

A fresh look at Haġar Qim and Mnajdra temples

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Our megalithic temples relate many stories. The stories that intrigue us most are those that tell us about their beginnings, their construction, use and development in prehistory. However, they do provide evidence for a different story, that which starts with their discovery by modern society. During this part of their lifespan these monuments are not only studied and analysed by scholars trying to identify their origins, but are also restored and reconstructed, thus undergoing physical changes which are not always immediately evident.

Numerous restoration and conservation interventions have taken place at both Haġar Qim and Mnajdra. Records of only a few of these interventions have been kept, and in some cases even this documentation is missing from our archives. It is in fact the actual visual examination of the remains, as well as the examination of photographic and pictorial evidence, that allows for their identification. This factor often makes it difficult to attribute a date to these interventions and to identify the methods and materials that were used.

Standing at the top of a ridge, the remains at Haġar Qim (Fig. 1) must have always been a conspicuous landmark, more so, in that they were never completely buried. Jean Houel's painting of the site in the 1780s, before its excavation by the Royal Engineers, shows that although the greater part of the site was buried, the larger megaliths were clearly visible protruding through the soil and debris (Plate 1).¹ This is what most probably led to an early excavation of the site. Houel's painting even shows two men examining items which

they appear to have collected from the ground, a clear indication of the curiosity that the large stone blocks attracted at the time.

The large stones triggered the imagination of visitors to the site leading to various theories being proposed in their regard. Abela was the first to document the belief, in the 17th century, that the megalithic temples were built by giants: "*Habbiamo d'avvantaggio alcuni vestige d'opere de' Giganti [...] nel luogo chiamato in Arabico Hagiar el Kim*".²

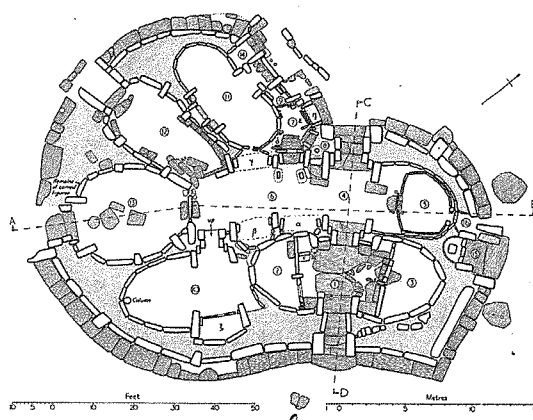


Fig. 1. Plan of main building at Haġar Qim. (After Evans, 1971)



Plate 1. Haġar Qim in the 1780s. (Houel, 1787)

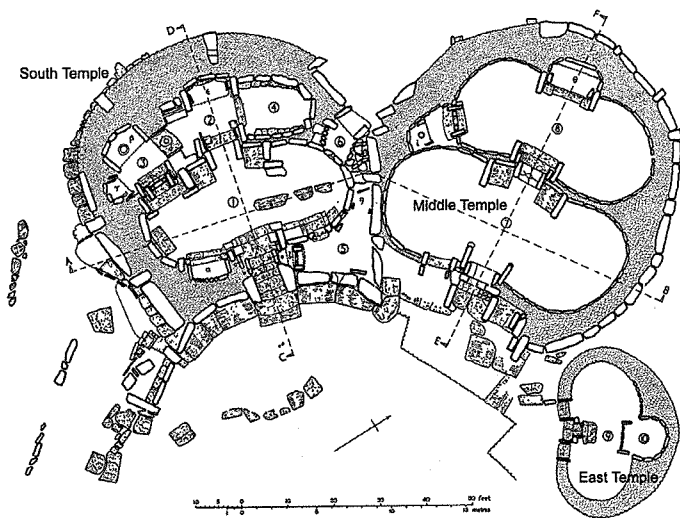


Fig. 2. Plan of Mnajdra Temples. (After Evans, 1971)

However, the beginning of the 19th century sees a new theory emerging and becoming the popularly accepted interpretation of these sites. It was in 1816 that Onorato Bres first attributed Haġar Qim to the Phoenicians, an ascription that would last almost a century.³ Mnajdra (Fig. 2) seems to have attracted less attention and the only reference to it prior to excavation is by Stefano Zerafa who mentions the site in his study of the geological development of the Islands.⁴ Although this mention is not accompanied by a description, it does indicate that the monument was partly visible prior to excavation.

