MALTA ARCHAEOLOGICAL REVIEW

THE JOURNAL OF THE ARCHAEOLOGICAL SOCIETY, MALTA

ISSUE 2, 1997

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 preserved.

The Society organises meetings and seminars, some of which are open to the public, as well as site visits both in the Maltese Islands and abroad. It publishes the Malta Archaeological Review. It endeavours to maintain close relations with the Museums Department and the Department of Classics and Archaeology of the University of Malta and to support the activities of both. It also maintains a network of relations with archaeological societies and organisations abroad.

The Malta Archaeological Review welcomes the submission of papers on the subjects mentioned above. Contributors are requested to keep papers to a maximum of 2000 words but may also submit two or three illustrations. The editors reserve the right to limit the reproduction of illustrations, which are not an integral part of the text, according to availability of space.

Application for membership and all correspondence should be addressed to:
The Honorary Secretary,
The Archaeological Society,
c/o The National Museum of Archaeology,
Auberge de Provence,
Republic Street,
Valletta,
Malta.

Edited by Professor Antony de Bono and Mr. Anthony Pace
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THE ARCHAEOLOGICAL SOCIETY

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MALTA ARCHAEOLOGICAL REVIEW

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From the President

The second number of this journal coincides with a number of significant events in Maltese Archaeology. The most obvious of these is the complete refurbishment of the National Museum of Archaeology's Auberge de Provence in Valletta. The building itself is being restored to its original glory and the permanent exhibition is being radically re-organised and extended, which will be a most welcome step towards making the archeological museum one of the best in the Mediterranean. At the same time much has been accomplished in the complex task of safeguarding the unique neolithic temple necropolis that is the Hypogeum at Hal Saflieni. Here the damage caused by infiltrating water, and that by tourist light and carbon dioxide to the red ochre decoration epitomises some of the daunting problems of conservation. The Hypogeum is however but one of the unique neolithic structures that pose formidable conservation challenges. However, these challenges are at last being faced and there is now widespread recognition of the urgent and inescapable need for action. A well attended meeting organised by the Society with the theme of preserving the temples is witness to this growing concern. Government recognises both the urgency and formidable nature of its awesome responsibility.

It is perhaps surprising that the Maltese Islands, situated as they are in the midst of the sea and the site of what must be one of the best known ship-wrecks (that of Paul, the Apostle) should not have generated a greater interest in nautical archaeology. From the time when the islands were still joined to Sicily (at the time of the last glaciation) until the aeroplane age, every visitor must have come by boat. Among the areas that were probably havens in ancient times, and which may yet reveal remains of ancient sea craft is the wet alluvial plain between Qormi and the Grand Harbour. Qormi, indeed, may well have been an ancient port or haven which has gradually become cut off from the sea due to alluvial silting (like Ephesus and countless other ports). Possible Roman port installations have been identified under what is now the Marsa Polo ground, and sea shells have been found in Qormi itself, showing that it was in contact with the sea in antiquity. A fresh water spring, Ghajn Filip, on the outskirts of the then village was a well known watering source for vessels in the port. There are various theories about the derivation of its name, but perhaps the most logical and intriguing is that it derives from the Greek Hormos or Ormos meaning 'haven'. Thus we would have an etymological and chronological progression towards the open sea from Ormos, to Marsa, to the Grand Harbour. This may well have been in pre-Punic times.

Another area of great archaeological promise is of course the old city of Mdina, previously part of the Roman town of Melite. Given its strategic location and topography it would be surprising if it had not been occupied from neolithic times rather like the citadel at Lipari. Initial clearing out of the extensive cellars of the Cathedral Museum at Mdina has revealed the foundation of two massive walls each on a slightly different orientation to the present building. One may be mediaeval, the other probably Roman or pre-Roman. There is evidence of a Roman building on the site.

'Education and Archaeology' is a theme that the Society will be concerned with during the coming year. The informed concern of a critical mass of the population is vital for the preservation of a nation's archaeological heritage. Elements of Archaeology can be introduced with great success into the curriculum at an early age and need never be dull. However, it does require interested teachers with special skills, and access to appropriate resources. From a purely educational point of view archaeology in its broadest sense offers a whole host of motivated learning opportunities. The subject will be discussed at a seminar organised by the Society later in the year. It clearly requires a great deal of planning and thought. Objectives have to be clearly defined and agreed between educationalists and archaeologists, and above all have to be attainable and practical. Nevertheless, it is of the utmost importance not only because it would inculcate the pride and interest in our archaeological heritage that is so crucial too for preservation, but also because it provides such valuable learning opportunities.

The future management of our archaeological heritage clearly calls for new initiatives. At the present time it is governed by archaic ordinance long past its sell-by date; which is an obstacle to progress. A new legislative framework is urgently needed and can with goodwill, determination, and vision be distilled from the experience of a number of other countries, both positive and negative. There is a wealth of such experience from which can be created a framework ideally adapted to the needs and realities of Malta. One of the most important aspects would be to allow funds generated by the museums and archaeological sites to be used to support conservation and excavation. The archaeology of Malta is a priceless heritage which we must preserve; it is also an extremely important tours attraction , and tourism is the mainstay of the economy. Somehow these often incompatible aspects will have to be reconciled.

Society Report

Membership of the Society has grown impressively during the period under review. Mr. Anthony Pace, Curator of Archaeology in the Museums Department and Dr. Anthony Frendo, the new Head of the Archaeology Department at the University of Malta, are now ex officio Vice Presidents of the Society. Archaeology is now part of the portfolio of the new Minister of Education and National Culture, the Hon. Evarist Bartolo, who is taking a keen and energetic interest.

The Society looks forward to the completion of the radical refurbishment of the National Museum of Archaeology at the Auberge de Provence which will not only house a completely new presentation of its unique collection but also have facilities for meetings and other activities.

Site visits have been immensely popular and are always well attended. Dr. Mario Buhagiar and Professor Bonanno led a visit to Ras ir-Raheb situated on a level platform above the cliffs at Bahrija with a westerly aspect. Here there are remains probably from neolithic times but principally from the Punic era, though clearly the site needs further excavation and interpretation. It was probably used for different purposes at different times in the past three millenia. My feeling is that there was a small neolithic shrine, (looking towards the setting sun?) which was in Phoenician and Punic times changed to a 'landfall and departure' shrine. possibly with a beacon, connected with sea passages from, and to, Carthage. This is not perhaps so obvious from the site looking out over the sea, but sailing to and from Carthage would have been ideally placed both as a focus of a 'back bearing' and landfall on arrival, being in an elevated position in the middle of a relatively small land mass. Later this remote location may well have been the site for a hermit monk or monks in the Byzantine tradition, who may have for a time continued (as they do today in some small remote Greek islands in the Aegean) tending a beacon.

Dr. David Trump was our guide on two further site visits. The first was to the cart ruts at San Pawl tat-Targa. These enigmatic ruts purposefully criss-crossing the limestone escarpment are of uncertain date, though a Bronze Age origin seems almost convincing. Some of the ruts are very deep and would suggest deliberate continued use, possibly to cope with the considerable slope they traversed from the high land above to the plain and possible haven at Burmarrad/Salina. The theories propounded by David Trump are always fascinating as they are based on a profound and extensive knowledge of local archaeology. The second visit was to the important but sadly neglected site of Borg in-Nadur. Here, on a promontory, facing South-East into the Marsaxlokk bay, are the remains of an eponymous bronze age settlement. Defended on three sides by the steep slope of the cliffs and across the neck of the promontory by a massive cyclopean wall. This rampart seems to have had a defended re-entrant gateway now covered by the debris of previous excavation. Within the large defended area, (alas no longer defended in any way) are the remains of a neolithic temple which sadly shows signs of wanton vandalism.

Society members are always eager to listen to first hand account of archaeology abroad and we were delighted to listen to Dr. Peter Parr of the Institute of Archaeology, London, who gave us an intriguing talk on his excavations in Syria at Tel Nebis Mend.

One of the Society's principal objectives is to stimulate public discussion of matters concerning archaeology and one of the matters of the utmost concern was discussed at a seminar on The Temples: Tactics and Strategies for Preservation. In opening the discussion the president outlined the urgency and importance of arresting the decay due to the weather and to man to the unique neolithic temples of the Maltese Islands and the awesome responsibility that rests not only with the archaeological authorities but with the public at large for their preservation. Anthony Pace, Curator and Head of Archaeology in the Museums department spoke about his concerns from a curator's point of view. Alex Torpiano, Head of the Department of Building and Civil Engineering at the University gave a fascinating account of the structural stability of the neolithic temples and of his experience in restoring some of the megaliths of the Mnajdra temple, which had collapsed following a particularly torrential rain-storm. JoAnn Cassar, from the Institute of Masonry and Construction Research, gave a very interesting paper on the mechanisms of deterioration of limestone blocks and what can be done to help preserve them. Reuben Grima, an Assistant Curator of archaeology who is in charge of External Site Management, talked about reconciling the potential damage due to mass tourism with conservation and the generation of funds under the title of 'Towards Sustainable Site Management'

AdeB

The Mdina Catillus

Antony de Bono

Was this the mill that ground the grain for St. Paul's bread?

A Roman-type corn grinder was recently found in the cellars of the Cathedral Museum at Mdina. Recent excavations have revealed that the site was once part of a Roman and pre-Roman establishment. Although out of any archaeological context it is unmistakably part of a 'Roman' mill and may well have been in use at the time of the Apostle's sojourn in Malta. As far as we know it is the only intact catillus to have been found in Malta. (fig.1)

The Roman Corn Grinder

The classical Roman corn-grinder, the mola asinaria or donkey mill was generally made of lava. (fig.4) It consisted of a rotatory upper stone called the 'catillus' which was in the form of an hour-glass, or two hollow cones joined at their apices. The upper cone served as a hopper for the grain, while the lower cone was the grinding surface as it rotated on the surface of the lower, fixed, stone called the 'meta' which, also made of lava, was in the form of a solid, or more accurately a slightly bell-shaped, cone. This was fixed into a plinth or base usually constructed of mortared rubble and about 60cms high; its upper surface being plastered to a smooth finish and generally with a wooden lip round its perimeter to collect the flour or rather the meal. (Mau 1899, Moritz 1956).

The grain was fed into the upper cone either directly or via a small hopper, and the catillus was rotated either by a donkey, horse or possibly, in the smaller models, by slaves. The full sized models had a wooden superstructure that allowed the animal turning the mill to be harnessed to a protruding beam; the smaller man-mills had poles or beams inserted into sockets at the side of the catillus and kept in place by wooden pins. (fig.3) The fully developed models probably had an iron rod mechanism passing through the top beam to ensure that the catillus remained centred on the meta as it was rotated. An iron band often circled the narrowest part of the catillus joining the beam together as they entered their sockets, and presumably contributing to the solidity of the superstructure.

