Fig. 2). This important fragment was found embedded yet exposed in the same grey ashy layer in front of the North Temple facade and to the right. On close inspection and documentation of the fragment's find-spot and associated context, the layer was found to contain not only pottery sherds but also pieces of bone (Fig. 1).[15]

To a lesser extent and not quite clearly, this situation at Ġgantija somewhat mirrors that at Tarxien, the main difference being that, at Ġgantija, what appears to be a cremation deposit is situated outside and not within the Neolithic temple compound as at Tarxien. However, the picture at Ġgantija is enhanced and enlightened by a further piece of evidence provided by the 18th century French traveller Jean Houel. In his published plan of the Ġgantija temples, Houel depicts a circular yet smaller structure next to the north temple facade and to the right (Plate 1).[16] Coupled with the presence of the grey ashy deposit – even if this is reported to have extended further to the South Temple facade and west wall too – and its contents, this evidence leads me to seriously consider the one-time presence there of a cremation burial under a mound. In this respect, what Jean Houel saw and documented pictorially when visiting Ġgantija might have been the remains of the mound, which is pretty well outlined (even if schematically) in the plan he produced. A slight heap is still visible on this spot to this day and to my knowledge it has never been investigated. On the other hand, the grey ashy deposit with its contents might be spilt material from the mound itself as a result of its decay.

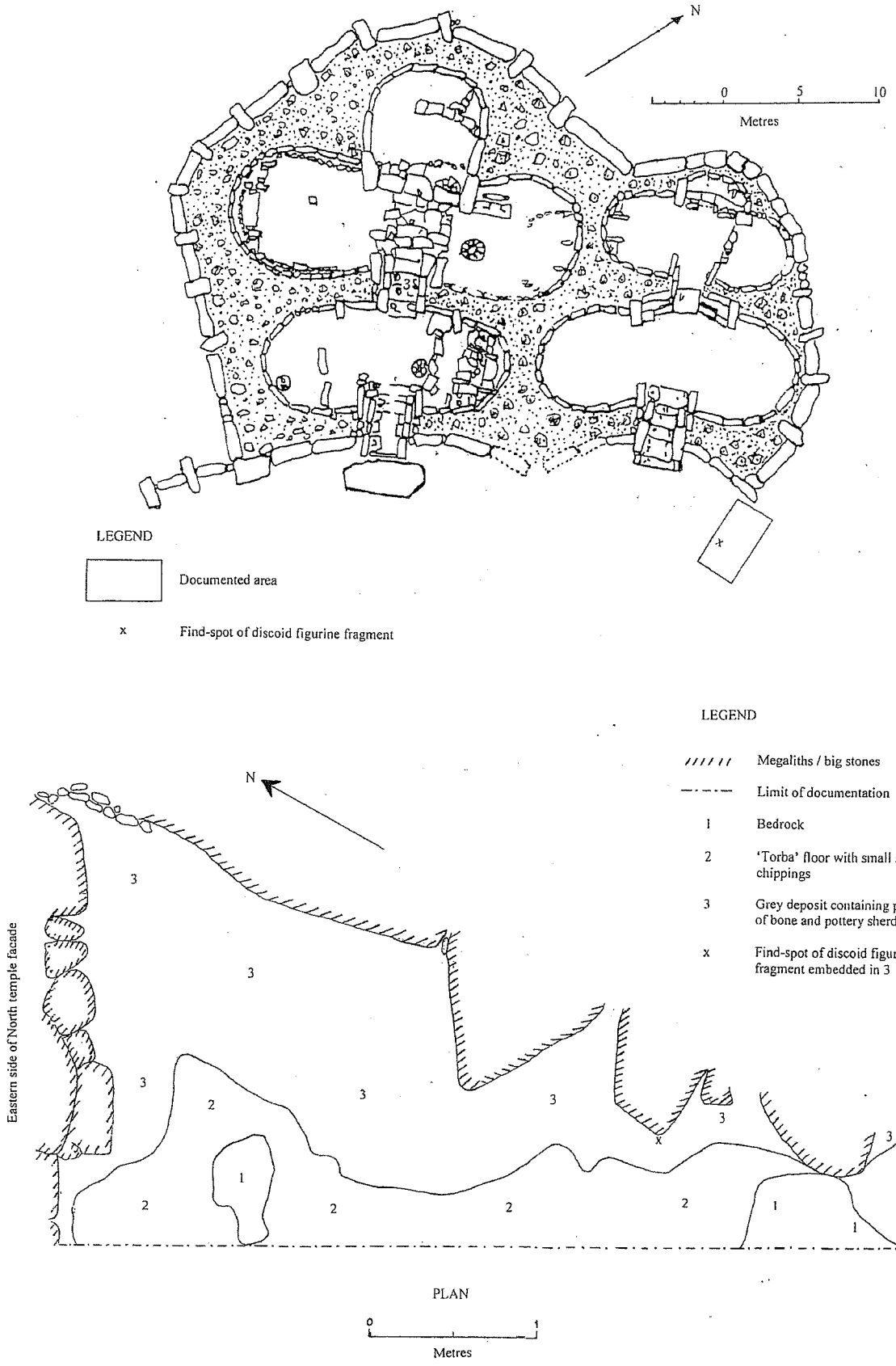


Fig. 1. Plan of Ġgantija temple complex with documented area on the right (top) and detailed plan of the documented area showing the discoid figurine fragment's find-spot (marked 'x') and associated context (bottom). (Drawing: John Bajada and George Azzopardi)

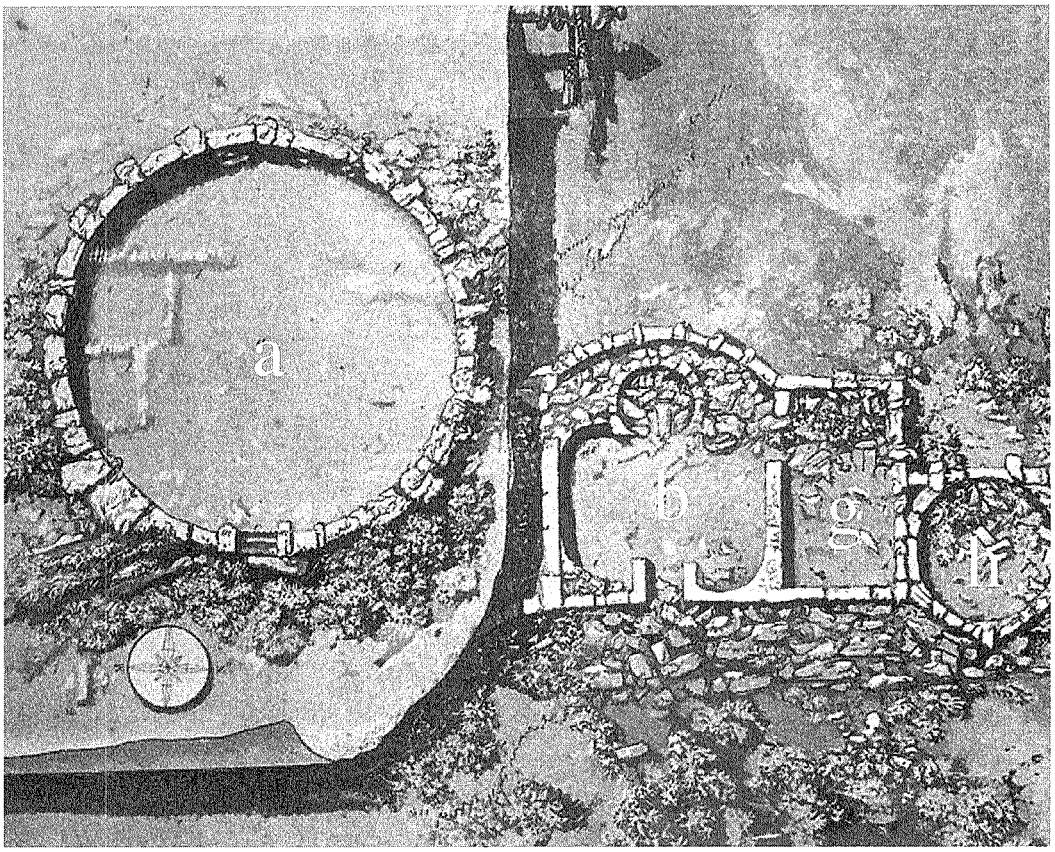


Plate 1. Plate CCLI (bottom) in Jean Houel's 'Voyage Pittoresque des isles de Sicile, de Lipari et de Malte', IV, (Paris. 1787). The circular structure (a) on the left is the Xagħra Stone Circle while the complex structure (b and g) on the right is Ġgantija. Another circular, yet smaller, structure (h) – possibly, the remains of an early Bronze Age cremation burial mound – on the extreme right stands next to the facade of the smaller northern temple.

Discussion

But one may ask: why build mounds or barrows next to or within an earlier temple structure (as might have been the case at Tarxien)? Monuments could be adapted or altered to suit new demands or changing circumstances. Thus, while the physical monuments themselves tend to endure, the ideas and symbolism associated with them may change as the monuments get appropriated by successive generations who might see them from different perspectives.[17] Monuments (or monumental enclosures) originally used for public ceremonies could, therefore, be appropriated by new people for the burial of their dead.[18] During the early Bronze Age (end of 3rd–beginning of 2nd millennium BC) in Britain, for example, many burials were located near (not within) the large communal monuments (as seems to be the case at Ġgantija) and finally covered by earthwork mounds.[19] In fact, a major feature of the 2nd millennium BC in Western and Northern Europe was the location of burial mounds on sites with a long tradition of ritual activity extending back into the Neolithic period (as seems evident at Ġgantija and, perhaps, at Tarxien?). This indicates a tendency whereby newer monuments cluster around much older ones.[20]

Referring to developments of earlier Neolithic enclosures in Britain, Mark Edmonds plausibly suggests that building barrows next to or on the perimeter of an enclosure (or, in my view, any other monument, for the sake of this argument) meant inserting 'new people into the stories and associations of the place'. From a phenomenological perspective, he adds that the burial of individuals under such mounds (next to or on the perimeter of an enclosure) asserted a claim to the enclosure/ monument and all that it stood for by the people responsible for the burial.[21]

In a similar perspective, Richard Bradley suggests that the appropriation of certain monuments by particular people marks their close identification with these places.[22] If so, this may suggest that by burying their dead – presumably, their ancestors – next to a temple (as in the case of Ġgantija), the Tarxien Cemetery people were likewise appropriating, identifying themselves with, and laying claim to the earlier temple and to all that the same temple stood for. And as with the monument

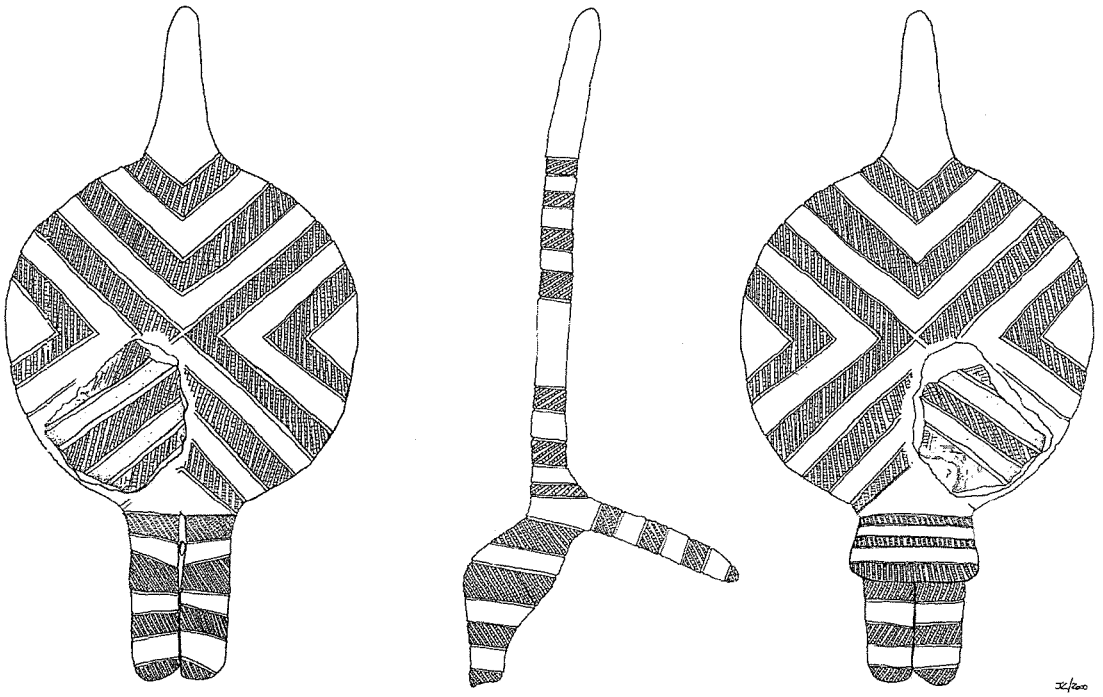


Fig. 2. Drawing of a discoid figurine found in the 'cemetery'/cremation deposit at Tarxien. The drawing also shows the Ġgantija discoid figurine fragment superimposed on the Tarxien figurine. (Drawing: Joseph Calleja)

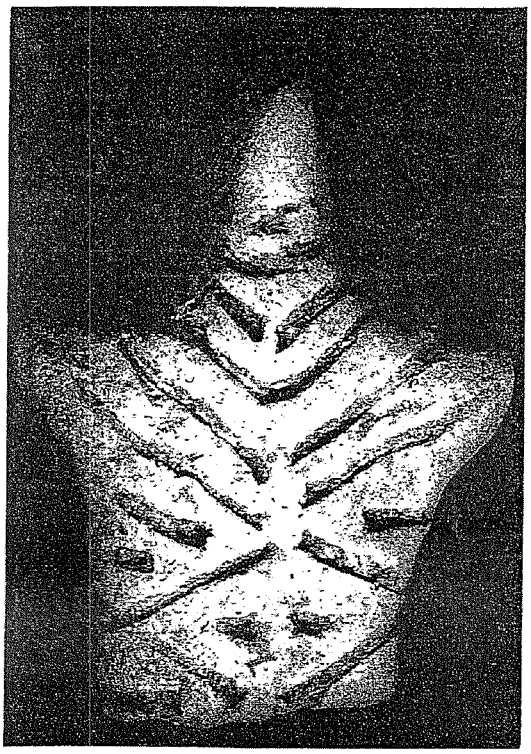
at Flagstones in Dorset (Britain) where, with time, it also became a focus for burial grounds,[23] the proximity of the dead to the earlier temples at both Tarxien and Ġgantija might have suggested a 'genealogical depth' to the ties binding the Tarxien Cemetery people to these temples and all that they represented. Sustaining such a link, the Tarxien Cemetery people could perhaps better manage the ties between earth (themselves) and sky (their gods/ancestors) to their own advantage.

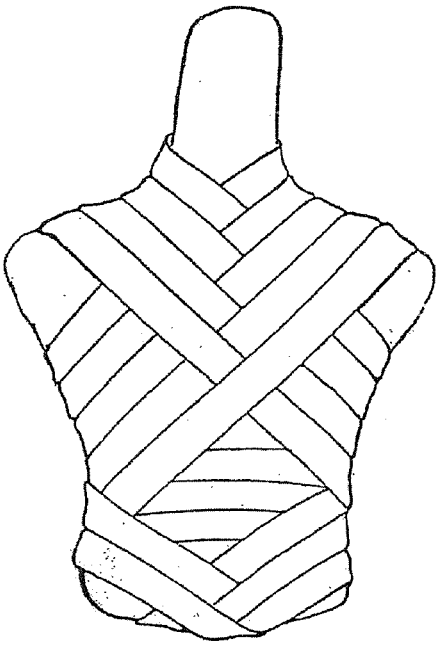
Therefore, the re-use of the previously existing monuments of Tarxien and Ġgantija has probably involved a change in their meaning while maintaining their sacred character. This re-use might have reflected a new socio-ideological order based on the appropriation of the past. Therefore, the re-use of the temples involved discontinuity but, to a certain degree, permanence too.

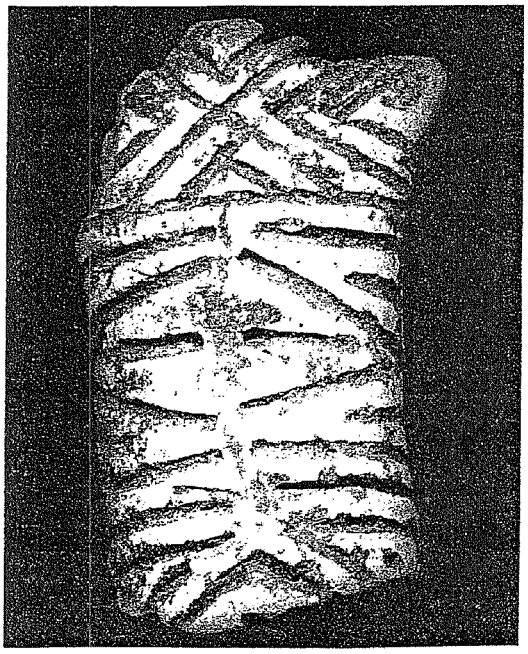
The Tarxien cemetery figurines

A number of clay discoid figurine fragments – some of which could be reconstructed into complete figurines – were also found among the contents of the cinerary urns in the 'cemetery'/ cremation deposit at Tarxien. When complete, the figurines consisted of a relatively large flat disk, incised on both sides with an elaborate linear 'design'. The disk stood on a pair of legs balanced by an elongated projection on the rear. The figurines lacked arms. They were also faceless while their tapering heads were plain and undecorated (Fig. 2).[24]

Ceramic figurines specific to the prehistoric Cucuteni-Tripolye culture (Romania) but with a similar 'decorative' pattern were recently studied by Dragos Gheorghiu (Plate 2). Like the ones at the Tarxien 'cemetery', these figurines were, in the main, fragmented and related to incomplete or fragmented skeletal material. At the Tarxien 'cemetery', the skeletal remains were cremated. At Ġgantija too, the figurine fragment was found in association with skeletal fragments within the grey ashy deposit. In all instances, fragmentation of both figurines and skeletal material might have been deliberate and there might have been a correspondence in meaning between the fragmented figurines and the fragmented or incomplete skeletal material.[25] As the fragments of the broken figurines at the Tarxien 'cemetery' were







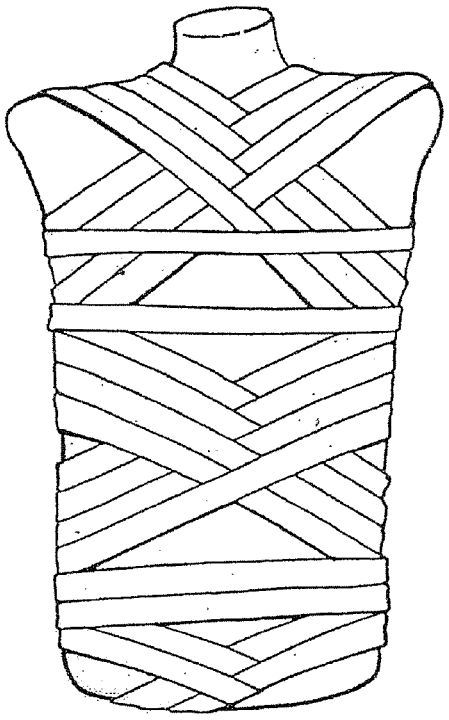


Plate 2. Ceramic figurines of the prehistoric Cucuteni-Tripolye culture (Romania) with their chevron-like 'decoration' (left) and the experimental modelling carried out by Dragos Gheorghiu suggesting representation of a funerary wrapping (right). (After Gheorghiu 2001, 77, Figs 2 and 3; 78, Figs 4 and 5). Note the striking similarity of the 'decorative' pattern on both these figurines and our discoid ones from Tarxien and Ġgantija on Fig. 2.

found together (a characteristic attributed to the 'killing' of artefacts), could it be that these figurines were deliberately broken or ritually 'killed' prior to their deposition in the urns as part of a mortuary ritual practice, as shown by examples from Minoan Crete?[26] Could this have taken place so that the ritually fragmented figurines would correspond to the bodies fragmented through cremation?

Through experimental modelling, Gheorghiu sought to demonstrate that the chevron-like 'decoration' incised on some of his figurines could possibly be a representation of an interwoven funerary wrapping of the corpse and, thus, these figurines could represent deceased individuals or ancestors. The complete wrapping of the body is further highlighted by the figurines' absence of arms and by their cone-shaped legs. On the other hand, the absence of any decoration on their heads – typical of the ancestor figurines in Cucuteni-Tripolye culture – might suggest that the heads of the deceased were not wrapped like the rest of the body. Taken together with the absence of any decoration on their heads, the facelessness of the figurines would seem to point towards the possibility of the head of the deceased having been covered instead with a veil. The wrapping of the corpse (and the covering of the head with a veil) is corroborated by osteological data. The total wrapping of the deceased would symbolise the 'ancestors' on the one hand, and 'protection' on the other.[27]

In terms of 'decorative' pattern, of the absence of any arms and face, the modelling of the head and, consequently, representation, the above figurines seem to provide fairly good parallels to the ones from the Tarxien 'cemetery' and the one from Ġgantija represented by the recently discovered fragment. Thus, like the 'chevron-decoration' on the Cucuteni-Tripolye ceramic figurines, the similar 'decorative' pattern on the Tarxien and Ġgantija figurines might have likewise represented interwoven funerary wrapping of the body.[28] Therefore, our figurines from Tarxien and Ġgantija might have been representations of completely wrapped deceased persons or ancestors. The burnt fabrics found at Tarxien and, possibly, the carbonised matter from Ġgantija (though the true nature of the latter is not made known) seem to lend further support to this hypothesis. And as the Tarxien and Ġgantija figurines are likewise faceless and their tapering heads lack any decoration, the heads of the deceased individuals or ancestors they presumably represented may also have been covered with a veil.

The breaking of the presumed ancestors' figurines might have been seen as a 'consumption' of the figurines similar to the 'consumption' of the bodies through cremation (in the case of Tarxien and, apparently, also of Ġgantija) or through skeletal dismemberment (in the case of Cucuteni-Tripolye). This would denote a sense of recycling the past or the powers associated with the past. This presumed practice might, therefore, infer a belief in some sort of 'power' residing in the ancestors' substance which might then explain the special protection afforded to the bodies of the deceased by wrapping them. Even any decoration reproducing the interweaving of bands (like that seen on the above-mentioned figurines) or of plants or mats could have been a symbol of protection not least for the ancestors.[29]

The dead individuals or ancestors which the figurines from the cinerary urns (at Tarxien) would seem to represent might have been those whose cremated bones and ashes were held inside the same urns. This hypothesis is lent weight by the fact that both figurines and cremated remains shared the same urns. Assuming that, like those of Cucuteni-Tripolye, our figurines represented deceased individuals or ancestors, they might have been simultaneously an image of 'the world of the living' and of 'the world of the dead', the binary symbolic structure found in every traditional society.[30]

Notes

1 R. Bradley, 'The land, the sky and the Scottish stone circle', in C. Scarre, (ed.), *Monuments and Landscape in Atlantic Europe: Perception and Society during the Neolithic and Early Bronze Age*, (London. Routledge, 2002), 130.
2 R. Layton and P.J. Ucko, 'Introduction: gazing on the landscape and encountering the environment', in P.J. Ucko and R. Layton, (eds.), *The Archaeology and Anthropology of Landscape: Shaping your landscape*, (London. Routledge, 1999), 14.
3 Richards C., 'Monuments as Landscape: Creating the Centre of the World in Late Neolithic Orkney', *World Archaeology*, vol. 28 no. 2, (1996), 202.
4 C. Scarre, 'Introduction: situating monuments. The dialogue between built form and landform in Atlantic Europe' in Scarre, 9.
5 Sahlqvist L., 'Territorial Behaviour and Communication in a Ritual Landscape', *Geografiska Annaler: Series B, Human Geography*, vol. 83 no. 2, (2001), 87.
6 For other forms (even in evident resemblance to houses), see: R. Bradley, *The Significance of Monuments: On the shaping of human experience in Neolithic and Bronze Age Europe*, (London. Routledge, 1998), 15-19, 56-65. See also: C. Tilley, 'Art, Architecture, Landscape', in B. Bender, (ed.), *Landscape: Politics and Perspectives*, (Oxford. Berg Publishers, 1993), 57 (Fig. 2.2).
7 What appears to have been a cremation burial of the Tarxien Cemetery phase was found at Kappara Hill, Msierah in 1964 while clearing a new building site. But the site was disturbed to such an extent, that any remaining evidence is deemed inadequate (see: *Museum Annual Report* 1964, 3, pl. 1).
8 Homer, *Iliad* XVIII, 408-412.
9 Ibid., XXIII, 187-208.
10 Ibid., 270-295.
11 Ibid., XXIV, 921-938.
12 Making reference to Zammit's field-notebook, J.D. Evans mentions the presence of early Bronze Age (Tarxien Cemetery phase) material in grey, ashy soil at Tal-Qadi temple ruins on the way to Salina Bay, suggesting a later use of the building in the Bronze Age, possibly to house a cremation burial like those at Tarxien, even if no mention of any cremated bone is made by Zammit (see: J.D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, (London. The Athlone Press, 1971), 41-43). But in the absence of any further details, the picture is less clear and reliable than that at Tarxien. No mention of the grey, ashy deposit is made in the Tal-Qadi excavation report carried in *Museum Annual Report* 1927-28, II-III.
13 T. Zammit, *Annual Report of the Valletta Museum: 1916*, (Malta. Government Printing Office, 1917), 1, 3-7 and Evans, 149-151.
14 *Museum Annual Report* 1936-37, VI-IX, and Evans, 173.
15 Author's personal fieldnotes.
16 J. Houel, *Voyage Pittoresque des Isles de Sicile, de Lipari et de Malte*, IV, (Paris. 1787), 79, pl. CCLI b,g,h (bottom).
17 W. O'Brien, 'Megaliths in a mythologised landscape. South-west Ireland in the Iron Age' in Scarre, 158
18 As happened, for example, in Britain (see: Bradley (2002), 131.
19 J.C. Barrett, 'The Mythical Landscapes of the British Iron Age', in W. Ashmore and A. Bernard Knapp, (eds.), *Archaeologies of Landscape: Contemporary Perspectives*, (Oxford. Blackwell Publishers Ltd, 1999), 253-254.
20 R. Bradley, *The Passage of Arms*, 2nd edn., (Oxford and Oakville. Oxbow Books, 1998), 130.
21 M. Edmonds, *Ancestral Geographies of the Neolithic: Landscape, monuments and memory*, (London. Routledge, 1999), 141.
22 Bradley, *The Significance of Monuments*,18.
23 Edmonds, 148.
24 Zammit, 5, and Evans, 160-162, pls. 56-58.
25 D. Gheorghiu, 'The Cult of Ancestors in the East European Chalcolithic. A Holographic Approach', in P.F. Biehl and F. Bertemes with H. Meller, (eds.), *The Archaeology of Cult and Religion*, (Budapest. Archaeolingua, 2001), 76-79 (including Figs.1-6).
26 J. Chapman, 'Object Fragmentation in the Neolithic and Copper Age of Southeast Europe' in Biehl and Bertemes with Meller, 90.
27 Gheorghiu, 76-79 (including Figs.1-6).
28 The 'decorative' pattern on our examples generally runs diagonally and, in fewer instances, perpendicularly. However, the wrapping bands could be 'interwoven' both diagonally and perpendicularly.
29 Gheorghiu, 83.
30 Ibid., 76.

Roman architectural practice and the funding of public buildings

Lino Bianco

The industry related to the art and science of building, with its emergence at the onset of the Neolithic revolution, is effectively the fixed investment of a nation. It is a main source of employment for many workers. Such activities were a focal point in the Ancient Roman building industry. The Romans were well aware of the main difference between building and other manufacturing industries, namely, that the resultant product is assembled on site where it is to be used. They developed an awareness associated with the financial, organizational, and managerial difficulties involved. The following three issues will be considered in this article: the relevance of Roman philosophy of architectural education and its influence on politicians; how free was *free* labour and why?; and finally, to what extent were public buildings publicly funded? These issues were addressed by considering (1) the setting for Roman architectural practice, (2) architectural education and educational architecture, (3) public works and labour force, (4) public and private funds for public buildings and (5) public administration and architects' professional ethics regarding financial matters in the building industry.

The setting of the Roman architectural practice

Architectural practice in ancient Greece was the backdrop to the Roman ideal. In Greece, after undergoing an apprenticeship by building sanctuaries, architects worked exclusively for the gods. Clients 'were either representatives of the gods, or the people and always magistrates'.[1] From surviving inscriptions, it is evident that specifications were very accurate, estimates were demanded, and accounts regularly kept of all building works. Community buildings such as temples and theatres were commissioned by the town. Public funds made good for the costs of such edifices.[2]

Etymologically the Greek word *ἀρχιτέκτων*, translated freely into English as architect, is derived from the terms *ἄρχων*, meaning chief, and *τέκτων*, meaning builder. Thus an *ἀρχιτέκτων* is a chief workman. Design and construction were vested in one individual. The *ἀρχιτέκτων* was a designer, contractor, clerk of works, and most skilful artisan.[3] As director of workmen, he contributed theoretical knowledge and not practical craftsmanship. During the building process, he did not just work out what should be done but also gave instructions to workmen until the building was completed. The Roman ideal was described thus by Vitruvius:[4]

> 'Architects who have aimed at acquiring manual skill without scholarship have never been able to reach a position of authority to correspond to their pains, while those who relied only upon theories and scholarship were obviously hunting the shadow, not the substance. But those who have a thorough knowledge of both, like men armed at all points, have the sooner attained their object and carried authority with them.'

Architects were drawn both from men of good birth and from freed slaves.[5] Architects in public service were in charge of 'siege works,

with the manufacture and repair of the engines of war; laying out and constructing camps whether temporary or permanent, roads, earthworks, bridges, gates, drains; the erection of market-places, temples, basilicas, the Imperial palaces and tombs, the public theatres, amphitheatres, and circuses, the public baths, etc.'[6]

Architectural education and educational architecture

The main complete handbook of architectural education in ancient Rome is *De architectura libri decem* by Marcus Vitruvius Pollio. Although, like Virgil's *Aeneid*, Vitruvius's work can be looked at as selling Augustus-sponsored legislation whereby he 'restored many traditions of our [Roman] ancestors which were falling into desuetude in our [Roman] generation',[7] it certainly contains material which is highly relevant to the architectural profession then and now.

Architecture, as perceived by Vitruvius, is the manifestation and representation of the arts in harmony:

> 'Let him be educated, skilful with the pencil, instructed in geometry, know much history, have followed the philosophers with attention, understand music, have some knowledge of medicine, know the opinions of the jurists, and be acquainted with astronomy and the theory of the heavens.'[8]

Thus, an architect must have comprehension of all branches of knowledge. He has to be a man of letters as he has to leave lasting written records of his work. He needs to make sketches and hence he has to be a skilful draftsman. History is essential to the study of the evolution of ideas. To safeguard interests of employer and contractor and not to leave disputes to proprietor after completion of works, he needs to have knowledge of law. Music is required in order to ensure knowledge of mathematics. Knowledge of medicine is required to assess healthiness of sites with respect to climate and water supply, while astronomy is required to assess wind directions and placement of sundials. An architect needs to be high minded, rational, and upright and thus he must have studied philosophy. 'No work can be rightly done without honesty and incorruptibility.'[9]

Vitruvius attaches great importance to general education as a basis for sound architectural knowledge. He argues that

> 'men have no right to profess themselves architects hastily, without having climbed from boyhood the steps of these studies, and thus, nursed by the knowledge of many arts and sciences, having reached the heights of the holy ground of architecture.'[10]

Not all high ranking Roman officials acknowledged the significance of architectural education modelled on the Greek ideal of the liberal arts. The opposition of Roman senators to Greek education and its advocates, disintegrated by the time of the Republic. Roman emperors granted members of learned, artistic, and athletic professions allowances and legal privileges. They were exempt from tax and compulsory public service.[11] Professors of architecture and other disciplines were appointed by Alexander Severus to instruct students coming from the poor strata of society.[12] Diocletian's edict of AD 301 stated that teachers of architecture, like those of arithmetic and reading, earned a higher wage per pupil per month although it was less than that earned by teachers of Greek, Latin, rhetoric and law.[13] Literary talents and art were greatly encouraged by Vespasian.[14] By his time, architecture as advocated in Vitrivius's treatise, was widely accepted. The decline in architectural quality, skill and number of architects was also noted by Constantine who subsequently enacted an edict to this effect in AD 334. In Gibbon's words:

> 'The impatience of Constantine soon discovered that, in the decline of the arts, the skill as well as numbers of his architects bore a very unequal proportion to the greatness of his designs. The magistrates of the most distant provinces were therefore directed to institute schools, to appoint professors, and by hopes of reward and privileges, to engage in the study and practice of architecture a sufficient number of ingenious youths who had received a liberal education.'[15]

Public works and labour force

Under the Republic, prominent Roman citizens made good for the construction of public works. Augustus himself wanted this, and abided by

this tradition, by financing public works of note. He set a precedent for future emperors who, in turn, paid for numerous constructions and maintenance works. Projects included harbours, temples, markets, streets, colonnades, arches, and aqueducts.