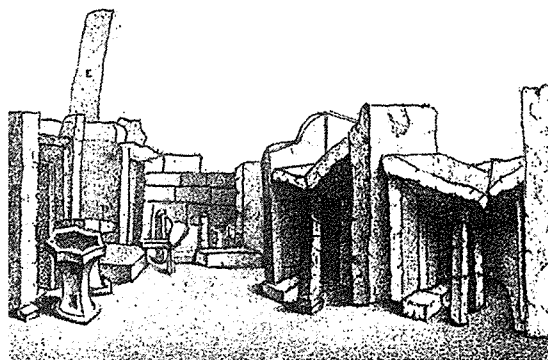


Fig. 3. Pilasters inserted to support broken table slabs at Haġar Qim in 1839. (Vance, 1842.)



Plate 2. Pilasters inserted to support broken table slabs at Haġar Qim in 1839. (Mayr, 1901)

The First Excavations

Haġar Qim was first excavated in 1839. Funds for this excavation were set aside by the Governor of Malta, Sir Henry Bouverie. J.G. Vance, an officer with the Royal Engineers, undertook the supervision of the excavation which lasted three months. Lt. W. Foulis drew up a plan of the site once the excavations were completed. Vance produced a short description of the remains at Haġar Qim in the *Malta Times* in 1840 and a more detailed account of the finds and remains in *Archaeologia* two years later.⁵

These accounts give a thorough description of the remains uncovered but do not provide much information on the excavations themselves. Vance says that 'Nearly all the walls on the northern division bear evident marks of the action of fire, some of them, indeed, being quite rotten and having the red appearance of brick'.⁶ Vance also observed that the actual material excavated from the site seemed to have accumulated over a long time and that the site had not been buried in one sudden intervention.

According to Dr A.A. Caruana, Mnajdra was excavated by Vance in 1840. No information about these excavations exists and Vance only comments on the site saying that 'About a quarter of a mile distant from this site (Haġar Qim), rather in a hollow than on an eminence, we are enabled to trace the lines of another temple, apparently of a similar form and size'.⁷

The first restoration work at Haġar Qim may have been carried out during or just following the first excavation of the site. One of the lithographs by J. Basire, published in 1842 as part of Vance's report (Fig. 3), depicts stone pillars supporting a number of broken horizontal slabs. Judging by Basire's drawing and a photograph of the same area published in 1901 (Plate 2), these pillars were built in small worked ashlar blocks.

Although the excavation of the site was not well-documented, the actual uncovering of various features within the monument gave rise to numerous new theories regarding the megalithic temples, especially with regards to their structure, date and origins. In 1870 Prof. Andrew Leith Adams forwarded a new theory regarding Mnajdra and Haġar-Qim in *Notes*

of a Naturalist in the Nile Valley and Malta, suggesting that they were close to, or formed part of, an important sea-port town.⁸

At this time the megalithic temples were still believed to be of Phoenician origin, and in 1876 Dr Cesare Vassallo develops this theory and proposes that Haġar Qim was dedicated to the seven *Cabiri*, deities originating in the Near East which may have been introduced to the Maltese Islands by the Phoenicians. He bases himself on the fact that seven statuettes were found within its chambers during the 1839 excavations and the building itself is divided into seven areas.⁹ He also suggests that Mnajdra was dedicated to *Eshmun*.¹⁰

James Fergusson, who also visited the sites in the 1870s, proposes a chronology for the construction of these two prehistoric monuments. He maintains that at Mnajdra the Middle Temple is the oldest since it has a simpler style, while at Haġar Qim the monument first consisted of a single pair of chambers which were then extended by having the inner set of apses converted into a central court. He also publishes calculations made by Colonel Collinson regarding the roof of the buildings saying that this was constructed by means of corbelling and reached a height of around 30 feet.¹¹

Fergusson also points out the fact that these monuments were different to anything found in Europe saying that 'if we are ever to find their originals, it is to Africa we must look for them.'¹²

1885 Excavations and Restorations

In June 1885 a proposal was made to build a rubble wall around Haġar Qim so as to protect it, but as the remains had never been thoroughly surveyed and their extent never actually ascertained, it was decided to carry out further excavation works before the construction of this boundary. Thus, following orders given by the Governor Sir John Lintorn Arabin Simmons, Dr A.A. Caruana, who was in charge of the Museum of the Public Library at the time, made some supplementary excavations at the site between August and December of 1885.