The classic or definitive model was highly uniform in shape and materials. Dozens of examples survive at Pompei and Ostia in large commercial bakeries, others are found throughout Italy and a few examples further afield. Only one whole catillus has survived in Britain. They are also depicted in a number of funerary sculptures as memorials to eminent Roman miller-bakers. It is largely from these that we can deduce the method of use and details of the wooden superstructure. They had a mechanism whereby the catillus was in effect suspended from the beam above the catillus at a variable distance above the meta and this also served to keep the catillus centred. This metal rod either rested in a hole on top of the meta or on a cup-shaped disc, which rested on the meta. Alternatively a perforated disc acts as a rynd and not only centres the catillus on the meta but controls the flow of grain.

One of the important distinctive features of the fully developed catillus was that it was symmetrical and therefore reversible: the possible amount of grinding wear was therefore doubled. The date of the development of this type of mill or indeed where it was invented is unknown. Cato mentions it, as a matter of course and without further qualification, in about 160BC and there is further literary evidence as early as 185BC though it could have been in use well before that date. It continued in use for several centuries, alongside other types of mills.

The Mdina Catillus

At first sight the Mdina catillus is part of a typical Roman corn grinder of the *mola asinaria* type. However, it has a number of unusual features which may indicate that it was a very early model. It clearly has had a great deal of use and is much worn, but otherwise is complete. It is intermediate in size between the large animal-turned mills, and the smaller ones used in large households; smaller households would patronise the commercial bakeries and mills or use hand querns. The size which does not fit into the later categories probably also indicates that it was an early model in the development of the classic standard mola. The catillus (fig.1) is 36cm. high, the maximum diameter of the upper (hopper) rim is 50cm. and that of the lower (grinder) rim is 54cm. On each side there is a massive buttress which protrudes from the cylindrical catillus and supports the large sockets to take the turning beams. These sockets are 10cm. high by 12cm. wide, and 9cm. deep. Holes for a wooden retaining pin pierce the side walls of the socket. These holes show that at some stage, probably late, a metal pin was used to retain the beam. The hopper cone is relatively unworn. The lower (grinding) cone is very worn and must have been used for far longer than usual. The slope of the lower cone and its degree of wear, as well as its larger diameter, indicate that a significant amount has been unevenly worn away. The insertion of the lugs is way below the narrowest part of the waist

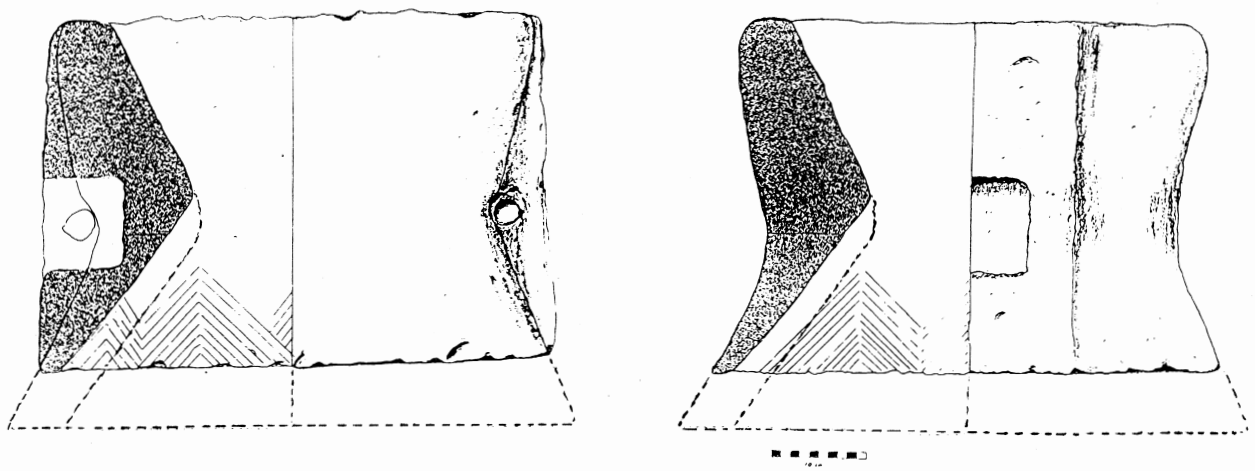

Figure 1: The Mdina catillus; broken line denotes extent of probable erosion due to wear.

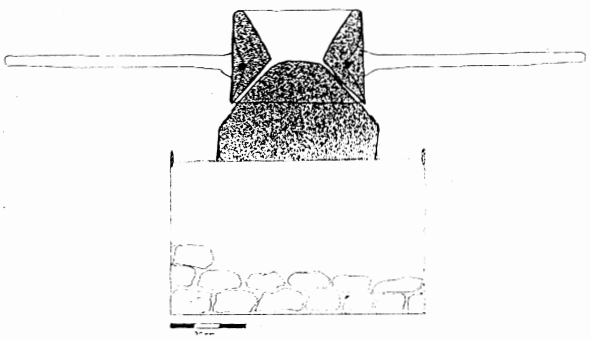

Figure 2: Mdina catillus as it may have been used (without superstructure).

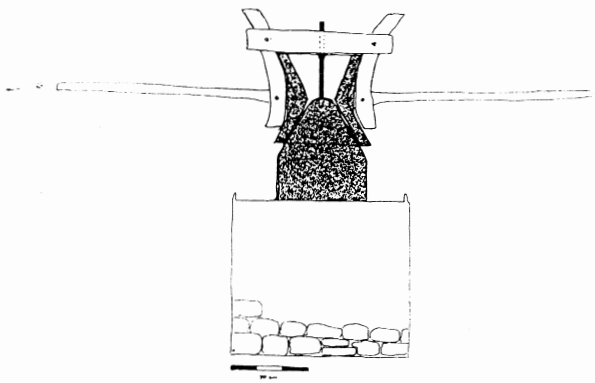

Figure 3: Small reversible mola, turned by two slaves.

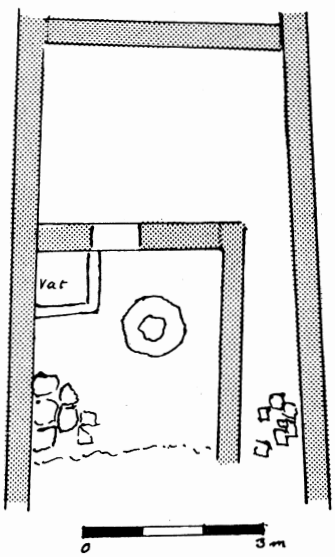

Figure 5: Plan of cellar of Casa Brogan 1st quarter 1st.cent. AD (Kendrick 1987) Showing plinth for small mola.

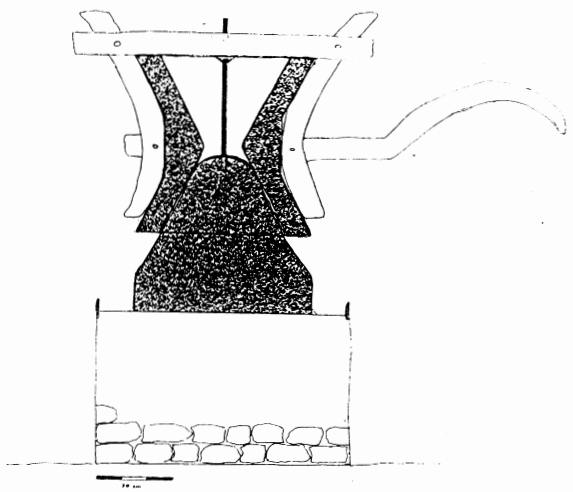

Figure 4: Large, horse- or donkey-driven mola.

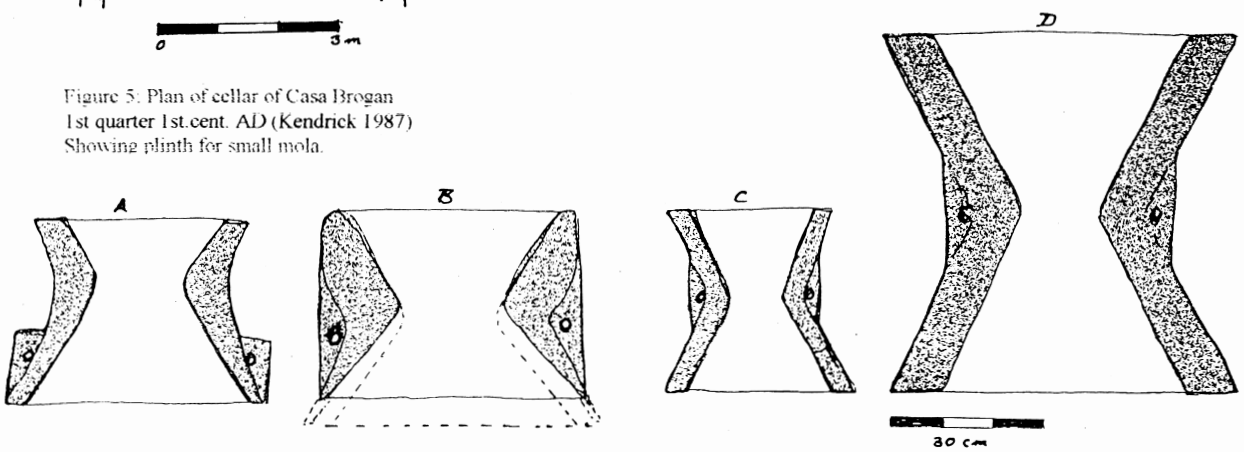

Figure 6: Possible development from early models to standard reversible molae. A Morgantina, B Mdina, C and D small and large mola asinaria.

The Mdina Catillus

of the catillus, which now measures 22cm. though was obviously narrower to start with. There are no marks indicating the iron band often found about the outside of the later models. There is an incised chevron pattern on the grinding surface of the catillus; as this 'working' is unknown in these mills and because of the degree of wear this must have been a very late feature, though of course stones were reworked on a regular basis.

One of the interesting features is that it is asymmetrical and clearly has never been reversed. The lower cone of the catillus is very much worn, the upper hopper scarcely at all. The outside diameter of the lower cone is still greater than the top cone in spite of the wear. If indeed the beam sockets had been mid-way down the sides of the catillus as is usual, then the diameter of the lower cone would have been greater still. Early models tend to be relatively more rugged or crudely made and the buttresses of the beam sockets are generally more massive. This can be seen in a catillus found on Delos (Deonna 1938) and one at the museum of Aquelia (Sebesta 1977). The asymmetry between the upper and lower cones almost certainly predates the symmetrical classic reversible model. The smaller rotatory mills found at Morgantina in Sicily (White 1963) show this asymmetry. Some of them probably date from 3rd century BC. Though the Morgantina mills have distinctive socket lugs that stick out like ears, it is not difficult to believe that the Mdina catillus has at least a developmental affinity with them. Interestingly the catillus at the Museum of London is also asymmetrical and as it could not have been imported until after the Roman occupation one wonders whether it could have been an older type that had previously been used in Gaul or elsewhere.