In the post-Augustan era a large number of public works were constructed out of public funds. Some were actually funded directly by the central government. Essentially utilitarian, religious and civic public works were carried out on a massive scale. Such works were not only used as a symbol of the grandeur of the Empire but also to provide jobs for surplus labour. During the reign of Vespasian, a mechanical engineer working on public works intended to modify the mode of transporting heavy columns in order to minimize the labour required. While noting that such a labour-saving device would have resulted in cheaper transport costs, Vespasian refused to permit such cut in the labour force and thus declined the use of the cheaper, labour-saving transportation solution put forward. Vespasian declared 'you must allow me to feed my poor commons.'[16]

Labour on public works was either compulsory or hired. Criminals and slaves were the main catchment of compulsory labour. Cicero states that the ancient Capitol in Rome cost nothing in terms of wages for site workers because it was erected by compulsory labour. This was of two kinds - either forced or *opera* labour. The former was supplied by criminals while the latter by conscripted individuals. Compulsory labour continued to feature strongly even in the later Roman empire.

Damnatio ad opus publicum was one of the toughest legal punishments. This punishment incorporated condemnation for forced labour on public works. Such works ranged from servicing public baths and sewers, to major projects such as roads and public buildings. It was a punishment exclusively for men. Working on public works was arduous and shunned. Some criminals tried to escape and find alternative work as public slaves. Most criminals condemned *ad opus publicum* escaped from building sites of the main cities of the provinces and sought such alternative work. Pliny the Younger, while governing Bithynia, noted this and reported to Trajan who, in turn, 'ruled that they [criminals condemned *ad opus publicum*] must go back to their original punishment, unless condemned more than ten years previously.'[17]

When the supply of criminals was short, free citizens had to donate a number of *opera* man-days, to work on public projects free of charge. Unlike forced labour by criminals, *opera* labour of free citizens was *per populum.* It was considered as a virtue and was highly respected. It was essentially being of service to the community of which the individual formed part. Besides the implicit financial remuneration which the town would be receiving from *opera* labour, there was also a nationalist collectivism on the part of the citizens to construct and actively involve themselves in the efficient building, maintenance and running of public projects.

Duncan-Jones cited the town charter of Urso in Spain as a case study illustrating this scenario.[18] The town was short of criminals condemned *ad opus publicum* to supply the necessary workforce required for public works. The charter catered for the compulsory enlistment of free citizens and other inhabitants of the town for national service in local public building works. Any man aged between 14 and 60 years was obliged to give five *opera* of building labour per calendar year. Furthermore, owners of ox-teams had to make their oxen available to work at building sites. Ox-teams obligation was three rather than five *opera* per calendar year.[19] Such an obligation was looked forward to rather than seen as an imposition. Patriotic motivations did occasionally run high. At Tibur, besides donating money for the erection of an amphitheatre, one free citizen also contributed two hundred *opera.*[20] Thus, although *prima facie*, compulsory labour by criminals and labour by conscription can be viewed as effectively similar because they ultimately carried out similar work, the labour supplied by each was clearly differentiated legally. The minimum specified number of *opera* that free citizens and inhabitants were obliged to donate as building labour was minimal when compared to that of criminals. Furthermore, forced labour was never acknowledged. If an inscription on a public monument acknowledges labour, then it was *opera* labour.[21] Building contractors who were paid for undertaking construction works on public projects could still have made use of slaves as the main labour force.

Public and private funds for public buildings

Inscriptions on buildings stating the cost of works undertaken probably date to the period AD 98 to AD 244. Less than a quarter of these buildings are unambiguously dated.[22] Construction costs available for works in Italy mainly relate to public baths. Only a few are available on temples. The scenario for Africa, where the number of temples with documented costs is nearly four times the number of temples in Italy, is different.[23] Thus, unlike Italy where such documentation is insufficient, a quantitative list is valid. Such a list covering buildings dating between the reigns of Trajan and Caracalla, was compiled by Duncan-Jones.[24] The data has been plotted in Fig. 1. Definite trends can be noted over this period. Between AD 98 to AD 217 towns were always financed by public and private funds. The proportionate amount of private funding decreased gradually with time.

Between AD 193 and AD 217 private and public funding were approximately of equal significance. Rich classes were flourishing but so were taxes on trade, public property, and *summae honorariae*, three possible sources of town cash resources according to Duncan-Jones.[25]

Summae honorariae were a paramount factor. The marked increase over a century reflects the efficiency of Roman civic institutions in bringing about more widespread payment of *summae honorariae*.[26]

Roman taxation was essentially indirect. It was based on *portoria* (custom duties) and special taxes as on the manumission of slaves. *Tributum*, a direct tax, was levied only in case of war. The central Roman government controlled provincial towns from levying high taxes to prevent them from excessive spending on public works. Higher spending would lead to the payment of less tax to the central government. By the third century AD, 'taxation became technically efficient, but highly terribly oppressive. The final collapse of the West was largely due to the financial exhaustion of the taxpayer'.[27]

Land and urban property belonging to towns varied with extent and time. Some towns had large estates and owned much land, while others had none. *Summae honorariae* by town magistrates also varied. *Summae honorariae* broadly reflected the wealth of the town. Variations may also be due to local demands.[28] *Summae honorariae* were often directed to public building works. Sometimes they are referred to as the most crucial source of revenue for the erection of public buildings: 'The town of Lanuvium records that public baths were enlarged and renewed using the *summae honorariae* which Septimus Severus had just allowed the town to levy on holders of priesthood.'[29] *Summae honorariae* were used to finance the town baths at Claudiopolis.[30]

Town cash resources affected the extent of the building programme. Public buildings which depended on public revenue as the main source of funding were constructed over a period of time. Public revenue affected speed of construction in terms of both human and non-human resources available. Public works were not the towns' only expense. There were costs such as wages for public and civil officials which town budgets had to cater for.

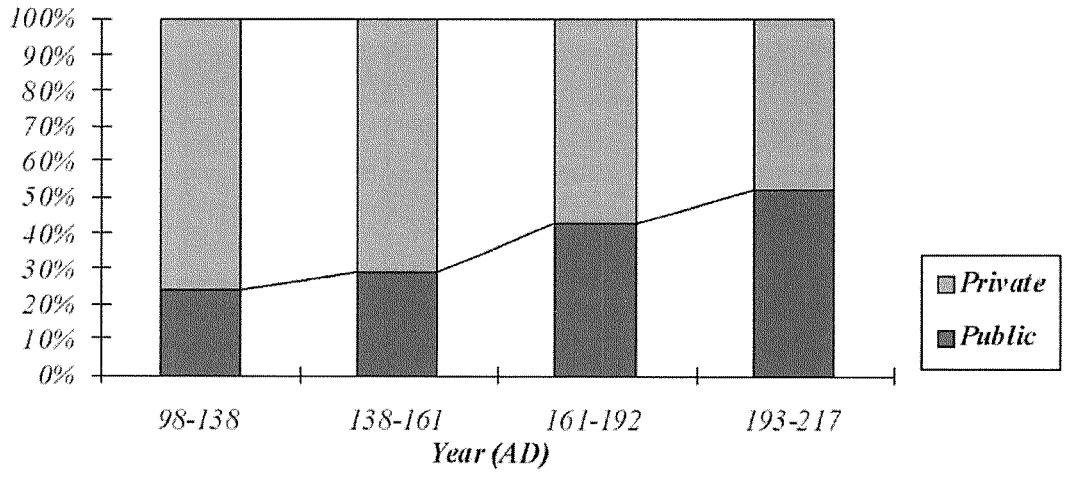


Fig. 1. Funding of dated towns in Africa (based on Duncan-Jones 1990, material from Thamugadi and Thugga excluded)

Between AD 30 and the death of Emperor Claudius in AD 54, one finds a number of generous free citizens who made good for the expenses of constructing, reconstructing, and restoring public works. During this period, although public works donated through private generosity were modest in size, there was a highly competitive unofficial spending. There were instances of such individuals funding buildings and donating them to the Republic. Gifts signify the presence of a class rich enough to make such donations. One ought to mention Postumius Chius and Licinius Tyrannus. The former, a patron of the administrative district of Thugga, assumed the expenses of a forum, the temple piazza, a shrine to Saturn, and an arch, while the latter restored a temple and built a temple to Ceres.[31] Little information about costs of amphitheatres can be drawn from the numerous inscriptions on buildings. Duncan-Jones suggests that, as a rule, such structures were not built out of private funds because they were the most costly of all monuments.[32]

Building inscriptions state that buildings were financed either by private or public funds or a combination of both. Inscriptions on monuments known through classical works to have been built through private generosity, do not have any reference to the community as a donor, in full or part, of funds for their erection. Absence of public funds for public works may be due either to the generosity of well-off free citizens, who would have made good for the funding required, or to the lack of sources of revenue. The donation of monuments by free citizens was not only an act of generosity but an honour to the donor.[33]

Thamugadi, in eastern Algeria, and Thugga, in northern Tunisia, are two interesting African Roman towns. Their building histories are respectively illustrative of towns built out of public and private monies. They are exceptions rather than the rule because they lie on either side of the spectrum.

Thamugadi, a Roman colonia, is essentially a public-funded town. Out of the nineteen existing dated buildings erected during the period from Trajan to Caracalla, only two were privately funded.[34] As a town, it is larger than Thugga. It had land and urban property and a system of *summae honorariae*. Thus, town cash resources were high and hence could easily finance public buildings of any required magnitude.

Buildings in Thugga, unlike Thamugadi, were mainly privately funded. It lacked proper public institutions for most of the time. Official sources of revenue were low. *Summae honorariae* were low and the system of public offices was not so well developed until the town was granted municipal status by the end of the second century AD. After it had obtained such status, private benefactors still paid for public monuments. Duncan-Jones puts forward two possible reasons for this.[35] Firstly, private generosity became so rooted in the higher strata of Thugga society that they did not want the town's public building programme to be exclusively in the hands of public officials and at the mercy of public revenue. Secondly, public revenue may have been on the low side and thus the town would not have afforded public buildings of note. This may have induced the affluent members of society to contribute financially to a better built environment than that possible through public funds. Duncan-Jones notes that 'the building history of Thugga certainly demonstrates to a remarkable degree the powers of a small community to attract wealthy benefactors.'[36]

Public administration and architects' professional ethics in public works

'Monuments are supposed to commemorate kings and religion, heroes, dogmas, but in the end the man they commemorate is the builder.'[37] Monumental architecture in tribute to rulers, gods, and the like, is essentially a tribute to the authors, the builders. Trajan's stone bridge over the Danube is a tribute not just to Trajan, whom Dio Cassius could not sufficiently admire for the ingenuity of the bridge, but also to Apollodorus, its Syrian architect.[38]

To decentralize public administration and allow more participation by free citizens in its running, Augustus created new posts such as supervisors of public buildings and of public infrastructural works. The architect was checked by a board member regulating expenses who was sometimes a high ranking official within the army. A senator or an officer of the province in which the work was being carried out would

have checked the architect.[39] Approval of building works by these officials removed any liability, criminal or otherwise, by either the architect, or the contractor, regarding inherent defects in the building.[40] Official corruption, bribes, and clientelism were seriously undermining the ethical conduct of the empire at the time of Constantine. The Emperor was well aware of the urgent need to restore ethical behaviour and official discipline. In the early fourth century AD the *Theodosian Code* was mainly addressed to complement his efforts to eradicate official corruption. In terms of the Code, severe punishment was being stipulated for those who contravened official orders. In the Code, reference is made to the fraudulent admixture of impure dye used in the weaving industry.[41] The Code states that

> 'procurators shall abstain from the patronage whereby they obtain the aforementioned administrative positions, or, if they contravene this order, they shall be removed from the number of Roman citizens and beheaded.'[42]

There is no similar legislation with respect to architects. No literature dealing with the fraudulent gains of architects or master builders is available. It is very likely that fraudulent gains were made by people who controlled the money and/or by the surveyors. In major projects, where the amount of money involved is substantial, job descriptions were assigned to other professions not to architects. Columella suggested that 'architects scorn to cost buildings for themselves, and leave this to separate cost-surveyors who base their calculations on the dimensions of the complete building'.[43] Thus, in such a context, unlawful money gain by architects is unlikely. One may further look at the manner in which commissions to erect public buildings were given to architects and, with respect to the official and social accepted norms of the time, look at and analyze behavioural patterns and interaction between architect and client or his representative. The practice of awarding building contracts by competitive tendering was widespread in Rome by the time of the late Republic.[44]

Although literature is limited with regard to architects' ethics, the following quote from Vitruvius hints at unethical behaviour typical of some architects operating in his time:

> 'Other architects go about and ask for opportunities to practise their profession; but I have been taught by my instructors that it is the proper thing to undertake a charge only after being asked, and not to ask for it; since a gentleman will blush with shame at petitioning for a thing that arouses suspicion.'[45]

Unethical behaviour was common with architects working on private rather than public building works:

> 'Would to God that this were also a law of the Roman people, not merely for public, but also for private buildings. For the ignorant would no longer run riot with impunity, but men who are well qualified by an exact scientific training would unquestionably adopt the profession of architecture. Gentlemen would not be misled into limitless and prodigal expenditure, even to ejectments from their estates, and the architects could be forced, by fear of the penalty, to be more careful in calculating and stating the limit of expense, so that gentlemen would procure their buildings for that which they had expected, or by adding only a little more.'[46]

In Vitruvius's time, such unethical behaviour was typical of the 'uneducated and the unskilful' architects.[47] The status of the architectural profession increased in the later days of the Empire.[48]

With increased architectural education came the rise in status of the architectural profession in the Roman Empire. By the fourth century AD, the Vitruvian ideal was the official Roman ideal. Architecture was more of a vocation than a practice for earning money. As members of the liberal profession, architects received an *honorarium* and not a wage.[49] Public buildings were built through a combination of forced labour and public and private funds. Labour was *free* because it was compulsory. It was the result of either punishment or conscription. Contractors paid to carry out public building works would mainly have made use of such a work force. Although both public and private funds were used at any point between AD 98 and AD 217, the proportion of public to private funds increased with time.

Notes

1 P. Devambez, 'Architecture' in F. Hazan (ed.), *A Dictionary of Ancient Greek Civilization*, (London. Methuen & Co. Ltd, 1967), 49.
2 Ibid.
3 *The Dictionary of Architecture* issued by the Architectural Publication Society, Vol. I, (London. T. Richards, 1892), 88.
4 M. Vitruvius, *De architectura libri decem*, translated by Morris Hicky Morgan (Cambridge. Harvard University Press, 1914), i, 1, para 2.
5 Both Vitruvius and Cicero (*De Officiis*, I, 42) held that architects should be men of good birth. Plutarch (*Crassus*, II) states that there were freed slaves who were architects. Evidence from various sources confirms that architects came from different social strata (M.S. Briggs, *The Architect in History*, Oxford. Clarendon Press, 1927, 35).
6 G.T. Rivoira, *Roman Architecture*, (Oxford. Clarendon Press, 1925), 86.
7 Quote from *Corpus Inscriptionum Latinarum*, Vol. III, in N. Lewis and M. Reinhold (eds.), *Roman Civilization Sourcebook II : The Empire*, (New York. Harper & Row, 1955), 12.
8 Vitruvius, i, 1, para.3.
9 Ibid., para.7.
10 Ibid., para.11.
11 Lewis and Reinhold, 294.
12 A. Lampridius, *Alexandri Severi Vita*, in Briggs, 32.
13 Ibid.
14 Suetonius, *Life of Vespasian*, xvii-xviii.
15 E. Gibbon, *The Decline and Fall of the Roman Empire*, (London. John Murray, 1896).
16 Suetonius, xviii.
17 R Duncan-Jones, *Structure and Scale in the Roman Economy*, (Cambridge. Cambridge University Press, 1990), 174.
18 Ibid., 174.
19 H. Dessau, *Inscriptiones Latinae Selectae* (Berlin. ILS, 1892-1916), 6087 and 6098, in Duncan-Jones, 175.
20 H. Dessau, 5630, in Duncan-Jones, 1990, 175, footnote.
21 Duncan-Jones,1990, 175.
22 R. Duncan-Jones, *The Economy of the Roman Empire*, (Cambridge. Cambridge University Press, 1982), 64-65.
23 Ibid., 124.
24 Duncan-Jones, 1990, 184, for table re financing of dated town buildings in Africa.
25 Ibid., 175-176. *Summae honorariae* are the specific amounts of money which magistrates, priests, and councillors were expected to contribute in virtue of their office. Most evidence of *summae honorariae* paid in North Africa belongs to the second and third century. For discussions re *summae honorariae* in these provinces and in Italy, see Duncan-Jones,1982, 82-88 and 147-155.
26 Duncan-Jones, 1990, 184.
27 H. Mattingly, 'Roman Finance', in F. Cary, J.D. Denniston, J. Wright Duff, A.D. Nock, W.D. Ross, H.H. Scullard (eds.), *The Oxford Classical Dictionary*, (Oxford. Clarendon Press, 1949), 363. The devaluation of currency in the third century AD led to economic turmoil in the Roman world. Inflation increased and cash levies were replaced by *annona*, the levy in kind.
28 Duncan-Jones, 1982, 84.
29 Id., 1990, 177.
30 Id., 1982, 84.
31 R. Cagnat, A. Merlin, and L. Chatelin, *Inscriptions Latines D'Afrique*, (Paris. Leroux, 1923), 558, and *L'Année épigraphique: Revue de publications épigraphiques relatives à l'antiquité romaine*, (Paris. Presses Universitaires de France, 1969-70), 651 and 648, in Duncan-Jones, 1990, 179.
32 Duncan-Jones, 1982, 75.
33 Honour was a significant anthropological notion within the Roman social context. A number of African magistrates 'made public gifts in honour of their tenure of local office, and saw that the details (sometimes including the cost) were inscribed on a monument. There were contexts in which the publication of such details was a legal requirement'. (Ibid., 64).
34 R. Romanelli, *Storia delle Province Romane dell'Africa*, (Rome. L'Erma di Bretschneider, 1959).
35 Duncan-Jones, 1990, 181.
36 Ibid., 182.
37 J. Bronowski, *The Ascent of Man*, (London. British Broadcasting Corporation, 1973), 72.
38 Dio Cassius, *Roman History*, in Lewis and Reinhold, 114.
39 *The Dictionary of Architecture*, Vol. I, 88.
40 Briggs, 46.
41 *Theodosian Code*, I. XXII. 1, in Lewis and Reinhold, 485.
42 Ibid.
43 Duncan-Jones, 1982, 76.
44 Ibid., 75-76.
45 Vitruvius, VI, Introduction, para. 5.
46 Ibid., X, Introduction, para. 2. Vitruvius states further that 'It is true that men who can afford to devote four hundred thousand to a work may hold on, if they have to add another hundred thousand, from the pleasure which the hope of finishing it gives them; but if they are loaded with a fifty per cent increase, or with an even greater expense, they lose hope, sacrifice what they have already spent and are compelled to leave off, broken in fortune and in spirit.'
47 Ibid., VI, Introduction, para. 6.
48 Briggs, 35.
49 Ibid., 46.

Il fregio egittizzante del santuario di Tas-Silġ

Francesca Bonzano

Abstract

Fragments of an Egyptianizing frieze from the sanctuary of Tas-Silġ

The excavations that took place in the Ashtart-Hera sanctuary in Tas-Silġ during the 1960s also brought to light, apart from several fragments of architectural materials in limestone, some fragments of a frieze in white marble decorated with an Egyptianizing subject. From the analysis of the surviving fragments it is possible to assert that on the frieze were represented an *uraeus,* and a winged subject. Moreover, the comparison with a marble slab (in a private collection) published by Anthony Bonanno in 1998 made it possible to reconstruct the distribution of the figurative elements within the original frieze to which they belonged and to hypothesize that the slab also comes from Tas-Silġ. A series of stylistic considerations leads to the proposal of a chronology that places the fragments in the early Augustan age.

Introduzione

Come è stato messo in luce già dalle Relazioni Preliminari degli anni '60[1] e puntualizzato da alcune recenti riflessioni che si sono poste l'obiettivo di precisare le trasformazioni che hanno interessato l'area centrale del santuario, la fase edilizia di Tas-Silġ tuttora maggiormente riconoscibile è quella tardo-repubblicana (Fig. 1). L'ampio intervento, attuato secondo forme architettoniche di sapore tardo-ellenistico, non comportò solo la monumentalizzazione del cuore del luogo di culto, ma anche la realizzazione della recinzione muraria e una nuova definizione degli spazi.[2]

Oltre a questa fase di profonda ristrutturazione – alla cui datazione tra la fine del II e gli inizi del I sec. a.C. concorrono sia i dati stratigrafici[3] che l'analisi degli elementi di decorazione architettonica superstiti[4] – ne è testimoniata anche una ascrivibile alla prima età imperiale, individuata grazie a una recente revisione dei materiali che ha permesso di riconoscere alcuni frammenti di fregio in marmo con motivi egittizzanti in parte noti sin dagli scavi degli anni '60, ora presentati in maniera unitaria. I frammenti, in marmo bianco a grana fine,[5] afferiscono a due gruppi distinguibili sulla base del soggetto iconografico, il primo raffigurante un ureo, il secondo un elemento alato, verosimilmente un disco solare.

Il primo gruppo di frammenti egittizzanti

Quanto al primo nucleo, possediamo quattro frammenti chiaramente pertinenti alla parte inferiore e centrale del corpo del serpente. Il primo pezzo (Tav. 1a)[6] conserva parte del piano di posa originario e mostra la base del corpo del cobra – percorsa da linee curve parallele tra di loro – e l'attacco della parte verticale del corpo del serpente, che va allargandosi progressivamente verso l'alto ed è caratterizzata da una ripartizione in sottili fasce orizzontali. Sotto, a sinistra dell'elemento centrale, si nota l'attacco di un motivo decorativo profilato da un listello a

sezione triangolare, all'interno del quale è la parte iniziale di un elemento ribassato; a destra del corpo del cobra si osserva una piccola porzione di un oggetto probabilmente simile a quello precedentemente descritto. Il secondo frammento (Tav. 1b)[7] raffigura la parte superiore del corpo dell'ureo, sempre divisa in fasce, con la porzione inferiore della testa dell'animale; a destra si nota la profilatura dello scudo. Un terzo frammento (Tav. 1c)[8] mostra la parte speculare della profilatura dello scudo, mentre l'ultimo (Tav. 1d)[9] presenta un listello verticale di profilatura e un altro analogo con andamento curvilineo.

La lastra di Żejtun

Di grande utilità per la ricostruzione del soggetto è il confronto con una lastra di fregio pubblicata dal prof. Anthony Bonanno nel 1996 e nel 1998 (Tav. 2), acquisita nel 1985 durante un'asta a Żejtun e ora conservata in una collezione privata (alt.: cm 55; largh.: cm 42; prof.: cm 15,5).[10] Il pezzo conserva il fianco sinistro originario, come indica la presenza del listello di profilatura, e mostra la successione di tre elementi egittizzanti. Da sinistra si osserva un serpente posto di tre quarti, con la parte terminale della coda arrotolata su due giri, il ventre scandito da fasce orizzontali e il dorso caratterizzato da squame; la testa dell'animale è scalpellata. Segue un elemento intermedio: alla base di uno stelo liscio, rastremato verso l'alto e desinente in un fiore, è una corona *atef* profilata da due listelli che terminano in un ricciolo; la corona è decorata da una sorta di cartiglio formato da due semicerchi ribassati, mentre alla sommità è un disco solare sormontato da un fiore di loto a tre lobi aperto. Il fiore posto alla sommità è composto da una corona di foglie frastagliate e solcate da leggere incisioni; al centro è un bottone circolare liscio con corona di petali di forma tondeggiante. Il terzo elemento è un ureo in posizione rigidamente frontale, con il corpo scandito in fasce orizzontali e il collo gonfio, anch'esso con la testa scalpellata.

I frammenti di Tas-Silġ e la lastra di Żejtun sono estremamente simili: del tutto analoghi risultano sia i particolari della lavorazione sia le dimensioni, a tal punto

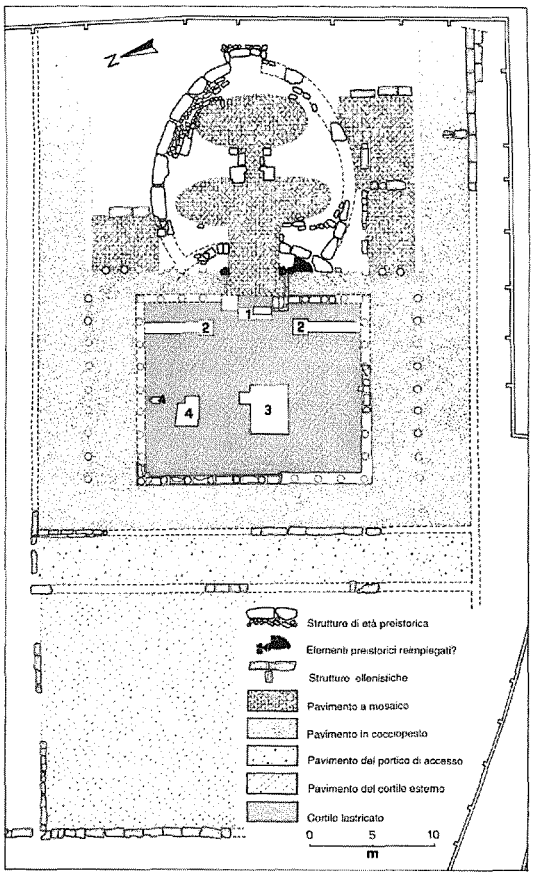


Fig.1. Tas-Silġ. Planimetria ricostruttiva dell'area centrale del santuario (dis. R. Rachini, 2007)

che è possibile accostare all'immagine della seconda le fotografie dei primi ottenendo una sovrapposizione pressoché perfetta (Tav. 2): alla luce di queste considerazioni mi sembra pertanto sostenibile, come già ipotizzato da A. Bonanno,[11] che la lastra provenga dal santuario di Tas-Silġ.

Le uniche differenze tra i due nuclei di materiali riguardano lo stato di conservazione: la lastra, per quanto in buone condizioni, non sembra mostrare le superfici così levigate e dai passaggi di piano così netti come i frammenti provenienti dagli scavi del santuario. Il fatto potrebbe spiegarsi con la diversa sorte subita dai pezzi: la lastra potrebbe essere stata reimpiegata in occasione della ristrutturazione di età bizantina, durante la quale nell'area centrale del santuario fu impiantata una basilica a tre navate.[12] I segni di scalpellatura, concentrati sulle teste dei due rettili, potrebbero far pensare a un intervento intenzionale: concordo con il prof. Bonanno nel supporre che si tratti di un'azione rivolta contro le divinità pagane e perpetrata al momento del cambio di destinazione d'uso del santuario in luogo di culto cristiano.[13]

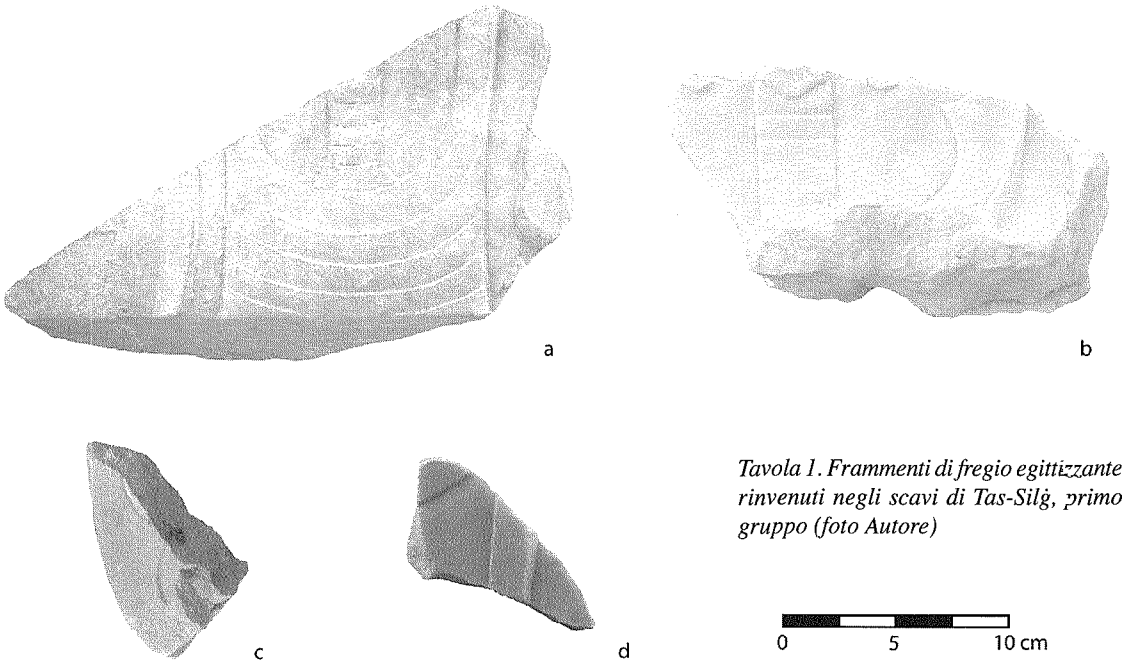


Tavola 1. Frammenti di fregio egittizzante rinvenuti negli scavi di Tas-Silġ, primo gruppo (foto Autore)

Grazie alla coincidenza riscontrata tra gli elementi decorativi e dimensionali tra i frammenti provenienti dagli scavi e la lastra di Żejtun, è possibile ritenere che gli elementi si componessero in un fregio continuo alto cm 55, applicato a una struttura retrostante. Il motivo decorativo, oltre alla sintassi attestata dalla lastra di Żejtun, prevedeva sicuramente la ripetizione dell'elemento separatore e dell'ureo, mentre non vi sono dati per stabilire se anche il primo rettile fosse ripetuto, pur essendo, a mio avviso, altamente probabile.

Lo studioso maltese identifica il primo serpente con *Serapis-Agathodaimon* e l'ureo con *Isis-Thermoutis*,[14] mentre nell'elemento separatore vede la rappresentazione di Osiride, con un'allusione alla triade osiriaca.[15] A mio parere quest'ultimo non deve essere letto in chiave simbolica, ma va inteso piuttosto come motivo decorativo, le cui caratteristiche verranno di seguito illustrate.

L'associazione di *Serapis-Agathodaimon* e *Isis-Thermoutis* – rappresentati sotto forma di serpenti – si ritrova spesso a simbolo della coppia regale, attestata sulla documentazione sia numismatica che architettonica: Iside e Serapide sono solitamente raffigurati affrontati, coronati e dotati di attributi che li connotano, quali il sistro, il caduceo, le spighe; tra di essi possono essere raffigurati simboli del culto isiaco, altari o altre divinità.