In 1886, Caruana published a report on the excavations together with a proposal for the monument's restoration.¹³ The excavations

did not yield any new information about the remains but new plans and elevations were drawn by Dr F. Vassallo. In his report Caruana considers the possibility that the remains could actually be older than the Phoenician period; an innovative perspective for his time.

Following excavations an extensive restoration programme was launched with the view that 'some of these imposing works of Maltese Cyclopean art might be made, with a little skilful restoration, to look almost as complete as when they were originally constructed.'¹⁴ Vassallo's drawings indicate the areas that were restored in 1885, as well as areas proposed for future restoration.

Part of these works seem to have included extensive clearance of the area in front of the façade, as is indicated by a comparison between photographs taken in 1868 and ca. 1900 (Plates 3 and 4). Restoration works included the lifting of collapsed megaliths in various areas of the building, as well as the reconstruction in dry-stone walling of walls enclosing the whole area of the forecourt and the court at the rear of the main building at Haġar Qim. According to Albert de La Marmora these walls formed the *temenos* around the site and Caruana says that the dry-stone walls were built on ancient foundations since during the



Plate 3. The forecourt at Haġar Qim before clearance in 1885. (Album of the Society of Archaeology, History and Natural Science of Malta, 1868)



Plate 4. The same area after it was cleared. (Richard Ellis Ltd., ca. 1900)

course of excavations ‘considerable portions of the megalithic structure, originally bounding these two courts of unequal extent, have been recovered’.¹⁵ In addition, the semi-circular wall at the back of the external niche was also reconstructed in dry-stone walling.

It is interesting to note the choice of materials and techniques used in these restorations. The use of dry-stone walling, or rubble walls, to rebuild some of the original features that had been lost, allows for easy identification of these modern restorations due to the different building technique they employ. On the other hand, having the architectural features represented in this manner helps recreate part of the geometry of the buildings that was lost. The material used, that is, Globigerina Limestone, is the same as the original and is therefore aesthetically compatible with the original materials. The height of the restored walls, however, is arbitrary since no evidence was available for the height of the original walls. Caruana’s graphic documentation of these interventions provides invaluable information on the restorations carried out.

Developing a Scientific Approach

Up to the beginning of the 20th century no systematic study was made of the megalithic temples or the finds collected during their excavation. Indeed, all the pottery collected from Haġar Qim was ‘discovered’ in two baskets in the lumber room of the Public Library in 1902.¹⁶

A fresh and more systematic approach to the study of these monuments was taken in the beginning of the 20th century by Dr Albert Mayr, a German archaeologist. Mayr conducted a study tour of the Maltese Islands in 1897-98 during which he catalogued all the prehistoric remains known at the time. He published his studies and observations in 1901, providing an extremely detailed description of *Mnajdra* and *Hajjar-Kim* including new plans of the sites. Mayr ascertained that the Temples were built before the Phoenician period and possibly dated back to the Bronze Age, between the end of the 3rd and 2nd millennium BC.¹⁷

Further excavations at Haġar Qim were carried out in November 1909 by Prof. Temi Zammit and Prof. T. Eric Peet. This paved the way for a more extensive investigation at both

Haġar Qim and Mnajdra in 1910 under the direction of Dr Thomas Ashby, then Director of the British School at Rome. These excavations are the first to provide stratigraphic data for these remains.¹⁸ The investigations were carried out with two objectives in mind; to ensure that the plan of the remains had been completely uncovered and to obtain a sample of pottery from each site.

Trial excavations were made in various apses at Haġar Qim bringing to light a number of features within the monuments. Ashby’s excavations at Mnajdra led to the discovery of the East Temple, while the area in front of the Middle Temple was found to be paved. The Middle Temple was also found to rest on an artificial platform, probably built to provide a level surface on which the building could be constructed.¹⁹

These excavations were also followed by extensive restoration works. At Haġar Qim some of the slabs lying on the ground in front of the entrance to the main building were lifted to form part of the top horizontal course of the façade, whilst the large slab found in the forecourt and believed to be the lintel of the entrance was raised on pillars and repaired (Plate 5).²⁰

Additional restoration work included the replacement of the pillars which had been used to support three horizontal slabs in 1839. A number of collapsed megaliths were replaced in their presumed original positions, and in one such case a low wall built in Globigerina ashlar blocks was constructed to support the restored megalith. The pillars and wall are still visible on site today.