The wear on the lower cone of the catillus is very uneven and 'lop-sided' possibly indicating that the mechanism for centering the catillus on the meta as it rotated may have been missing. (fig.2) Another feature, which I am sure must have been added at a later date, possibly much later, is that the grinding surface of the lower cone of the catillus is 'worked', that is it is incised with a chevron pattern to enhance the grinding properties of the stone. As far as I am aware this is entirely unknown in Roman corn grinders, though of course the technique of 'working' mill-stones had been known for centuries and used on the Olynthian rubber-hopper mills, which predate them.

A mill of this size was probably used in a large household. In Rome, according to Pliny, commercial mills and bakeries were only established at the time of the war with Perseus (171-168 BC). A typical set-up for a large house would be similar to that at the 'Casa Brogan' in Sabratha excavated by Kenyon and Ward-Perkins (Kendrick 1986), who described in a cellar dated to the first quarter of the first century AD 'an enigmatic circular pedestal 60cm. high and 1m in diameter. It is built of rough mortared stone etc.'. (fig. 5) This was undoubtedly the base or plinth for small mola but the excavators seem to have missed its significance.

The Mdina catillus is clearly an early model and probably dates from the early part of the second century BC before the full development of the definitive model of the *mola asinaria*, and was probably brought over from Sicily by the Romans. Indeed it is not inconceivable that it in fact pre-dated the Roman occupation of Malta in 218 BC. Some of the Morgantina mills, which share a number of features, such as their asymmetry, date from pre-Imperial times, (and there is the yet enigmatic meta found by Whitaker at Motya, Whitaker 1921, which was rather arbitrarily dismissed by Moritz), which could have indicated a rather earlier development of this type of rotary mill than is generally thought. The Mdina catillus might therefore represent an important 'missing link' in the later development of the standard Roman *mola asinaria* which was reversible and more refined. (fig.6) Petrological studies are being undertaken to establish the provenance of the lava of which the catillus is made, the most likely source being Etna.

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Excavations at Tas-Silġ 1996

Anthony J. Frendo and Anthony Bonanno

For the first time ever, the Department of Classics and Archaeology of the University of Malta conducted its own excavations at the site of Tas-Silġ which is located at Marsaxlokk in the south-east of the island of Malta. These excavations were directed by the authors, who would like to thank Mr Simon Mason and Mr Nicholas Vella who were responsible for the field supervision. We would also like to thank the area supervisors, namely Mr Andrew Appleyard, Ms Carmen Michelle Buhagiar, Ms Aloisia de Trafford, Mr Joseph Magro Conti, Mr Paul C. Saliba as well as Mr Andrè Corrado; the latter agreed to act as an area supervisor for a while when the need arose. Obviously, we do also appreciate very much all the hard work of the "diggers" who were in fact students from the aforementioned Department of Classics and Archaeology, the foreign and local students who formed part of the first Summer School in Archaeology which was organized by the International Office of the University of Malta, and some very eager and hard-working volunteers.

This excavation was sponsored by the University of Malta and by Din l-Art Helwa, whilst the Planning Authority prepared the surface survey of the site and the Museum of London generously made available the best kind of tracing paper used in the field. Simmonds Farson Cisk Ltd quenched our thirst by providing free table water, whilst the Carmelite Fathers of Tas-Silġ kindly let us use their sanitary facilities. We are very grateful to all these institutions. Last but not least we would also like to thank the Minister for Culture and the Museums Department for their moral support and for providing us with a storage space for our tools as well as for making sure that the overall security of the site was improved.

The site of Tas-Silġ lies on a hillock overlooking the bay of Marsaxlokk. Italian archaeologists had worked here from 1963 up to 1970 (Bonello et al. 1964, Bozzi et al. 1968, Busuttil et al. 1969, Cagiano de Azevedo et al. 1965, 1966, 1967, 1972, 1973). The modern road leading from Zejtun to Delimara splits this site into two sectors, namely the northern and the southern one. The Italian Mission had worked in both sectors, but it had mainly tackled the northern one. With this fact in mind, we thus decided to explore portions of those areas in the southern sector which we thought had been untouched by the trowel of the Italian archaeologists. Our basic aim was to provide a training ground for the students of archaeology in our department, whilst obviously at the same time conducting research into this complicated multi-period site. In fact, the southern sector of this site had already yielded evidence of human activity from the Tarxien Temple period in the third millennium B.C. up to the Byzantine period (Caprino 1973: 56-57). We thought that such a site would provide an ideal training ground for our students who would be able to see for themselves the problems of a complicated sequence of layers of human occupation on a site which had been used for thousands of years.

Area supervisor drawing a measured plan in Area C, Tas-Silġ

A 10 by 10 m grid was laid over the whole southern sector of the site. From the topographic point of view, a steep elevation in the ground splits this southern sector into two zones: zone 1 and zone 2. The latter lies to the south of and at a lower level than the former. At the centre, this elevation projects over the southern zone like a semi-circular outcrop of high ground. We decided to concentrate on zone 1 without ignoring zone 2. Hence, we opened up three areas in zone 1: squares A1 and A2 in the western part, squares C1 and C2 in the centre of the zone right above the aforementioned central outcrop of high ground, and square B1 in the eastern part. The 10 m squares of the site grid were then divided into 5 m squares in those spots we decided

to excavate. In fact, this was the measurement of squares A1, A2, B1, C1 and C2. The cutting edge in each square was 0.50 m away from the grid lines, with the result that the actual excavation area in each of these squares measured 4 by 4 m. C2 lay to the north of C1, and the right-hand corner of this former square was extended northwards via a narrow trench (= C3). As far as zone 2 is concerned, a 1 m wide trial trench (= D1 + D2) was opened at its southern end. This trench ran practically from the eastern perimeter of zone 2 to the middle of the site. Later on in the excavation, another spot (= D3) was opened up in zone 2. It lay exactly below squares A1+A2.

We had made it clear from the beginning that this was a training dig and not a rescue excavation. There would be no question of cutting corners. We wanted to get on with the job, but we would not rush unduly. We were obviously flexible in our strategy, but on no account were we to allow any compromise on the basic method of excavation. Our method was that of following the principles of stratigraphic excavation, and therefore each different layer of soil had to be peeled off separately and the layers had to come off in exactly the reverse order to that in which they were laid down in antiquity. Each intrusion, such as pits and their fills, had to be detected, documented and removed separately. And above all, the exact relationship of the layers to each other and to any structures with which they were associated had to be worked out. Only in this manner would we ever hope to make sense of the complicated sequence of layers at Tas-Silġ and of the cultural development evidenced at this site.

Although our season was brief (the month of July), it seems that it holds important results in store. It is still premature to really say what seems to be going on in the areas we excavated. Yet a rough sketch can be made out, albeit tentatively. The first thing to note is of a negative nature but still very important: nowhere did we find any floors or domestic quarters. Besides, it seems that what we mainly encountered were dumps and fills; in fact, we could very well be dealing with rubbish dumps which contained material which people in antiquity could have brought over from the northern sector of the site. We hope that this evidence will give us good information on the dietary habits of the occupants at Tas-Silġ as well as an idea on what type of material culture was common amongst them. Thus, for example, we also hope to be able to find out which type of pottery vessels they preferred.

The second general thing to take note of is similarly of a negative nature but also important. No sign of structures whatsoever were detected in areas D1 and D2 that is to say in most of the area we excavated in zone 2. Now the Italian Mission had found Borg in-Nadur pottery lying directly above bedrock even in this zone (Ciasca 1964: 66-67; see also Bonello et al. 1964: fig. 2), and given the topographic layout of the southern sector of Tas-Sil© which was mentioned above, the evidence just mentioned suggests that the high ground where our squares C1 and C2 are located might have been fortified during the Bronze Age. And yet we did not find this defensive system; however, as Nicholas Vella pointed out it could have been easily dismantled during the later Hellenistic or Byzantine periods. Such a state of affairs would have thus made it very easy for the Bronze Age material to be washed down into zone 2. This hypothesis is strenghtened by the clear-cut topographic evidence of the southern sector of Tas-Silġ shown in slides taken from a helicopter by one of us, namely Anthony Bonanno. Moreover, it should be underscored that this evidence is authentic and that it had already been there before the Italian Mission started excavating the southern sector; indeed, when this Mission began its work in this area, the topography it found was exactly the same as that described above (Bonello et al. 1964: plate1).

The conclusions reached in the foregoing two paragraphs are tentative and hypothetical. And yet they are based on the juxtaposition of all the positive and negative evidence available thus far; indeed, the preponderance of evidence seems to point in the direction outlined above.

The various types of material remains we retrieved, other than those of a stratigraphic and topographic nature mentioned above, are also very interesting. A fill in square A2 yielded some fish bones and the remains of sea urchins, whereas whilst sieving material from the same sqaure Mr Paul Micallef, one of the students of our department, detected a pendant of terracotta which was covered in gold foil and which had a hook of bronze or copper. This item is in fact a small-sized representation of a woman's head, and the style is Hellenistic. Murex shells were also found in squares B and D. They belong to a type of marine snail called murex, the shell of which can be heavy or elongated and is always spined or frilled. Some species of the genus murex are known for their purple dye and for the edible meat they provide. The purple dye is produced via a yellow fluid which the murex exudes, and which when left in the sunlight turns purple. The Phoenicians had been renowned for extracting this dye from the murex.

As expected we also found large amounts of pottery, mainly belonging to the Phoenician-Punic period. Amongst the many types of pottery vessels there were the typical bi-spouted lamps and trefoil-mouth jugs. We were also very happy to hit upon a substantial amount of brief Punic inscriptions incised on various pottery vessels. Most of the incisions seem to have been made before firing, and a cursory glance at the

inscriptions themselves shows that they are mainly dedicatory, with Astarte (the Phoenician-Punic goddess of fertility) as one of the important dedicatees. Some of these inscriptions consist of one letter on a complete pottery vessel, indicating that we could also be dealing with abbreviations of some weights and measures. There were also two stamped jar handles which had Greek inscriptions on them.

The observations and evidence adduced above should suffice to show that it is certainly worthwhile pursuing our training and research project at the site of Tas-Silġ, for quite some time to come . Through the excavation seasons which we hope to have there, we propose to provide a good training ground for archaeologists as well as to solve at least some of the many problems that beset this lovely but intriguing multi-period site.

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Excavation work in Area D, Tas-Silġ

Can we go to Ta' Kaċċatura?

Reuben Grima

A reflection on the politics of space in the Maltese landscape

For many of us, the idea of a safe Sunday afternoon outing is closely bound with asphalted roads in the winter, and pink-tiled waterfronts in the summer. Those who venture further afield into country foot-paths or open garigue often come back with hair-raising accounts of close brushes with bird trappers, farmers, hunters, exhibitionists, and surprised lovers.

