

The Medical History of the Maltese Islands: Prehistory

Malta: Echoes of Plato's Island "Atlantis" ¹

About 2400 years ago, the Greek philosopher Plato in his discourses Critias and Timaeus wrote about the advanced civilisation of *Atlantikos* which predated that of Egypt by about 1000 years. "*She founded your city a thousand years before ours, receiving from the Earth and Hephaestus the seed of your race, and afterwards she founded ours, of which the constitution is recorded in our sacred registers to be eight thousand years old*" [Timaeus]. Often assumed to be a Greek myth or legend, the Atlantis story originated from Egypt, being recounted to the Greek statesman Solon, well known for his poetry and verse. Solon had travelled widely and in 590 BC visited Egypt where he conversed with the wise men of Sais. There, Solon was told the Atlantis story which was documented on the temple walls. The Egyptian source of the destruction of Atlantis can also be found in the Ermitage Papyrus in Leningrad in which there are lamentations about a terrible catastrophe, when heaven and earth turned upside down and afterwards darkness covered the earth. Besides recounting in detail his sources, Plato further specifically

¹ Originally published: C. Savona-Ventura & A. Mifsud: *On the track of Atlantis*. The Sunday Times [of Malta], 18th August 2002, p.36-37. Based on the work: A. Mifsud,

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states that the story was based on fact and not fiction. "*And what other, Critias, can we find that will be better than this, which is natural and suitable to the festival of the goddess, and has the very great advantage of being a fact and not a fiction?*" [Timaeus].



Plato



Solon

That is not to say that Plato's narrative is not without problems. The first detail that contrasts with contemporary archaeology is the relative dating of the origins of the Egyptian civilisation. Plato places this to about 8000 years before Solon's time, but this figure is surely mistaken since the historical chronology for ancient Egypt suggests that the Egyptian megalithic civilisation (Old Kingdom Dynasties) dates to only about 2600 BC or 2000 years before Solon. On the traditional archaeological evidence available, the Atlantidean civilisation would have originated at circa 5600 BP. The dating of the catastrophic destruction is probably easier to arrive at. According to

S. Mifsud, C. Agius Sultana, & C. Savona-Ventura: *Malta. Echoes of Plato's Island*. The Prehistoric Society, Malta, 2000

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Plato, by that time a number of civilisations had begun to flourish around the eastern Mediterranean basin suggesting the third millennium BC. The Classical historian Eumalos of Cyrene wrote that the King of Atlantis at the time of the cataclysm was King Ogyge whose nephew was King Ninus of Babylon who lived in the late third millennium BC, a period wherein archaeological evidence suggests the social collapse of several Old World Kingdoms in the Aegean, Egypt, Palestine, Iran and the Indus Valley. The social collapse of these Kingdoms all occurred circa 2200 BC, a period associated with a drop in mean global temperature assumed to have been preceded by a major volcanic eruption.

The possible locality for Atlantis has also been hotly debated by various workers. The problem lies with interpreting Plato's description. "*and there was an island situated in front of the straits which are by you called the Pillars of Heracles; the island was larger² than Libya and Asia put together, and was the way to other islands, and from these you might pass to the whole of the opposite continent which surrounded the true ocean; for this sea which is within the Straits of Heracles is only a harbour, having a narrow entrance, but that other is a real sea, and the surrounding land may be most truly called a boundless continent*" [Timaeus]. Today many assume that the

² "*Larger*" in size or more likely political influence.

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Straits of Hercales refer to the Straits of Gibraltar. However, Classical writers such as Apollonius Rhodius, writing in the first century BC, confirms the presence of the Straits of Hercales to be in the Lesser Syrtis which were situated in present day Gulf of Sirda off the Northern coast of Africa. This would place Atlantis right in the middle of the Mediterranean straddling two seas, the eastern ocean and the western ocean (the *pontos* and *pelagos* of Plato). After the catastrophe "... *there are remaining in small islands only the bones of the wasted body The mere skeleton of the country be left*" [Critias].



On the basis of the above observations, the search for Plato's *Atlantikos* should aim at finding small island remnants in a tectonically active region of the Central Mediterranean that have archaeological evidence of an advanced culture predating the Egyptian