Unfortunately Ashby’s report does not



Plate 5. Façade of the main building at Haġar Qim after repair of the lintel and restoration of upper courses in 1910. (National Museum of Archaeology)

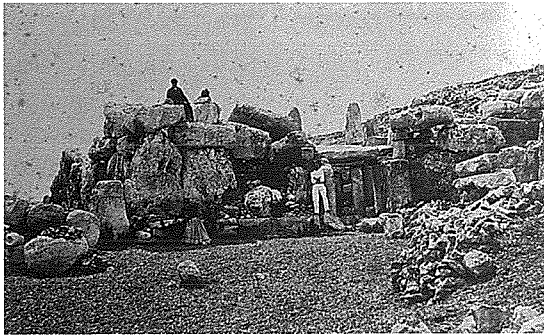


Plate 6. The façade of the South Temple at Mnajdra in 1868. (Album of the Society of Archaeology, History and Natural Science of Malta, 1868)



Plate 7. Restoration of the façade of the South Temple at Mnajdra in 1910. (Ashby, 1913)

include further details regarding the restorations carried out in 1910, however it appears that the majority of the recommendations for restoration made by Caruana were actually implemented. No information is available regarding the materials used to fix broken megaliths but since the majority of these repairs still exist today, one may conclude that Portland cement was widely employed to repair broken or cracked megaliths.

At Mnajdra Ashby mentions the restoration of the facade of the South Temple.²¹ Comparing photographs of the façade taken in 1868 (Plate 6) with those published by Ashby in 1913 (Plate 7) one can get an indication of what these restoration works actually involved. It seems that part of the south-west section of the façade was reconstructed by reintegrating a collapsed megalith.

Within the South and Middle Temples blocks that were found on the floor were replaced in their original position, forming part of the upper horizontal courses, whilst a number of modern pillars were introduced to support broken horizontal slabs. The façade of the Middle Temple was described by Mayr as being completely destroyed. Despite this, in 1910 it was possible to repair and lift the

collapsed stone slabs which once formed its entrance, whilst the south-west section of the façade, which was missing, was reconstructed in small Globigerina blocks.²² As in the case of Hagar Qim, cement seems to have been used extensively for repairing broken or cracked megaliths.

On site visual observation of these interventions indicates that a large number of repairs in cement have now cracked and in some cases the cement has become detached from the stone surfaces. In other examples, megaliths repaired in cement have since developed new cracks and breaks. Failure of these repairs is due to the difference in the physical and chemical characteristics of cement from those of limestone with the result that rather than repairing the megaliths, additional damage was caused by the use of this material. However, one has to keep in mind that Portland cement was used when no alternative adequate material was available. Cement was in fact the material of choice for restoration and reconstruction in the first half of the 20th century. It was commonly used at other major archaeological sites, such as the site of Knossos where extensive reconstruction between 1922 and 1930 was carried out in cement and concrete.²³

Understanding the Architecture of the Megalithic Temples

Following new information recovered from the 1909-1910 excavations, Zammit published *The Neolithic Temples of Hagar Kim and Mnajdra and the "Miska" Reservoirs* in 1927. Here, he proposes a rough date for the construction of the megalithic temples:

'We should always bear in mind that we have before us the naked and often mutilated skeleton of the original building, battered and wasted by every adverse agency for six thousand years, so that we can hardly conceive the beauty and the finish of a monument decorated with all the care that an artistically minded people lavished upon it.'²⁴

In the 1930s studies about these sites revolved around the actual structure of the prehistoric buildings and the question of roofing was again placed in the forefront of academic debate. In 1932, Peet suggests that although the apses were most probably covered with a

system of corbelling, the central areas were more likely left uncovered.²⁵

However, in 1934 Prof. Luigi M. Ugolini in *Malta: origini della civiltà mediterranea* maintains that the prehistoric buildings were completely roofed over by a stone vault.²⁶ He was supported by Arch. Carlo Ceschi who in 1939 published an extensive study on the architecture of the monuments, *Architettura dei templi megalitici di Malta*. He refers to the remains of Haġar Qim and Mnajdra Temples in explaining his theories since the remains of corbelling were still preserved in these sites and produces artistic impressions of what the ceiling over the South Temple at Mnajdra would have looked like.²⁷

Restorations following World War II

Following the Second World War, a programme for the restoration of a number of sites was taken in hand. Between 1948 and 1950 large-scale restoration works were carried out at Haġar Qim and Mnajdra under the direction of Dr J.G. Baldacchino, then Director of the Museums Department.