La ricerca di confronti precisi è resa difficile dalla relativa scarsità di documentazione: infatti, se la diffusione dei culti egizi nell'impero romano è testimoniata dai numerosi rinvenimenti di *egyptiaca* consistenti in amuleti, statuette, oggetti di ornamento e simili, poco si è conservato, invece, della documentazione architettonica relativa a edifici connessi con il culto di tali divinità. Lavori recenti hanno consentito di mettere a punto la distribuzione geografica e le modalità della diffusione dei culti isiaci;[16] tuttavia non mi risulta che il numero di elementi di decorazione architettonica assimilabili ai nostri abbia conosciuto, nel tempo, ulteriori incrementi. Sono noti diversi rilievi di provenienza sia alessandrina[17] che urbana: si segnalano in particolare antefisse, pertinenti forse all'Iseo Campense, con rappresentazione sia di Iside che di *Agathodaimon* affrontati ai lati della corona *atef*, genericamente datati tra I e II secolo d.C.[18] Probabilmente al medesimo complesso è riferibile il blocco di fregio angolare (verosimilmente il coronamento di una piccola nicchia) decorato da una teoria di urei confrontabili con la resa dei pezzi maltesi per l'articolazione del corpo del cobra.[19] Rispetto a queste raffigurazioni, il rilievo di Tas-Silġ si distingue per la resa più arcaizzante del corpo dell'ureo, lavorato a rilievo bassissimo, rigidamente frontale e poco naturalistico, secondo un modello che si ritrova anche su monumenti di età ellenistica quali il santuario numidico di Chemtou, in Tunisia, datato nella seconda metà del II sec. a.C.,[20] o il mausoleo B di Sabratha, in Tripolitania, edificato tra la fine del III e gli inizi del II sec. a.C.[21]

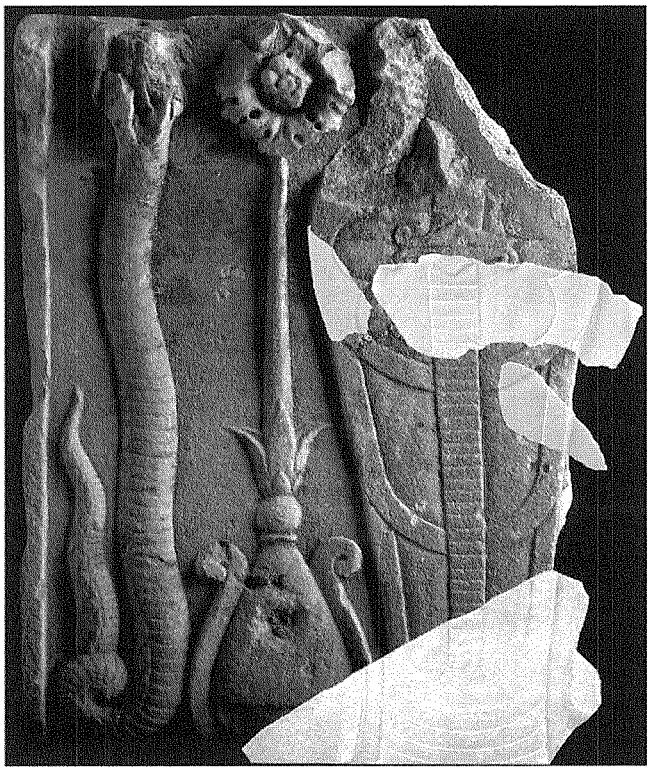


Tavola 2. Sovrapposizione dei frammenti da Tas-Silġ alla lastra di fregio da Żejtun (rielab. da Bonanno, Roman Malta*)*

Datazione del fregio

A. Bonanno ha proposto una collocazione cronologica del fregio maltese a età flavio-traianea, riscontrando analogie tra il fiore dell'elemento separatore e i fiori sull'abaco dei capitelli del Foro di Traiano, ipotesi che non mi sento di condividere.[22] A rendere difficilmente precisabile la datazione è la scarsa caratterizzazione dei motivi decorativi: soprattutto per l'ureo, l'estrema stilizzazione, la rigida visione frontale e l'uso di un rilievo bassissimo accomunano il soggetto della lastra maltese a immagini note sin dal repertorio egizio classico.[23] Diversamente, la figura di *Serapis-Agathodaimon* denota una resa più naturalistica sia nei particolari che nella stessa impostazione di tre quarti. In base agli studi di Françoise Dunand, che si è occupata a diverse riprese di questo tema iconografico, per l'età ellenistica non si dispone di alcuna raffigurazione certa della divinità, mentre per l'età imperiale la documentazione più numerosa è fornita dalla monetazione alessandrina, in cui *Agathodaimon* compare sotto forma di serpente barbato e coronato da *pschent*, tema particolarmente diffuso nelle emissioni di età neroniana.[24] La resa stilistica del corpo di *Agathodaimon* è comune a diversi rilievi di età imperiale: in un pilastrino conservato al Museo di Alessandria (privo di datazione precisa) il rettile mostra analoga bipartizione del corpo in dorso e ventre, benché la composizione sia più complessa.[25]

L'associazione *Agathodaimon*-Iside sembra comparire per la prima volta, nella documentazione numismatica, con la monetazione di Nerone;[26] le due divinità si trovano rappresentate in forma zoomorfa su un cospicuo numero di rilievi alessandrini, la cui produzione si ritiene comunemente sviluppata sotto il regno di Adriano,[27] e la cui datazione è spesso stabilita sulla base di generiche considerazioni stilistiche e, soprattutto, del favore di cui godettero i soggetti egittizzanti sotto questo imperatore. In realtà non è da escludere che tali raffigurazioni siano databili anche a epoca precedente; la difficoltà di fornire una collocazione cronologica precisa è dovuta sia alla frequente decontestualizzazione, sia al fatto che i soggetti iconografici, come detto, conoscono minime variazioni nel corso del tempo.

Una conferma viene dalla recente pubblicazione di una parasta conservata nell'*Antiquarium* sotto la Basilica di S. Giovanni in Laterano, databile a età augustea e attribuibile, con buona probabilità, all'*Iseum Metellinum*.[28] L'edizione ha portato un importante contributo al quadro delle attestazioni, in quanto si tratta di uno dei pochi documenti di questo tipo riferibili a un complesso di culto, e la cui collocazione cronologica – stabilita tra il 30 e il 10 a.C. grazie all'analisi stilistica della ricca decorazione fitomorfa – non deve affidarsi solo all'iconografia dei soggetti animali.[29] I due serpenti, inseriti all'interno di un complesso schema figurativo, sono affrontati ai lati di un altare sormontato da una pigna; la resa è molto differente da quella del fregio maltese, più naturalistica, e si avvicina a esempi attestati dalla documentazione numismatica e pittorica. All'Iseo doveva appartenere anche un frammento di ureo in basanite facente parte di un gruppo scultoreo colossale con Iside e altre divinità; inoltre, alla fase decorativa di età adrianea (o flavia, secondo l'Autore) sarebbero da riferire le due lastre di fregio, da tempo note, raffiguranti Iside che saluta il bue

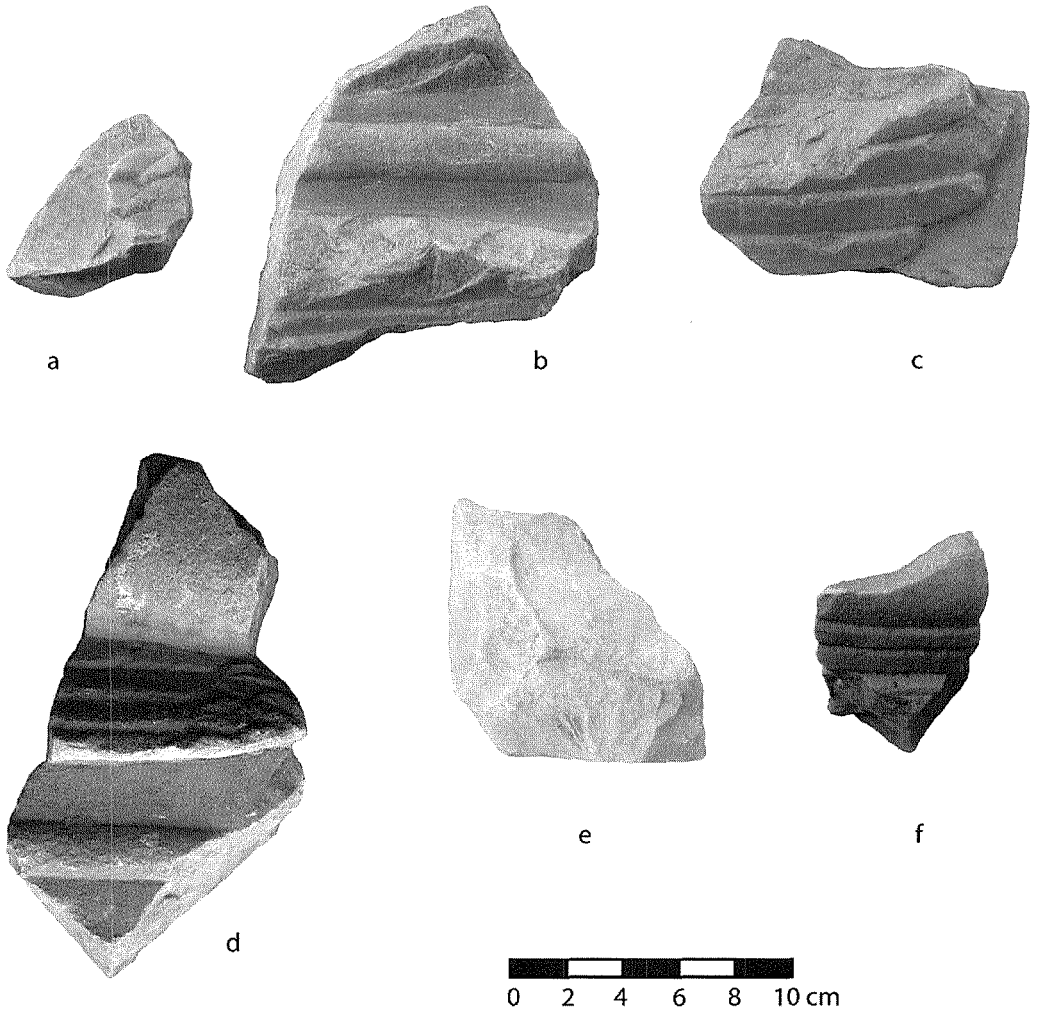


Tavola 3. Frammenti di fregio egittizzante rinvenuti negli scavi di Tas-Silġ, secondo gruppo (foto Autore)

Api/Osiride e la parte anteriore di un tempio.[30]

L'elemento separatore dei pezzi maltesi potrebbe trovare riscontri con una testimonianza figurativa collocabile nella prima età augustea. Si tratta di un frammento architettonico conservato, sino alla fine del 2006, all'interno della cella del mausoleo di Augusto a Roma.[31] Il pezzo, pubblicato per la prima volta da Mariette De Vos,[32] mostra sul soffitto, entro campo liscio, una corona *atef* raffigurata in modo simile al basamento dell'elemento separatore della lastra di Tas-Silġ, benché con una maggiore ricchezza di particolari. Qui infatti la corona, formata da un fascio di papiro, è posta sopra le corna di ariete, inquadrata da due urei rivolti verso l'esterno coronati dal disco solare, e fiancheggiata da due piume di struzzo. Nel fregio di Tas-Silġ sono assenti le corna di ariete e gli urei, mentre le piume di struzzo sono state semplificate in un elemento decorativo desinente in un ricciolo. Sulla cornice romana è inoltre rappresentato, su una superficie ribassata e dotata di profilatura, un fiore di loto aperto (*nelumbo nucifera*) con bottone centrale e doppia corona di foglie; la resa è molto naturalistica e rispecchia la reale vista dall'alto del fiore aperto, come si nota dalla corolla di foglie peltate e dal pistillo con gli ovuli. Il fiore nel fregio da Malta, per quanto estremamente simile, è stato semplificato, dal momento che le due corone di foglie sono state sostituite da una sola corona di fogliette frastagliate. A essere significativa mi sembra non solo l'analogia formale tra le due rappresentazioni, ma anche il fatto che sui due monumenti siano accostati entrambi gli elementi. La cornice di provenienza urbana mostrava sicuramente un altro elemento entro profilatura a sinistra della corona *atef*, ma non è dato sapere come proseguisse la sequenza. L'originaria collocazione del frammento architettonico non è precisabile: noto già nel 1519 a Baldassarre Peruzzi, che ne fece uno schizzo nel suo

taccuino,[33] esso è stato attribuito dalla De Vos alle strutture del mausoleo,[34] mentre Henner Von Hesberg lo ritiene pertinente a uno dei monumenti posti nelle immediate vicinanze della tomba di Augusto.[35] Benché non sia da escludere a priori, considerate le ridotte dimensioni della cornice,[36] che essa decorasse l'interno della cella, è più probabile che sia l'ipotesi dello studioso tedesco a corrispondere al vero.[37] Sulla base del momento in cui fu avviata la realizzazione del complesso del mausoleo, databile al 29 a.C.[38] si può proporre di collocare anche il fregio maltese in questo orizzonte cronologico.

Il secondo gruppo di frammenti egittizzanti

Il secondo gruppo di elementi rinvenuti negli scavi di Tas-Silġ comprende sei frammenti di limitate dimensioni pertinenti a una lastra in marmo bianco a grana fine di profondità variabile tra 7 e 12 cm, provenienti per la maggior parte dall'area centrale del santuario e raffiguranti un soggetto alato. Di esso si è conservata parte della decorazione delle ali: un primo frammento mostra la porzione terminale delle penne esterne (remiganti primarie, Tav. 3a),[39] un secondo mostra una piuma interna (remigante secondaria) e alcune piume esterne, oltre a un profilo a tondino che corre parallelamente a esse (Tav. 3b),[40] un terzo presenta la parte terminale delle piume esterne, dal profilo arrotondato (Tav. 3c),[41] il quarto mostra il passaggio dalle piume più interne a quelle esterne, al di sotto di esse si trova una profilatura a tondino e al di sopra il profilo è bombato (Tav. 3d).[42] Oltre a questi vi sonc altri due pezzi, uno dei quali presenta un campo liscio (Tav. 3e),[43] mentre l'altro mostra una decorazione a sottili fasce digradanti e un profilo bombato (Tav. 3f).[44] I frammenti possono essere pertinenti alla rappresentazione di un disco solare alato: pur mancando la parte raffigurante il disco solare vero e proprio, l'identificazione del soggetto è molto probabile in virtù della conformazione delle ali, rese a fasce orizzontali parallele con terminazione appuntita, e caratterizzate da una parte intermedia di piume più morbide, in genere piuttosto ravvicinate al disco solare liscio. Inoltre l'orientamento delle piume dei vari frammenti indica che il soggetto doveva presentare due ali spiegate.

Il motivo del sole alato fiancheggiato da urei, originario del repertorio figurativo egizio, è – come noto – mutuato anche dal mondo fenicio-punico, e conosce largo impiego sia nell'architettura monumentale che in quella sacra e funeraria, a coronamento di edicole e stele, solitamente sormontato da una modanatura a gola egizia decorata da una teoria di urei ritratti in posizione paratattica, rigidamente frontali.[45] Il mausoleo di Sabratha e il santuario di Chemtou mostrano, a inquadramento della porta, tale motivo decorativo. Il medesimo soggetto viene impiegato anche in età romana, come attestato, ad esempio, nell'Iseo Campense, cui sembrano riferibili due timpani curvilinei posti a coronamento di nicchie e datati al II sec. d.C. [46] Le due serie di fregio da Tas-Silġ sembrerebbero realizzate in due marmi bianchi di qualità diversa, più fine la prima, a grana più grossa la seconda; tuttavia mi sembra ragionevole attribuirle allo stesso progetto decorativo – e conseguentemente allo stesso orizzonte cronologico – in virtù della tematica comune; anche per il fregio con il disco solare, infatti, è difficile pronunciarsi su una precisa datazione a causa della "standardizzazione" del motivo iconografico.

Frammenti di capitelli corinzi in marmo

Un intervento di età proto-augustea è documentato anche da un altro nucleo di materiali architettonici in marmo. Vi sembrerebbero infatti alcuni frammenti di capitelli – parzialmente editi nei rapporti preliminari di scavo – la cui collocazione cronologica, per quanto di difficile definizione, sembra orientarsi verso questo orizzonte. Si sono conservati diversi frammenti di apici di foglie e alcuni frammenti di abaco con volute e foglie sottostanti (Tav. 4); i pezzi, rinvenuti per la maggior parte all'interno delle trincee di asportazione dei muri del portico o comunque nei pressi del tempio, possono essere interpretati come il risultato dell'azione di "preparazione" al riutilizzo dei capitelli, ridotti a forma più regolare mediante l'asportazione degli elementi aggettanti. I materiali, nonostante l'alto indice di frammentazione, presentano caratteristiche comuni e ben

riconoscibili, le più evidenti delle quali sono costituite dall'insolita struttura compositiva del capitello e dalla resa delle fogliette, elementi in base ai quali si può pensare che i capitelli in esame costituiscano un momento di passaggio dal modello corinzio-italico in calcare, del quale conservano la struttura, e quello in marmo, con cui gli scalpellini non sembrano dimostrare particolare dimestichezza. Al di sotto della voluta non vi è, come nei corinzi canonici, il calice, bensì una foglia di acanto; diversamente dai corinzi normali le volute non convergono a due a due sotto lo spigolo dell'abaco, ma in corrispondenza di esso si trova una sola voluta angolare, caratterizzata da una lavorazione "a giorno". Inoltre i lobi delle foglie non mostrano la consueta articolazione in fogliette, ma esse risultano soltanto indicate mediante sottili incisioni, senza essere scolpite. Il tipo di marmo, differente da quello del fregio egittizzante, sembra identificabile come proconnesio.[47] Il litotipo non è l'unico elemento che differenzia i capitelli dal fregio: la resa stilistica delle due classi di materiali è nettamente diversa e sembra riconducibile a due officine distinte. Il fregio è caratterizzato da una lavorazione molto raffinata, con un rilievo piuttosto basso, passaggi di piano delicati e un limitato uso del trapano; i capitelli denotano invece una certa "indecisione" nella conformazione di alcuni particolari, quali le fogliette dei lobi, stilizzate al punto da essere solo incise, e una stretta aderenza al modello compositivo corinzio-siceliota.

A fronte di queste considerazioni non mi pare inverosimile ipotizzare che i capitelli siano stati realizzati in una bottega locale avvezza a lavorare il calcare – verosimilmente formatasi in occasione dei lavori di ristrutturazione avvenuti tra fine II e inizio I sec. a.C. – mentre il fregio, uscito da una bottega di alto livello, sia un prodotto di importazione. Anche i frammenti di colonne in marmo,[48] alcuni dei quali reimpiegati nelle strutture bizantine, potrebbero aver fatto parte della ristrutturazione proto-imperiale.

Ipotesi sulla collocazione del fregio

È plausibile ritenere, quindi, che le due serie di fregio e i capitelli siano riferibili a un intervento edilizio praticato nello stesso momento e, verosimilmente, localizzato nello stesso punto del santuario. Definire l'area di intervento non è facile per diversi motivi, primo fra tutti lo stato di conservazione delle strutture murarie del luogo di culto, a volte limitate alle relative trincee di asportazione. Neanche i dati di rinvenimento costituiscono elemento utile a dirimere la questione, a causa sia delle trasformazioni subite dal santuario in età bizantina e delle conseguenti traslazioni, sia dell'attività di sfruttamento come cava di materiali praticata fino a epoca recente.

Le dimensioni del fregio "maggicre", dell'altezza di cm 55, sembrano indicare la pertinenza a una struttura monumentale,

Tavola 4. Frammenti di capitelli corinzi in marmo dagli scavi di Tas-Silġ (foto Autore)

piuttosto che a edicole o sacelli che dovevano sorgere intorno al tempio. Una possibilità è che i materiali indichino una ristrutturazione del braccio orientale del portico, in occasione della quale sarebbero stati sostituiti i capitelli corinzio-italici in calcare e il fregio.[49] A favore di questa interpretazione sono i soggetti iconografici di entrambi i fregi che, come sopra ricordato, erano solitamente posti a enfatizzare accessi privilegiati.[50] Desta però qualche perplessità il fatto che, a distanza di circa 60 anni dalla precedente ristrutturazione – la quale andò a incidere notevolmente sull'aspetto dell'area centrale, definendone e modificandone alcuni spazi – si sia deciso di intervenire nuovamente e in modo radicale sul braccio orientale del portico, sostituendone gli elementi in calcare.

La lavorazione in lastre del fregio potrebbe però anche segnalarne l'applicazione alle pareti di ambienti dotati di particolare enfasi, quali i due vani che concludono i bracci interni dei portici nord/sud e affiancano il tempio, con una soluzione analoga a quella della c.d. aula del Colosso nel Foro di Augusto.[51] Benché ne sfugga oggi l'esatta funzione, l'importanza rivestita da questi ambienti è testimoniata da diversi elementi: planimetricamente sono equiparati al tempio, analogamente a questo avevano un accesso diretto dal braccio orientale del portico, monumentalizzato da colonne libere – due per il vano settentrionale, tre per quello meridionale[52] – e la pavimentazione a mosaico di tessere bianche è la stessa che, all'interno dell'edificio templare, permetteva di ripercorrere l'antica memoria dell'articolazione lobata della cella.

La soluzione architettonica che si veniva a creare, con la successione di tre aule – una delle quali preminente e costituita dalla cella del tempio – affacciate sul braccio orientale del portico, richiama situazioni di ispirazione prettamente ellenistica e in particolare l'architettura palaziale, dove la presenza della c.d. *suite* dei tre vani (o *Flügeldreiraumgruppe*), accessibili solo dal portico, caratterizzava il lato privilegiato del peristilio.[53] I tre ambienti non avevano, solitamente, pari importanza, in quanto quello centrale, spesso sottolineato da colonne o pilastri *in antis*, era destinato all'ostentazione delle ricchezze del *basileus*, che qui collocava i propri beni di lusso, enfatizzati dalla ricca decorazione musiva e parietale della stanza. Tale apprestamento verrà mutuato in età tardo-repubblicana, come è noto, non solo dalle *élites* di area campano-laziale e siceliota – che nelle dimore private replicheranno il modello del dinasta – ma anche dallo stesso Augusto, che nella propria dimora sul Palatino si ispirerà largamente all'architettura palaziale pergamena.[54]

La ristrutturazione attuata agli inizi dell'età augustea potrebbe dunque aver interessato i vani (solo uno o entrambi) a lato del tempio: in questo caso le lastre di fregio con urei e disco solare alato sarebbero pertinenti alla decorazione parietale interna, mentre i capitelli si riferirebbero alle colonne che inquadrano gli accessi. Il computo del numero minimo dei capitelli, effettuato in base alle differenze caratteristiche formali delle foglie, non fornisce indicazioni utili a confermare l'ipotesi; infatti, a seconda del criterio con cui vengono considerate le caratterizzazioni degli elementi vegetali, il numero minimo oscilla da quattro a sei.

La scelta dell'iconografia egittizzante

Non è facile decifrare le motivazioni sottese alla scelta dell'iconografia egittizzante. Nel primo periodo del principato tali soggetti ebbero notevole diffusione nel repertorio figurativo augusteo, come testimoniato anche da due noti complessi di pitture parietali realizzati nella seconda metà del I sec. a.C., il cubicolo superiore della Casa di Augusto sul Palatino[55] e l'Aula Isiaca.[56]

Tra i motivi figurativi utilizzati vi sono anche soggetti che compaiono nel fregio maltese: nella Casa di Augusto figurano le corone egizie alternate ad altri soggetti isiaci,[57] mentre l'Aula Isiaca presenta la parete lunga decorata da un fregio di urei e corone. Nella dimora augustea la De Vos ha proposto di vedere una esplicita esaltazione della conquista dell'Egitto, "nascosta ma riproposta all'infinito": la serie di corone egizie indicherebbe il potere di cui Augusto si era da poco impadronito, riservando per sé l'unico regno ellenistico con una salda tradizione regale, della quale egli si sarebbe dichiarato erede diretto. Le corone sono alternate a

situlae contenenti il latte di Iside e ad anfore con acqua del Nilo (emanazione di Osiride), posti tra cobra e grifoni, i custodi regali. La sequenza, secondo la studiosa,

> 'spiega il significato dell'elemento isiaco come riferimento alla trasmissione del potere regale egizio e alla continuità dinastica, che Ottaviano Augusto aveva in mente al momento della riconversione della repubblica in impero'.[58]

Sul significato rivestito dall'uso di soggetti egittizzanti nel linguaggio figurativo augusteo – specialmente per quanto riguarda le decorazioni parietali – si sono concentrate le riflessioni di diversi studiosi, le cui posizioni si sono divise tra l'attribuzione di connotazioni religiose, l'individuazione di istanze politiche o la formazione di un gusto diffuso, una sorta di "moda".[59]

Nell'ultima tendenza si inserisce la linea interpretativa di Mariette De Vos sopra esposta – contraria a individuare alcuna implicazione religiosa nelle attestazioni parietali e musive dell'ultimo terzo del I sec. a.C. – e che è stata recentemente contestata da Magdalene Söldner, la quale ha ribadito il suo dissenso in diversi contributi sulla presenza di elementi egittizzanti nelle pitture parietali di età augustea.[60]

Nell'ambito di recenti studi, che hanno permesso di precisare le sequenze costruttive che interessarono la casa di Augusto, è stata avanzata la proposta di datare l'intera decorazione pittorica del complesso agli anni compresi tra il 42 e il 38 a.C., anticipando così di oltre un decennio la cronologia correntemente accettata.[61] Se le ricerche a venire dovessero confermare che la realizzazione dell'apparato decorativo è effettivamente databile prima dello scontro del 31 a.C., ne consegue che anche il significato ideologico attribuito ai simboli egizi dovrà essere diversamente valutato.

Come interpretare, quindi, la presenza a Tas-Silġ di un soggetto così fortemente connotato e a prima vista estraneo alla tradizione religiosa del santuario? Che si tratti di una committenza di alto livello non credo sia in dubbio: l'ottima fattura del fregio con urei e la complessità della raffigurazione potrebbero indicare la provenienza da una bottega urbana o egiziana, così come la qualità del marmo.

Ritengo che attribuire ai soggetti maltesi un preciso e univoco significato – sia esso religioso o politico – potrebbe impedire di cogliere la realtà, più sfumata e molteplice, del contesto culturale in cui si è svolto l'intervento. Dal momento che le lastre di fregio – sia che fossero poste sulla trabeazione del lato orientale del portico, sia che si trovassero all'interno dei vani che concludevano i bracci nord e sud – dovevano decorare le strutture prossime al tempio, non si può escludere a priori un'implicazione religiosa. Come è noto, nella pratica religiosa di Tas-Silġ alla divinità fenicia Astarte subentrarono prima la dea greca Era e poi la romana Giunone, la venerazione delle quali è attestata da un cospicuo numero di attestazioni epigrafiche, mentre mancano finora dati archeologici che possano rimandare al culto di Iside. È tuttavia necessario osservare che Iside, dea πολυμορφή e μυριονύμη per eccellenza, possedeva sicuramente caratteristiche che bene si potevano adattare alla divinità femminile tradizionalmente venerata nel santuario, tant'è vero che tra le epiclesi isiache si trovano anche Astarte, Era e Giunone.[62] Certamente a questa istanza si sommava il significato politico, che trovava giustificazione all'interno dell'ideologia e della propaganda augustea: i simboli dell'Egitto (in particolare le corone) suggellavano la proclamazione di Ottaviano a erede di Alessandro e sovrano delle terre riservate al conquistatore, come recitava la paradigmatica iscrizione sul *solarium* del Campo Marzio. A ciò si aggiunga il particolare contesto dell'isola, da sempre crocevia di scambi – e non solo di merci – all'interno del Mediterraneo: se la conquista dell'Egitto ne portò l'*imagerie* a far parte del repertorio figurativo romano, d'altra parte la nuova provincia entrò prepotentemente all'interno dei flussi commerciali anche in virtù della sua potenza economica. Il santuario di Tas-Silġ va senz'altro considerato in questo quadro di circolazione di uomini, merci e – non da ultimo – idee; nel santuario a vocazione internazionale, costruito in posizione dominante sulla baia di Marsaxlokk (uno dei porti più importanti dell'isola), era forse possibile venerare Iside, protettrice della navigazione così come Era-Giunone, divinità "ufficiale" e tutelare dei venti, senza che questo fosse sentito come

problematico. Il sostrato punico (da sempre molto forte, se al momento della costruzione del nuovo altare, rifondato in età ellenistica secondo forme greche, l'iscrizione dedicatoria alla "signora Astarte di Malta" fu redatta in caratteri neopunici[63]) facilitò sicuramente il "riconoscimento" del soggetto iconografico, in special modo quello del disco solare alato.

Un interessante spunto di riflessione proviene da un altro contesto cultuale maltese, il santuario di Apollo a *Melita*; come è noto grazie alle indagini condotte negli ultimi anni nell'odierna Mdina,[64] del tempio – sino a pochi anni fa noto solo dalle testimonianze epigrafiche[65] – si conosce ora il podio, la cui datazione può essere circoscritta alla fine del I sec. a.C. Dall'area provengono due frammenti di decorazione architettonica egittizzante: si tratta di un frammento di piccola cornice a gola egizia in calcare decorata da un elemento alato (verosimilmente l'estremità di un disco solare) e un frammento in marmo raffigurante la parte centrale del corpo di un ureo.[66] La limitatezza dei pezzi conservati e il contesto di rinvenimento non consentono di pronunciarsi ulteriormente sulla loro collocazione né tanto meno sulla datazione. Nel caso del tempio di Apollo la presenza dell'ureo è più facilmente comprensibile rispetto al santuario di Astarte: ricordo che a Roma i capitelli corinzieggianti del tempio di Apollo *in Circo* erano decorati dal tripode affiancato da due urei.[67]

Sono molti gli elementi che ci sfuggono, in primo luogo l'entità dell'intervento praticato a Mdina e il rapporto (cronologico, ma non solo) con la ristrutturazione documentata a Tas-Silġ; da questo momento in poi, come già osservato,[68] sarà la città di *Melita* a rivestire il primato politico e religioso dell'isola, mentre il *sanctissimum et antiquissimum* santuario di Astarte, dopo quest'ultimo periodo di splendore, sembra vivere nell'anonimato sino alla trasformazione di età bizantina.

Notes

1 Pubblicate al termine delle campagne di scavo annuali; una sintesi sulle fasi edilizie del complesso è in M. Cagiano De Azevedo, 'La campagna 1970', in *Missione Archeologica Italiana a Malta. Rapporto preliminare della Campagna 1970*, (Roma. Consiglio Nazionale delle Ricerche, 1973), 97-100.

2 A. Ciasca, M.P. Rossignani, 'Scavi e ricerche della Missione Archeologica Italiana a Malta', in *Malta Archaeological Review*, vol. 4, (Malta. 2000) 51-67; M.P. Rossignani, 'Il santuario in età tardo-ellenistica', in M.G. Amadasi Guzzo e A. Cazzella, (edd.) *Un luogo di culto al centro del Mediterraneo: il santuario di Tas-Silġ a Malta dalla preistoria all'età bizantina*. Atti della Giornata di Studio tenuta all'Università degli Studi di Roma "La Sapienza", 21 marzo 2005, *Scienze dell'Antichità*, vol. XII, (2004-2005), 355-365; M.P. Rossignani, in 'Il santuario di Hera-Astarte a Malta in età ellenistica', in X. Lafon et G. Sauron (edd.) *Théorie et pratique de l'architecture romaine. Études offertes à Pierre Gros*, (Aix-en-Provence. Publications de l'Université de Provence, 2005), 259-268; M.P. Rossignani, 'La ripresa delle indagini della Missione Archeologica Italiana a Malta. Nuovi dati dal santuario di Tas-Silġ e dalla villa di San Pawl Milqi', in *Rendiconti della Pontificia Accademia Romana di Archeologia*, vol. LXXVIII, (2005-2006), 183-273; M.P. Rossignani, 'Il santuario di Astarte a Malta e le successive trasformazioni del suo volto monumentale', in S. Helas e D. Marzoli (edd.) *Phönizisches und punisches Städtewesen*. Akten der internationalen Tagung in Rom von 21. bis 23. Februar 2007, Iberia Archeologica 13, (Mainz am Rhein, 2009) 115-130; M.P. Rossignani, 'Le ricerche della Missione Archeologica Italiana nel santuario di Tas Silġ', *Tas-Silġ. Its Past, Present and Future*, (Atti del Simposio internazionale, Valletta 23-24 novembre 2006), (Valletta, in stampa); F. Bonzano 2007, *L'area centrale del santuario di Tas-Silġ a Malta in età tardo-ellenistica*, Tesi di Dottorato di Ricerca in Archeologia dei processi di trasformazione. Le società antiche e medievali, Università Cattolica del Sacro Cuore di Milano, ciclo XIX, 2005-2006.

3 B. Bruno, *L'arcipelago maltese in età romana e bizantina. Attività economiche e scambi al centro del Mediterraneo*, (Bari. Edipuglia, 2004), 107.

4 Bonzano, 53-101.

5 Non è possibile determinarne la provenienza; devo l'informazione al dott. R. Bugini (Centro C.N.R. "Gino Bozza", Politecnico di Milano), che ringrazio.