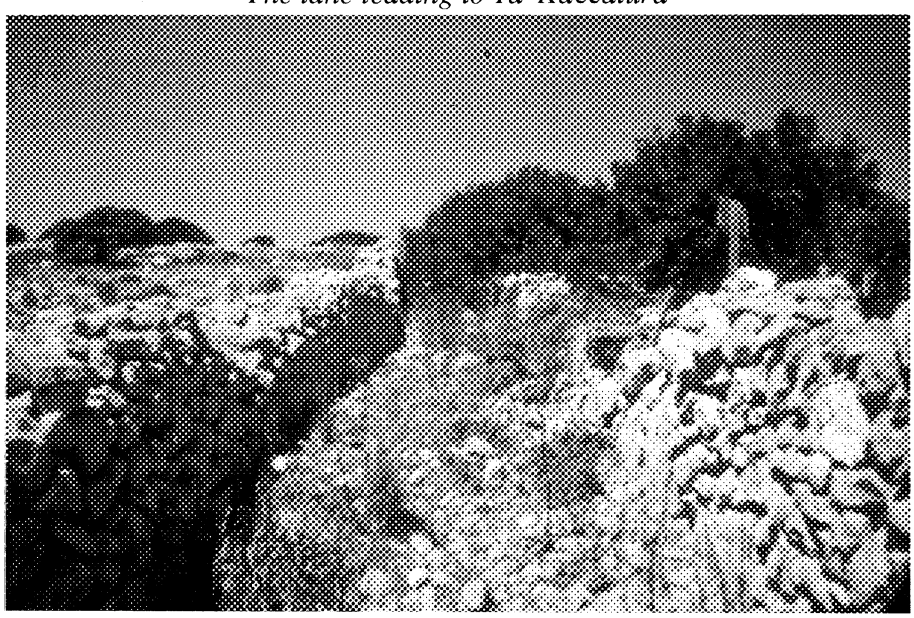
These stories are usually recounted over tea and cake, to be received with unanimous, unfailing indignation, before the bumper-to-bumper, twilight retreat home. The same ritual of incursion, confrontation, and retreat is re-enacted a week later, and the week after, and the week after that. These ritual frontier skirmishes have been conventionalized to a point where the different roles of self-righteous stroller and indignant tenant are acted out according to tightly prescribed rules and codes of behaviour. While these unspoken conventions have significantly reduced the chances of physically violent confrontation, they have also hardened the deadlock where the possibility of ever changing these behaviour patterns is rendered remote, perhaps even inconceivable. This short paper suggests that this need not remain so.

Contested space is at the heart of the matter. In one of the most densely populated countries in Europe, it should come as no surprise that the use of open spaces is a highly contested issue. These are not contested simply because of the sheer density of inhabitants. Various individuals and interest groups are engaged in a variety of economic and leisure activities in the landscape. In fact, the contest is often between different interest groups, each with its own attitudes and perceptions of the limited space available. Competition over the use of land by members of the same interest group tends to be resolved amicably and to mutual advantage. Bird-trappers ensconce themselves in their respective hides. Farmers protect each other's crops from pilfering intruders. Considering the number of hunters, disputes between them are few and far between. When, however, the casual stroller appears on the scene with his alien values and expectations, the scenario of intrusion and confrontation is set in motion. The issue, then, appears to be ultimately a contest between different cultural constructions of space.

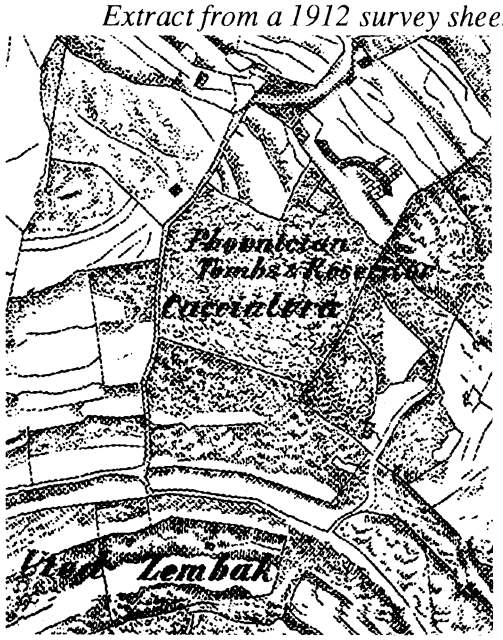
The discovery of aesthetic value in the Maltese rural landscape is a relatively recent phenomenon. Attitudes to the countryside which became popular in nineteenth century Europe with the rise of romanticism (see Schama 1995 for a wide-ranging analysis) were introduced to Malta by foreign visitors and residents, and only slowly emulated by the native population. Until little more than a generation ago, the Maltese countryside was popularly perceived as a place which was "dangerous and uncouth" (Boissevain 1986, p.70). It is only over the last thirty-odd years that the countryside has begun to be sought out by the masses as a place to be enjoyed, in a movement which today has gathered the momentum of an exodus.

This explosion of interest in the leisure potential of the countryside did not happen in a deserted landscape. On the contrary, it burst onto a tradition of dense activity, much of which was subsistence-oriented. Relatively sheltered areas were taken up with painstakingly nursed terraced fields and walled

The lane leading to Ta' Kaċċatura



Extract from a 1912 survey sheet



orchards, while more exposed areas were used as hunting grounds carefully demarcated with boundary stones. Unenclosed grazing land was often left along pathways between arable fields to facilitate the herding of flocks of sheep or goats, in a system which deserves much closer study. A network of lanes and pathways developed over centuries provided access to individuals who had interests in the area. Access was regulated with a combination of physical barriers and coded messages, in the form of inscriptions declaring ownership, boundary stones, monumental gateways, and family crests. Anyone bred in the countryside would be familiar with these symbols, learning to recognize, interpret and respect them as an intrinsic element of his or her closely-knit cosmos.

The relatively sudden mass incursion of the last thirty years came as a shock to this system. It came from a direction that had never been anticipated, and it came on an unprecedented scale. An ever-increasing proportion of the population was moving into the suburban sprawl that spread further and further in a succession of building booms. Every weekend, larger and larger numbers flooded out of this conurbation into the countryside to enjoy the newly dicovered pleasures of greenery and fresh air. And slowly, surely, the landscape began to change. Access strategies began to be modified and improvised to react to this invasion. Forty-five gallon drums, barbed-wire fencing, old car tyres and derelict cookers and fridges were all pressed into service to re-inforce existing field enclosures and to create new boundaries. Although the confrontation was a bloodless one, the style was that of guerrilla warfare. Many pathways and even established lanes were blocked off, and rapidly became choked with vegetation. As the need for access to more open spaces mounted, the landscape responded by becoming increasingly impenetrable.

A case study: Ta' Kaccatura

These processes may be observed across the Maltese landscape. The present concern, however, is the implications for the preservation, presentation, and enjoyment of the archaeological sites lying in the less easily accessible parts of the landscape. The Roman villa at Ta` Kaccatura is one such site.

The villa is situated on a ridge of land bound to the south-west by Wied Zembaq and to the north-east by Wied Dalam. At the extremity of the same ridge, where the two valleys meet the sea at St. George's Bay, lies the prehistoric site of Borg in-Nadur. Just across Wied Dalam from the Ta' Kaccatura site lies Ghar Dalam and its museum.

The land on which the Roman villa lies was acquired by Government "for archaeological purposes" in a contract dated 12th December 1881 (incidentally the same year that excavations are first undertaken at the Roman house in Rabat), making it one of the earliest archaeological sites in Malta to be bought by the public authorities to ensure its long-term preservation. Some investigation of the site appears to have taken place around this date, to be resumed under the direction of Thomas Ashby (Ashby 1915). His meticulous description is still the principal source of information on this site.

The villa appears to have been developed and occupied during the Hellenistic and Roman periods. The main rooms of the building are set around a square courtyard and peristyle, which was originally composed of coralline limestone fluted pillars. The existence of an upper floor is witnessed by traces of a staircase leading off the courtyard, of which Ashby could find evidence for at least ten steps rising nine inches each (1915, p.60). The various water cisterns which serviced the site are of particular interest. Beneath the central courtyard lies a squarish cistern roofed with a shallow vault made of rough stone set in mortar; regrettably, this has partially collapsed since the excavation. This cistern is in turn connected with another, possibly earlier bell-shaped cistern (1915, p.56). The most interesting water cistern on the site, however, is the one lying immediately to the south-west of the villa measuring roughly ten metres by ten in plan and some four metres in depth, with a roof supported by twelve gigantic square pillars. This is one of the most impressive structures from this period that survive in Malta. In the turn-of-the-century survey maps of the area, a protective boundary wall is already indicated enclosing this cistern. Although no precise documentation on the building of this wall is as yet forthcoming, it was presumably built shortly after the expropriation of the site in 1881, making it one of the earliest such protective measures to be taken to safeguard an archaeological site in this country. In recent years, this wall had become a rather ineffectual deterrent, as vandalism and the elements had opened a large breach along the length of its south-eastern face. This section was rebuilt by Museums Department personnel in May 1997.

Some remains of presses, rock-cut vats, channels and troughs concentrated at the western end of the villa indicate this was a focus of agricultural activity. No attempt has yet been made, however, to reconstruct the extent and nature of the territory which was managed and exploited from this villa.

It is suggested by Ashby that "...the natural way of access to it [the villa] is on the south-east side, coming up the valley from the bay of Birzebbuga." Remains of an elaborate entrance arrangement were found on this side of the villa complex (1915, p.53). One can still

scramble up to the site from the valley. However, in the land tenure arrangement that existed in the nineteenth century, the most convenient access route was through a narrow lane which appears on turn-of-the-century survey maps running straight across the ridge, from Wied Dalam, past the site, and on to Wied Zembaq, where it is connected to a network of lanes leading to Birzebbuga and even to Ghaxaq and Gudja. As a matter of fact, the area that was expropriated in 1881 lay contiguous to this lane, clearly with the intention of creating public access to the site. With the development of the fuel storage installation in Wied Dalam, however, it appears that the northern end of the lane was closed off by the installation's boundary wall.

Today, it is also impossible to approach the site through this lane from the south. The lane appears to have fallen into disuse at some point, a process which appears to have been encouraged by deliberate dumping of refuse and building material, blocking the lane at two different points. Two carobs have grown right across the lane, creating two further impassable points along its length. In fact, in order to reach the site today one is obliged to pass through private land. A private road, which is not plotted on the survey sheets published in the early 1970's, appears to have been created since, in order to provide access from the west to a cow-farm located just west of the archaeological site. This is the most convenient mode of access to the site at present, yet there does not appear to be a public right of way here. A gate at the end of this road is often found closed, and disputes are not unknown between tenacious visitors and tenants concerned about the disturbance to their cows. To sum up, one of the most remarkable Roman sites in the country, which is also Government property, is at present virtually inaccessible!