It is during this campaign of restoration that Haġar Qim underwent the most drastic aesthetic changes, especially to the façade of the main building. The collapsed area at the southern end of the facade was cleared in 1948, leading to the discovery of the so-called bench running along the base of the whole facade. Clearance was followed by lifting of the collapsed megaliths in this area. During the spring of 1949 the lintel that had been repaired in 1910 was reinstated within the façade, capping the entrance.²⁸ Two courses of masonry, overlying the orthostats on the façade, were also rebuilt at this time.

In 1958 the Museums Department carried out repair works on the lintel of the main building at Haġar Qim as this had developed new cracks since its reinstatement in 1949.²⁹ However, this lintel has since undergone further damage.

Other works at Haġar Qim in 1949, included the repair of the top part of the corner-stone at the south-west end of the façade as well as a number of uprights. These were repaired using cement mixed with Globigerina chippings (Colour Plate 9, see p. 38).³⁰ Three large heaps of rubble lying in the vicinity of the ruins

were also removed together with a large part of the *temenos* that Caruana had rebuilt in 1885.³¹ Ashby's investigations had led him to conclude that this *temenos* was constructed on modern foundations rather than original ones as Caruana had believed.

Extensive works at Mnajdra were commenced in 1952. These works, carried out by the Museums Department, were 'undertaken with a view to tidying up the site and arriving at a clearer understanding of its extent'.³² The rubble walls and soil of the terraced fields situated in the area of the forecourt were removed and further clearance in the area to the east of the remains revealed further stretches of megalithic masonry as well as a series of steps next to the East Temple.

Other interventions on the remains at Mnajdra included the construction of modern rubble walls along the outer perimeter of the East Temple. These walls followed the outline of the building that was uncovered during clearance works. The platform fronting the façade of the Middle Temple was also restored to its original height in dry-stone walling.³³

The same technique was used in 1953/54 to reconstruct the outer walls of the Middle Temple.³⁴ In 1897/98 Mayr saw that along these walls only the megaliths that had been placed radially were left standing, while the ones that had been placed with their broad side facing outwards were missing. The missing parts of the external walls of the South Temple were similarly reconstructed in dry-stone walling in 1954/55.³⁵ These restorations are still visible today.

Interventions in the 1980s

No major restoration or conservation work was documented for Haġar Qim and Mnajdra for almost three decades. The Museums Department's annual report for the year 1984 includes references to 'important restoration works' carried out on the Haġar Qim Temples but it does not provide further information on what these works involved.³⁶

However, in a paper on the use of different consolidants on Globigerina Limestone, published in 1985, the authors mention that during the preparation of their paper, repairs were carried out in a lime-based mortar to the door jambs and two other blocks in the main building at Haġar Qim.³⁷ On-site observation

however demonstrates that the material used was cement-based.

Unfortunately, even at this late stage, no adequate records were being kept for interventions on these sites and it is likely that other restoration or conservation work took place, the knowledge of which has been completely lost. In addition, the adverse effects of cement on limestone were widely known in the 1980s and alternative materials for the restoration interventions mentioned above were readily available, nonetheless, cement was still used for these interventions.

Replicas of the decorated slab and altar originally found in the first chambers of Haġar Qim which were on display at the National Museum of Archaeology were also placed within the monument when the restoration works mentioned above were completed.³⁸

As awareness of the need for effective conservation of Mnajdra and Haġar Qim increased, related studies and interventions also became more frequent. In May of 1990, Ing. Arch. Gennaro Tampone, leading the Malta-Florence Bilateral Project which was set up to better understand the conservation problems of the megalithic temples, carried out two restoration interventions at Haġar Qim. A number of unstable stone blocks were lifted from their original position and then placed back in the same location within the site but in a more stable position. In each case small thin lead sheets were used as wedges and placed beneath the block to help keep it in equilibrium.³⁹

Recent Interventions

Throughout the early 1990s a number of small interventions were carried out on both Haġar Qim and Mnajdra, however no systematic conservation exercise was planned and no preventive steps were taken to preserve the sites. Most interventions were in fact a direct response to the visible effects of deterioration, which in some cases took a catastrophic form.