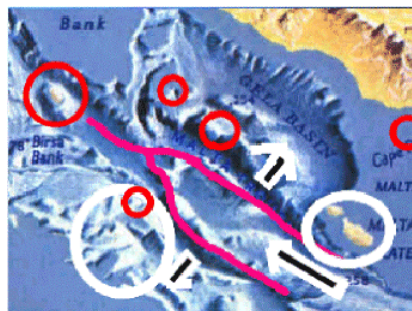
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one by about 1000 years and which suddenly disappeared at about 2200 BC. Ideal candidates for the remnants of Atlantis are the Maltese and Pelagian Islands situated in the Central Mediterranean, an observation made also by Eumalos of Cyrene. Eumalos who wrote that "*the summit of Mount Atlas, which was situated in the middle of the island Atlantika was not submerged. This summit of Mount Atlas has preserved the name of Ogyge from that of its last king, and it is in fact this circumstance why we still know as Ogygia that island which still exists between Libia and Sicily; it is nothing more than the summit of Mount of Atlantika.*" Several other ancient authors, including Callimachus, Herodotus, Hesiod and Diodorus Siculus have identified Ogygia with Malta. The Maltese Islands have also been confirmed archaeologically to have housed the oldest free-standing megalithic culture dated to about 3700 BC and which suddenly came to an end and disappeared sometime during 2500-2140 BC. If the Maltese-Pelagian Islands are the remnants of Plato's *Atlantikos*, then evidence should suggest a past physical link between the two archipelagos.

The Maltese Archipelago probably emerged from below sea-level at the end of the early Pliocene period. Palaeogeographic evidence suggests that throughout the Quaternary period, the Maltese Archipelago region was connected at various stages to Sicily, the east Mediterranean lands, Sardinia, Libya and Tunisia. The end of the

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Quaternary period was characterised by an increase in the sea-level of the Mediterranean and it is supposed that at this point the island area became separated from the continental mainland. The subsequent geological history during the Holocene has yet to be elucidated, but it appears that the Central Mediterranean region has in relatively recent geological times been active causing marked changes in its morphology. The Central Mediterranean, including the Maltese Islands area, has been characterised by relatively recent tectonic phenomena which includes volcanic activity and faulting. Plate tectonics in the Central Mediterranean is characterised by a tectonic block - the Pantelleria rift - pushing apart and tilting the Maltese and the Pelagian Blocks. This suggests that at some stage in the geological history the two blocks, now comprising the Maltese-Pelagian Islands, were joined together in a larger landmass.



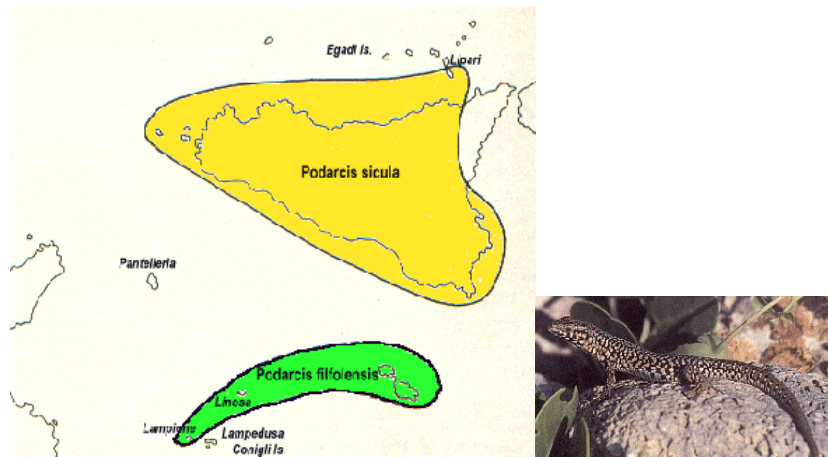
Central Mediterranean tectonics

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Evidence for this larger landmass is also available by biogeographic considerations. The Maltese and Pelagian flora and fauna has repeatedly been shown to have very close affinities sharing several endemic species of animals or plants. The most typical is the Wall Lizard - *Podarcis filfolensis* - which is restricted to the Maltese-Pelagian Islands of Malta, Gozo, Comino, Filfla, St. Paul's Is., General's Rock, Cominotto, Manoel's Is., Lampione and Linosa. The *Podarcis* genus is generally characterised by a very fast differentiation rate so that each *Podarcis* species very quickly differentiates into various subspecies or colour varieties within a very short time, estimated by biologists to easily within about 7000 years. *Podarcis filfolensis* is found in several subspecies in the Maltese-Pelagian Islands - s.sp. *maltensis* in Malta, Gozo and Comino though the Comino one has been described as being slightly different from those in Malta, *filfolensis* in Filfla, *kieselbachi* in St. Paul's is., *generalensis* on General's rock, unnamed s.sp. on Cominotto, and *laurentimuelleri* on Lampione and Linosa. The complete absence of this species on Sicily confirms that the differentiation occurred very much after the Maltese-Pelagian block broke off from the Sicilian Hyblean Plateau; while its absence from Pantelleria and Lipari with whom the Maltese islands have been shown to have trade-links during the prehistoric period suggests that the presence of the lizard species on the Pelagian Islands could not have occurred as a result of indirect human

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transport. The biogeographical evidence suggests that the Maltese Islands area and the Pelagian Islands area were physically connected even after the separation from the Sicilian Hyblean Plateau that very probably occurred at the end of the Pleistocene with the rising seawater level that attended the gradual melting of the Pleistocene ice mass.