6 US 4599, rinvenuto nel 2000 nel riempimento di una buca praticata nella pavimentazione del lato Ovest del portico; inedito. Dim. max. cons.: alt. cm 14,3; largh. cm 25,5; prof. cm 12,5.

7 N. inv. 926: rinvenuto nel 1967 nei "vani 17-19",

tra il riempimento della trincea di spoliazione delle fondazioni del portico. Dim. max. cons.: alt. cm 11; largh. cm 20; prof. cm 9,5. M. Cagiano De Azevedo, 'Rinvenimenti vari', in *Missione Archeologica Italiana a Malta. Rapporto preliminare della Campagna 1967*, (Roma. Centro di Studi Semitici - Istituto di studi del vicino Oriente - Università di Roma, 1968), 49; tav. 14, 3; A. Bonanno, 'Egyptian Iconography in ancient Maltese Art', *Treasures of Malta*, II, 3 (Summer 1996), 43-47; A. Bonanno, 'An Egyptianizing Relief from Malta', in N. Bonacasa et al., *L'Egitto in Italia, dall'Antichità al Medioevo*, Atti del III Congresso Internazionale Italo-Egiziano, Roma-Pompei, 13-19 novembre 1995, (Roma. Consiglio Nazionale delle Ricerche, 1998), 217-228, fig. 2; A. Bonanno, *Roman Malta. The Archaeological Heritage of the Maltese Islands*, (Roma. Confederazione Mondiale degli Exallievi ed Exallieve di Don Bosco, 1992), fig. 41.

8 N. inv. 816: rinvenuto nel 1966 nel "vano 43"; inedito. Dim. max. cons.: alt. cm 8; largh. cm 3,5; prof. cm 5.

9 N. inv. 5/7; rinvenuto nel 1963 nel "vano 4"; inedito. Dim. max. cons.: alt. cm 11; largh. cm 5,7; prof. cm 5.

10 Per una particolareggiata descrizione si veda in particolare Bonanno, 1998; a tutt'oggi non mi è stato possibile prendere visione del pezzo, pertanto la documentazione che qui si propone è tratta dalle pubblicazioni dello studioso maltese.

11 Bonanno, 1996, 47; Bonanno, 1998, 223.

12 M. Cagiano de Azevedo, 'Gli scavi della Campagna 1967', in *Missione Archeologica Italiana a Malta. Rapporto preliminare della Campagna 1967*, (Roma, 1968), 99-101, fig. 3; C. Bonetti e C. Perassi, 'Nuove acquisizioni sulla vasca battesimale di Tas-Silġ. Analisi dei dati di scavo e della struttura. Il deposito monetale', *Rendiconti della Pontificia Accademia Romana di Archeologia*, vol. XVIII, (2005-2006), 201-255; Rossignani, 2005-2006; M.P. Rossignani, 'La fase cristiana del santuario di Tas-Silġ a Malta: conferme alle ipotesi degli anni Sessanta', *Inventario di una eredità. L'attualità del pensiero archeologico di Michelangelo Cagiano de Azevedo*; Atti della Giornata di Studi, Bagnoregio 2007, (Bagnoregio. 2009, 55-68).

13 Bonanno, 1996, 47; Bonanno, 1998, 227.

14 Per le motivazioni dell'identificazioni rimando a Bonanno, 1996; una recente sintesi sulle caratteristiche delle due divinità è in G. Spinola, 'Alcune sculture egittizzanti nell'area lateranense: nuove testimonianze dell'Iseum Metellinum', *Bollettino. Monumenti, Musei e Gallerie Pontificie*, vol. XXI, (2001), 76-101.

15 Bonanno, 1996, 46; Bonanno, 1998, 221.

16 E.A.A. Arslan, (ed.), *Iside. Il mito, il mistero, la magia*, Catalogo della mostra 21 febbraio-1 giugno 1997, (Milano. Electa, 1997).

17 F. Dunand, 'Les représentations de l'Agathodémon. À propos de quelques bas-reliefs du Musée d'Alexandrie', *Bulletin de l'Institut Français d'Archéologie Orientale*, vol. LXVIII, (1969), 9-48.

18 R. Pirelli, 1997, Cat. IV. 232-235, 235-236, in Arslan.

19 A. Roullet, *The Egyptian and Egyptianizing monuments of imperial Rome*, (*Études préliminaires aux religions orientales dans l'Empire romain*, 20), (Leiden. Brill, 1972), Pl. XIX-XXI; K. Parlasca, 2005, 'Ägyptisierende Tempelreliefs und Architekturelemente aus Rom', in L. Bricault (ed.) *Isis en Occident, Actes du II[ème] Colloque International sur les études isiaques, Lyon 2002*, (*Religions in the Graeco-Roman World*, 151), (Leiden – Boston, 2005), 415, 419; Abb. 12.

20 F. Rakob, 'Numidische Königsarchitektur in Nordafrika', in H. G. Horn et al. (edd.) *Die Numider. Reiter und Könige nördlich der Sahara*, (Bonn. 1979), 120-132, fig. 35; F. Rakob, *Simitthus II. Der Tempelberg und das römische Lager*, (Mainz. Ph. von Zabern, 1994), 20-22, Abb. 26-27, Taf. 31

21 A. Di Vita, 'Influences grecques et tradition orientale dans l'art punique de Tripolitaine', *Mélanges de l'École française de Rome, Antiquité*, vol. LXXX, (1968), 19-27, figg. 6-7; A. Di Vita, 'Il mausoleo punico-ellenistico B di Sabratha', *Mitteilungen des Deutschen archäologischen Instituts. Römische Abteilung*, vol. LXXXIII, no. 2, (1976), 281, fig. 5.

22 Pur esprimendo dubbi sul fatto di utilizzare la resa stilistica della rosetta come indicatore cronologico, sulla base di analogie con la decorazione architettonica del Foro di Traiano a Roma lo studioso restringe la datazione tra la seconda metà del I sec. e gli inizi del II sec. d.C. (così in Bonanno, 1998, 218, anche se nella pubblicazione del 1996 l'Autore non esclude che il fregio possa essere stato realizzato nel I sec. a.C.).

23 A tal proposito, ringrazio per la consulenza la prof. ssa Patrizia Piacentini (Università degli Studi di Milano).

24 L'imperatore era stato salutato in Egitto come ἀγαθός δαίμων τῆς οἰκουμένης, secondo quanto riportato da un'iscrizione rinvenuta presso la sfinge di Chephren (Dunand, 30).

25 P.M. Fraser, 1984, 'A plaster anguiform Sarapis', in N. Bonacasa e A. Di Vita, (edd.) *Alessandria e il mondo ellenistico-romano. Studi in onore di A. Adriani*, Studi e Materiali, 5, (Roma. L'Erma di Bretschneider, 1984), 348-351; S. Bakhoum, *Dieux égyptiens à Alexandrie sous les Antonins. Recherches numismatiques et historiques*, (Paris. Centre national de la recherche scientifique, 2002), 138, Pl. XXX.

26 F. Dunand, 'Agathodaimon', in *Lexicon Iconographicum Mythologiae Classicae*, vol. I, (Zurich and Munich. Artemis, 1981), 281.

27 Dunand, 1969, 31; Dunand, 1981, 281.

28 Spinola, 98-101.

29 Ibid., 92.

30 Ibid., 94-97, figg. 20-21 con bibliografia precedente.

31 Alla fine del 2006 sono stati avviati i lavori di riqualificazione dell'area archeologica del mausoleo, con conseguente movimentazione e restauro dei pezzi conservati all'interno del monumento. Mi è stato possibile prendere visione del blocco grazie alla disponibilità della dott.ssa Nadia Agnoli (Soprintendenza Comunale di Roma), responsabile dell'area, che ringrazio sentitamente.

32 L'immagine compare sul frontespizio del volume dedicato dalla studiosa alle manifestazioni di "egittomania" nelle pitture di ambito campano e laziale della prima età imperiale: M. De Vos, *L'egittomania in pitture e mosaici romano-campani della prima età imperiale. Études préliminaires aux religions orientales dans l'Empire romain*, 84), (Leiden. Brill, 1980).

33 Benché la resa dell'elemento sia schematica,

il pezzo, corredato dalla didascalia "*fiore entro riquadri*", è ben riconoscibile. Tuttavia non è dato sapere dove l'architetto senese vide la cornice, anche se il fatto che lo schizzo compaia insieme a elementi del mausoleo potrebbe autorizzare a pensare che la cornice fosse nell'area già nel XVI secolo.

34 Ibid., 74.

35 H von Hesberg e S. Panciera, *Das Mausoleum des Augustus. Der Bau und seine Inschriften*, (Munich. Bayerischen Akademie der Wissenschaften, 1994), 35, n. 225; tuttavia in un primo tempo lo studioso aveva riferito la cornice al secondo ordine del Mausoleo (H. von Hesberg, 'Das Mausoleum des Augustus', in *Kaiser Augustus und die verlorene Republik: eine Ausstellung in Martin-Gropius-Bau*, (Mainz. Ph. Von Zabern, 1988), 245-248, cat. n. 113); questa interpretazione è riportata anche dalla Reeder, che però fraintende l'identificazione della cornice con uno degli elementi di trabeazione dorica, come si deduce dai riferimenti alla documentazione fotografica di elementi che, secondo l'Autrice, dovrebbero appartenere alla medesima cornice (C.J. Reeder, 'Typology and Ideology in the Mausoleum of Augustus: Tumulus and Tholos', *Classical Antiquity*, vol. XI no. 2, (1992), 274, n. 55).

36 Largh. max. cons. cm 38; lungh. max. cons. cm 47; prof. cm 16.

37 L'ipotesi di von Hesberg è accettata anche da Parlasca 2005, op. cit.; Reeder, op. cit.; M. Söldner, 'Ägyptische Bildmotive im augusteischen Rom. Ein Phänomen in Spannungsfeld von Politik, Religion und Kunst', in H. Felber e S. Pfisterer-Haas (edd.), *Ägypter–Griechen–Römer. Begegnung der Kulturen* (Kanobos, 1), (Leipzig. Ägyptisches Museum der Universität, 1999), 107; M. Söldner, «...fruchtbar im Sommer der Nil strömt voll erquickender Flut» (Tibull 1, 7, 21ff.). 'Ägyptenrezeption im augusteischen Rom', *Antike Welt*, vol. XXXI no. 4, (2000), 387-388.

38 Per la discussione sul monumento si rimanda alla bibliografia di base: P. Zanker, *Augusto e il potere delle immagini*, (Torino. Bollati Boringhieri, 1989), 79-84; H. von Hesberg, 'Mausoleum Augusti: das Monument', in E.M. Steinby, (ed.) *Lexicon Topographicum Urbis Romae*, vol. III, H-O, (Roma. Edizioni Quasar, 1996), 234-237; P. Gros, *L'architecture romaine du début du III^e siècle av. J.-C. à la fin du Haut-Empire. 2. Maisons, palais, villas et tombeaux*, (Paris. Picard, 2001), 428-430.

39 N inv. 2124/1, rinvenuto nel 1968 nel vano 18. Dim. max. cons.: alt. cm 6; largh. cm 6; prof. cm 9,5.

40 S. n. inv. Dim. max. cons.: alt. cm 15; largh. cm 12; prof. cm 7.

41 N inv. 1250/2; rinvenuto nel 1964 nell'area a sud del tempio; inedito. Dim. max. cons.: alt. cm 9; largh. cm 11; prof. cm 8,5.

42 N. inv. 663, rinvenuto nel 1965 nel vano 27. Dim. max. cons.: alt. cm 18; largh. cm 10; prof. cm 9,5. A. Ciasca, 'Lo scavo', in *Missione Archeologica Italiana a Malta. Rapporto preliminare della Campagna 1965*, (Roma. Centro di Studi Semitici - Istituto di studi del vicino Oriente - Università di Roma, 1966), 44, n. 1, tav. 33,1.

43 N. inv. A 21/211, rinvenuto nel 1964 a Est del vano 4; inedito. Dim. max. cons.: alt. cm 10; largh. cm 9; prof. cm 12. Non è da escludere la pertinenza al fregio precedentemente descritto (si tratta anche del frammento con maggiore profondità), anche se le caratteristiche del marmo sembrano avvicinarlo al secondo gruppo.

44 N. inv. 902/1, rinvenuto nel 1967 nel vano 44; inedito. Dim. max. cons.: alt. cm 7; largh. cm 6; prof. cm 10,5.

45 P. Wagner, *Der ägyptische Einfluss auf die phönizische Architektur*, Habelts Dissertationsdrucke. Reihe klassische Archäologie, 12, (Bonn. R. Habelt, 1980). Un cobra è dipinto all'interno della celebre tomba dell'ureo a Cagliari: P. Mattazzi, 'La tomba "dell'ureo": note a margine', *Rivista di Studi Fenici*, vol. XXII no. 1, (1994), 15-35. Estremamente frequenti sono, poi, le attestazioni del motivo iconografico costituito dal disco solare abbinato a quello della fila di urei, resi frontalmente e in modo schematico. Si vedano un'edicola da Tharros: E. Acquaro, *Arte e cultura punica in Sardegna*, (Roma. Carlo Delfino Editore, 1984), fig. 1, il coronamento di un'edicola da Nora: S. Moscati, *Fenici e Cartaginesi in Sardegna*, (Nuoro. Ilissio Edizioni, 2005), fig. 18, p. 153; due stele con analogo soggetto, una proveniente da Sulcis e l'altra da Monte Sirai, raffigurano una figura femminile all'interno di una struttura con pilastri coronati da capitelli eolici e trabeazione con gola egizia decorata da disco solare alato sormontata da fregio di urei: Moscati, fig. 73, p. 221 e fig. 75, p. 224.

46 Roullet, Pl. XXXVI, 50-51.

47 L'identificazione è del dott. R. Bugini. In bibliografia l'esportazione ad ampio raggio del marmo proconnesio è datata a partire dall'età di Domiziano: P. Pensabene, 'Il fenomeno del marmo nella Roma tardo-repubblicana e imperiale', in *Marmi antichi, 2. Cave e tecnica di lavorazione. Provenienze e distribuzione*, Studi Miscellanei, 31, (Roma. L'Erma di Bretschneider, 1998), 345-346.

48 Si conservano per la maggior parte frammenti di sommoscapo di colonna, oltre a metà di un rocchio liscio; i diametri ricostruibili oscillano tra cm 53 e 63.

49 Come già ipotizzato da Rossignani, 2005, 261-262, e confermato da recenti ricerche, la corte-peristilio adottava ordine dorico sui lati ovest, nord e sud, mentre il lato orientale adottava basi ioniche e capitelli corinzio-italici.

50 Una serie di riflessioni, anche di carattere strutturale, porta a escludere la possibilità di collocare i fregi in prossimità del propileo alla corte-peristilio o dell'ingresso al tempio.

51 P. Gros, *Aurea templa: recherches sur l'architecture religieuse de Rome à l'époque d'Auguste*, (Roma. École française de Rome, 1976).

52 La disomogeneità nel numero delle colonne è dovuta al fatto che il lobo del tempio non è assiale rispetto alla corte-peristilio.

53 La bibliografia a riguardo è considerevole: si vedano I. Nielsen, *Hellenistic Palaces: Tradition and Renewal*, (Aarhus. Aarhus University Press, 1994); W. Höpfner, 'Zum Typus der Basileia und der königlichen Andrones', in W. Höpfner e G. Brands (edd.) *Basileia. Die Paläste der hellenistischen Könige*, Internationales Symposion in Berlin, 1992, (Mainz am Rhein. Ph. Von Zabern, 1996), 1-43 con bibliografia precedente.

54 P. Gros, 'Le palais hellénistique et l'architecture augustéenne; l'exemple du complexe du Palatin', in Höpfner e Brands 234-239; Gros, 2001), 233-241.

55 Sulla quale, da ultimo, I. Iacopi, *La casa di Augusto. Le pitture*, (Milano. Electa, 2007) con bibliografia precedente.

56 I. Iacopi, *La decorazione pittorica dell'Aula Isiaca*, (Milano. Electa, 1997), con bibliografia precedente.

57 M. De Vos, 'Nuove pitture egittizzanti di epoca augustea', in C. Morigi Govi, S. Curto, e S. Pernigotti, (edd.) *L'Egitto fuori dall'Egitto. Dalla riscoperta all'Egittologia*. Atti del Convegno Internazionale, Bologna 1990. (Bologna. CLUEB, 1991), 123, fig. 1.

58 I simboli che decorano la parete si prestano a una lettura su diversi piani; un'analisi dei motivi è in De Vos (1991), 123-124.

59 Per una sintesi sulla tradizione critica a riguardo si veda Söldner (1999), 95-99.

60 Soprattutto ibid., 95-113, con riprese e aggiornamenti in Söldner (2000), 383-393; e M. Söldner, 'Zur Funktion ägyptischer Elemente in der römischen Wanddekoration', in P.C. Bol, G. Kaminski e C. Maderna, (edd.) *Fremdheit – Eigenheit. Ägypten, Griechenland und Rom. Austausch und Verständnis*, *Städel-Jahrbuch*, vol. XIX, (2004), 201-212.

61 Secondo I. Iacopi le pitture sarebbero opera di "*un Maestro, che opera in modo del tutto originale e indipendente dagli schemi tradizionali, ma giunto a Roma in un periodo antecedente il* bellum Actiacum *perché al seguito della regina Cleopatra ospite negli Orti transtiberini di Cesare negli anni tra il 46 e il 44 a.C.*" (Iacopi, 2007, 76). La datazione alta è accettata e proposta anche in una recente pubblicazione, in cui, sulla base di considerazioni non da tutti condivise, l'Autore propone di rivedere le fasi cronologiche dell'intero complesso della casa di Augusto, operando una suddivisione tra "casa di Ottaviano" e "casa di Augusto". Alla prima sarebbe riferibile la decorazione egittizzante del cubicolo superiore: A. Carandini, *La casa di Augusto. Dai "Lupercalia" al Natale* (Roma-Bari. Laterza, 2008), 47, 158, 161-162. La complessità della questione non può essere affrontata in questa sede: si rimanda alle opere citate per una più ampia bibliografia sull'argomento.

62 L. Bricault, *MYRIONYMI. Les épiclèses grecques et latines d'Isis, de Sarapis et d'Anubis*. Beiträge sur Altertumskunde, 82, (Stuttgart. Teubner, 1996), 15, 29, 85.

63 Sull'altare ellenistico F. Bonzano, 'L'altare ellenistico del santuario: proposta di identificazione e ipotesi ricostruttiva', in M.G. Amadasi Guzzo e A. Cazzella, (edd.) *Un luogo di culto al centro del Mediterraneo: il santuario di Tas-Silġ a Malta dalla preistoria all'età bizantina*. Atti della Giornata di Studio tenuta all'Università degli Studi di Roma "La Sapienza", 21 marzo 2005. *Scienze dell'Antichità*, vol. XII, (2004-2005), 366-370.

64 N. Cutajar, 'Recent discoveries and the archaeology of Mdina', *Treasures of Malta*, vol. VIII no. 1, (2001), 79-85, particolarmente pp. 81-82.

65 CIL X, 7495; Bruno, 58; A. Bonanno, *Malta: Phoenician, Punic, and Roman*, (Malta. Midsea Books, 2005), 206.

66 Devo l'informazione alla cortesia di Nathaniel Cutajar, che ringrazio.

67 Per l'interpretazione si veda A. Viscogliosi, *Il tempio di Apollo* in Circo, (Roma. L'Erma di Bretschneider,1996), 151-154.

68 Rossignani (2004-2005), 364.

Għar Dalam: a shelter for WWII refugees and military fuel supplies

John J. Borg

Natural underground cavities have long been used by humans either as abodes or for storage purposes. These natural shelters have provided early humans with protection from the elements, from predators, as well as from other humans. The association between caves and humans is usually linked with the Stone Age, but their use by humans is not restricted to these remote periods of prehistory. In modern times caves still serve as animal pens as well as temporary and at times permanent human shelter. Caves have also been sought out as a last resort in cataclysmic or man-made events. In wartime people tend to abandon their homes, often most reluctantly, and seek shelter in safer areas.

Għar Dalam is a water-worn cave about 145 metres in length. The first 60 metres are relatively wide with a high ceiling which tapers off into small narrow chambers. Għar Dalam's main claim to fame stems from the innumerable palaeontological treasures found inside the cave, and its important role as the type locality for the earliest kind of pottery found in Malta. It was first excavated by Arturo Issel in 1865 and subsequently by numerous local and foreign naturalists.[1] The cave was opened for public viewing in March 1933 and over the years it has, together with its small museum, attracted many curious visitors.

A less known aspect of the history of Għar Dalam is connected with the outbreak of the Second World War. The constant bombing that the Maltese Islands endured in the war forced many Maltese to abandon their homes and seek shelter away from the prime danger zones. On 11 June 1940, a day after Italy declared war on Britain and France, a series of air raids was carried out on these islands. The prime targets were the harbour areas and the airfields. Following one of these early raids along the southern coast of Malta, particularly on Ħal Far airfield and the Royal Navy Air Station at Kalafrana, the handful of residents at Ħal Far and Benġhisa packed a few belongings and headed off in search of a safe shelter away from the bombed areas. A few kilometres away, safely tucked along the side of a narrow valley, lay a natural shelter that would serve their purpose. But there was one problem – this site was closed off with a gate. This did not deter the refugees, and upon arriving at their planned destination – Għar Dalam – they threatened the old deaf watchman, who was made to open the iron gate of the cave, and they flocked inside this dark shelter.[2]

The refugees of Għar Dalam

Concern over the hygienic conditions inside Għar Dalam was raised by the authorities and on 5 July 1940 at 11 a.m. a visit to Għar Dalam was carried out by Mr F. M. Stivala, the District Commissioner (Air Raid Shelters, Valletta). He was accompanied by Don Angelo Fenech, the parish priest of Birżebbuġa, Mr. Sammut, a foreman from the Electricity Department, and by the police sergeant in charge of the Birżebbuġa police station. [3] On the approach to the cave it was noted that there were many persons inside, mostly women and

children, attending to their domestic duties. The residents slept mainly on mattresses and planks but there were also a few beds. From preliminary information it was established that there were eleven persons from Cospicua whose homes had been damaged by the bombing, eleven from Kirkop, twenty from Żejtun, two from Luqa and 180 from nearby Birżebbuġa. It was then agreed that a proper census would be carried out the following Monday. The results are shown in Table 1.

Place of Origin	Adults	Children	Total
Birżebbuġa	54	45	99
Żejtun	20	15	35
Marsaxlokk	21	13	34
Cospicua	10	15	25
Valletta	1	1	2
Tarxien	1	-	1
Għaxaq	1	-	1
Totals	**108**	**89**	**197**

Table 1: Census results

Following the 5th July visit, the Birżebbuġa District Commissioner informed the District Commissioner (Air Raid Shelters) Valletta that no more persons were to be allowed to reside permanently in the cave. A month later, a minute noted in the L.G.O. file 2535/40 dated 10 August 1940 and signed by the Birżebbuġa District Commissioner, Mr J. Grima, recorded that the number of people living in the cave was decreasing gradually and up to that date totalled about 140. Furthermore all refugees were issued with non-transferable passes to control any further influx of people into the cave.

Hygiene and services

During the 5th July visit it was noted that the cave was kept clean. During a previous visit, Dr Galea, the District Medical Doctor, was satisfied with the hygienic state of the surroundings. The sanitary authorities attended daily to the sanitation of the premises and trenches were dug at about 91 metres from the cave into which urine pots and pails were emptied. Mr Stivala also suggested that the following materials and services be requisitioned forthwith for use by the Għar Dalam residents: six electric lamps, ventilation fans, the construction of one anti-blast rubble wall and one screen (jute or canvas) to go round the men's latrines. Additional facilities and works were also suggested in case the refugees were allowed to stay in Għar Dalam for the duration of the war. These included the erection of suitable covered latrines for women away from the cave, one ablution bench similar to the one found in the Valletta tunnel shelter, one rural shed for cooking, and the extension of the water supply to the vicinity of the cave. It was also suggested that one police constable would be on duty by day and a warden by night. A further request was for a chaplain to continue to attend to the spiritual needs of the refugees.

A letter dated 14 July 1940 and signed by the Chief Government Medical Officer recommended the provision for the Għar Dalam shelter of at least ten buckets with seats to serve as latrines in two screened enclosures, one for men and one for women. Moreover the 260 refugees[4] were to be supplied with petroleum tanks provided with taps to serve as water tanks until water services were extended to the vicinity of the cave. The CGMO also recommended the provision of a grease trap and soakage pit for water, and that a warden be assigned to this shelter.

Expulsion of refugees and handing over of cave to the Military

However clouds started looming over the population of Għar Dalam. A reconnaissance of the area in early September 1940 led by

Major R. J. Pope, chairman of the General Storage Committee, had the aim of examining the possibility of storing petrol inside Għar Dalam. In a letter to the Protection Officer for Birżebbuġa, Major Pope reported that according to the Army Engineers, Għar Dalam was ideal for such a purpose. He also enquired on the need to find alternative accommodation for the refugees living inside the cave. In reply to this a Government Notice was drafted which stated

> 'In exercise of the powers vested in him by Regulation 60 of the Malta Defence Regulations 1940 His Excellency the Officer Administrating the Government has been pleased to order that after the 1st October 1940 no person shall be in the area known as Għar Dalam in the vicinity of Birżebbuġa without permission of the Military Authorities.'[5]

As a result of this draft a letter was prepared by the office of the Lieutenant Governor and was sent to the District Commissioner for Birżebbuġa on 20 September 1940. It stated that the persons living in the cave who had their homes in Żejtun, Valletta and Għaxaq should experience little difficulty in returning to their native towns. Residents of Tarxien and Cospicua, however, could encounter more problems and it was suggested that these residents should seek accommodation elsewhere on the island. Should this not be possible, alternative sites, especially in the Valletta shelters, had to be sought. It was strongly recommended that because of the large number of inhabitants in Marsaxlokk and Birżebbuġa, the Għar Dalam refugees who had originally resided in those localities should be strongly discouraged from returning there. A press notice to this effect was published on 23 September and Legal Notice 482/40 was published in the Government Gazette of 24 September 1940.[6]

A letter to the General Storage Committee dated 25 September 1940 and signed by G. V. Cameron (Secretary to Government) highlighted the prehistoric importance of Għar Dalam.[7] Concern was raised regarding the necessity for the committee to be made aware of the danger of the cave being defaced with infill rubble to level the cave floor. Mr Cameron also insisted that the monument had to be restored to its previous state after the war. Mr (later Sir) Hannibal Scicluna, Acting Director of the Museums Department, was satisfied with the proposed method of treatment, provided that a layer of earth was placed on the exposed palaeontological and archaeological sections before the rubble was put in place. Further suggestions were made that a meeting was to be sought between the officer in charge of the works to be undertaken at Għar Dalam and Dr Joseph Baldacchino, Curator of the Natural History Section of the Museums Department. The aim of the meeting was to point out the exact nature of the precautionary measures needed to preserve the palaeontological and archaeological sections from damage.

Agreement with the Museums Department was followed by a Legal Notice 491/40 of 27 September 1940 which stated that: "It is hereby notified that Għar Dalam Cave and Museum at Birżebbuġa, will be kept closed to the public from 1st October until further notice".[8]

The Għar Dalam refugees reacted in a civilised manner by writing a letter to the Government. The unsigned letter, dated 25 September 1940, read as follows

> 'Sir, excuse liberty we are taking for writing to you but we are the Refugees of Għar Dalam, we like to bring to your notice that we are told to leave the cave for another destination. Sir, we don't wish to go against Military, and we are all ready to obey the order, but we are waiting to hear good news from you, we often hear and read that people must take shelter as soon as an air raid comes, and not to stay under the building, so why take us away from here to put us into houses. Sir, please we all pray to you for the sake of our children to do your best for us to leave us where we are, we thanking you in anticipation and oblige, we are all the Refugees.'[9]

Needless to say, the reply to this plea was in the negative.

The electricity bill

As electricity had been installed inside the cave for the benefit of the refugees and considering the fact that in October the military had taken over the cave, the Maltese Government in a letter dated 26 June 1941, wrote to the

Lieutenant Governor's office stating that the sum for the said installation amounted to £25.5.10d., and asking for a refund of the said sum of money.[10] Following five months of correspondence between the Maltese Government and the office of the Lieutenant Governor, the matter was finally settled on 27 December 1941 with the Air Ministry paying the bill in full.[11]

Transfer of Għar Dalam back to the Museums Department

Hostilities over the Maltese islands terminated by 1944 and a letter from the Air Ministry (Directorate of Works) to the office of the Lieutenant Governor dated 9 December 1944 announced that all the petrol stored in Għar Dalam had been removed and that the Air Ministry did not intend to make any further use of the cave. Immediate action was taken to remove the rubble and layers of earth that had been deposited on the cave floor. In a letter dated 22 December 1944, signed by A. Salomone, Secretary to Government, and addressed to the Secretary of the Antiquities Committee, it was proposed that a site meeting be held between the Royal Air Force authorities, the Public Works Department and the Antiquities Committee. The Acting Director of the Museums Department, Mr Hannibal Scicluna, agreed that a meeting should be held and appointed Dr Joseph Baldacchino, Curator of the Natural History Section, to represent the museum. The final line of Scicluna's reply emphasised the financial aspects of the clearing operation, pointing out that "I need hardly add that all expenses in connection with the work are to be borne by the Air Ministry."[12]

A meeting between all the interested parties was scheduled to be held at Għar Dalam on Tuesday 30 January 1945 at 9.30 a.m. During the meeting it was agreed that the rehabilitation of the cave necessitated the following expenses: carrying away debris on shoulder for a considerable distance with several flight of steps (1,151 cubic yards @ 10/-p.cu.yd - £575.10.0); removing sand bags and brushing surfaces (432 sq. yds @ 6s/8d p.sq.yd. - £144.00.0); reconstructing rubble walls (21 sq. canes @ £2. p.sq.yd - £42.0.0); repairs to iron rail gate, lock-key and belt (£3.10.0); providing and fixing wire netting to gate (£1.10.0), and repairing and refixing iron hand rails to passages in cave, about 450ft @ -/9d.p.ft (£16.17), reaching a total amount of £783.7.6. [13]

The presentation of the bill and the eventual payment of the above sum, however, were two different matters altogether. On 24 April 1945, the Secretary to Government received a letter from the Air Ministry (Directorate of Works) stating that the total sum involved was beyond the limit of power of settlement of his office and the matter had therefore been referred to the Air Ministry in London. Six months after the initial request was made, a letter was sent by the Air Ministry (Directorate of Works) to the Secretary to Government informing him that the total sum of £783.7.6 was passed for payment on the 19 September 1945 and that full payment was forthwith and should be received in the following days.[14]

Re-opening the cave and museum to the public

The clearing of the rubble and other debris started on 3 December 1945 under the direction of Dr Baldacchino. Mr Joseph Inglott, assistant custodian and official guide at Għar Dalam, who had also overseen the infilling works in 1941, supervised the workmen from 7 a.m. to 5 p.m. daily, so doing three hours overtime. The Director of the Museums Department strongly recommended that Mr Inglott be granted overtime allowances of 15s/- a week. The Treasury raised no objection to this demand. Progress in the clearing operation was slow as great care was given not to damage the bone-breccia layer, other bones, as well as geological features such as stalagmites and stalactites.

The Government Gazette No. 9538 of 25 March 1947 published the following statement: "It is hereby notified that the Għar Dalam Cave and Museum at Birżebbuġa will be re-opened to the public as from 1st April 1947."[15]

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Abbreviations
LGO = (file of) Lieutenant Governer's Office
LN = Legal Notice
MGG = Malta Government Gazette
NAM = National Archives of Malta

Notes

1 G. Zammit Maempel, *Għar Dalam: Cave and Deposits*, (Malta. 1989).
2 NAM, LGO 2535/40, letter dated 5th July 1940.
3 Ibid.
4 It appears that people continued to flock to Għar Dalam in the first weeks, the highest recorded total being 260. From this point onwards the numbers started to decrease, reaching 140 by August of the same year.
5 LN 482 in MGG 8761 dated 24.09.1940.
6 Ibid.
7 NAM, LGO 2535/40, letter from G.V. Cameron (for Secretary to Government) to the Chairman of the General Storage Committee dated 25th September 1940.
8 LN 491 in MGG 8762 dated 27 September 1940.
9 NAM, LGO 2535/40, letter from the refugees at Għar Dalam to the Governor dated 25th September 1940.
10 Ibid., letter from J.M. Borg Cardona (for Secretary to Government) to the Brigadier in charge of the Administration Malta Command dated 25th June 1941.
11 Ibid., letter from J.M. Borg Cardona (for Secretary to Government) to the Superintending Engineer at the Air Ministry Directorate of Works dated 27th December 1941.
12 Ibid., letter from Hannibal Scicluna (Acting Director of the Museums Department) to the Secretary to Government dated 26th December 1944.
13 Ibid., letter from A. Salomone (for Secretary to Government) to the Supt. Engineer (Air Ministry Directorate of Works) dated 13th March 1945 highlighting each cost estimate for the works to be carried out.
14 Ibid., letter Reference No. W/L.5/70 from Squadron Leader R. Young on behalf of the Wing Commander (Supt. Engineer) Air Ministry Directorate to Secretary of Government stating that the total sum of £783.7.6 was passed for payment on 19 September 1945.
15 LN 138 in MGG 9538 dated 25.03.1947.