In April 1994 part of the wall separating the South from the Middle Temple at Mnajdra collapsed (Plate 8). This was caused by the effect of heavy rainfall which led to the material beneath the floor of the Middle Temple becoming saturated and causing pressure on the structure which was supporting it. After a

study and assessment of the damage carried out by Prof. Alex Torpiano in collaboration with the Museums Department, extensive works to restore and consolidate the area of collapse were undertaken.

The collapsed megaliths were lifted and the exposed infill area was cleared and excavated. A new wall was constructed in concrete bricks so as to retain the infill beneath the floor of the Middle Temple and prevent it from exerting pressure on the original wall once this was reconstructed. The megalithic blocks were then replaced in their original locations covering the modern retaining wall.⁴⁰

This reconstruction was accompanied by the installation of a rainwater drainage system in the Middle Temple. Pipes were placed on plastic sheets along the top of the walls of the building and these were then covered with limestone chippings. Geotextile sheeting was also laid on the floors of this building. In this way rainwater would drain away off the wall and floor surfaces rather than seeping into them and creating pressure on the structure.⁴¹

Unfortunately there was no monitoring of this drainage system so that, although in theory this intervention should aid the structural conservation of the site, it is difficult to determine how successful it actually was. In addition, no maintenance was carried out after its installation so that some of the water drainage pipes eventually became exposed to the elements and deteriorated making them ineffective.

In November 1998 a stretch of megalithic masonry forming the wall between two apses at Haġar Qim collapsed. This collapse was also the result of the effects of heavy rainfall

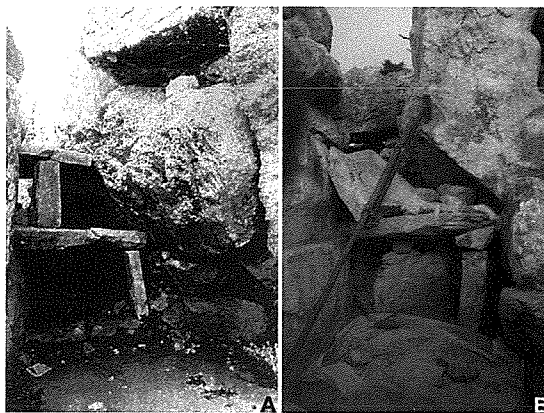


Plate 8. Part of the structure which collapsed at Mnajdra in 1994. (8a National Museum of Archaeology. 8b Marlene Borg, 1996)

which washed away the infill material between the two outer skins of the wall, weakening it and eventually leading to its collapse.⁴² The restoration, which took place in July 2001, involved the identification of the original location and position of each dislodged block and the restoration of each block to that location. Part of the works involved the introduction of a pillar constructed in Globigerina Limestone blocks. This was necessary since one of the megaliths had completely disintegrated and was unable to support other dependant structures.

Restoration works at Mnajdra were also carried out under the direction of the Museums Department, between June and July 2001, following an attack of vandalism in April 2001 that affected a number of apses in the South and Middle Temples. During this incident a large number of megaliths were dislodged from their original positions. Restoration of the damaged megaliths involved repositioning, as far as possible, in their original locations as well as the repair of the damage they sustained.

Epoxy adhesives were used to repair megaliths that are vital for the structural integrity of the remains, while hydraulic lime mixed with sand was used for repairs whose strength would not affect the structure's stability.⁴³ Both materials are compatible with the original ones and have no adverse effects. Although the use of epoxy is not reversible, it does not preclude or impede future treatments or interventions, reversibility having been recently been replaced by principles of compatibility and re-treatability.⁴⁴ In cases where the damage sustained by the megaliths was located in areas where previous repairs had been carried out using cement, the cement

was removed manually before the megalith was repaired.