A relatively simple intervention may rectify this situation with a minimum of conflict. This may be achieved if the two-hundred metre stretch of the lane between Wied Zembaq and the site is cleared and rehabilitated. The work involved is not too daunting; clearing the lane of stones which have fallen from the dry-stone walls on either side; rebuilding these walls using the same stones and technique; cutting down the undergrowth that has taken over the pathway; a vigorous pruning of the two carobs that have grown across it; eliminating a heap of modern building blocks and another heap of refuse. The benefit to be derived from such action would be the recovery of a public right of way which may easily date back centuries, which provides a scenic, if fairly vigorous, access route to a very interesting archaeological site.

Starting from the tal-Brolli area of Birzebbuga, a wide space at the end of Wied Zembaq, which incidentally could also accommodate some parking without creating a nuisance, leads into a lane which runs along the north-eastern side of the valley, going past the Borg in-Nadur settlement and, barely 500 metres from Birzebbuga, reaches the junction with the blocked-up lane. This adds up to a relaxed hike of only 1.5 km to Ta' Kaccatura and back, with a succession of views first of the valley, and then of Marsaxlokk Bay while mounting the ridge. The creation of a sign-posted access route from this direction to the archaeological sites at Borg in-Nadur is another exciting possibility which is under study at the Planning Directorate (Architect Alexander Borg, personal communication).

A key element in securing the success of such an intervention would be a clear understanding of the rights and duties of the different parties involved. If we are to depart from the confrontational climate described earlier, hikers and visitors as well as tenants, farmers and trappers must be educated on the values and objectives of the other parties making use of the same landscape. In practice, the consolidation of clearly defined access routes for visitors interested in hiking to an archaeological site will also benefit the more established, traditional users of the same landscape, as it will minimise the risk of, let us say, a hiker inadvertently hiking across a sown crop, or even worse, startling some unsuspecting cow into premature labour!

This short paper has no pretence of being a blue-print for action, or of solving the highly complex issues that have been referred to. What it does is to suggest that approaching these problems with more awareness of the conflicting interests involved may facilitate their resolution. Mutual education and respect between traditional and more novel uses and perceptions of the landscape are an exciting alternative to the present confrontational deadlock. A succession of relatively minor, experimental interventions, which are done with sensitivity to local resource conflicts and interest groups, may cumulatively ease these groups into a happier co-existence. The case of Ta' Kaccatura is just one of a myriad examples where we could begin to realise this possibility.

Acknowledgements
I am grateful to Nathaniel Cutajar, Anthony Pace and Mary Samut Tagliaferro for reading an earlier draft of this paper, and for their many suggestions for improvements. The faults that remain are of course my own.

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The Archaeology of Collectivity

Anthony Pace

Cognitive Design Processes: the case of Maltese prehistoric funerary sites (4000 - 2500 BC)

The present contribution addresses patterns in the long term development of Maltese prehistoric funerary sites during the period spanning 4000 - 2500 BC. The period in question saw the development of a series of central sites in a number of strategic locations across the Maltese archipelago. Site development followed at least three major trajectories: social/ritual, funerary and domestic. The former two categories assumed a monumental character having a primary focus on architectural design. Monumental characteristics, whether above or below ground, increased the survival chances of the more extensive and prominent sites so that these now dominate the archaeological repertoire of the period. By comparison the third category of settlements, domestic remains tend to be less conspicuous. Following previous research (Pace 1992), the present study tentatively suggests that as one of the principal trajectories in monument development, the evolution of Maltese Late Neolithic funerary sites followed a single long term cognitive process that brought cultural collectivity into sharp focus. Cognitive design processes were critical for the survival, elaboration, extension and social reproduction of collective belief systems which, in the case of funerary rituals, were expressed in the deliberate structural expansion and elaboration of central cemeteries. As an important cultural phenomenon, cognitive design processes embodying notions of the collective would have encompassed several features, traces of which may still be evident in the archaeological record and ancient prehistoric landscape. A selection of these features will be examined in a contextual framework built around evidence of chronological stages in the development of funerary sites, and the close ties relating these developments to site location patterning of megalithic 'temple' structures.

The archaeology of collectivity

The social dimensions of collectivity embody a complex range of material and non-material aspects. Group cohesion, interaction, social organization, conflict, shared identities and other elements of human behaviour are synonymous with the basic tenets of social-cultural evolution. Collectivity has often been eclipsed by temporal dimensions and historical narratives which traditionally emphasized events, specific transformations, general behavioral processes and historical personalities. The Annales historians, popularly represented by Ferdinand Braudel and his followers, have been instrumental in revising this long established trend by advancing multi-facet concepts of the past which, among other elements, include a number of perspectives that de-emphasize historical events and promote collective social dimensions.

Like many other social sciences, prehistoric archaeology has directly or indirectly attached varying degrees of importance to collectivity. The discipline has done so independently of the Annales school for in many ways, the nameless character of prehistoric material cultural has allowed no safer explanatory perspectives than those that dealt with collective dimensions. Gordon Childe's epoch-making synthesis of European prehistory (1925-1957), entrenched as it was in diffusionist thinking, structured interpretations of human behaviour along broad generic lines such as 'cultures' (based on typological groups of ceramic and other material remains) or migratory processes that gave rise to culture change. During the 1960's, the New Archaeology emerged as the first major reaction to Childe's framework but ironically, the new movement felt more at home with social models that were based on collective human and natural processes that could be framed in a generalizing scientific terms. It was indeed only in recent years that some Processual thinkers have consciously moved away from earlier positions held by New Archaeologists to address notions of the individual in prehistory and, more importantly, cognitive processes (Renfrew, 1985), in an effort to complement the advances made previously by Post Processual thinkers in these fields (Hodder 1991).

As a cognitive phenomenon, collectivity cannot be explained solely by mere processes, traditional diffusionist frameworks or structured sets of symbols alone, in spite of the various merits of these interpretive frameworks. In the realm of symbolic meanings the task of explaining collectivity becomes even more difficult especially in the domains of ideology, religious beliefs, rituals, the ceremonial, style, language and social identity. In almost all these cases, recourse is frequently made to the more material aspects of cultural phenomena. For ultimately, symbolic meanings form part not only of material culture, but also of how this develops through time. But from a purely material point of view one might expect to archaeologically illustrate change that may have occurred in deliberate stages leading to a final state or objective. Such a forward-looking exercise, having constant reference to past and contemporary cultural experiences, would therefore assume features expected of a design process.

In the case of Maltese prehistory, deliberate collective objectives based on material and non material requirements have been suggested with regards such communal endeavours as architectural engineering and megalithic construction, which involved social organization as well as careful planning and design (Renfrew 1973). A sense of collective aims has also been suggested in the case of temple site location and the possible establishment of artistic conventions (Pace 1996).

In the case of Maltese Late Neolithic mortuary practices, the idea of collective beliefs and customs is illustrated by several multiple inhumations taking place in the same burial space over a number of generations. It is suggested that this form of burial was deliberately elaborated to encompass larger social groups. This process required the physical expansion of existing centralized cemeteries such as the Hal Saflieni Hypogeum, in order for collectivity to be symbolically extended. Rather than resorting to multiple rock cutting of smaller tombs which may have cumulatively required more resources, central burial grounds became major ritual focal points. Although caves such as that discovered at Bur Meghez were some times utilized for burial some central cemeteries, notably the Hal Saflieni Hypogeum and the Xaghra Stone Circle, were in addition lavishly decorated with elaborate stone work, megalithic structures, carvings as well as paintings. As has been suggested previously (Pace 1992), this process may have been accompanied by an abandonment of smaller burial sites. The multiple stages involved in this long term process were coincided with, and were closely paralleled by, the emergence and development of surface megalithic structures.

The study of Malta's prehistoric funerary monuments and chronological evidence

The historical discovery and study of Malta's prehistoric funerary monuments is critical for our understanding of the chronological stages involved in the development of this unique long term burial custom.

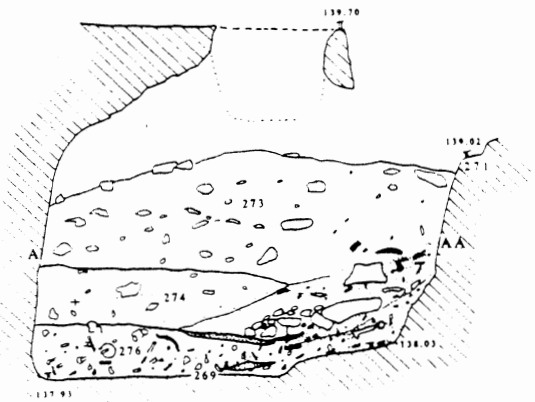
The study of Malta's prehistoric funerary remains began by accident with the discovery of the Hal Saflieni Hypogeum in 1902. The discovery came at an important juncture in the study of Malta's past. Virtually a few months before, almost all the available literature that dealt with Malta's past seemed to be unacquainted with the term 'prehistory'. The concept of a human past that predated long established historical and biblical periods had gained widespread acceptance during the second half of the nineteenth century. The word *préhistorique* had in fact entered French usage during the 1840's (Bahn P, 1996), while in 1851 the Scottish scholar Daniel Wilson had coined the term 'prehistory' for the first time (Daniel G & Renfrew C 1988; Chippindale C 1988).

But in Malta it was not until 1901, when Albert Mayr placed the archipelago's megalithic remains squarely in a prehistoric rather than the then accepted Phoenician-Punic interpretive framework (Mayr 1901, 1908), that the real antiquity of prehistoric monuments began to gain acceptance. Up to well into the nineteenth century, Malta's past beyond Classical and Phoenician antiquity was still understood in ante-dilluvian frameworks of obvious biblical origin. In his 1902 pronouncement on the newly discovered Hypogeum, the learned A A Caruana could find no chronological slot, other than the Middle Ages, in which to place what he felt was an odd looking catacomb (Caruana A A 1903). Caruana may have been unaware of Mayr's reading of the antiquity of the archipelago's megalithic remains and it was not until Sir Temi Zammit's work and first chronological frameworks of his early archaeological writings that the idea of prehistory became an established academic concept in Malta.

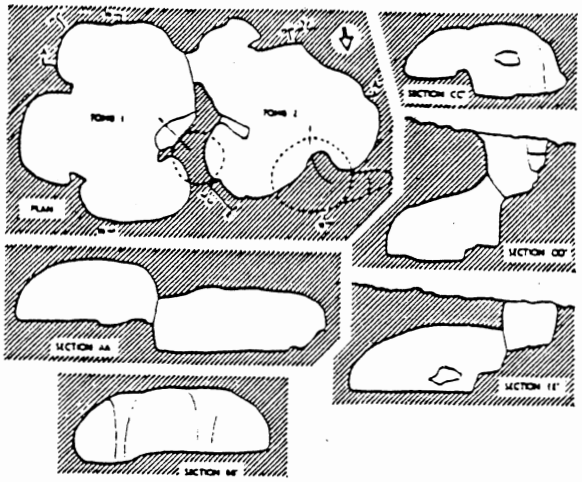
The clearing of the Hypogeum left many unresolved problems especially after Fr Magri SJ, the first excavator of the site, died unexpectedly in Sfax leaving no clear indications as to whether or not site reports had ever been drawn up. Sir Temi Zammit took over the remaining works, publishing a report in 1910 (Zammit 1910). This publication and that of his colleague N Tagliaferro (1910), provide critical circumstantial evidence for the dating of the various underground levels at the Hal Saflieni Hypogeum (Evans 1971).