The origin of Maltese cart-ruts: cut by wheels or tools?

Derek Mottershead

Introduction

The origin and means of formation of the cart-ruts of Malta have been matters of debate for almost a century. The principal contenders for rut formation have been wheeled vehicles, sleds, slide cars and cutting with hand tools. Most recent authors have discounted both sleds and slide cars. The former, to be of sufficient magnitude, would create unmanageable amounts of friction, whilst there is neither archaeological nor historical evidence for the latter. The most recent publications on this topic have advocated wheeled vehicles[1] or hand cutting.[2] The former combine field observation of rut form with geotechnical information on rock strength, and conclude that the passage of wheels of, for instance, a two-wheeled cart, would create more than sufficient stress on the rock beneath to cause erosion of the local rock. The latter makes the assertion that 'there is clear evidence of ancient tool marks',[3] and concludes that cutting by hand played a significant part in rut formation. This conclusion is illustrated by two photographs of field sites showing small-scale rock surface morphologies which are interpreted as ancient tooling marks. The current paper questions such an interpretation, and whether the conclusions derived from it can be sustained by the evidence provided.

The Maltese cart-ruts are formed in limestone, a water-soluble rock. Limestone varies greatly in texture and in its content of biotic and non-calcareous components. Rutted terrains in Malta are found on the Upper Coralline limestone, Lower Coralline limestone and Globigerina limestone formations, embracing rocks of differing character which illustrate some of the variety found within this broad rock type. At the core of the current issue is the nature of the surface micromorphology of these varied rocks and its accurate identification, whether created by natural subaerial erosion processes or whether human-induced. It is also germane to consider the effects of the exposure of any such newly formed surfaces to subsequent centuries of natural weathering and erosion. In this context great care (and a geomorphological eye) is required in interpreting such minor relief forms, particularly as artefacts of human activity.

There is a substantial lexicon of small scale forms, of a few millimetres in relief, on limestone surfaces exposed to weathering. This includes features of greater or lesser geometric regularity, well documented in standard texts such as Ford & Williams[4] and Trudgill.[5] In addition to such well codified forms, there also exist forms of rather less regularity. On near-vertical surfaces such as rut walls, these include contiguous quasi-circular hollows separated by cuspate ridges, and internal solutional voids within the rock now exposed by erosion. Weathering of closely jointed rock may preferentially expose the planar faces of bedding or transverse joints. At more random level, internal variations in rock fabric, degree of cementation or biotic components may be expressed on an exposed surface as relief forms created by differential weathering.

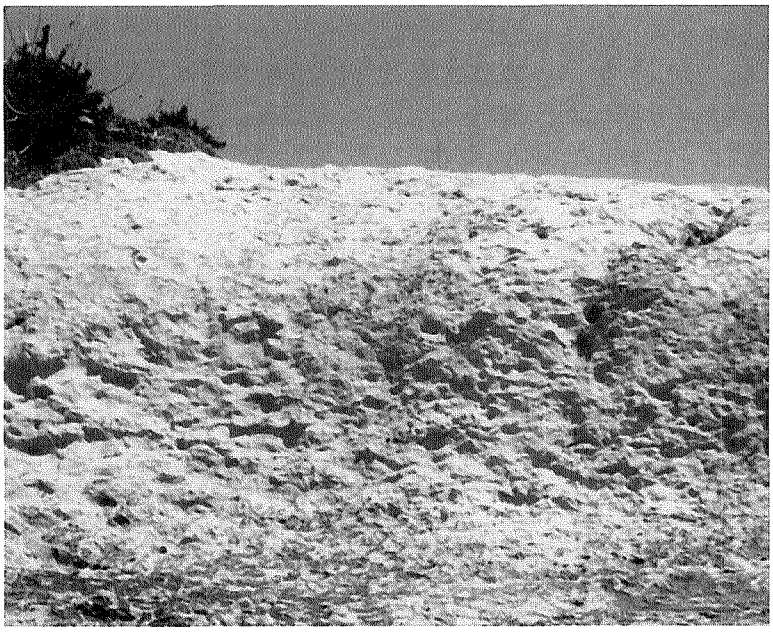

Plate 1. An ancient quarry surface at Dwejra, Gozo, showing small angular planar facets interpreted as masons' marks by Magro Conti and Saliba (2007, Fig. 59).

The Field Evidence

The evidence presented by Magro Conti and Saliba consists of two medium range photographs showing the morphology of rock surfaces, one an ancient (sic) quarry near Dwejra, Gozo, cut in Globigerina limestone, the other the sidewall of a cart-rut incised into Upper Coralline limestone at Misraħ Għar il-Kbir, Malta.

The Dwejra site (Plate 1) appears to show a bedrock slope of 40-70°, which in a high contrast image reveals a number of planar micromorphological elements, in the form of angular facets approximately vertical in orientation.[6] There also appears to be a significant number of quasi horizontal slope elements, with markedly angular junctions between the various planar facets. No scale is given, but they appear to be of the order of a small number of centimetres in vertical extent, with lateral dimensions up to maybe 15 cm in several cases. It is implied that this morphology represents marks created by a chisel or the blade of masons' picks.

There is, however, a plausible alternative explanation. These planar forms, with sharp angular boundaries, are also suggestive of joint planes, lines of fracture within the rock which have been preferentially exposed by surface weathering and erosion through the action of natural processes. Globigerina limestone is a rock of high porosity 32-41%[7] and consequent very low shearing strength of 2.20-3.85 MPa[8] and it is here directly exposed on a moderately steep slope. Directly exposed to solar radiation, it consequently experiences large and rapid temperature changes (far higher than the diurnal air temperature range), and also the deposition of damaging marine salts at high concentration in a near-coastal environment. Surface rock at this site is also directly exposed to the impact of falling raindrops, which directly apply a shearing force that increases rapidly on slopes of 45° and above. This hostile weathering environment promotes dissolution of the soluble limestone, particularly at grain boundaries, and creates mechanical stresses at these weak points by slaking (wetting/drying cycles), expansion/contraction cycles, thermal shock and salt crystallisation. Disaggregation of the rock will ensue as raindrop impact forcibly detaches loosely adherent grains and particles of rock. A soluble rock of low mechanical strength in such a weathering environment is therefore highly vulnerable to weathering (breakdown) and erosion (removal of debris). These processes would be most effective within and adjacent to existing planes of weakness within the rock, such as joints. Under these circumstances rock breakdown would initially be concentrated locally around the joints, which would in turn become exposed as planar facets as weathered material is removed, to create the type of surface micromorphologies apparent in the illustration.

Rates of weathering and erosion on Globigerina limestone can be inferred from exposed rock surfaces of known age, such as historic structures. Cavities formed by weathering and erosion on bastions in Valletta, for example, commonly show 20 mm of erosion over a period of 450 years. Applying such a rate to an 'ancient' quarry which, if related to the cart-ruts, may well be over 2000 years old, suggests that up to 100 mm of surface rock may well have been eroded over such a timescale from the site illustrated. If this is the case, then it is extremely unlikely than any original masons' marks remain on this particular rock over such a timescale; if any had existed they would by now have been obliterated by weathering and erosion. In

Plate 2. Oblique view of a rut sidewall showing curved parallel grooves, convex upwards, interpreted as masons' tooling marks by Magro Conti and Saliba (2007, Fig. 47). The field notebook rests on the lichen covered rock surface into which the rut is vertically incised.

contrast, however, if they are natural features the relatively fresh forms now apparent would be under constant recreation, refreshed by continuing erosion.

The evidence presented from Misraħ Għar il-Kbir presents a different kind of problem.[9] It comprises a sub-parallel set of curved flutes, of apparently very low relief, formed on the surface of a cart-rut wall in Upper Coralline limestone. The flutes appear to be approximately 10 mm in width and ~100 mm in length (Plate 2).

Their longitudinally curved form is convex upwards and steepening downwards. They are described categorically as 'hand cut tool marks'.[10] It is not stated what tool might have been employed or how such a tool may have been applied. The most likely tool at this scale would appear to have been a chisel-headed pick, rotating across the rock surface and etching a curved groove laterally into the rut wall. The interpretational problem created by these forms is that the axis of rotation of any tool would have been substantially below the original rock surface (Fig.1A); in other words, the rut could not have been cut downwards from the rock surface because the orientation of the curvature requires any tool to have been held below the surface itself. An alternative possibility is that the pick was used to excavate the rut by longitudinal extension, cutting back a terminal headwall (Fig. 1B). This case permits the pick to be held below the ground surface with the axis of rotation within the existing rut. The arc produced by the cutting action, however, would tend to undercut the headwall to create an overhang at the rut head. This would then need to be removed, the simplest way to achieve this being a vertical blow to the rock surface above the unsupported overhang. There is, however, no trace of marks suggesting the latter action.

A more likely style of attack with a tool would be from the surface downwards (Fig. 1C), which would create a vertical impact of the tool head, and tool marks which describe a circular arc initially orthogonal to the rock surface, then curving downwards towards the user. This procedure would also be the obvious way also to extend the headwall, bringing the blade downwards vertically on the surface in order to maximise the lateral tensile stress against the unsupported open headwall. This approach would make maximum use of the mass of the pick, and impose far less stress on the wrist in wielding it. To hold the tool low, lifting it above wrist height before rotating it is just not a natural or energy-efficient movement. It would appear that any energy efficient mode of tooling attack requires a vertical blow to the rock surface, which would create grooves of significantly different form to those described by Magro Conti and Saliba. It is concluded that the morphology of the grooves in Plate 2 is therefore most unlikely to have been formed by masons' tooling.

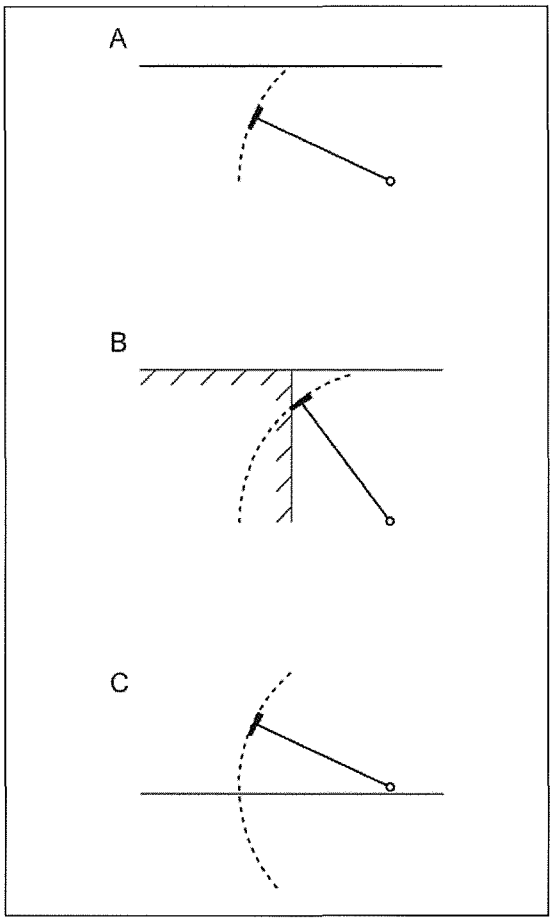

Fig. 1. Arcs of rotation caused by differing modes of attack in hand cutting a rock surface.
A) the attack required to create the groove pattern shown in Plate 2.
B) the arc formed by attacking a headcut wall with the axis of rotation required to form the groove pattern of Plate 2.
C) the groove pattern created by a normal attack on rock forming the ground surface.

A further issue is that the supposed tooling marks appear to have a length of at least 100 mm. It would appear that in order to generate sufficient momentum to form such marks, which would evidently represent a single sweep of the tool, a metallic head of significant mass would be required. No archaeological evidence of such artefacts has been presented which, given the abundance of cart-ruts across the islands, is perhaps surprising.

Furthermore, although the image is described as showing an absence of dissolution features, a number of fossil fragments appear to stand out from the rut wall surface, and an area of bas-relief in the wall appears to reveal a sediment-filled cavity. These areas of differential relief are, in fact, indicative of differential dissolution and show that weathering has indeed taken place since the formation of the rut. Although there is no obvious alternative interpretation of these fluted forms other than some material variation of unknown source within the rock fabric, the arguments presented above suggest strongly both that they were not formed by human tooling, and that significant subsequent dissolution has taken place since rut formation. Such dissolution is likely to have diminished rather than preserved any original tool marks.

Discussion

It is argued above that the evidence presented for tooling marks in relation to both ancient quarrying and cart-rut formation creates significant difficulties of interpretation. Furthermore, there are difficulties in both cases as to whether original forms supposedly created over 2000 years ago could have survived subsequent weathering and erosion.

Resolution of this contention requires an independent test of the nature of masons' marks, and of their capacity for survival over a long period of historic time. Such a test would consist of an examination of locations where the following conditions are satisfied:-

that stonemasons would have been active

there would have been no competing activities capable of creating cut surfaces, and

cut rock surfaces have been exposed since their formation.

The opportunity for such a test exists locally in the form of ancient quarries such as those at Misraħ Għar il-Kbir where grooves cut into the solid rock have been manufactured in cutting out regular ashlar blocks, and Imtaħleb, where cut quarry faces over one metre high remain exposed. If masons' marks are to exist anywhere, then they would surely be present at such quarry sites, where processes other than deliberate cutting are most unlikely to have been operative. A careful search of both sites, in glancing sunlight, of surfaces self-evidently cut by human artifice revealed no marks of the kind interpreted by Magro Conti and Saliba as tooling marks. If similar marks to those described by Magro Conti and Saliba cannot be found in such locations, where they are most likely to exist, then it can be concluded either that they were not created by masons or that any masons' tooling marks which may have been created have been destroyed by subsequent weathering and erosion. In either case it is implied that marks described by Magro Conti and Saliba have some other cause.

Recent evidence of the relationship between rut patterns and limestone rockhead

relief (the form of the bedrock surface beneath an overburden cover) has led to a new model of rut formation.[11] It is reasoned that ruts were initially formed on the surface of soil material overlying a buried rock surface. Erosion of the soil by passing traffic gradually exposed the underlying bedrock, onto which the cart tracks became superimposed, incising ruts into the newly exposed rock. In this way, the ruts would be formed by linear abrasion along the lines of the wheel tracks. Patterns indicative of longitudinal abrasion along the length of the rut are shown, for example, by the ruts at Imtaħleb (Plate 3), where longitudinally persistent edges and shelves in the rut walls form consistent cross sections along the length of the ruts.

Plate 3. Cart-rut at Imtaħleb showing multiple levels in the rut walls formed by longitudinal abrasion.

Conclusion

The evidence presented by Magro Conti & Saliba in support of hand tooling, to this author at least, appears less than conclusive. In the light of careful consideration of small scale forms on limestone surfaces, and of natural weathering and erosion processes, it is contended that rather stronger evidence would need to be presented before an unequivocal interpretation of human action can safely be made. This would include consideration of the clarity, detail, frequency and distribution of the forms supposedly created by human handiwork. The case would be strengthened by independent evidence of their origin, and also a consideration of the likely style of tool usage. It is particularly the nature of geomorphological features, where similar forms may represent the end point of more than one process, that there is danger in inferring process from form without independent supporting evidence.

A broader perspective on rut formation can be taken by considering the rut network as a whole. Summing up the currently extant ruts presented in the gazetteer of Magro Conti and Saliba[12] suggests that c. 35 km of ruts remain. The rut planform sketches provided make it clear that those that remain are merely fragments of much more extensive patterns, whose original length is clearly a substantial multiple of the remaining network fragments. It would appear inherently unlikely that any significant fraction of the original whole was cut by hand, given the resources of human labour and tools that that would demand.

Acknowledgements
I am indebted to Reuben Grima for a stimulating discussion which greatly clarified my thinking on this topic, to Alastair Pearson for thoughtfully reviewing an earlier draft of this paper, and to Bill Johnson for drafting Figure 3.

Notes

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2 Magro Conti, J. & Saliba, P.C. (eds.), *The Significance of Cart-ruts in Ancient Landscapes*, (Malta. Midsea Books, 2007).

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4 D.C. Ford and P. Williams, *Karst Geomorphology and Hydrology*, (London. Unwin Hyman, 1989).

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6 Magro Conti and Saliba, fig. 59.

7 J. Cassar, 'Deterioration of the Globigerina Limestone of the Maltese Islands', in S. Siegesmund, T. Weiss and A.Vollbrecht (eds.), *Natural Stone, Weathering Phenomena, Conservation Studies and Case Studies*, (Geological Society of London Special Publication 205, 2002), 33-49.

8 J. Saliba, *The shear strength of Globigerina Limestone*. B.E.&A.(Hons.) unpublished dissertation, University of Malta, (1990).

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10 Ibid., 57.

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12 Magro Conti and Saliba. 193-287 in Appendix I. Gazetteer of cart-ruts in the Maltese Islands.

The conservation project and archaeological excavation of the old Parish Church at Siġġiewi – an intermediate report [1]

Paul C. Saliba

Introduction

Until December 2007 the old parish church of Siġġiewi, dating back to the late medieval period, and occupying a central location within the village core, had been in a neglected and dilapidated state for a very long time, so much so that the remaining ruins were almost totally covered with debris and thick vegetation (Plates 2; 9A; 9D; colour plate 2A; Fig. 4 and colour plate 3). While passing by the walled-up and highly degraded site, the inhabitants of Siġġiewi barely knew that beneath the soil and vegetation were the remains of their first parish church and the cemetery where most of their ancestors had been buried.

The idea for the conservation of the site was originally conceived when Fr. Albert Buhagiar, Parish Priest of Siġġiewi, together with the Hon. Architect Ninu Zammit, then Minister for Resources and Infrastructure, and the Kummisjoni Patrimonju Siġġiewi considered a plan for the upgrading of the old Parish Church and its immediate surroundings. Within a very short time the conservation of the site was entrusted to the Restoration Unit within the Works Division.

The primary aim of the conservation project was to bring to light once again all the church ruins, and preserve them for the enjoyment of present and future generations. The site is now open to the general public who can visit the ruins of the church. The church vestry has been converted into a site museum and houses some of the most important finds retrieved during the excavation (Colour plate 1D and plate 8). All works were carried out by an interdisciplinary team of experts, in full collaboration with the Parish Church authorities, as owners of the site.[2]

The project was carried out in the following phases, namely the removal of trees and vegetation from the site, the clearing of the site from debris, an archaeological excavation, and the conservation works based on the concept of minimum intervention. Accessibility and site illumination were also catered for.

Before the start of any conservation works, an in-depth study of the site was carried out. This included historical research,[3] site surveys, analysis of the uses the building had throughout the years, visual appearance and how the building evolved through time, deterioration processes and mechanisms, present state, and any past interventions, such as alterations and maintenance works carried out on the building.

The architectural and pre-archaeological investigations were based on a number of reconnaissance trips and on-surface deterioration mapping. Through observation of the exposed structures on the site under study and their analyses, such as how and to what extent the structures were related to one another, the consistency of the complex form and major changes over time, were identified. The information obtained from the architectural and archaeological reconnaissance and the historical research confirmed the importance of the monument.

As a matter of fact the site is considered of great historical and archaeological importance and it contains structures of outstanding

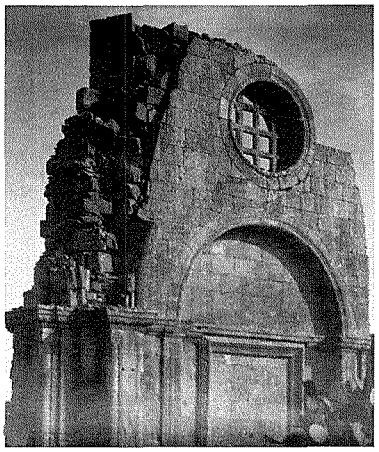


Plate 1. Early 20th century photo showing a wall in the southern transept

Plate 2. Early 20th century photo showing the ruins of the northern transept

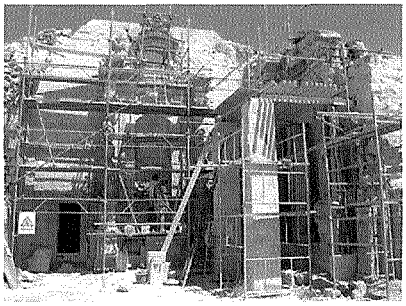


Plate 3. Erecting the scaffolding

Plate 4. A highly eroded column and architrave

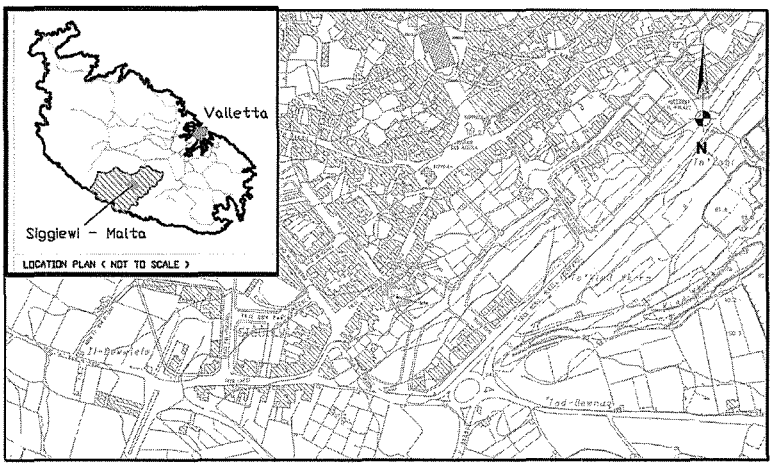


Fig. 1. Location Plan and Site Plan

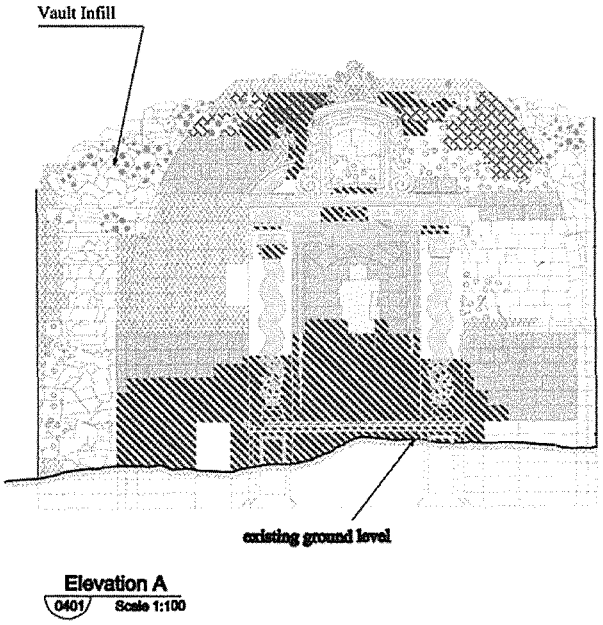


Fig. 2. Elevation of one of the altars showing deterioration mapping

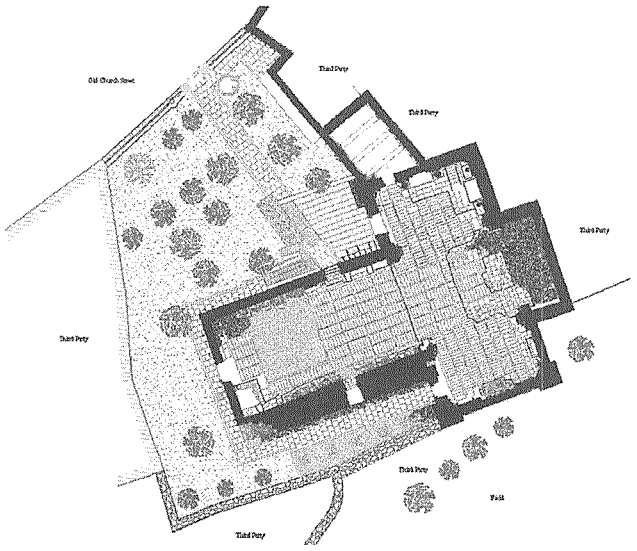


Fig. 3. Post completion survey

Plate 1
A. Part of a fresco discovered within the baptistery area
B. A 17th century solomonic column discovered with the debris
C. External view of the wall and later buttressing along the nave
D. Central keystone with attached rib voussairs

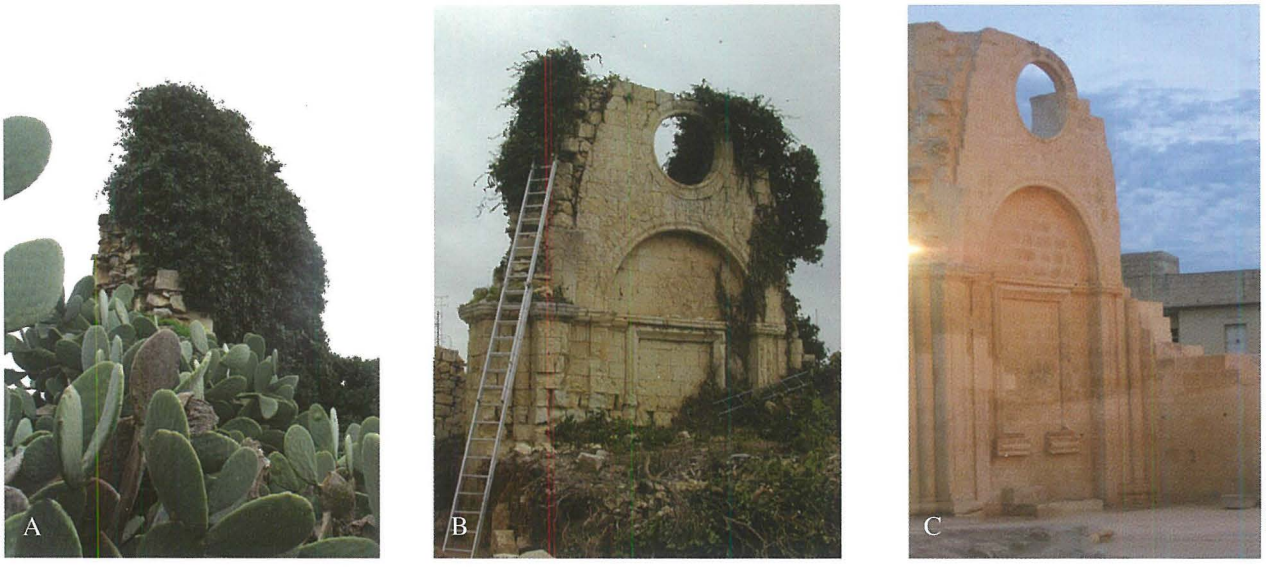


Plate 2
A. The southern transept before restoration
B. The southern transept during restoration
C. The southern transept after restoration

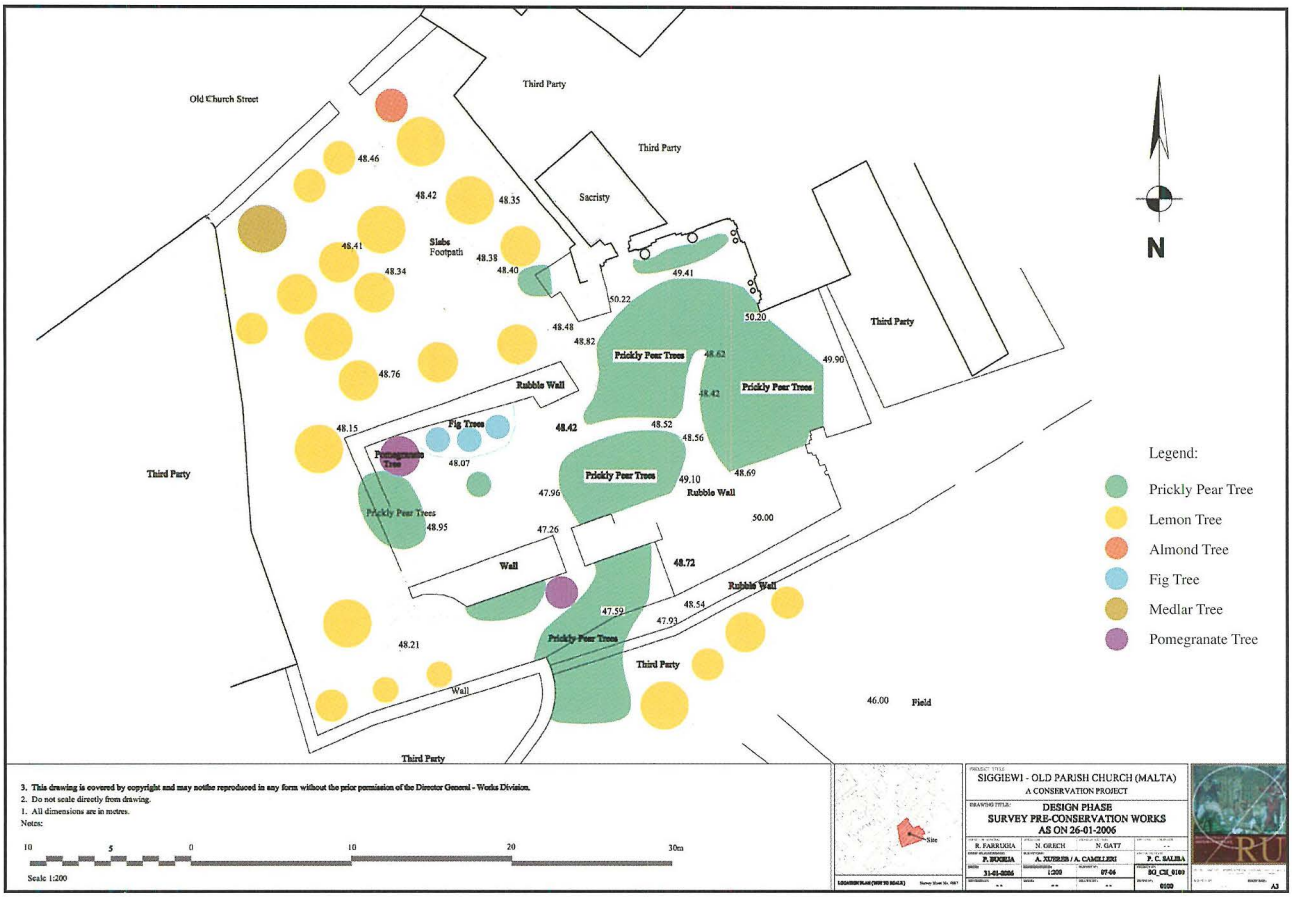


Plate 3. Survey Pre-Conservation/Excavation Works

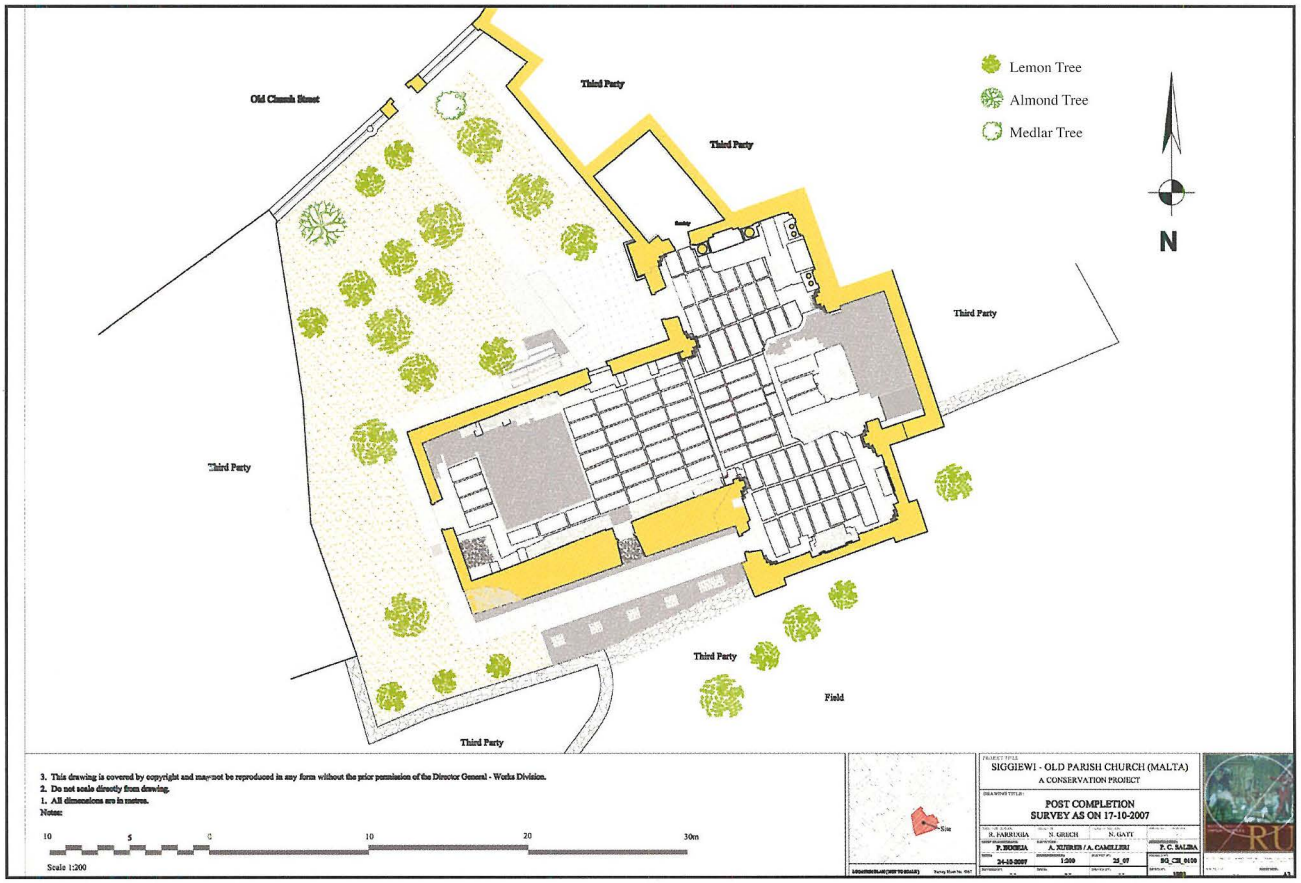


Plate 4. Survey Post Completion

Plate 5. Modern entrance to Chamber 1 of the rock-cut tomb. The rock-cut mortuary bed is visible on the right. The gully in the floor of the chamber is modern.