A Future for Haġar Qim and Mnajdra

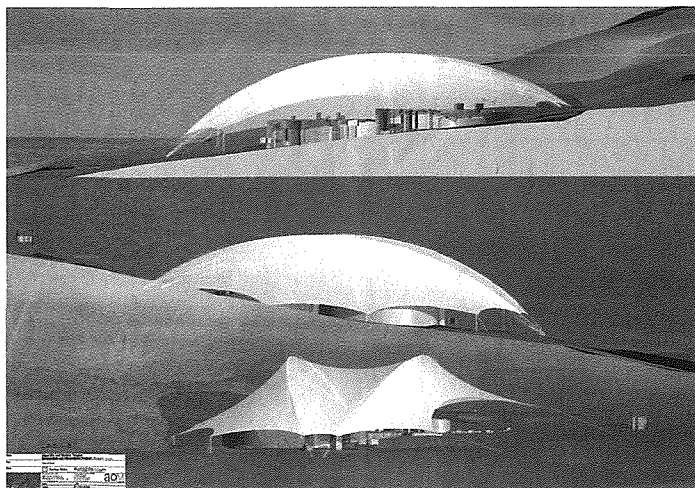
The history traced above indicates a change in approach in recent years. Up to the 1950s interventions of restoration and reconstruction were carried out with the sole aim of trying to make these sites appear as they had in prehistory. This approach obviously depended heavily on modern interpretation of these prehistoric buildings. More recently, in the 1980s and 90s, interventions became more reactive, being carried out to counteract the effects of deterioration.

This approach evolved once more in the past few years. Possibly due to the alarm raised by the major collapses in 1994 and 1998, a more erudite approach was adopted for the preservation of these sites, so that preventive measures of conservation started being considered. In May 1999, the Ministry of Education convened an international experts' meeting bringing together a range of expertise and experiences to formulate possible strategies for the conservation and management of the megalithic temples. One of the recommendations resulting from this meeting was the establishment of an Advisory Committee to provide the Museums Department with support in technical matters, and in the definition of a management and conservation strategy for the megalithic temples.

As a result, the Scientific Committee for the Conservation of the Megalithic Temples was established in April 2000. Part of the remit of this multidisciplinary committee was to advise the Museums Department on possible preventive conservation solutions for these monuments. Following a thorough study of the causes of deterioration of the megalithic temples, the Scientific Committee recommended the construction of an 'umbrella structure' or shelter over the sites. This would protect the prehistoric monuments from the immediate effects of their natural environment which was identified as the main cause of their deterioration.

On the 28th August 2000 it was announced that Cabinet had approved the temporary sheltering of temple sites, giving priority to Haġar Qim as a pilot project. Later on this

Plate 9.
Preliminary designs for the shelter at Haġar Qim (Walter Hunziker)



was extended to include Mnajdra. Following this, an International Design Competition was launched by the Ministry for Youth and the Arts in November 2003. The competition was judged in April 2004 and a Swiss architect, Walter Hunziker was chosen to design shelters for these monuments. European Union Structural Funds were captured to fund this project. (Plate 9).

The temporary shelters over Hagar Qim and Mnajdra will in no way be a solution to all the conservation problems of these monuments. They will however help buffer and slow down the effects of the causes of their deterioration and will therefore aid in prolonging the lifespan of these sites. In doing so, these shelters will also provide us with a longer time-span in which to study and identify adequate materials and techniques for their conservation. This is a revolutionary approach to the preservation of these sites. It will have a larger visual impact than any of the interventions carried out on these sites since their excavation. On the other hand, the shelters will preserve the sites without having any long-term direct impact on them. In addition, this intervention makes a clear statement that in future these monuments will be protected and preserved using the optimal available methods and that any measure required to ensure that future generations will be able to enjoy and appreciate these sites will be undertaken.