Shortly after concluding his work on Hal Saflieni, Zammit came across a number of small prehistoric tombs which served to illustrate the importance of funerary aspects of Maltese prehistory. The first was a small chamber tomb that came to light in 1910 during trenching works at Buqana (MAR 1910-11). During the following year, a more extensive burial site was encountered during quarrying operations at Bur Mghez (Tagliaferro 1911). In 1915, Zammit excavated the Bronze Age cremation cemetery at Tarxien (Zammit 1916). Some years later after the momentous Tarxien excavation results, a series of discoveries were to augment Malta's repertoire of prehistoric burial sites. These all consisted of small rock cut chamber tombs. The first to be discovered was that found in 1926 at Nadur in Bingemma (MAR 1926) followed in the same year by the accidental unearthing of a similar chamber tomb at Xaghra on Gozo (MAR 1926-27). Zammit's last excavation involving a prehistoric tomb was that carried out at Busbesija where a chamber was exposed after winter rains (MAR 1928).

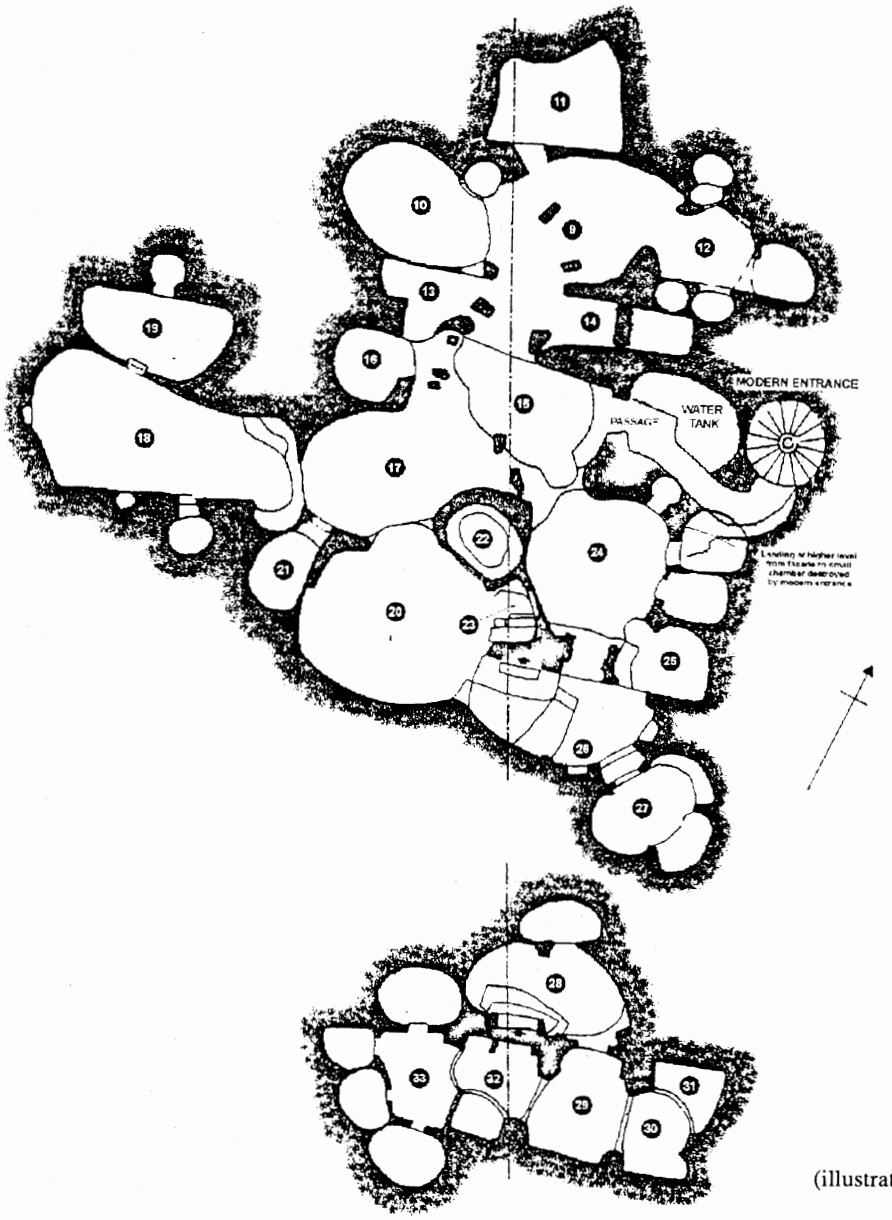
Zebbug tomb



Xemxija



The Hal Saflieni Hypogeum



Hal Saflieni : middle and lower stages

(illustrations after Evans 1971)

After the Second World War, interest in prehistoric burials was rekindled with the discovery of the Ta' Trapna tombs at Zebbug in 1947 (Baldacchino J G & Evans, 1954), the unearthing of the Ggantija 'North Cave' tomb in 1949 (MAR 1949-50) and the excavation of the six tombs at Xemxija in 1955 (Evans 1971).

The last major prehistoric burial site to be excavated was the Xaghra Stone Circle on Gozo (Bonanno et al, 1990) which has proved to be the most fruitful in spite of the clearing operations that had been undertaken by Otto Bayer during the nineteenth century. In general, the site still conformed to the established chronological framework.

With the exception of the excavations of the Tarxien Cremation Cemetery (Zammit 1930) and the Xaghra Stone Circle[1], almost all of the above discoveries came about by accident as a result of which, very little information actually survived beyond ceramic remains, cultural objects and some human remains. Prof. J D Evans conducted a ceramic shard count and evaluation of remains coming from these burial sites, thus providing the basis for the following chronological framework (Pace 1992).[2] The Xaghra Stone Circle ceramic finds conform to the general patterns indicated in the table and so have been included therein.

Site	*Phase*						
	GhD	Zb	Mg	Gg	Tx	TxC	BN
Buqana		-	-	-			
Busbesija				-			
Bur Mghez				-	-	-	
Hypogeum		-	-	-	-	-	
Nadur							
Bingemma				-			
Xemxija			-	-	-		
Tarxien		•	•	•	•	-	
Ta' Trapna				-			
Gg North Cave				-			
Xaghra Stone							
Circle		-		-	-	-	
Xaghra				-			

Key
- Ceramic remains
• Temple period & function
GhD - Ghar Dalam; Zb - Zebbug; Mg - Mgarr; Gg - Ggantija
Tx - Tarxien; TxC - Tarxien Cemetry; BN - Borg in-Nadur

Patterns in the development of mortuary facilities

As illustrated elsewhere (Pace 1992), the chronological table and the accompanying distribution maps suggest a number of interesting dynamics. Available evidence suggests that the development of funerary monument typology occurred over a three stage period before being replaced by cremation rituals during the Early Bronze Age (c.2500 BC). As argued, this development may have been directed towards a visible extension of collectivity through the enlargement of central cemeteries or even the use of large burial facilities such as caves.

The three stage development first saw the introduction of the earliest rock-cut chamber tombs during the Zebbug Phase (4100 - 3800 BC). Recorded evidence shows that these monuments consisted of simple chambers that were accessed through a shaft. The Ta' Trapna (Zebbug) burials may represent an alternative form of grave which may have consisted of rock-cut hollows. The Xaghra Stone Circle tombs show that collective burial was an established custom.

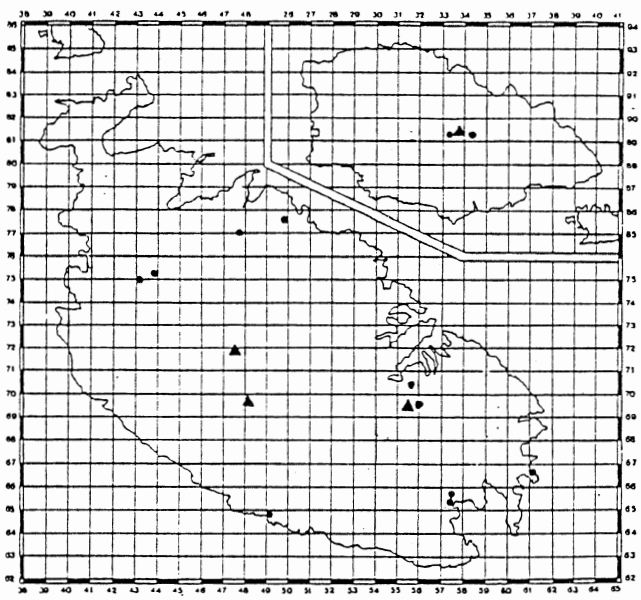
The second stage can be comfortably dated by ceramic remains to around 3600-3000 BC, the Ggantija Phase. This period saw the emergence of megalithic building complexes, following what now looks like a sudden wave of construction that spread across the entire archipelago. It is in fact from the Ggantija Phase that the highest number of cemeteries has been recorded. It is also highly significant that the geographical distribution of burial sites was at its peak during this important Phase. While a number of simple rock-cut chamber tombs were still in use, a preference for larger facilities may have prevailed as suggested by the creation of the upper level of the Hal Saflieni Hypogeum, the use of the Xaghra Stone Circle, Xemxija I, II and V as well as Bur Mghez cave. Of particular interest is the linking of burial space provided by Xemxija I and II which were coupled by means of an interconnecting hole.