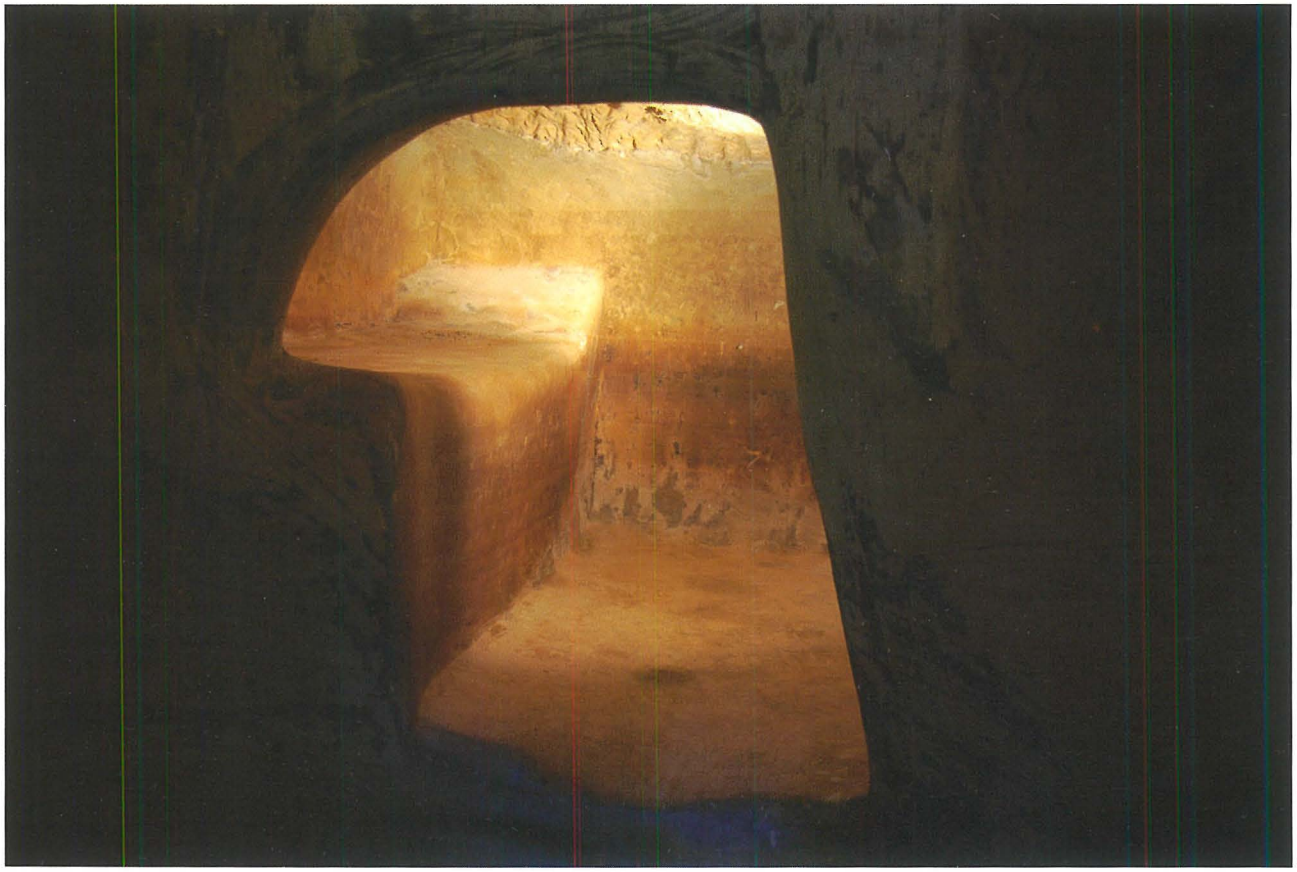


Plate 6. Chamber 2, with its mortuary bed, as seen from the shaft/cistern.

Plate 7. Mnajdra. Southern (Lower) Temple. Entrance (general view). In the centre: slab with a calcite layer

Plate 8. Mnajdra. Southern (Lower) Temple. Slab with calcite layer at the entrance (view from outside/east)

architectural interest. It therefore had to be preserved in its entirety.[4]

The project also took into consideration the human relationship with the urban and rural environment and sought to disseminate experiences and expressions of everyday life and basic human needs to the whole public. These include the understanding of the historic, cultural and archaeological values of architectural monuments, the symbolic and religious beliefs and meanings, and the artistic developments that were widespread throughout the Euro-Mediterranean region.

For this reason during the second phase of the project it was considered opportune to carry out a survey about the public perception of the site so as to establish the value of the ruins of the old parish church of Siggiewi and their significance to the general public.[5] An open day was held on 4 March 2007 for the public to view the conservation work and archaeological excavation in progress. Information boards about the history of the site and works in progress were put up. Leaflets on the project were also distributed. Thousands of visitors from all walks of life flocked to the site.[6] From their response it has been established that besides having a historical and archaeological importance, the site also enjoys social, economic, cultural and educational values.

The site before the Project

The site formerly occupied by the church and its immediate surroundings was used for agricultural purposes after having been converted into a field and a large orchard with mature fruit trees, prickly pears, fig trees and others (Plates 2; 9A; 9D; colour plate 2A; Fig. 4 and colour plate 3). These trees and other vegetation made it impossible to walk in the area originally occupied by the church. They were distorting its character, and roots were causing damage to the remains of the church. Some of the original masonry was reutilized for the making of a small terraced field within the site formerly occupied by the southern transept, while original stones were used for the erection of a boundary wall separating the abandoned field, originally the site occupied by the church, from the orchard.

The farmer who was occupying the grounds at the time had been utilizing the area originally occupied by the cemetery as a citrus orchard (Fig. 4 and colour plate 3), but had abandoned the church area originally converted into a field. The exposed standing structures of the church were left to collapse, crumble and deteriorate as a result of weathering by the elements (Plates 1 and 2). Some of the walls and structures were in a dangerous state and were in imminent danger of collapse (Plate 4). The derelict site, camouflaged by trees, thick vegetation, a small overlying terraced field and partly surrounded by a shabby old wall, lost all its historical and archaeological context. Few people were aware that this was the site of the old medieval parish church of Siġġiewi. In some areas the remaining walls were totally covered by creepers hiding all evidence that a building once stood on site (Colour plate 2A).

The setting

Today the site is bounded to the south by privately owned fields which are at a much lower level, while to the west and east it is bounded by dwelling houses. The northern boundary forms part of the present alignment in Old Parish Church Street (Fig. 1).

However, from onsite studies it became obvious that the topographical layout surrounding the church area during the fifteenth and sixteenth centuries was very different. Also, as Mario Buhagiar rightly points out, an important factor in determining the geographical location of a parish church during the late Middle Ages was the fact that it was strategically located as much as possible within an accessible distance from the scattered settlements forming the entire village.[7] This is very evident for the old Parish church of Siġġiewi which is more or less centrally situated between Ħal Qdieri (a locality west of Siġġiewi),[8] Ħal Kbir (a district south of Siġġiewi)[9] and Ħax-Xluq (a hamlet south-east of Siġġiewi).[10] These three localities together with Ħal Niklusi (situated not far from Ħaġar Qim)[11] were absorbed into the village of Siġġiewi, already referred to as a parish dedicated to St Nicholas of Bari, along with other parishes mentioned for the first

time by Bishop Senatore de Mello in his Rollo dated 1436.[12]

Historical background

When Christianity re-emerged as the main religion of the Maltese Islands towards the end of the 13th century,[13] the first known churches dating to this period were situated in natural caves or hewn in the rock in order to serve the small communities of the villages and rural settlements.[14] In due course, the church form developed into a simple small rectangular structure (except for Mdina Cathedral which was larger in size and highly embellished with elaborate architecture), with a number of pointed arches in between bays to support the roof made up of stone slabs.The exterior of the church was plain with a simple arched entrance, occasionally surmounted by a small round or oval window. A small bellcote was added to a number of churches at some stage.[15] After the arrival of the Order of St. John in Malta in 1530, church architecture was enhanced and by 1575 the old medieval parish churches continued to develop gradually until they became the central building in all towns and villages, with the result that their grandeur started to dominate the skyline, symbolizing the prestige and status of the Catholic Church.[16]

The rectangular form of the early Maltese churches could have been reflected in the initial form of the old parish church of Siġġiewi dedicated to St Nicholas of Bari, mentioned in 1436.[17] When the church was visited by Mgr Dusina in 1575, he stated that the old parish church was built to the right of the church dedicated to the Visitation of Our Lady.[18] This small Visitation church had its own rector and procurator. The feast of the Visitation of Our Lady was also celebrated in this small church.[19] Two other churches, one dedicated to St Sebastian and the other to St Michael, are mentioned by Mgr Dusina as lying in the vicinity of the old parish church of Siġġiewi.[20]

In 1575, St Nicholas church had two side altars, two small transepts and a vestry.[21] Ten years later, in 1585, the small church dedicated to the Visitation of Our Lady was demolished and its masonry was integrated into the medieval parish church of Siġġiewi.[22] This means that the old parish church was probably enlarged to occupy the area of the two churches. As a matter of fact when St. Nicholas church was visited by Bishop Gargallo in 1594, he mentioned that this time the parish church had five altars (and not three as mentioned by Dusina).[23] As the population of Siġġiewi had increased substantially, and following the current trend to enhance church architecture, the parish church was further enlarged, probably between the late sixteenth and early seventeenth century, and was transformed into the shape of a Latin Cross. The height of the church was achieved by the construction of a central cross-vault above the presbytery abutted by two smaller ones above the transepts. Such conclusions were extrapolated from an analysis of the remains of the building. That the church was further enlarged between 1594 and 1625 can be substantiated by the fact that, according to Bishop Cagliares who visited the church on 8 December 1625, the church had seven altars (and not five as mentioned by Gargallo).[24]

During the first quarter of the seventeenth century the northern transept underwent extensive interior embellishment and became evocative of Baroque art and architecture that was reaching all corners of Malta and Gozo. The southern transept was left undecorated. Therefore, the two transepts provide two different historical phases in the architectural decoration of the church. The northern wall along the nave which still stands today shows a few traces of red paint on the scanty plaster that has survived on what were once the bays between the wall piers. These are the remains of frescoed panels depicting the Virgin and Child and a number of saints which were recorded in a number of illustrations and a descriptive account by Giuseppe Hyzler (1793-1859) during the first part of the nineteenth century.[25] A vestry is situated in the northern part of the church and is accessible from the northern transept. The internal structural sequence of the vestry indicates that it was also subjected to several phases of development.[26]

The nave of the new larger parish church, designed by Architect Lorenzo Gafà to meet the needs of the increasing number of inhabitants of Siġġiewi, was blessed on the 22

Plate 5. Roof collapse behind the main altar

Plate 6. Roof collapse behind the main altar

Plate 7. Unearthing wall structures near the southern transept

Plate 8. The site museum

November 1682. The visit of the old parish church by Bishop Molina took place some time after this blessing. He stated that the population of Siġġiewi by 1661 had already reached 1469 inhabitants.[27] In the meantime the old parish church had structural problems and was abandoned, until Archbishop Cocco Palmieri, gave orders for it to be demolished in the late seventeenth century.[28]

Phase 1 of the Project: Trees and vegetation clearance

The first phase of the project entailed the removal of trees and vegetation from the site of the old Parish Church. Only part of the nave, consisting of a very thick wall and the fragmented walls of the transepts, remained exposed above the dense trees (Plates 9A; 9D and 9E). Moreover, the remaining part of the southern transept was totally covered by ivy (Colour plate 2A). The only room from the old church that has survived in its entirety was the vestry and this had been turned into an agricultural store for the farmer to keep haystacks and tools. Works commenced during the second week of September 2006 and were completed by the beginning of October.[29] The site was cleared of the thick vegetation which for many decades had covered all the area up to a height of several metres (Plates 9B and 9E; colour plate 2B and Fig. 5). This restored access to the area originally occupied by the church, and revealed its outer perimeter wall. A survey of

the site carried out after the removal of the trees confirmed that the plan of the church took the form of a Latin cross (Fig. 5). The removal of the trees was monitored for any important finds such as sculptured stone from the original building of the church. The site was found to be covered in debris although some moulded blocks were still partly visible above the surface (Plate 9B). About half a dozen horses' skulls were exposed in an area of about three metres square within the easternmost part of the nave.

Phase 2 of the Project: Archaeological Excavation

The second phase was to clear the site of debris and to carry out a scientific archaeological excavation.[30] The demolished church stonework which was deemed to be of particular interest (Colour plate 1B; plates 5 and 6), such as sculptured stone, vaulted rib voussoirs, and others lying above ground level, was collected and catalogued while the overlying infill and worked but plain masonry were carried away. The topsoil was roughly levelled out, except for the areas abutting the internal walls of the church, which were slightly higher. However, the original floor of the church was evidently lower than street level when compared to the floor level of the vestry, which is still standing (Fig. 6).

The removal of material was facilitated by the fact that the limit of the excavation was determined by the perimeter wall of the church while the depth was established by the existing floor. Any archaeological remains underlying the earlier medieval chapel and the old parish church were left sealed below the original flagstones.[31]

The first trial trench was dug within the northern transept at the point where the corner of the wall abutted the easternmost part of the nave. This excavation revealed the lower part of two pilasters abutting a section of a half-column from where one of the rib vaults of the transept had originally sprung. The surviving part of the wall is about one metre high and at this depth below the soil and rubble was the original floor of the church, made up of Globigerina flagstones. The material excavated from the trench was mainly rubble, stone and infill belonging to the demolished church.

The material within the second trench, situated along the centre of the nave and about one metre deep, consisted solely of agricultural soil, devoid of debris and archaeological material. It was evident from this trench that since the demolished masonry of the church in this particular area was minimal when compared to the area occupied by the transepts, a huge volume of agricultural soil had had to be imported to fill the remaining void so that the site could be transformed into an agricultural field.

Removal of material was at first restricted to a number of trenches between the squares of the grid in different areas within the church, which were gradually joined into an open-area excavation. When possible all the material was removed cautiously with the sole use of hand tools (Plate 7).[32] The newly-exposed parts of the church were recorded in drawings (Figs 2, 3, 7 and colour plate 4) and photographs. The excavation work was carefully documented, such as the all important find-spots and the roof collapse behind the main altar, within the choir area (Plates 5 and 6). All retrieved sculptured masonry was catalogued.

The nave, covering an area of approximately 165 square metres, had a soil cover varying in depth from 0.75 m to 1 m. The topsoil was rather loose because of the overgrown vegetation while the subsoil consisted of red compacted earth. This particular area seemed to have been used for a period of time for agricultural purposes but had been left abandoned for decades. The red soil must have been imported to the site and most of the pottery sherds within this particular context must have been imported along with the soil. A *terminus post quem* for the earliest date when this area was transformed into a small field was established as the date when the church was abandoned in the late seventeenth century. However, the transportation of the soil to convert the nave into a field could have taken place later.[33] No cuts were recorded in this area as the surrounding perimeter of the field made use of the lower courses of the church wall itself.

It seems that the area covered by the presbytery, the two transepts and the choir

(approximately 160 square metres) were never altogether adapted for agricultural purposes. This is indicated by the fact that the context immediately below a thin layer of topsoil consisted of the demolished masonry of the church. This had a thickness of more than 1.25 m made up of masonry blocks of varying sizes within a voluminous infill of rubble that had once filled the cavities of the double walls. For this reason back trowelling was very difficult within this particular context and pickaxes, spades and hoes were kept continuously busy. However, excavation work was carried out cautiously and no damage was done to any of the finds which consisted principally of sculptured stone. During the process, traces of a crude cut were recorded between the northern transept and the presbytery.[34]

There is evidence that the area covered by the southern transept was converted into a minute terrace, possibly intended for the planting of fruit trees, as the area is rather small for any other agricultural activity.

There is no doubt that the remaining standing structures, those which were already exposed prior to the excavation, and the physical evidence exposed during the dig clearly reveal that the church had undergone several structural changes and was enlarged a number of times, most probably to accommodate the ever-increasing population of Siġġiewi. This is proved by the stretch of the two remaining walls abutting each other along the nave which at a later time were buttressed to resist the outward pressure created by the arches (Colour plate 1C). In the preliminary reports of the excavation it was stated that the western wall along the nave could have formed part of the church dedicated to the Visitation of Our Lady. This hypothesis was based on the account of Mgr Dusina who in his pastoral visit reports stated that the small Visitation church was constructed to the left of the old parish church. It is further substantiated by the document which stated that the small church of Our Lady had to be dismantled and its stones reutilized for the repairs of the old parish church.[35]

However, in a recent visit to the old parish church of Siġġiewi, Architect Ruben Abela[36] saw the evolution of the church in a similar way to that originally described by Mario Buhagiar, that is, the westernmost wall of the nave could have formed part of the first parish church dedicated to St Nicholas.[37] The church was then elongated towards the east to about half its length. At a later stage the church was further enlarged to the present shape and included two transepts and a small choir.

The excavation revealed that the final plan of the parish church (Fig. 7 and colour plate 4) had five external doors. These consisted of the main entrance, two side entrances situated respectively along each longitudinal elevation of the nave and two other entrances, each leading to one of the two transepts. The remaining part of a staircase, which originally led to the roof of the church, was found encased within the thick buttressed wall. Ruben Abela commented that the side entrance along the northern wall of the nave must have been the main entrance of a church owing to the fact that the lower part of the architrave bears a fragment of Melitan moulding.[38] If Abela's suggestion is correct, the present area of the nave must have originally been the space occupied by two churches with their axes perpendicular to one another. The earliest parish church occupied the western half of the nave while the Visitation church was erected in the space occupied by the eastern half of the nave. This might also explain why the surviving wall consists of two separate halves (Plate 9D). All this is conjectural and may only be confirmed through further archaeological excavation.

The bases of the arches along the nave were all identified during the excavation, four in each space occupied by the two 'separate halves'.[39] Therefore, the fully developed nave contained eight arches with stone benches in between which are still very evident, except for the space taken by the side entrances and the area taken up by the baptistry on the right of the main entrance. At one stage the side entrance within the northern wall of the nave had to be shifted slightly towards the left to accommodate the erection of one of the wall piers when the two separate churches were transformed into one church. This is evident as part of the arch for the earlier door is still encased within the wall.[40] The northern wall of the nave must have been buttressed when the thinner back wall of the Visitation church

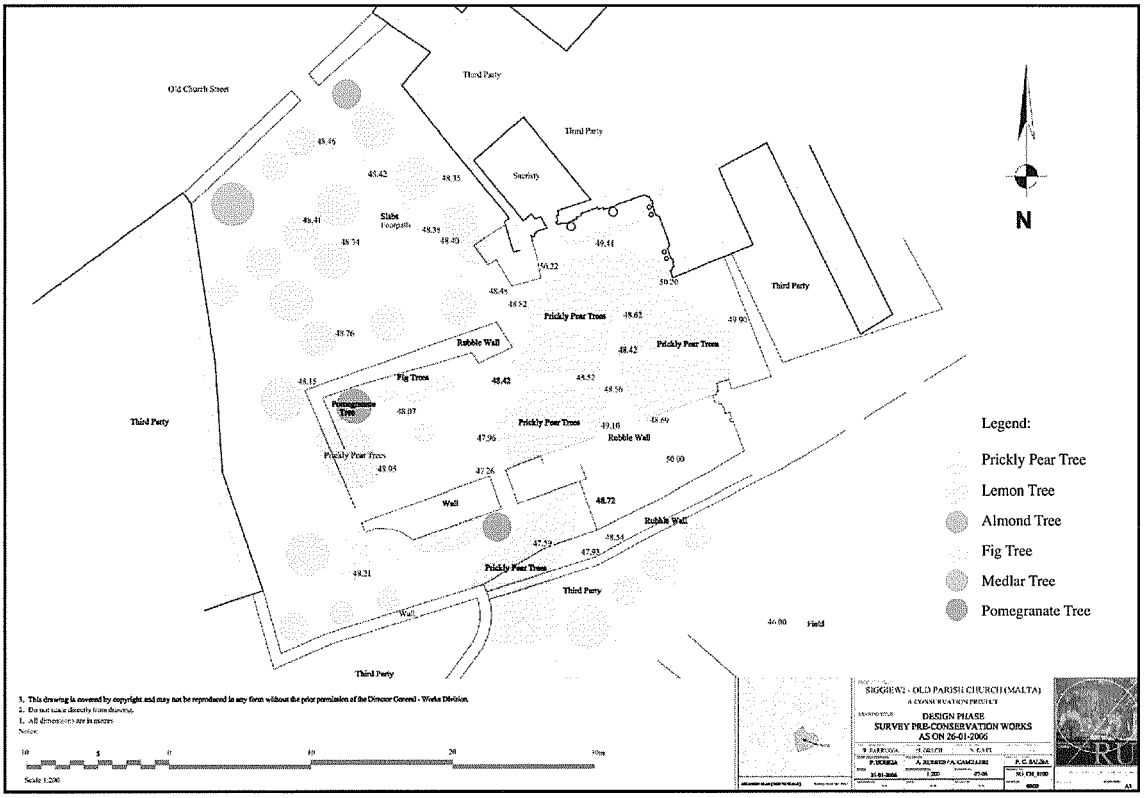


Fig. 4. Survey pre-conservation/excavation works

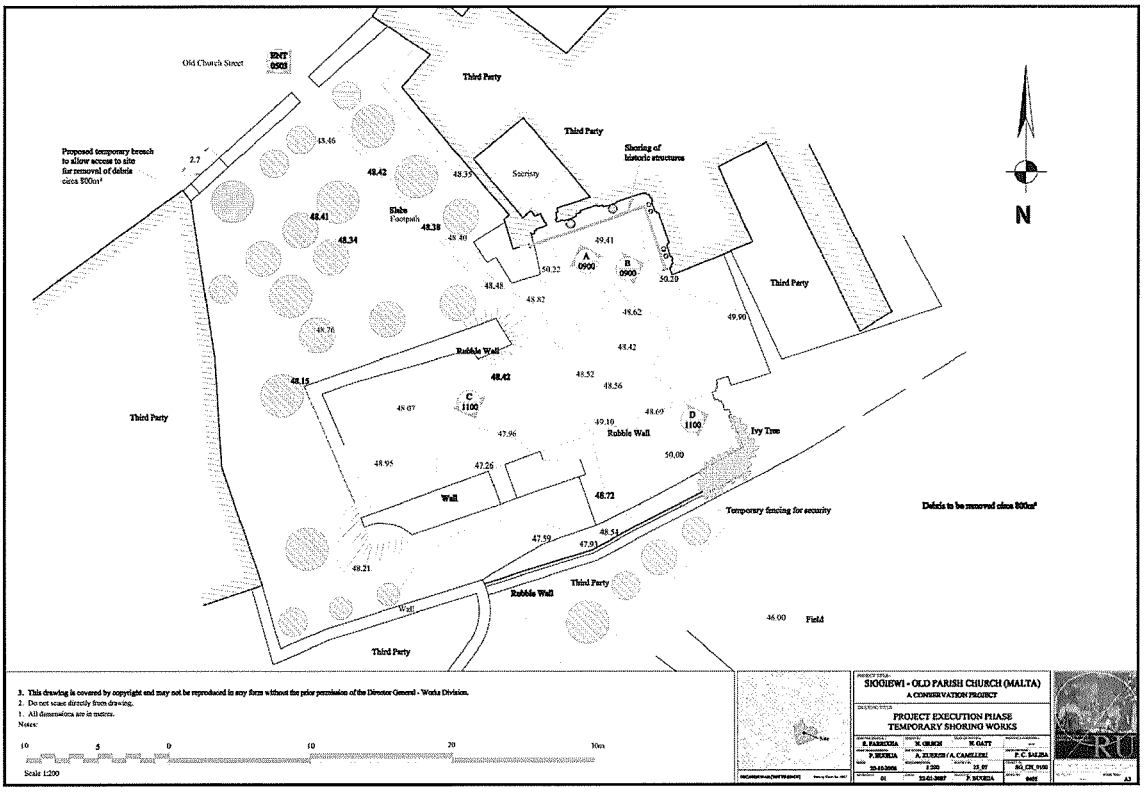


Fig. 5. Survey pre-excavation showing site cleared from trees and vegetation

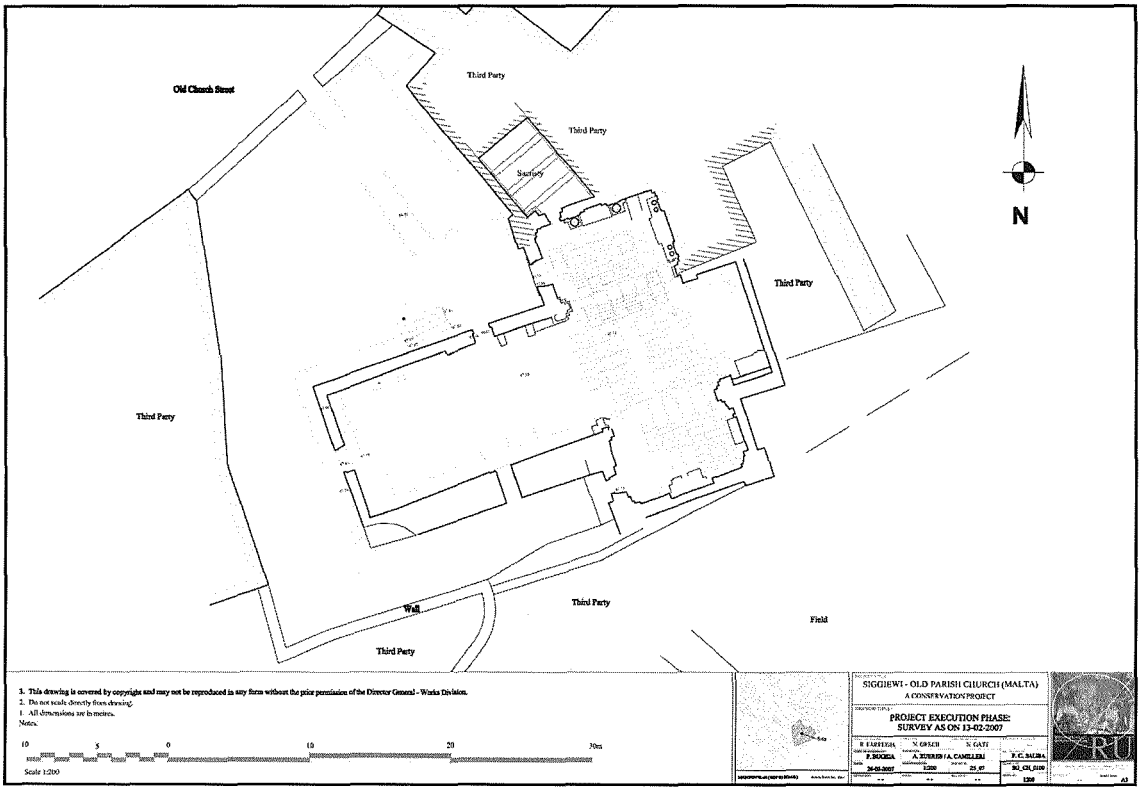


Fig. 6. Survey during conservation/excavation works

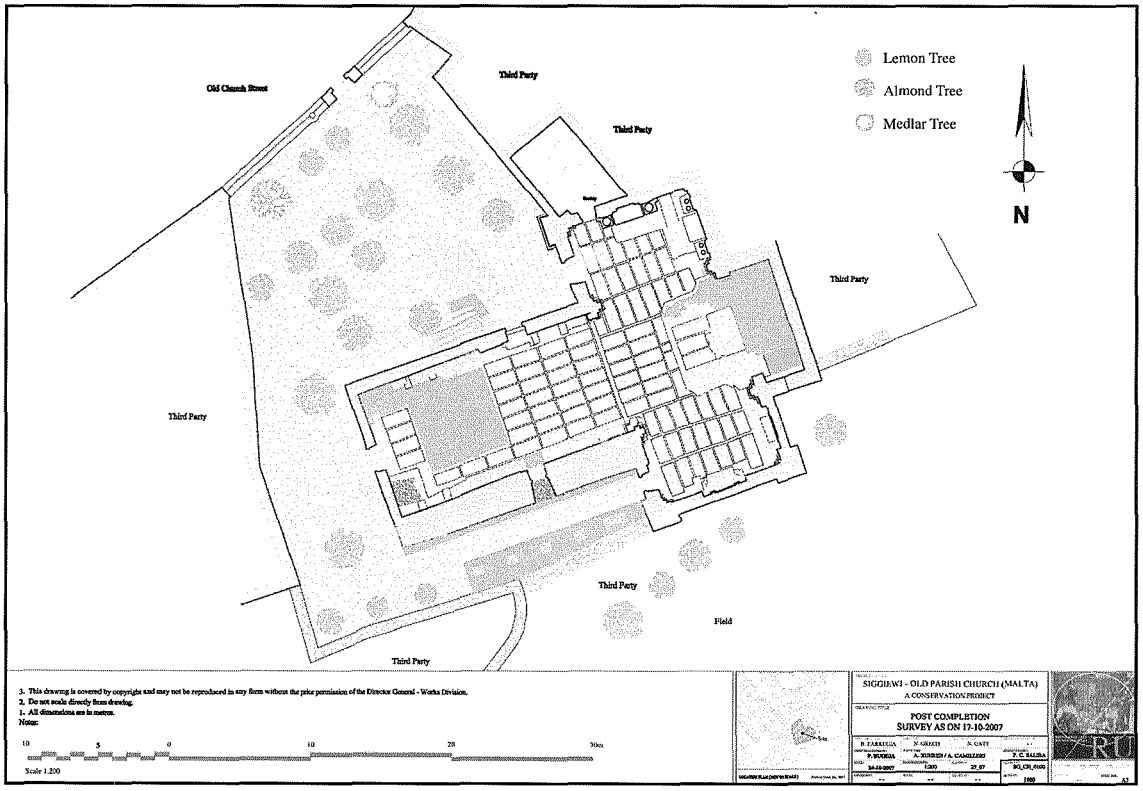
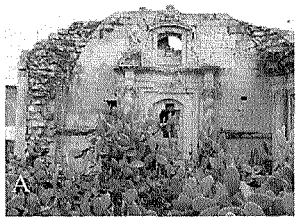
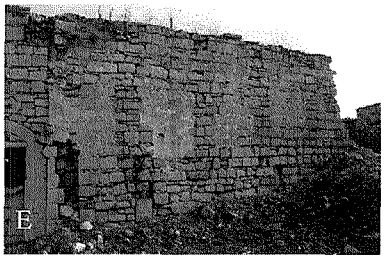


Fig. 7. Survey post completion





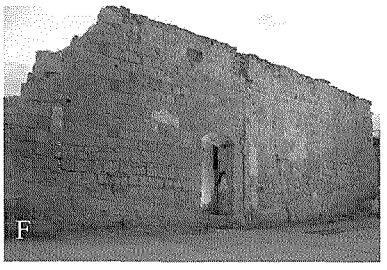


Plate 9.
A. The northern transept before restoration
B. The northern transept during restoration
C. The northern transept after restoration
D. The wall along the nave before restoration
E. The wall along the nave during restoration
F. The wall along the nave after restoration

together with the side wall of the parish church (or maybe the back wall if the two churches were both orientated parallel to each other, in which case their layout fits Mgr Dusina's description exactly) became a single wall of the enlarged parish church.