Notes

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- 3 O. Bres, *Malta Antica Illustrata co' Monumenti, e coll' Istoria*, (Rome. 1816), 139-140.
- 4 S. Zerafa, *Discorso sulla Storia Fisica di Malta e sue Adiacenze*, (1838), xxix.
- 5 J.G. Vance, 'Hagar Chem or Cham in the Island of Malta; General description of the ruins', *Malta Times*, 5th October 1840.
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- 7 *Ibid.*, 232.
- 8 A.L. Adams, *Notes of a Naturalist in the Nile Valley and Malta*, (Edinburgh. Edmonston and Douglas, 1870), 241.
- 9 C. Vassallo, *Dei Monumenti Antichi del Gruppo di Malta*, (Malta. 1876), 23-25.
- 10 *Ibid.*, 18-33.
- 11 J. Fergusson, *Rude Stone Monuments in all Countries: Their age and uses*, (London. John Murray, 1872), 422.
- 12 *Ibid.*, 426.
- 13 A.A. Caruana, *Recent Further Excavations of the Megalithic Antiquities of 'Hagiar-Kim' Malta: Executed in the year 1885 under the direction of Dr. A.A. Caruana*, (Malta. 1886).
- 14 *Ibid.*, 1.
- 15 A. La Marmora, *Lettre a Monsieur Raoul Rochette, sur le Temple de l'Isle de Gozo*, (Paris. 1836), 32. Caruana, 2.
- 16 N. Tagliaferro, 'On the Pottery lately found at Hagiar Kim and Mnajdra', *Archivum Melitense*, vol.1, no.3, (1911), 62.
- 17 A. Mayr, *Die vorgeschichtlichen Denkmäler von Malta*, (Munich. Verlag der Akademie, 1901), 717.
- 18 T. Ashby, et.al., 'Excavations in 1908-11 in Various Megalithic Buildings in Malta and Gozo', *Papers of the British School at Rome*, vol. 6 no.1, (1913).
- 19 *Ibid.*, 94.
- 20 *Ibid.*, 64.
- 21 *Ibid.*
- 22 *Ibid.*, 92.
- 23 P.G. Bahn, *The Cambridge Illustrated History of Archaeology*, (Cambridge. Cambridge University Press, 1996), 150.
- 24 T. Zammit, *The Neolithic Temples of Hajar Kim and Mnajdra and the "Miska" Reservoirs*, (Malta. 1927), 11-12.
- 25 T.E. Peet, 'The Stone Age Marvels of Malta', in *The Wonders of the Past*, Part 16 vol. 2, (London. Amalgamated Press, 1932), 792.
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- 27 C. Ceschi, *Architettura dei temple megalitici di Malta*, (Rome. 1939).
- 28 *Museum Annual Report 1948-49*, I-II.
- 29 *Museum Annual Report 1957-58*, 1.
- 30 *Museum Annual Report 1949-50*, I.
- 31 *Ibid.*
- 32 *Museum Annual Report 1952-53*, I.
- 33 *Ibid.*, I-II.
- 34 *Museum Annual Report 1953-54*, I-II.
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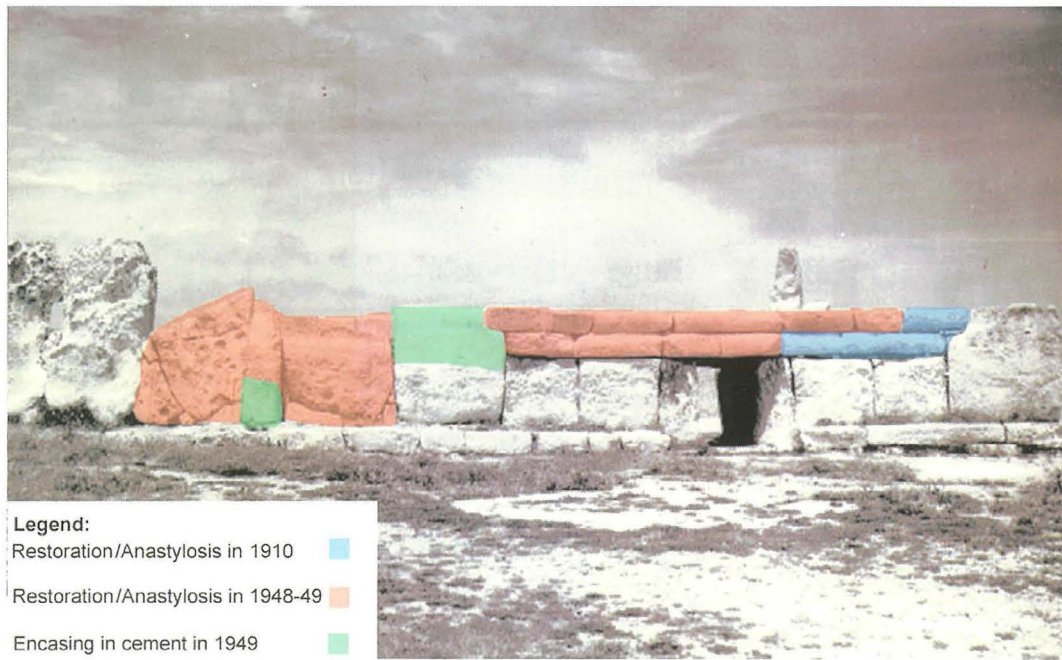


Plate 9. Different phases of restoration of the façade of Hagar Qim