The third and final stage in the development of burial site typology occurred during the Tarxien Phase. This stage was again to see a second wave of megalithic building with existing structures being altered, expanded and elaborately embellished. A similar expansion took place in the central cemeteries among which were the Hal Saflieni Hypogeum, the Xaghra Stone Circle and Bur Mghez. Unlike the first two sites, very little is known of Bur Mghez. It seems that this cave still offered a large enough space for extended communal burial rites. In the case of the Hypogeum the cemetery was deliberately extended beyond the upper level (Ggantija Phase) where older burials remained intact (Zammit 1910). The site was elaborately embellished with superb rock carvings and ochre paintings. A similar elaboration seems to have occurred at the Xaghra Stone Circle where well crafted megaliths, a monumental entrance and several internal ritual features were incorporated in the site. The site was enclosed by a extensive megalithic wall that has now been superseded by a modern rubble wall which,

'TEMPLE' PERIOD CERAMIC SITE LOCATION PATTERNING

Distribution of ceramic remains from consecutive 'temple' period phases discovered at burial and 'temple' sites. (illustrations after Evans 1971)

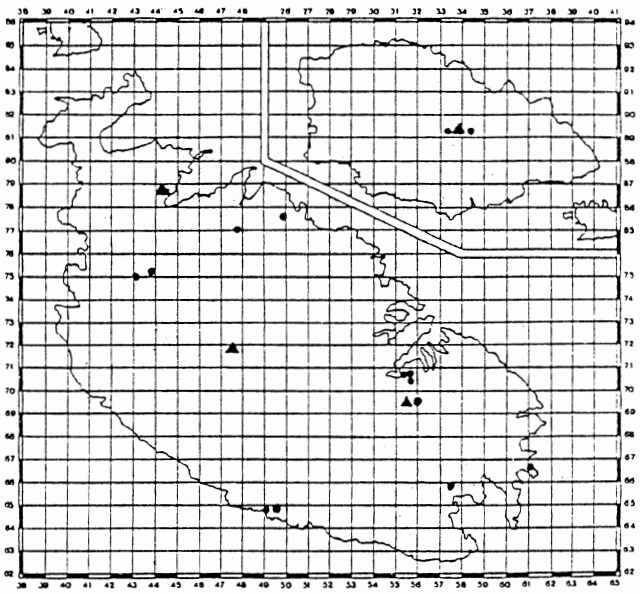
Zebbug c.4200 - 3800 BC



▲ — burial sites Late Neolithic

● — megalithic structure site

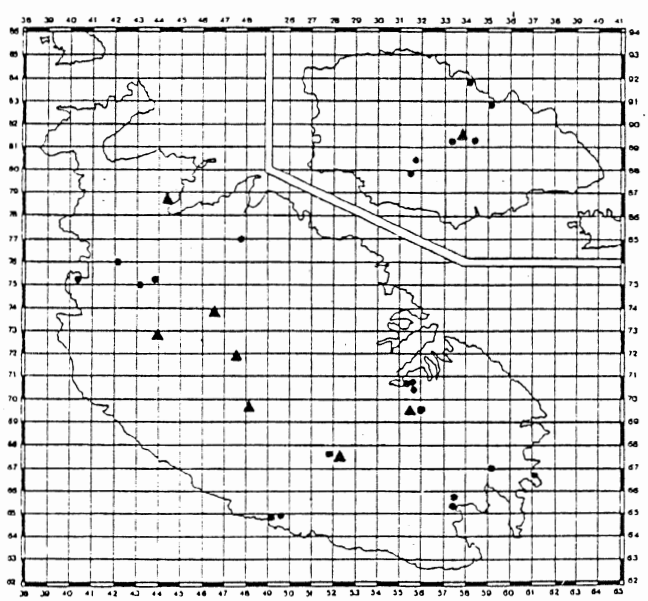
Mgarr c. 3800 - 3600 BC



▲ — burial sites

● — other sites

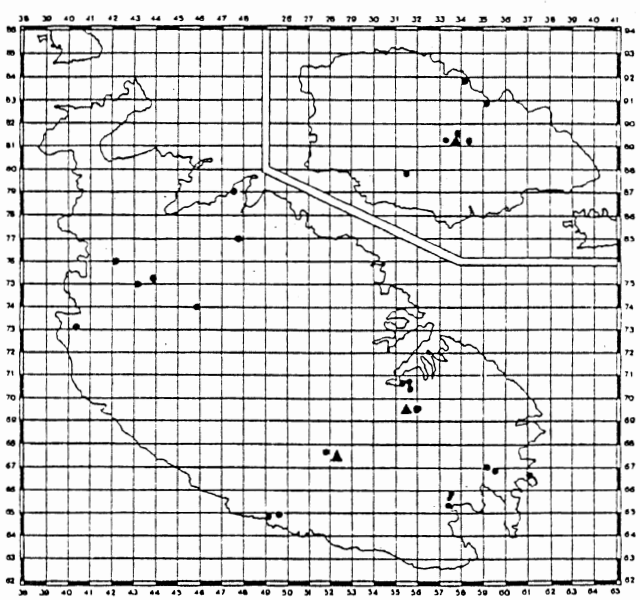
Ggantija c. 3600 - 3000 BC



▲ — burial sites

● — other sites

Tarxien c. 3000 - 2500 BC



▲ — burial sites

● — other sites

however, still defines the original confines of this cemetery.

But expansion of centralized burial sites was by no means the only phenomenon. If such a deliberate expansion had been planned to accommodate growing social demands for access rights into central ritual sites, reverberations of such an ideological development would have been extensively felt. It may be of no great surprise to find therefore, as suggested by the accompanying table and charts, that the expansion and elaboration of central cemeteries occurred as smaller burial sites may have gone out of use. By the Tarxien Phase, only the large cemeteries - Hal Saflieni Hypogeum, Bur Mghez, Xemxija and the Xaghra Stone Circle - seem to have remained active.

Boundaries and beyond

Collectivity can operate beyond perceived boundaries. The significance of territoriality (Renfrew 1973) and inter-community rivalry (Bonanno et al, 1990) has often been emphasized with respect to Maltese prehistory. But Fleming (1982) has underlined the difference that exists between social and land boundaries, so that physical barriers and ideological beliefs may not be so easily recognizable in the archaeological record. In the case of Malta's Late Neolithic, it would seem that whereas megalithic building complexes could have served particular social functions including that of defining ideological as well as physical boundaries, cemeteries and burial rituals may have actually operated on a totally different socio-cultural level in which collectivity played an over-riding role. Thus, while megalithic building complexes remained entrenched in their geographical position, burial monuments experienced chronological change as well as fluctuating distribution patterning which may have been steadily directed towards the physical expansion of centralized burial space as opposed to the continual rock-cutting of individual chamber tombs. But in effect, the social necessity of unified strategies for the development of mortuary monuments would have transcended, and could have easily been different from, the established role of the archipelago's megalithic building complexes as socio-political focal points for the archipelago's communities.

Notes

1.The final report of the Xaghra Stone Circle excavation still awaits publication.

2. Dr. D. Trump is currently conducting another shard count and evaluation for the National Museum of Archaeology.

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Research Essays by Students of Archaeology

Anthony Bonanno

The beneficial value of personal research in the formation and learning process of students at tertiary level was realised right from the very conception of the undergraduate course of Archaeology in the Faculty of Arts of the University of Malta (see Bonanno 1995). It was put into effect not only by encouraging continuous assessment on essays connected with the topics of individual study units, but also by including in the course structure the preparation of a longer piece of prose based on relatively extensive research on an agreed topic. Two such 'long essays' were produced by the first two graduates in Archaeology (Pace 1990; Said 1990).

Since 1992, the year in which the teaching of Archaeology at the University of Malta was upgraded to provide also for the B.A. (Hons) degree, the Department of Classics and Archaeology has monitored a series of researched essays as part of the Honours programme in this subject. The first crop of Honours long essays - often referred to as 'dissertations' - was harvested in June 1994, but since then there has been a regular production of between three and five essays every year. The topics of these essays range from *catalogues raisonnés* of particular classes of archaeological material in Maltese collections (Azzopardi 1994), to scholarly discussions of topical questions concerning the archaeology of the Near East (Micallef 1994; Vella 1994; Farrugia 1995) and others concerning prehistory in general (Zammit 1995) and Maltese archaeology in particular (Mifsud 1995; Vella 1995).

The Archaeological Society of Malta has decided to bring this otherwise unacknowledged research work to the public by publishing every year in its *Review* a critical appreciation of the essays presented in the respective year. For this issue of the *Review* I have been requested to write the first of such reports.

Egypt's Supreme God

Carmen Michelle Buhagiar has chosen to study the much debated question of monotheism in the religion of ancient Egypt, covering that whole period of Egyptian civilisation spanning from predynastic times to the end of the New Kingdom (Buhagiar 1996). In her treatise, she makes extensive use of both the literary and the iconographic evidence. As a result of her investigation she concludes that the most appropriate qualifying term for the religion of ancient Egypt is neither "polytheistic" nor "monotheistic", but "henotheistic". That means that, while it worshipped an extensive pantheon, it venerated also a supreme god above all others.

Ms. Buhagiar sets out to trace this supreme god from among the hundreds of gods that existed in ancient Egypt, making a thorough assessment of the evidence using a very well defined methodology. She starts by eliminating all those gods whose role was clearly and essentially limited, both spatially and in their stature. Logical considerations then make her eliminate other gods of a significantly higher rank, which leaves her with four main candidates for the title of supreme god: the Nile, the king, the god of the dead, and the sun god. Of these the last one comes out as the supreme god. His various aspects and attributes are discussed, focussing on the Eighteenth Dynasty when the sun worship reached its climax, first by the worship of Amun-Ra, and then by the exclusive worship of Aten during the reign of Akhenaten. This was a short but significant period, after which came the restoration of the older religion, including the re-establishment of Amun-Ra as the supreme god, who was to experience his highest exaltation during the Nineteenth Dynasty.

We are told that this was the culminating point in the history of Egyptian religion, which was thereafter to take the path of decline. This gradual decline in religion coincided with a similar decline in the political and cultural spheres of Egyptian life, until the whole civilisation collapsed and succumbed to the all-pervasive one of Hellenism. Ironically, however, and contrary to what is implied by Buhagiar (1996: 137) on the authority of Kemp (1989: 2), it is at this point, after two debilitating invasions, the Persian and the Macedonian ones, that a number of Egyptian cults, namely those of Isis and Serapis, leave the confined world of the Nile valley to spread and take root throughout the Greco-Roman world. It is later on, with the arrival of Christianity, as correctly remarked by Buhagiar, that Egyptian religion is completely supplanted.

Egyptian Mummification

One would have thought that the subject of mummification in ancient Egypt was such a commonly treated subject that it would allow extremely little to say which could be in some way original. Nevertheless, by choosing to compare the technique and ritual of mummification in the Old Kingdom with those of the New Kingdom Aloisia de Trafford has created for herself an area where she could roam with some freedom for new insights into an old subject (de Trafford 1996).

The work aims at tracing the development of artificial, as opposed to natural, mummification from its origins in the Early Dynastic Period and the Old Kingdom, to

the standards it reached in the New Kingdom. As the title implies the Middle Kingdom does not manifest any noteworthy changes but constitutes merely a transitional phase. In the exercise de Trafford has discovered the ancient Egyptians' great talent for balancing continuity and change.

She takes into account the ancient texts, including the *Pyramid Texts*, which are connected with or describe the mummification ritual. The full texts from three Greek writers (Herodotus, Diodorus Siculus and Plutarch) and two papyri are reproduced in full in appendices. All of these date considerably later than the two compared periods. She also examines archaeological evidence, such as the funerary architecture, inscriptions, artefacts and the mummies themselves (these being derived necessarily from second hand sources), as well as the iconography in the various artistic representations of this mortuary ritual. In this way, the religious and technical aspects of the ritual have been combined in order to provide 'a balanced picture'.