An important observation made by Ruben Abela is that the buttressing wall was erected when the two transepts were added to the church. He based this observation on the fact that the courses of the buttressing wall are aligned with those of the southern transept. There is no doubt that the transepts and presbytery were roofed with 'Gothic' cross-vaults as the lower rib voussoirs and bases of the vaults are still in situ in each of the twelve corners. The choir was roofed by an arched apse. The overall plan of the church is very similar to St. Gregory's church at Żejtun, suggesting a late sixteenth-century date for the cross-vaults.[41]

Some of the finds include a baptismal font found buried within the choir area, two Solomonic columns (Plate 8), a number of sculptured angels and floral motifs, a schematised bewigged head showing a bearded face[42] and a large sculptured stone depicting the coat-of-arms of Bishop Cagliares (1614-1633). The latter was found adjacent to the side entrance leading to the northern transept. The dating of the coat-of-arms is contemporaneous with the period when the two side altars of the northern transept were embellished with pediments, friezes, cornices, Corinthian and twisted columns dated to the first quarter of the seventeenth century and is reminiscent of Baroque decoration which was gradually infiltrating the villages. The southern transept did not undergo the same decorative process (Colour plate 2B). Its sculptural motifs consist of a single layer and are similar to the hidden sculptural layer in the northern transept. However, four plain columns found buried in the floor next to the external northern wall of the nave must have been designated to decorate one of the altars of the southern transept but this project never materialized and the columns were left lying on the floor. Remnants of frescoes were also found (Colour plate 1A) and carefully detached and restored by expert personnel from Heritage Malta. Two very interesting decorated tombstones with

Latin inscriptions dated 1660 were discovered in the north transept. The floor of the church was completely covered with tombstones (Fig. 7 and colour plate 4) but most were broken and the graves were filled to the brim with stone, soil and debris.[43]

Phase 3 of the Project: The Design and Conservation Works[44]

The design and conservation works directed by Chief Architect Norbert Gatt constituted the last phase of the project, although in certain areas the conservation of the ruins was carried out simultaneously with the archaeological excavation of the site, especially the structures above the existing topsoil level.

Technical research prior to the works involved the drawing up of detailed surveys and plans, and included the deterioration mapping of all existing structures, carried out from rectified imagery (Fig. 2). Such documentation was also used for the planning application necessary for the conservation works.

The conservation works mainly consisted of the erection of scaffolding (Plate 3); the temporary shoring of dilapidated structures; the replacement of dangerous elements as necessary; cleaning (by wet brushing); consolidation interventions including plastic repair with lime-based mixes; pointing works; repair of the defective impermeable layer of the roof areas as necessary; the manufacture and installation of timber apertures and the laying of suitable paving.

This phase was conservation-oriented, aimed at preserving the church in its actual state by halting further deterioration. There was no attempt at reconstructing any of the architectural elements or features. Structural repairs were restricted to areas in a dangerous state. The eroded right-side column on the eastern elevation of the south transept was the only decorative element to be replaced, in view of its advanced stage of deterioration. This was replaced by a plain profile since the exact detail of the capital could not be established.

Some decorative elements of the ruins had structural cracks and were consolidated by epoxy injection. Otherwise, consolidation interventions, carried out by means of a traditional lime-pozzolana mortar, were limited to the formation of the coping at the top of the ruins to avoid ingress of water into the wall thickness and into the exposed infill.

Both external and internal surfaces were pointed with a lime-based mix, finished shy from where the stone arises. Traces of old rendering, evident on the southern elevation along the nave, were retained.

Walkways were constructed through the installation of platforms and bridges to provide access for all, as well as to prevent visitors from damaging the paving and the archaeological site. These were constructed in steel and timber to be easily recognized as modern structures. An illumination system was also installed.

This project has improved the legibility of the church ruins for people from all walks of life to see, read, feel and understand, and even travel back to the years when the church was still in its full glory.

Conclusion

One of the commitments of this project was to publish a monograph report giving a full account of the excavation and results, a detailed historical analysis of the church and a description of the conservation project. It is hoped that the present monograph report will provide a source of information to both scholar and layman alike on the interventions that were carried out during the project, including all data and results. It will also be a resource for educational and touristic purposes.[45]

Further potential archaeological excavations are reserved for the future as funds and resources become available. Such excavations would aim at tracing the evolution of the church. They will also augment the present limited understanding of everyday life in medieval Malta.

The project was instrumental in promoting and facilitating integrated heritage management on both national and European levels.[46] It succeeded in upgrading the site as a heritage attraction[47] and was also able to demonstrate the multi-disciplinary approach and integration of cultural heritage management between heritage professionals, administrators, students and

craftsmen. The project fostered networking between various agencies, the local public bodies and institutions as site managers, with schoolchildren and visitors as beneficiaries. In this way it promoted the understanding of the origins and development of church architecture and the need for the protection of the site, while maintaining compatibility with the existing urban and rural environment.

The project also met the current needs for the appreciation and awareness of historic and archaeological monuments without jeopardizing the needs of future generations. It facilitated discreet and compatible change in the management of this cultural site within the periphery of an urban and rural context. The ruins of the old parish church and site museum are now open to the public and are being managed and maintained by the Parish Church of Siġġiewi.

Notes

1 The intermediate report is a concise account of the conservation works and archaeological excavation including a brief history of the site following a number of preliminary reports carried out during this project. The final report will be carried out once adequate funding is obtained from an interested body.

2 The Restoration Unit (Works Division), within the Ministry for Resources and Rural Affairs, provided the professional and technical in-house expertise comprising a restoration architect (Chief Architect Norbert Gatt), an archaeologist (the author), draughtsmen and surveyors, and a group of workmen trained in heritage skills. Other institutions, namely Heritage Malta, the Superintendence of Cultural Heritage, the Malta Environmental and Planning Authority (MEPA) and the Parish Church of Siġġiewi were also instrumental in the succesful implementation of the project.

3 The historical information was gathered from sources which included all pastoral visits, although these were not all available as primary sources, nineteenth and twentieth century publications, documents and photographs found in local archival depositories. The resultant research work was then evaluated vis-à-vis the physical evidence and was instrumental in helping to understand the stratigraphical development of the old parish church.

4 The ruins of the old parish church of Siġġiewi are surviving relics of the past that in most other instances had been destroyed. For this reason the area of the old church and its surroundings are scheduled by MEPA as a Grade 1 site. The site is also protected under the Cultural Heritage Act (2002) administered by the Superintendence of Cultural Heritage.

5 The value and significance of cultural heritage monuments may be defined according to the meaning that people give to such monuments. Different people subscribe different values according to their own criteria. Moreover, it is not only the monuments that have value, but also the sense of place, where the landscape surrounding the monument is also considered as having a crucial and integral value as that of the monument, K. Walsh, 'Mediterranean landscape archaeology and environmental reconstruction', in P. Leveau, F. Trement, K. Walsh, and G. Barker (eds.), *Environmental Reconstruction in Mediterranean Landscape Archaeology. The Archaeology of the Mediterranean Landscape*, Vol. 2. (Oxford. Oxbow Books, 1999), 1-5.

6 'Old Siġġiewi Parish Church to become archaeological site', in *The Times*, 5 March 2007, 7; 'Ix-xogħol ta' restawr tal-fdalijiet tal-Knisja parrokjali l-qadima tas-Siġġiewi – Sejbiet arkeoloġiċi jqanqlu interess', in *In-Nazzjon*, 5 March 2007, 4.

7 M. Buhagiar, *The Late Medieval Art and Architecture of the Maltese Islands*, (Malta. Fondazzjoni Patrimonju Malti, 2005), 192.

8 C. Wettinger, *Place-names of the Maltese Islands ca. 1300-1800*, (Malta. PEG, 2000), 286-287.

9 Ibid., 281.

10 Ibid., 291.

11 Ibid., 285. A. Ferris, *Descrizione Storica Delle Chiese di Malta e Gozo*, (Malta. 1866), 398 does not mention Ħal Niklusi as forming part of the Siġġiewi Parish. A. Guillaumier, *Bliet u Rhula Maltin*, (Malta. Lux Press, 1972), 432, places Ħal Niklusi within a central location surrounded by Ħal Kbir, Ħax-Xluq and Ħal Qdieri. M. Buhagiar, 154, states that Ħal Niklusi is another place-name for Ħal Kbir.

12 M. Buhagiar, 'Medieval Churches in Malta', in A.T. Luttrell, (ed.), *Medieval Malta – Studies on Malta before the Knights*, (London. The British School at Rome, 1975), 172.

13 C. Dalli, *Malta – The Medieval Millennium*, (Malta. Midsea Books Ltd, 2006), 115-116, states that by 1270, 'the last Muslim inhabitants were finally integrated into the Christian fold'.

14 Buhagiar (1975), 163-164. Buhagiar also states that during the early years of Christian resettlement after the Muslim Period in the Maltese Islands, the first Christian churches might have been some re-utilized pre-Muslim buildings, although no such examples have survived today.

15 M. Buhagiar, *The Christianisation of Malta – catacombs, cult centres and churches in Malta to 1530*, BAR International Series 1674, (Oxford. Archaeopress, 2007), 105.

16 C. Thake, *Baroque Churches in Malta*, (Malta. Arcadia Publishers, 1995), 1-7.

17 Ferris, 398.

18 'Malta: Visita Apostolica No. 51, Mgr Petrus Dusina, 1575', in G. Aquilina and S. Fiorini, (eds.), *Documentary Sources of Maltese History, Part IV, Documents at the Vatican*, (Malta. Malta University Press, 2001), 82. Actually Dusina stated that the Church dedicated to the Visitation of Our Lady was constructed on the left of the Church dedicated to St. Nicholas, *'Constructam a parte sinistra dictæ parrochialis Ecclesiæ'*.

19 Ibid., 82.

20 Ibid., *'Constructam prope parrochialis Ecclesiæ'*, 82.

21 Ibid., 81-82. Mgr. Dusina visited St. Nicholas Parish Church, Siġġiewi on 2 February 1575.

22 Archiepiscopal Archives, Malta. *Visitatio Pastoralis , 1579-1608*, 30v. quoted in V. Borg, (ed.), *Marian Devotions in the Islands of St. Paul (1600-1800)*, (Malta. The Historical Society, 1983), 71.

23 Copy of the documents related to the pastoral visits of Bishop Gargallo kindly given to the author by the historian Mr Tony Terribile.

24 Copy of the documents related to the pastoral visits of Bishop Cagliares kindly given to the author by the historian Mr Tony Terribile.

25 The Nazarene artist Giuseppe Hyzler did not manage to publish his works which included several illustrations and descriptions of local late medieval and early modern iconographic representations. However, some of his drawings and related accounts, including the sketches of the frescoes found at the old parish church of Siġġiewi, were published in the *Repertorio di Conoscenze Utili* (Malta. 1843) after Hyzler's death, (Buhagiar [2005], 188).

26 There is ample evidence that part of the vestry was at a later stage integrated into third-party property. As a matter of fact the existing third-party wall has separated an arch into two halves, with the result that only one half of the arch is still retained within the area occupied by the vestry. For this reason, owing to the large dimensions of the vestry and its location within the area occupied by the parish church in its latest phase of development, this vestry does not match with that mentioned by Mgr Dusina in his pastoral visit.

27 Copy of an original document about the pastoral visit of Bishop Molina kindly given to the author by the historian Mr Stephen Degiorgio. According to Bishop Molina the old parish church had seven altars. The six side altars were dedicated respectively to Our Lady of the Rosary, St Cecilia, St John and St Peter, St Rocco, St Anthony of Padova and Our Lady of Graces. A very interesting part of the document states that Molina ordered that the old parish church should retain one chapel (*cappella*) in memory of Giovanni Fiott who had commissioned Mattia Preti to paint the titular painting of St Nicholas of Bari for the new church. The nave of the new parish church was erected and blessed by the Vicar General Rev. Ludovico Famucalli on 22 November 1682. It was actually completed on the 6 December 1693, (Ferris, 399).

28 Copy of the documents stating that Bishop Cocco Palmieri had given orders for the old parish church to be demolished kindly given to the author by the historian Mr Tony Terribile.

29 Approval for the removal of the trees was granted by MEPA on 16 August 2006 after full clearance from the Department of Agriculture.

30 Since the setting up of the Restoration Unit in 1996, it has occasionally been found necessary for the restoration project to include a scientific archaeological excavation.

31 The methodology for the archaeological excavation was arrived at after a method statement was prepared by the Restoration Unit in consultation with the Superintendence of Cultural Heritage and MEPA.

32 The Restoration Unit provided a group of masonry heritage skilled labourers under the responsibility of Mr Raymond Hili who played a major role in the clearing of material and archaeological excavation of this and other archaeological sites.

33 The soil would have definitely been imported on site by the time Giuseppe Hyzler recorded the frescoes on the nave wall as he missed the figure of the saint hidden by the height of the soil.

34 A Harris matrix (and other data) reflecting the relative position and stratigraphic contacts of the observable stratigraphic contexts was kept throughout the excavation.

35 The abutting but unconnected western wall along the nave could have never belonged to either of the other two small churches dedicated respectively to St Sebastian and St Michael as it is specifically stated in the report of Mgr Dusina's visit that they were constructed near but not abutting the old parish church.

36 Personal communication by Mr Ruben Abela. Mr Ruben Abela is an architect and Manager in Architecture, Stone and Objects Conservation at Heritage Malta.

37 Professor Mario Buhagiar considered the westernmost half of the unconnected nave wall to be the southern wall of St Nicholas church during the first phase of its evolution. Therefore the overall shape of the church would have been approximately that of a square. The church was roofed over by four timber beams whose cavities still show today. Probably, soon after it became a parish, the church was enlarged to twice its length towards the east. The new length was roofed over by five new beams encased within the wall one course lower than the previous four beams. This could be deduced from the two separate halves of the remaining southern wall of the nave. At a later stage the timber beams were replaced by stone arches and the exterior wall was strengthened to resist the thrust of the arches. As a matter of fact the position of the wall piers is still distinguishable from the remains of plaster between the space occupied by the bays. During the early seventeenth century the northern and southern transept and the choir at the east end were added to the building, which made the size of the church considerably larger, (Buhagiar [1975], 172-173). Prof. Buhagiar reached these conclusions when the site was still covered over with material, thick vegetation and tree cover.

38 Personal communication by Architect Ruben Abela.

39 The post excavation studies which are still subject to further verification revealed that it is more likely that the arches came first and the timber beams afterwards. Moreover, a detailed analysis of the southern nave wall, when all its components were exposed after the excavation, indicates a possible bonding of the wall piers within the nave wall. It could therefore mean

that the cavities along the second course from the top of the nave were meant to bond the uppermost part of the wall piers.

40 Personal communication by Architect Ruben Abela.

41 Personal communication by Architect Ruben Abela. He further explained that as far as the local history of architecture is concerned, the late-sixteenth century within the rural areas of the Maltese Islands is still to be considered as late medieval and should not be confused with the late medieval date of pre-1530s as chronologically prescribed for the history and archaeology of the Maltese Islands. Generally, the arrival of the Knights in 1530 is termed the beginning of the early modern period for the Maltese Islands.

42 Prof. Buhagiar visited the site twice during the project. He dated the schematised head to the mid-fifteenth century.

43 The following is a list of sculptured blocks found during the excavation: 92 rib voussoirs, 61 pilaster blocks, 23 arch voussoirs, 48 voussoirs belonging to cross-vaults, 68 blocks belonging to several cornices, 24 roof slabs, 7 capitals, several water sprouts with different sizes, a sort of *trija* (a game played on a geometrical design) and two fragments of stone-stoves. The sculptured blocks and other architectural features found within the church museum and along the exterior elevation of the buttressed nave, including the large statues of St. Nicholas and St. Paul are not included.

44 The following section regarding the conservation works mainly consists of short extracts from conservation reports of the old parish church prepared during the project by Architect Norbert Gatt. The actual and splendid conservation works carried out during this project are far more elaborate than the description that the author has included here. It is also worth noting that the Restoration Unit architects are usually responsible for the running of several conservation and restoration projects simultaneously and the list of completed and successful projects since the set-up of the Restoration Unit in 1996, runs into hundreds (see: http://www.resources.gov.mt/otherprojects).

45 It is impossible for the Restoration Unit within the Works Division to issue a scholarly publication for each project that it undertakes.

46 The project was especially successful in implementing the values and recommendations of the International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter, 1964), the Charter for the Protection and Management of the Archaeological Heritage (Lausanne, 1990), the European Convention on the Protection of the Archaeological Heritage (Valletta, 1992), Charter on the Built Vernacular Heritage (ICOMOS 1999), and the Draft European Landscape Convention (CoE 1998).

47 In 2008 the Restoration Unit was presented with the Silver Medal Trophy and Prix d'Honneur by Din l-Art Helwa for the conservation works carried out on the old parish church of Siġġiewi.

A newly discovered late Punic-Roman rock-cut tomb at Limestone Heritage, Siġġiewi (Malta)

Mevrick Spiteri and Nicholas C. Vella

At Siġġiewi, in the area known as *Ta' Żagi*, situated at a short distance from and overlooking *Wied Xkora* is a recently discovered rock-cut tomb which was at some point in its history refashioned into a water cistern (GR 49738/67965) (Fig. 1). The tomb is located within the grounds of the Limestone Heritage park, and was recently integrated in the cultural itinerary of its visitors. A request for the study of the tomb was made by Mr Emanuel Baldacchino, the Managing Director of Limestone Heritage, to one of us (NCV). A survey of the tomb was carried out and a set of drawings were produced by the other one of us (MS) (Fig. 2). The aim of this short contribution is to present the results of the survey.

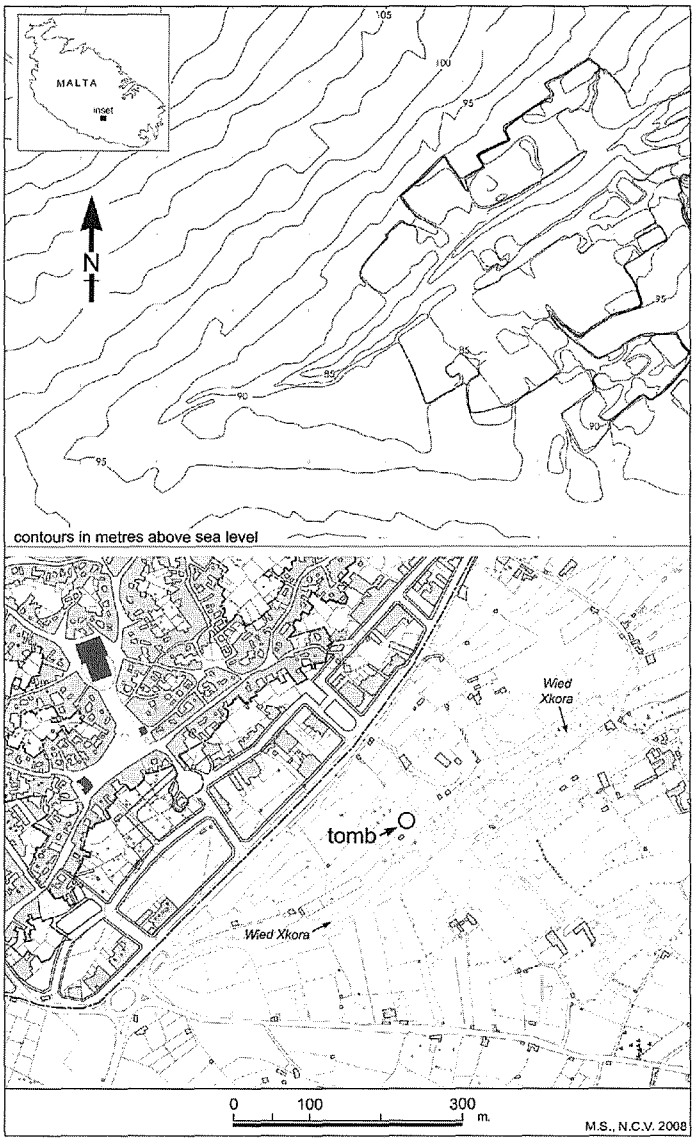


Fig. 1. The location of the tomb on the outskirts of Siġġiewi, Malta. The basemap is copyright of the Malta Environment and Planning Authority (2004).

Description

The tomb is located just off the disused quarry complex that houses the heritage park. Cut into the soft Globigerina Limestone that outcrops in the area, the tomb consists of a rectangular shaft and two burial chambers at the bottom, one opposite the other. The tomb's original entrance is now covered by a cistern head (*ħerża*) but access to the tomb can also be had from a lower level, down a flight of steps from the park's lobby, and through a hole that cuts into one of the burial chambers (Chamber 1) (Colour plate 5). In antiquity the rock-cut tomb was entered down the 2.30 m-deep shaft, probably by means of footholds dug on its side, one of which survives. The shaft has a rectangular plan, measuring 2.20 m by 0.90 m (Plate 1). The burial chambers are roughly rectangular in plan, measuring 1.85 m long and 1.40 m wide (Chamber 1) and 1.85 m long and

1.50 m wide (Chamber 2) respectively. They are entered through low arched doorways which narrow at floor level. Their respective measurements are: 0.72 m wide at the top, 0.66 m at the bottom, and 0.82 m in height (Chamber 1); 0.80 m wide at the top, 0.68 m at the bottom, and 0.94m in height (Chamber 2) (Colour plate 6). To the left of each entrance is a mortuary bed cut into the rock at 0.50 m above the chamber floor, measuring about 1.80 m long and 0.50 m wide. A "cushion" pillow is carved out of the rock at the inner side of each mortuary bed, facing the entrance. At the opposite inner corner of each burial chamber is an engaged pilaster, cut into the rock. This is the only decorative feature visible inside the chambers.

At some point, the rock-cut tomb was refashioned into a cistern to collect rainwater. At about 0.90 m from the level of the rock surface below the field soil, the original rectangular shaft was re-shaped to look like a massive bell (3.50 m in diameter) probably destroying other footholds that may have existed on the side of the shaft (Fig. 2). Other modifications were made to the tomb. It is likely that the original floor of the shaft was lowered by about 0.60 m (below the level of the floor of the chambers). A sump for the collection of sediment, measuring 1 m in diameter, was dug in the middle. Above the rock outcrop, the cistern was extended by stone blocks kept together with mortar. The opening of the cistern was covered transversally by blocks of stone topped in turn by the cistern head (Plate 1). A smooth mixture of lime and clay (*gagazza*) was applied over the rock surface of the cistern to make it waterproof, except on the roofs of the chambers, where water would not have reached. This rendering made the cistern waterproof but covered any ancient decorations, incisions, or inscriptions that may have existed on the walls of the burial chambers or the shaft.

The last intervention on the tomb seems to have been the attempt to channel water away from the cistern by digging a trench in the floor of Chamber 1, leading away from its modern entrance into the heritage park (Plate 1 and colour plate 5).

Dating the tomb

It is not easy for the archaeologist to date the tomb because none of its contents have been preserved. Originally the corpses would have been laid to rest on the respective beds with their head lying, in this case, on the rock-cut "cushion" pillow, opposite the entrance. Pottery vessels, often including plates, jugs, and storage jars (amphorae), which accompanied the corpse, would have been placed inside the chamber. Each entrance would have been sealed with a stone slab or plug. The burial ritual which would have been followed here is known from elsewhere in Malta[1] and abroad.[2] In fact, it may be that the rock-cut tomb was first discovered, and emptied, when it was refashioned into a water cistern, probably after 1939, not when it was re-discovered during quarrying activities (after 1973) or during later works carried out in connection with the setting up of the park (2005).[3] In the absence of such material the tomb has to be dated according to its shape, layout, and according to any architectural features present within. As said earlier, rock cuttings cannot be observed as they are concealed by the *gagazza* render except on the ceiling of Chamber 2 where the original cut marks in the rock are visible. These are very different from those seen on the ceiling of Chamber 1, made with a different pick axe (*baqqun*).

Rock-cut tombs with two roughly rectangular chambers on either side of a deep rectangular shaft are common in Malta after the 3rd century BC.[4] Late Punic tombs like this one were usually accessed either down a series of footholds or else down a flight of narrow steps cut in the rock of one side of the shaft,[5] following a scheme that finds a home in the Phoenician homeland,[6] and in the Punic West, in particular in Tunisia.[7] Examples of a rock-cut "cushion" pillow without a depression to receive the head of the corpse, as in the tomb discussed here, are not common in the Maltese islands[8] but they are known in the Punic cemeteries of the Tunisian Sahel in particular at Mahdia.[9] The appearance of this depression which serves as a headrest on the mortuary bed is a late development appearing in a transitional phase between Punic-Roman and Late Roman tombs.[10] Moreover, very

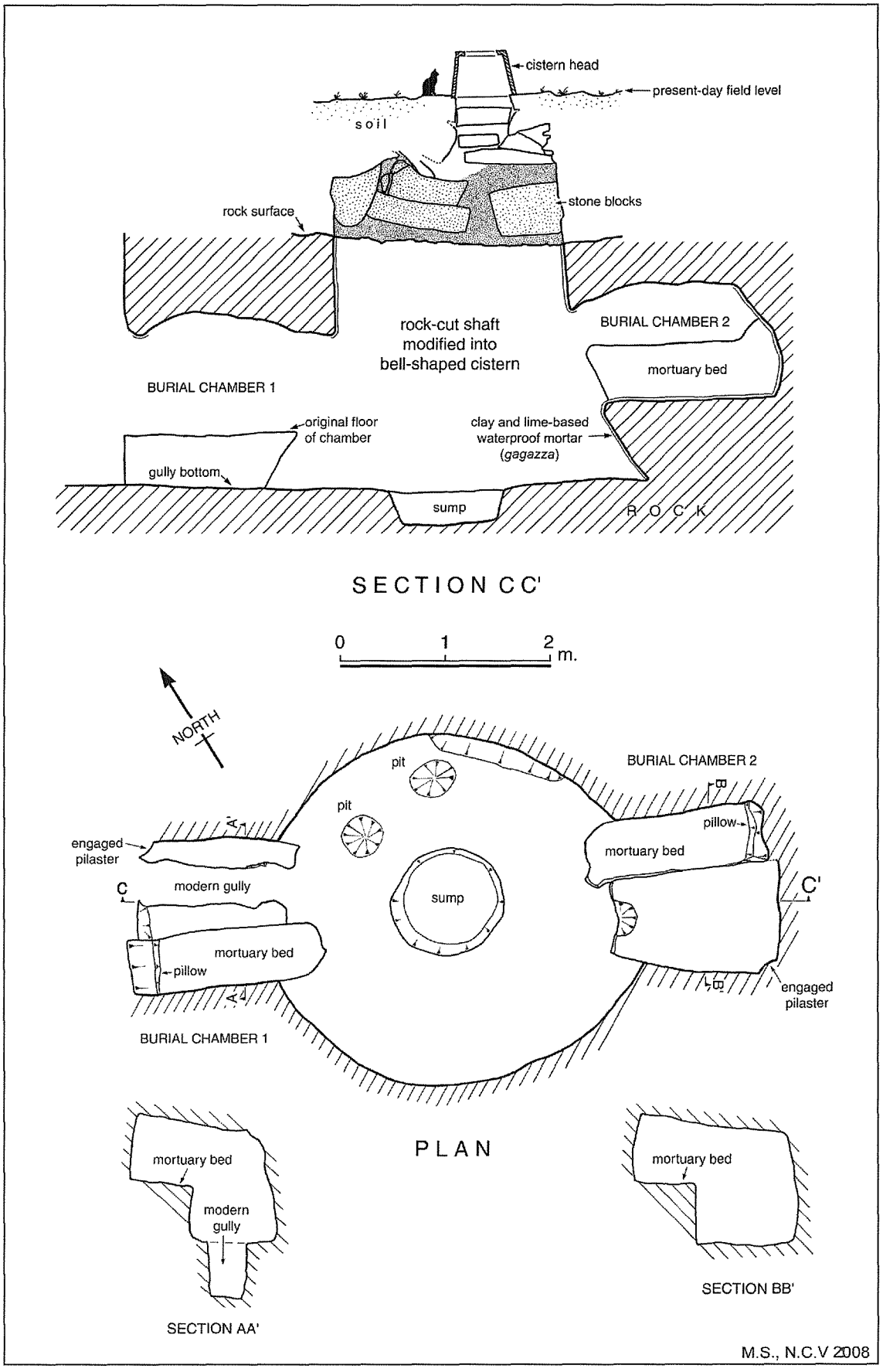


Fig. 2. Section drawings and plan of the rock-cut tomb. The adaptation of the rock-cut tomb into a bell-shaped cistern is clearly visible in Section CC'.

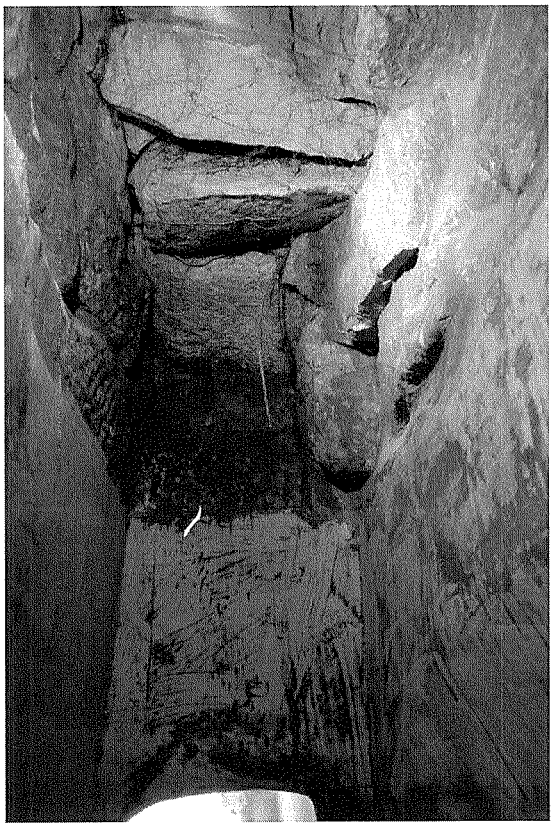


Plate 1. The shaft of the rock-cut tomb. The slabs visible at the top of the photograph hold the cistern head. The entrance to Chamber 1 is just visible at the bottom of the photograph.

few stylistic developments are found within rock-cut tombs that bridge the Late Punic and Roman periods.[11]

Later in the Roman period (1st and 2nd centuries AD), while the tomb was still being designed to a rectangular plan (both shaft and chamber), changes or refinements were made to the architectural details. Unlike the Late Punic type, the chamber was now situated at a few centimetres higher up from the shaft floor.[12] The Punic square-shaped chamber entrance started to attain an arched configuration; moreover, even the mortuary bed was no longer level with the chamber floor but was elevated to a higher level.[13] The integration of engaged and plain pilasters inside the chamber recalls the later window-like tomb, where it is a common feature.[14] Moreover, during this later Roman period the shaft was also subject to changes. The footholds were replaced by a flight of steps cut along the side of the shaft. At times, the shaft was extended to provide for a small forecourt in front of the chamber entrance.[15]

In the light of the tomb development outlined above, the rock-cut tomb under study has a shape which can be Late Punic or Roman in date. Moreover, there are also elements present which are ascribed to the 1st and 2nd centuries AD. These elements include the position of the mortuary bed, the presence of an engaged rock-cut pilaster, and the shape of the entrance. It is not certain whether the chambers were originally level with the floor of the shaft or whether they were at a higher level. However, most probably – as suggested above – the shaft floor was lowered when the tomb was altered into a water cistern. These three elements are crucial for the date of the tomb being put forth here.

To conclude, therefore, if these elements were all fashioned at the same time as the tomb, it is likely that the tomb is of Roman date. The other scenario would have the tomb cut in Late Punic times and remodified in the subsequent Roman period when both mortuary chambers were refashioned in the shape we see today. The practice of reusing older tombs is, after all, a practice that was common in ancient Malta[16] and elsewhere like in Marsala, Sicily and in the necropolis of "Puig dels Molins" in Ibiza.[17]

Acknowledgements

We are grateful to Emanuel Baldacchino who entrusted us with the study of the tomb at the Limestone Heritage park, to Nathaniel Cutajar (Superintendence of Cultural Heritage) for following our study with interest, and to Claudia Sagona and Mario Buhagiar who discussed some of the ideas expressed here. Finally, thanks are due to Iona Muscat who lent a hand during the survey of the tomb.

Notes

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2 M. Gras, P. Rouillard and J. Teixidor, 'The Phoenicians and Death', *Berytus* 39 (1991), 127-176.

3 1939 is the date of publication of the Six Inches to One Mile map (No IX) published by the Ordnance Survey, UK. The two wells shown in the area (marked with the letter 'W') do not correspond to the cistern studied here. One of these wells can be seen in the northern quarry face of the complex. The quarries are not shown on the 1:2500 survey sheet no. 4867 (Series M8910) last updated in 1973 and published in 1974 by the Directorate of Overseas Surveys for the Government of Malta. The quarries must post-date this survey.

4 M. Buhagiar, *Late Roman and Byzantine Catacombs and Related Burial Places in the Maltese Islands*, BAR International Series 302, (Oxford. Archaeopress, 1986), 14; and Sagona, 252.

5 Buhagiar, 14, and Sagona, 240.

6 E. Mazar, *The Phoenicians in Achziv: The Southern Cemetery. Jerome L. Joss Expedition. Final Report of the Excavations 1988-1990.* Cuadernos de Arqueología Mediterránea 7. (Barcelona. Laboratorio de Arqueología de la Universidad Pompeu Fabra de Barcelona, 2001).

7 H. Ben Younès, 'L'architecture funéraire punique au Sahel: état et perspectives', in P. Tousset (ed.), *Monuments funéraires institutions autochtones en Afrique du Nord antique et médiévale*, 73-90 (Tunis. Éditions du CTHS, 1995), 75 ; and H. Gallet de Santerre and L. Slim, *Recherches sur les nécropoles puniques de Kerkouane*, (Tunis. Institut National d'Archéologie et d'Art, 1983), 23-38.

8 Sagona, 935-940.

9 S. Lancel, *Carthage: A History*, (Oxford. Blackwell, 1995), 301 ; Ben Younès, 'Nécropoles puniques de Tunisie: apports et perspectives', in G. Sotgiu (ed.), *Attività di ricerca e di tutela del patrimonio archeologico e storico-artistico della Tunisia, Seminario di studi Cagliari 7-11 aprile 1986*, 33-49 (Cagliari. Editrice Universitas, 1991), 40, pl. 15 ; and Ben Younès, 79.

10 Buhagiar, 17, and M. Buhagiar, 'Four new Late Roman and early Byzantine burial sites in the island of Malta', *Melita Historica* 13/1 (2000), 35.

11 Buhagiar (1986), 14, and Sagona, 252.

12 Buhagiar (1986), 18.

13 Ibid., 18.

14 Ibid., 19-20.

15 Ibid., 18.

16 Buhagiar (2000), 13; Sagona, 259; and P. Vidal Gonzáles, 'Du rituel funéraire punique à l'époque romaine: le cas maltais', in M. H. Fantar and M. Ghaki (eds.), *Actes du III^e congrès international des études phéniciennes et puniques*, Volume II, 443-448 (Tunis. Institut National du Patrimoine, 1995), 444.

17 Vidal Gonzáles, 447.

Xewkija and elsewhere: new thoughts on old sites.

David Trump

The re-publication of Father E. Magri's 1906 report of his excavation at Xewkija in 1904 is indeed very welcome.[1] He himself has tended to be overshadowed by his immediate successors like Dr Thomas Ashby and, even more, Sir Temi Zammit. This book goes some way to restoring his reputation, which would in any case have been much higher had his notes on his work at Ħal Saflieni survived.

Although substantial remains of a temple structure had been reported by earlier visitors, as Magri recounts, his trenches found only patches of torba flooring and a considerable quantity of prehistoric pottery. His detailed account of his work at the Xewkija site includes beautifully drawn and, on comparison with the photographs of the same sherds, remarkably accurate reproductions of the pottery he found. He, of course, had not the benefit of John Evans's pottery sequence, not available until fifty years later.[2]

It is hardly surprising, then, that he failed to realize that much of the material he recovered was very much older than the temple. Even Sir Temi made this same mistake when placing the style of pottery he found at Ta' Ħaġrat at the end of, rather than well before, the *floruit* of this and all other temples.[3] We now know that a number of temples were erected over the remains of earlier, often much earlier, villages, with Skorba, Kordin III and Ta' Ħaġrat at Mġarr itself very clear examples.[4]

Having discounted the significance to the temple of these earlier sherds, going back to the Għar Dalam phase, what are we left with? There are typical and unsurprising pieces of the Ġgantija phase, but what is very remarkable, though not previously commented on, is the total absence of any of the Tarxien phase, as found at every other temple site. This is a very striking pottery style, in its several varieties. We would surely assume that Magri would have illustrated it if he had found it. The implication is that, uniquely, it was absent from the Xewkija temple, presumably because this had gone out of use before the Tarxien phase.

If so, a possible cause might be that the Xagħra community, based on the Ġgantija, had established its authority over the whole island, suppressing Xewkija as a rival. Is it known, in the absence of excavations, whether surface sherds from Ta' Marżiena, Borġ l-Imramma or the Għajnsielem sites include any of the Tarxien phase?

There is actually a hint at Skorba that its East Temple had been abandoned while the West Temple was still in occupation. The evidence took the form of a scatter, up to 40 cm thick, of Tarxien phase rubbish across its floor before its roof was destroyed by fire.[5]

It is worth applying this same principle, of considering the absence of certain expected material, to other sites, as it might call into question current interpretations. I have, for example, for some time had doubts about Debdieba, the only temple in the centre of Malta, and the only one with a marked rectilinearity of plan. It was dug by Thomas Ashby in 1914 and, despite those anomalies, was interpreted as a temple on the strength of its plentiful prehistoric pottery and the employment of megalithic blocks in its construction.[6] We have

already noted above the weakness of the first argument, as demonstrated at a number of sites. The second is equally demolished by reference to the site on the Ras ir-Raħeb.[7] Here, two patently megalithic blocks were incorporated into a building which produced no single sherd earlier than Phoenician, so megaliths do not have to be prehistoric.

At Debdieba there is other, and even stronger, negative evidence. Ashby discovered no torba on this site, though it is the standard flooring material at every other temple site except where stone paving was employed. In fact, at Xewkija Magri found torba but nothing else by way of structure. The anomaly of Debdieba's rectilinear plan is no longer a problem. It was not built until the Roman period, fortuitously disturbing a long abandoned prehistoric village. Ashby mentioned in passing, indeed, that he recovered Greek and Roman sherds, implying that these were numerically fewer. That could be explained either by his considering them less interesting than the prehistoric ones, or that Roman housewives were more meticulous in keeping their quarters clean.

This case is in a way more serious than that of Xewkija in that Ashby's interpretation of Debdieba as a temple site has been accepted without question, and repeatedly quoted as such, (as, for instance, by Pace in 2004,)[8] when it now seems highly unlikely.

The same principle of looking in the original reports for what was not found as well as what was can also be applied to the tombs at Ta' Trapna ż-Żgħira, Żebbuġ.[9] There is no question of their date – Evans made it the type site of his Żebbuġ phase[10] – nor of their function, given the human bone in their contents. Their form is another matter.

As found, they consisted of five oval hollows in the rock surface, 1.21-2.95 m by 1.21-2.05 and from 13 to 84 cm deep. Baldacchino and Evans postulated that these are the exiguous remains of tombs cut into the rock, truncated by later quarrying, either of the shaft-and-chamber type or possibly simple pit graves. In 1954 they could quote only later parallels for the former in Malta, particularly the Xemxija group[11] and for the latter the single tomb of Buqana, also of the Żebbuġ phase.[12] Sicilian parallels at San Cono and one other, unnamed, site survived only in the form Ta' Trapna did.[13] The former interpretation, as shaft-and-chamber tombs, has been the generally accepted one, strengthened by discoveries of similar tombs in the Xagħra Circle and again in the Tranchina cemetery in Sicily. It remains pure speculation.

We can suggest two sources of doubt. No evidence is quoted in the original report for the postulated quarrying, to an apparently clean level surface under the ploughsoil. And if they were shafts of either plan, cut from a higher surface, it is strange that their floors should have arrived at so closely similar an arbitrary level.

There is a third alternative form, which Evans in 1971 mentioned in passing, 'may originally have been cut simply as shallow depressions', but this has rarely been considered since (though see Pace 2004).[14] The only known parallels are those two Sicilian graves, San Cono and the other unnamed site referred to *supra*, but so slight a form is much more likely to have escaped notice than the two other more substantial ones. It was a very lucky chance that when a trench at Ta' Trapna cut through the tombs there, the significance of their contents was appreciated and reported, and the same applies to Buqana. It so easily might not have been. It could be objected that those shallow pits were quite inadequate for the burial of human bodies. That is certainly so, but if they were only ossuaries, to hold dry disarticulated bones after their flesh and ligaments had decayed, there is no further problem. Buqana, accepted as a pit grave, was at 1m depth, only 17 cm deeper than the deepest of those at Ta' Trapna.

This is, of course, becoming increasingly speculative. Bearing in mind that negative evidence is never as reliable as positive, the most I would urge is that, however frequently an interpretation is repeated, one should always bear in mind that it is only that, very rarely proven fact, and whenever one can go back to the original source, as with Xewkija and Father Magri's account, one should do so, to see if it has facts since overlooked, and can still stand up to question.

Notes

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4 D Trump, *Skorba. Reports of the Research Committee of the Society of Antiquaries of London,* XXII. (Oxford. Oxford University Press, 1966), 10-16.
5 Ibid., 9-10
6 T. Ashby, T. Zammit, G. Despott, 'Excavations in Malta in 1914'. *Man,* XVI, 1, (1916), 17.
7 A. Bonanno, *Malta: Phoenician, Punic and Roman.* (Malta. Midsea Books, 2005), 322.
8 A. Pace, 'Debdieba', in D. Cilia, (ed.) , *Malta before History.* (Malta. Miranda Publications, 2004), 145.
9 J.G.Baldacchino and J.D. Evans, 'Prehistoric Tombs near Zebbug'. *Papers of the British School at Rome,* XXII, new series IX, (1954), 1; J.D. Evans, *The Prehistoric Antiquities of the Maltese Islands.* (London. Athlone Press, 1971).
10 Evans (1953).
11 Evans (1971), 112.
12 Ibid., 6.
13 Ibid., 166.
14 Pace, 25.

A remarkable feature at Mnajdra

Heiko Wagner

During a visit of the Southern Temple (Lower Temple) at Mnajdra in April 2007 a remarkable feature was observed. After studying recent and older literature[1] on the Mnajdra temples, it seemed to me as though nobody had previously discovered or, at least, recorded it. In April 2008 I was informed about a single written reference. Another well-hidden reference came to light in April 2010. Both will be presented below.

As it might affect the interpretation of the temple and religious practice, I considered it important to give the feature some prominence here.

At the entrance to the Southern Temple, the visitor has to cross a limestone slab on the ground. It is just at the entrance of a trilithon which, according to Trump,[2] forms part of a newly built façade (a second, later façade of the temple). On the surface of the slab, a brown "wavy line" is visible (Colour plate 7). A closer examination shows that it is primarily a geological feature: a layer of calcite on Lower Coralline limestone. Similar calcite layers seem to occur frequently on the islands, for instance, near the Ħamrija Tower, only some hundred metres away from the Mnajdra temples, on the bedrock. Other examples have been seen on Upper Coralline limestone near Għajn Tuffieħa Bay. Primarily it seems to be a "karst" phenomenon, like the formation of stalactites, stalagmites and suchlike.

Normally, at this point the case should be closed for the archaeologist.

But what makes the slab interesting is the inevitable impression it may have on the visitor: the slab had been selected for that purpose and had been placed intentionally into its position (Plate 1 and colour plate 8). On recent coloured ground-plans of Mnajdra[3] the "wavy line" seems to be indicated by a thicker green line. So far, I have never seen an interpretation for it. On some photographs of Mnajdra shown in "older" literature[4] the feature is visible, even on aerial photographs.[5]

Plate 1. Mnajdra. Southern (Lower) Temple. Slab with calcite layer at the entrance (view from SSE)

The "wavy line" reminds me of a feature on two stones with relief bands inside the Tarxien Temple, next to the statue of the Great Goddess (Plate 2).[6] A snake or "snake-like" feature on a slab from Ġgantija Temple (now at the Archaeological Museum in the Citadella, Victoria, Gozo) seems similar.[7] Whether these wavy lines depict symbols for water or snakes, I am not in a position to decide. Each of these interpretations, and even both together, might be possible. A snake might be a "guardian" of the entrance. Water might be the separation of spheres – between the "world" outside and the interior of the temple, i.e. the religious sphere (or whatever interpretation might be placed on it). A snake or a water symbol might also be an element related to fertility. Furthermore the snake is also a symbol of life after death, of immortality and transformation ("rejuvenation" through a new skin).

Be that as it may, the position of the slab seems to be intentional and might have had some deeper meaning for the temple builders. The importance of the temple entrance generally is underlined by a small standing stone (cone) near the entrance at Mnajdra (Zammit saw three of them[8]) and sometimes, at different temples, by holes for libations (?) or "tethering holes".[9]

In my experience, having visited most of the Maltese and Gozitan temple sites, I never remember having seen a similar calcite line or layer. This material, Coralline limestone together with calcite layer, does not seem to occur in the temple buildings. This supports the impression that it has been selected intentionally.

Another singular example of the selection of a calcite-containing stone is a small sculpture from Tarxien.[10] Here, the head of the figure is fashioned out of the beautiful red coloured part of the pebble.

It is not my intention to go further into the possibilities of interpretation for the slab with the "wavy line". I just want to draw the attention to the peculiar feature, and I now leave it to the specialists for discussion.

After submitting the paper to the editor, I was informed that there already existed a written reference to the "Mnajdra serpent".[11] Christopher Tilley wrote in 2004:

"The external entrance slab has a striking natural vein of dark quartz meandering across its surface and resembling a serpent. It must have been chosen and placed here because of the presence of this inclusion (not mentioned in the literature)".[12]

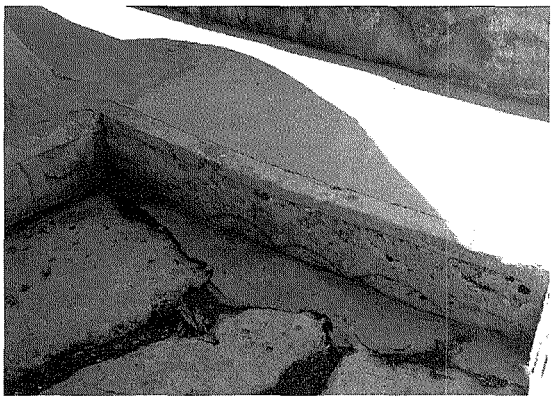

Plate 4. For comparison. Tarxien, Southern Temple. Slab with relief band (near the Great Goddess)

On a final note, in April 2010 I was informed that, in an article about the finds from Tas-Silġ, Italian archaeologists had already presented a photograph, a short note and an indication on the temple plan.[13] The discovery of the overlooked feature by Maurizio Moscoloni and – perhaps around the same time – independently by Christopher Tilley dates back to the year 2004 or even earlier. But in sum, it is surprising that – in a period of over a hundred years and with crowds of visitors crossing the slab – only three people took enough notice to publish the feature.

For the Italian scholars, the Mnajdra slab was only interesting as it seemed to hint at the presence of flint resources in Malta:

> '[...] *una formazione silicea* [...] *inserita nella roccia calcarea, indiziando che una fonte di selce dovrebbe essere non lontana da questa località.*'
> '[...] contains quite a large flint formation [...] which is part of the limestone rock and would suggest the presence of a source of flint nearby.'[14]

Nevertheless, I am confident that the Mnajdra feature is calcite not flint, and would therefore not be proof that there are flint resources nearby.[15] The "serpent-like" shape of the vein was not interesting for the Italian scholars and therefore they did not mention it.

> '[...] *la collocazione architettonicamente prestigiosa del blocco protrebbe anche sottolineare l'eccezionalità di questa presenza.*'
> 'The placing of the slab in a prominent architectural position might also serve to emphasise the exceptional presence [of flint].'[16]

This statement has to be corrected: it does not seem to be flint but calcite which sometimes occurs naturally on the surface of bedrock. What is exceptional is not the mineral but the shape of the vein seen within the existing religious and symbolic aspects. The accidental discovery of the slab with the serpent-like vein by the megalith builders, probably during quarrying activities, and its subsequent use, fitted well with the religious beliefs and it was therefore placed at the entrance of the Mnajdra temple.

Notes

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2 Trump, 148.

3 Ibid.,149., and A. Pace, 'Mnajdra', in D. Cilia, (ed.), *Malta before History*, (Malta. Miranda Publishers, 2004), 128.

4 I. Tetzlaff, *Malta und Gozo. DuMont Kunst-Reiseführer*, (Cologne. DuMont, 2nd, revised and enlarged edition, 1983), Fig. 80.

5 Ibid., Fig. 78 ; Evans (1959, Pl. 17; Evans (1971), Pl. 10,1.

6 Pace, 'Tarxien', in Cilia, 61.

7 Pace, 'Ġgantija', in Cilia, 172.

8 Zammit, 56.

9 Pace, 'Ħaġar Qim', in Cilia, 112, 120, plans of Ħaġar Qim; 113 text; 114 plan; 116-118 photographs; Pace, 'Tarxien', in Cilia, 49, plan of Tarxien, detail B; 65 lower picture (reconstruction of façade); Pace, 'Skorba', 154 plan of Skorba, especially Skorba West; 155, aerial photograph.

10 I. Vella Gregory and D. Cilia, *The Human Form in Neolithic Malta*, (Malta. Midsea Books, 2005), 158-159, Fig. 139; A. Pace (ed.), *Maltese Prehistoric Art 5000-2500 BC*, (Malta. Fondazzjoni Patrimonju Malti in Association with the National Museum of Archaeology, 1996), 85, Nr. U4.

11 My thanks go to Ms Patricia Camilleri for the information and to Dr Nicholas Vella for finding the well-hidden reference.

12 Christopher Tilley, *The Materiality of Stone* (Oxford. Berg, 2004), 112.

13 A. Cazzella and M. Moscoloni, "Gli sviluppi culturali del III e II millennio a.c. a Tas-Silġ: analisi preliminare dei materiali dagli scavi 1963-70 e della loro distribuzione spaziale", *Scienze dell'antichità – Storia, archeologia, antropologia* 12 (2004-2005), 263-284, especially 273 text, 274, Fig. 5 plan and photograph. – Thanks go to Ms Patricia Camilleri for providing the article and to Dr Nicholas Vella for the information about an interview with Dr Reuben Grima in May 2010 in which he mentioned the calcite vein.

14 Ibid., 273.

15 By means of a Mohs-test on site one may identify the material easily, since silex/flint and quartz are much harder than calcite.

16 Cazzella and Moscoloni, 273.

LIST OF CONTRIBUTORS

George Azzopardi was born in Gozo in 1966. He studied archaeology at the University of Malta where he graduated B.A.(Hons) and M.A. with a Classical orientation in 1994 and 1999 respectively. His latest research focused on the administrative and political set-up of the Maltese islands in Roman Times. He has participated in the archaeological excavations at Xaghra Circle prehistoric site and also in a number of other smaller archaeological interventions. He works at the Gozo Museums where he has been since 1996.

Lino Bianco lectures in history of architecture and architectural theory at the Faculty for the Built Environment, University of Malta. In 1997, he set up a consultancy firm majoring in architectural and urban design and environmental management and planning. Architect Bianco, a graduate of the Universities of Malta, Leicester and London, was former Chairman of the Planning Council responsible for the socio-economic planning for the south of Malta (1997-1998) and member of the Planning Appeals Board (1997-2000). He has directed numerous interdisciplinary research projects and authored over 200 technical reports and has published a number of research papers.

Francesca Bonzano - archaeologist, was awarded the Italian *dottorato di ricerca* by the Università Cattolica di Milano in "*Archeologia dei processi di trasformazione*" with a thesis entitled "*L'area centrale del santuario di Tas-Sil a Malta in età tardo-ellenistica*". She is a member of the Missione Archeologica Italiana a Malta as from 2001, and of the Missione Archeologica Italiana at Hierapolis in Frigia (Turkey) as from 2003. Here she is engaged in the sectors of the stoà-basilica and the sanctuary of Apollo. Her research interests are mainly concerned with architecture, on which she has published various contributions, some of which dealing with monuments of northern Italy.

John J. Borg is the Principal Curator of the Natural History Unit at Heritage Malta responsible for the National Museum of Natural History and Għar Dalam cave and museum. Specialising in animal ecology. John has been researching seabirds and bats for the past 30 years. His interest in palaeontology stems from his eight years acquaintance with Għar Dalam's former curator Dr George Zammit Maempel. Apart from numerous works on birds and bats John has also published on the Quaternary avifauna of the Maltese Islands and is currently working on the hunting techniques and diet of the early inhabitants of the Maltese Islands vis-à-vis extinctions and introductions.

Derek Mottershead gained a B.A. in Geography and a Ph.D. in geomorphology from the University of London. He is a geomorphologist who has held posts as lecturer and senior lecturer at Portsmouth Polytechnic (now University of Portsmouth) and as Head of Geography at Edge Hill College of Higher Education (now Edge Hill University. He recently jointly led a workshop for the M.Sc. Conservation Programme at the University of Malta. Co-author of a foundation text in physical geography (*Environmental Systems: an Introductory Text, 2E.* Chapman & Hall 1992), he has published extensively in scientific journals in the field of geomorphology and has carried out field studies in southwest England, Scotland, Norway, Arctic Canada, Spain, Mallorca, Crete, and Malta. He became interested in geomorphological issues in Malta as a consequence of regular visits with student field classes from the University of Portsmouth.

Paul Saliba holds a B.A. (Hons) and an M.A. degree in Archaeology from the University of Malta. He is also a qualified Architect Assistant and Draughtsman and is employed as a Research Co-ordinator at the Restoration Unit within the Works Division in the Ministry of Resources and Rural Affairs. He has written a number of papers and has co-authored two books entitled *A Study of Landscape and Irrigation Systems at Is-Simblija limits of Dingli, Malta & Conservation Report* and *The Significance of Cart-ruts in Ancient Landscapes*. Mr Saliba has attended several conferences abroad and has also participated in a number of archaeological excavations and landscape studies both in Malta and abroad. Since 1999 he has been a visiting lecturer in the Masonry Heritage Skills (Vocational Course) and the B(Cons.) Course at Bighi Institute and the M.Sc. 'Masonry and Conversation Course' at the University of Malta.

Mevrick Spiteri obtained a B.A. in Archaeology and History from the University of Malta in 2006. Since then, he worked as a freelance archaeologist on various archaeological excavations and is currently working at the Superintendence of Cultural Heritage. His research interests are mainly in Classical and Medieval archaeology, and in historical landscape studies. He is also currently undertaking historical landscape studies as part of the Belgo-Maltese Survey Project (a project undertaken by the University of Malta, Ghent University and Superintendence of Cultural Heritage).

David H. Trump is very closely associated with the development of Maltese archaeology. In 1954, as an assistant to John D. Evans, he was directly involved in the excavations of Ggantija Temples in Gozo. After taking his B.A. in 1955 and Ph.D. three years later, he served as Curator of the local National Museum between 1958 – 1963, when he promoted a programme of archaeological excavations, including the first excavations at Skorba. Dr Trump was the first archaeologist to introduce the science of 'carbon dating' in Malta and also discovered two new phases in Maltese prehistory, which are now referred to as the Skorba phases. Dr Trump has published extensively. These publications include those dedicated exclusively to Maltese archaeology, such as *Skorba – the Prehistory of Malta* (1966), and *Malta: Its Prehistory and Temples* (2003).

Nicholas Vella B.A.(Hons), Ph.D. is Senior Lecturer in the Department of Classics and Archaeology, University of Malta. He co-directs several research projects including the joint Belgo-Maltese Survey Project and the Żejtun Roman Villa excavations. He has co-edited *Debating Orientalization: Multidisciplinary Approaches to Change in the Ancient Mediterranean* (Equinox, 2006).

Heiko Wagner M.A., Ph.D. was born at Rastatt (Baden-Württemberg, Germany) in 1964. He studied prehistoric and medieval archaeology, Roman archaeology and ancient history at Freiburg University and was involved in fieldwork on medieval mining. His Ph.D. thesis dealt with Celtic glass ornaments (bracelets, beads) of the Late Iron Age. He also conducts fieldwalking surveys, excavations and documentation work on medieval castles in southwestern Germany. he spends most of his holidays in Malta and joined the Archaeological Society in 2006.

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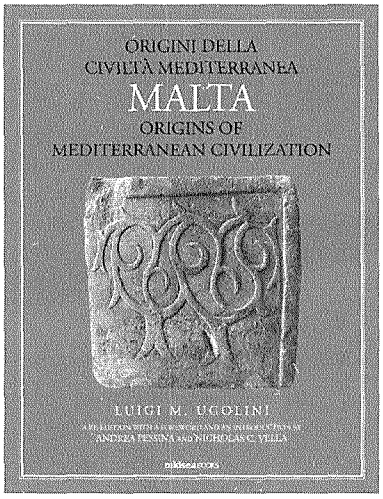

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The work of Ugolini was interrupted by his sudden death that occurred just before the publication of the series of volumes ('Malta Antica') which he had planned. The main theories of the Italian archaeologist were put forth in 1934 in the volume *Malta. Origine della civiltà mediterranea*. The monograph represents a seminal part of Ugolini's archaeological thought and is a necessary premise to the final publication of his precious archive. Held in Rome at the Museo Nazionale Preistorico Etnografico 'Luigi Pigorini', the archive has been re-discovered thanks to a collaborative Italo-Maltese project and will be published shortly by Midsea Books.

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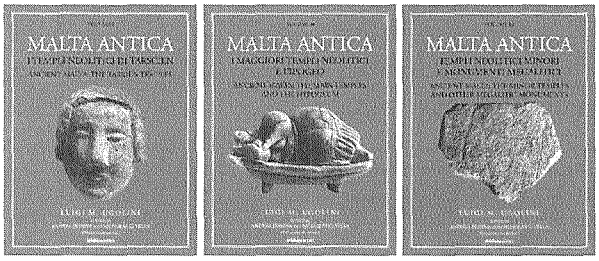

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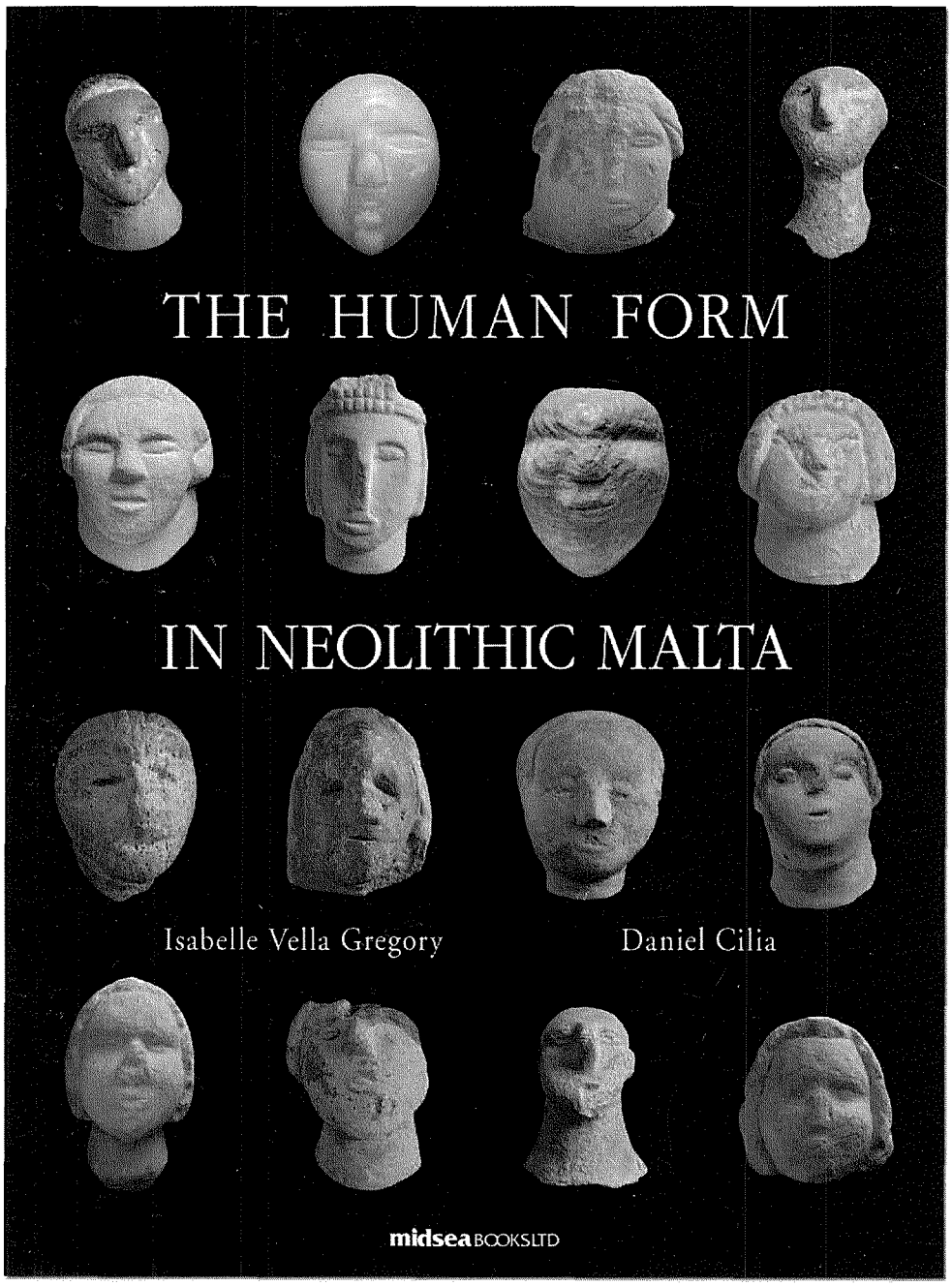

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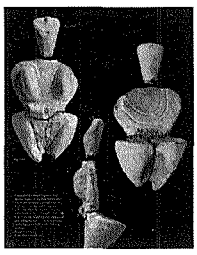
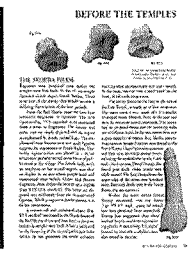

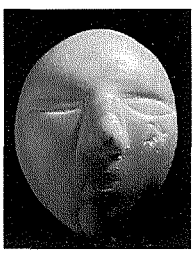
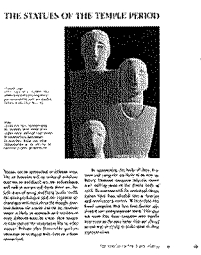

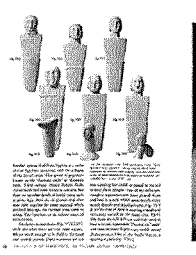

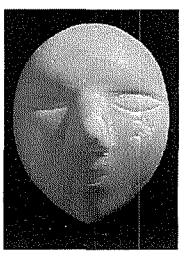
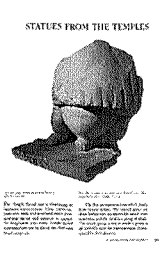

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