Mummification ensues from the Egyptians' perception of life and death which is discussed in Chapter 2. The mummification ritual and technique of the two kingdoms are discussed in two separate chapters. The comparison becomes more specific in the concluding Chapter 6 where, besides minor developments, like the lack of concern for the fertility organs and the greater importance given to amulets, two main changes are observed. One is the introduction of the dessication of the corpse in natron and the removal of the brain. However, the most important change the author identifies in the New Kingdom is in the perception of mummification which comes to the fore mostly in the 'Opening of the Mouth' ritual. While in the Old Kingdom 'it was a transformation from the god on earth (the king) to god in the afterlife', in the New Kingdom 'it was the transformation from the human (those who could afford to be mummified) to the divine' (de Trafford 1996: 82).

Roman Baths in Malta

It should not come as a surprise to anyone that the Romans were very fond of bathing. The imperial public baths encountered in practically all the major cities of the empire are a concrete testimonial to the institutionalisation of this healthy habit. Public baths were sometimes financed by wealthy individuals and most of the houses and villas of the better-off stratum of society had smaller versions of these public baths. Roman bathing involved a whole ritual involving passages from hot and steamy rooms to cooler ones, ending up in a dip in a cold bath or swimming pool. Although the Maltese islands were probably never regaled with imperial baths, Joe Magro Conti has compiled evidence for a surprising number of actual and presumed bathing establishments of other types of baths, especially domestic ones (Magro Conti 1996).

A good number of these are briefly mentioned in pre-20th century literature, in printed and in manuscript form. Unfortunately, very little can be derived from these because the information is always very scanty. Five such complexes have been excavated during the present century, with varying standards of excavation method and record taking. Of these, only three survive. The one attached to the Roman villa at Ramla Bay in Gozo was reburied in 1910.

The author starts by discussing the practice of bathing in the ancient world, using both written and archaeological sources, including a more detailed treatment of Roman baths and technical features related to them. This is followed by a brief account of the historical and socio-economic background to Roman Malta. A brief account of the available literature on Roman baths in Malta is followed by a thorough discussion of each of the recorded sites, with very useful tentative reconstructions. The best preserved bathing complex, that of Ghajn Tuffieha, is discussed in all its details in the last chapter.

Magro Conti has successfully achieved the task he had set himself, namely that of compiling a 'comprehensive corpus of Roman baths in the Maltese Islands' in an attempt to provide a further insight into the life-style in Roman Malta. He also discussed in some detail, the construction techniques used in these buildings and tried to identify influences from other parts of the Roman Empire. The work is generously illustrated with line-drawings and colour photographs. Some of the latter show features of Maltese archaeological sites that have so far remained unpublished.

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Museum News

Nathaniel Cutajar

What follows is a brief statement of the major initiatives undertaken by the Archaeology Section in the course of 1996, with the intention of providing a fuller and more accessible account than the one provided in the official publication entitled Annual Report of the Government Department for 1996.

Museological Activities

National Museum of Archaeology - Work has started on the upgrading of the permanent display at the National Museum of Archaeology, at the Auberge de Provence in Valletta. This exercise intends to radically alter and enlarge the Museum's display. On completion of the project, the Museum's floor-space will have increased by almost twice its original size. The long-term preservation of the objects on display is also being closely considered, many of the objects on exhibit till recently being in urgent need of conservation treatment. The Museum's new showcases are also being specifically designed to guarantee the long-term conservation of the archaeological collection. The Museum of Archaeology was closed to the public as from April 1996 in order to remove the archaeological collection from the old showcases and start the structural works on the inside of the Auberge de Provence. Important aspects of this project were undertaken with the help of a $150,000 grant awarded to the National Museum of Archaeology by the Getty Institution in January 1996.

Temporary Archaeological Exhibitions - An intensive programme of temporary exhibitions was organised in the course of 1996, partly in order to compensate for the temporary closing down of the the Museum of Archaeology and of the Hypogeum.

An archaeological exhibition was set up in the **Lobby of the National Museum of Archaeology** in Valletta by the personnel of the Archaeology Section. The exhibition was open from the 25th of April 1996 up to the month of August. The main aim of this exercise was to communicate to the public the main goals and visions of the Museum of Archaeology for the immediate future.

The Museum of Archaeology, jointly with Fondazzjoni Patrimonju Malti organised a large scale exhibition entitled **Maltese Prehistoric Art**. The exhibition intended to present an overview of the different aspects of Maltese art, a particular effort being made to present archaeological materials that had previously not been accessible to the general public. A publication was prepared specifically for this event, which included an illustrated catalogue of the exhibited artifacts together with a selection of critical contributions. The exhibition was first set up at the premises of the Gozo Secretariat in Victoria, Gozo from March 1996 to April 1996 and subsequently it was taken up to Florence, Italy, where it was hosted at the Palazzo di Parte Guelfa from the 8th of June 1996 to the 7th of July 1996. The same exhibition will be opened in Valletta as from July 1997 at the Mediterranean Conference Centre.

Conservation Works on External Sites

Mnajdra - Extensive works to restore, consolidate and protect the megalithic temples at Mnajdra were conducted during the course of 1996, under the direction of Dr. Alex Torpiano, Director of the Institute for Masonry and Construction Research at the University of Malta. The works were aimed at restoring the damage caused by the collapse of a section of the Upper Temple in April 1994. The programme of works required a preliminary archaeological recording of the collapsed section followed by the positioning of the fallen megaliths back into their former positions. New, more solid foundations, and a system of plastic gutters to drain off rain-water were created in the area of collapse to prevent a re-occurrence of the events of April 1994.

Extensive restoration works were carried out in October 1996 in an attempt to clean up a number of graffiti that were sprayed by unknown individuals on the facade and interior of the southern temple at Mnajdra. The paint proved however to be extremely difficult to clean, and may only recede gradually through exposure to the elements.

The Hypogeum - A specially-designed steel and glass structure was installed around the prehistoric upper level of the Hypogeum. The purpose of this structure is to allow the appreciation of the site by visitors, while protecting its micro-climate from external conditions and fluctuations. During the summer of 1996, air-conditioning equipment which will also be used to safeguard the micro-climate of the site was installed on the roof of the Visitor's Centre. Other infrastructural works and finishes were also executed, such as the installation of a fully-reversable raised floor in the main hall which is specially designed to rest on the uneven rock surface beneath without being fixed into the rock.

Archaeological Information Management

Work has also been started on the creation of a National

Archaeological Archive, as well as on the drafting of a policy document describing the national minimum recording standards to be required henceforth of any archaeological investigation on the Maltese Islands. Thirty field investigations were also carried out by the Archaeology Section in the course of 1996, of varying scale and importance, the more important of which are described below.

B'kara - a dense scatter of prehistoric ceramics of the Ghar Dalam phase was discovered in the course of a site inspection at an undeveloped plot of land located at Triq E.Schembri, B'kara. The ceramics were found within the earth fill of an apparently man-made hollow cut into the bedrock, along the south slopes of the Mriehel Ridge. The site has not been excavated as yet, but legal measures have been taken to protect the site from being further damaged. This discovery is exceptional in that it is the first reported sighting of prehistoric cultural remains in the area of Mriehel.

Msida - a Hellenistic rock-cut tomb was discovered at Tal-Qroqq in the course of a development project. The tomb - which was slightly damaged at the time of its discovery - was of a typical shaft-and chamber typology. No articulated skeletal remains were identified within the tomb chamber, although a large quantity of bone, cremated remains and fragmented ceramics were recovered nonetheless. The tomb may have served as a repository for a contiguous, and as yet unidentified, burial ground of the first three centuries BC.

A second discovery - consisting of a circular rock-cut pit - was made a few metres away from this same tomb. The pit was found to contain the fragmented remains of two Punic amphorae, both of which had been carefully packed-in with earth, rocks and a clay tile. The significance of this second feature is as yet unclear.

Marsaxlokk - an articulated skeleton was discovered on the shoreline, in an area known as Ghar L-Aħmar. The skeleton, apparently belonging to a juvenile individual, was found to be lying within a shallow pit cut into the soil and was not accompanied by any grave goods. The skeleton was found lying on its back, in an east/west orientation, the head lying to the west. Similar burials had been discovered in this area in the 1960s. These burials appear to have belonged to a cemetery pertaining to some forgotten medieval settlement that may have been located in the area of Marsaxlokk or the height of San Lucian.

Valletta - In the course of renovation works within the basement of the Auberge de Castille a number of earth fills were removed from this location. This operation was supervised by personnel of the Archaeology Section and resulted in the collection of a large sample of ceramics, glass and animal bones dating back to the 18th and 19th centuries. These materials have thrown new light on the styles of life enjoyed by the inhabitants of the Auberge at the time of the Order of St. John and in the Early Colonial period.

Zurrieq - A large catacomb complex was discovered accidentally in the course of road works immediately to the east of the Xarolla Windmill. The catacombs had been broken into by some abandoned quarry works, apparently late in the 19th Century. The catacombs however extend beneath existing road surfaces and could not be investigated further, for safety reasons. This catacomb complex appears to extend for a considerable length - over thirty metres - although it is not clear yet whether the site consists of a single interconnected system, or rather several separate small catacombs. Another important feature of this site is the complex rock-cut decorative motifs that were discovered within it.

Victoria - A sondage was cut into a property sited off Triq il-Kapuċċini on the east slopes of the Cittadella height. The main aim of this exercise was to establish whether any archaeological remains could be identified under this property, since it was the subject of an application for development permission. The sondage identified a thick stratum of agricultural soil, under which were located a number of silty layers, containing traces of fire hearths. Pottery associated with these strata suggests they may date to the Middle Ages or later.

A further investigation related to an application for development permit was carried out in a property sited off Triq L-Imghallem. The area was known to contain important Hellenistic masonry remains which had been however covered up in Early Modern times by a series of agricultural terraces. The aim of the investigation was to remove the agricultural terraces to expose more of the older archaeological remains. A particularly important assemblage of Medieval ceramic remains - datable to the 10th/12th centuries - was recovered from the earth fills that made up the agricultural terrace.

A fourth season of excavations has been carried out in the area of Tac-Ċawla with the aim of establishing whether any new archaeological remains could be found in the area - further to the ones already identified in 1994 and 1995. Eight plots of land were investigated, resulting in the discovery of the remains of a hearth, albeit very badly preserved, under one of the said plots.

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Vella, Nicholas - 1994. *The Archaeology of the Emergence of Ancient Israel: a Critical Assessment of the Available Data and Current Theories*, B.A. (Hons)*

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* Long Essay, Dept. of Classics and Archaeology.

Note: The long essays by Buhagiar, de Trafford and Saliba were supervised by Dr Anthony Frendo, that by Magro Conti was supervised by the present writer.