Podarcis filfolensis biogeographical distribution

The geological and biogeographical evidence therefore suggests that at the beginning of the Holocene period, the Central Mediterranean region south of Sicily was composed of a large landmass. This at some stage after 10000 years BP fragmented and separated into various parts of which only the Maltese and Pelagian Islands remain.

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The timing of such a catastrophic event is well within the phase of man's traditional and early documented history.

Evidence of tectonic events during the period of man's sojourn on the Maltese Islands is suggested by the distribution of the canals found scattered all over the islands, popularly known as cart-ruts. There is no doubt that these canals are a result of the agency of man, though there have not been definitely dated to any particular period except that they predate the Punic period. They are apparently associated with prehistoric quarries, and hence have been assumed to have served for transport purposes. Interestingly, a report was made of the presence of cart-ruts on Filfla by one of the earlier Maltese archaeologists Fr. Emanuel Magri. Filfla is one of the small islets of the Maltese Archipelago measuring only 2.0 ha and lying about 4.5 km from the south-western coast of Malta. It has been established that the Filfla landmass had split from the main island by tectonic agencies namely the Maghlaq fault that runs along the whole length of the western coast of Malta and Gozo. The geology in the region suggests that while this tectonic movement was initiated during the Quaternary period, it remained active during the Holocene. There is no conceivable reason, if cart-ruts were transport structures, for the presence of cart-ruts on such a small island as Filfla. This strongly suggests that Filfla was joined to mainland Malta during prehistoric times. Cart-ruts running into the sea on the south-eastern side of Malta

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and reports of sunken Neolithic structures on the same side of the island further suggests that the Maltese geological block has uplifted on the west and sunken on the eastern side by the Pantelleria Rift since the prehistoric period.

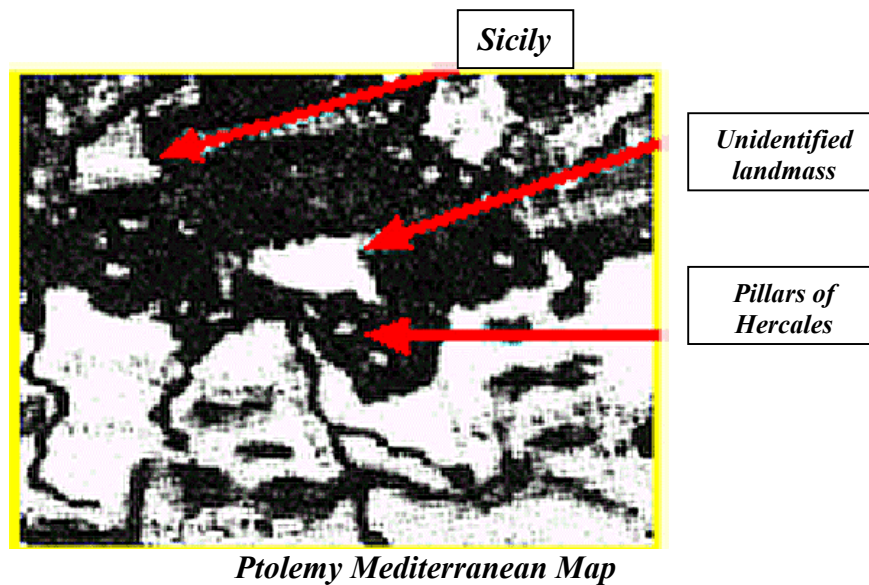


Birzebbugia cartruts disappearing into the sea

Reference to a large landmass in the Central Mediterranean is also made by the Classical authors, who had access to the great library of Alexandria prior to its destruction. Claudius Ptolemy, the early second century AD geographer, carries the first description of the Maltese Islands that has survived the ravages of time. In his atlas, Plotemy records the Maltese Islands as extending significantly to the south of the Islands, in contrast with the accurate co-ordinates given for Sicily. He lists the Maltese Islands with the remaining Pelagos Islands, while one of his maps actually depicts a large unidentified island in the Central Mediterranean. Ptolemy's accuracy in geographical matters is

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underlined by him showing the correct origin of the Nile - re-discovered only in the late nineteenth century.



Evidence has been cited above for the presence of a large Central Mediterranean island situated between Sicily and North Africa. This landmass was broken up and submerged by a series of massive volcanic eruptions and tectonic movements probably in the late centuries of the third millennium BC, leaving only small fragments in the form of the Maltese Archipelago and the Pelagian Islands. A strong case can be further made to culturally associate these islands with Plato's *Atlantikos*. During the period encompassing 3700 - 2500

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BC, the Maltese inhabitants had developed a megalithic culture which resulted in the building of the oldest free-standing structures in the world with the oldest megalith at Ggantija in Gozo being dated to about 3700 BC, a thousand years before the earliest pyramid in Egypt.



Ggantija Temple [Gozo]

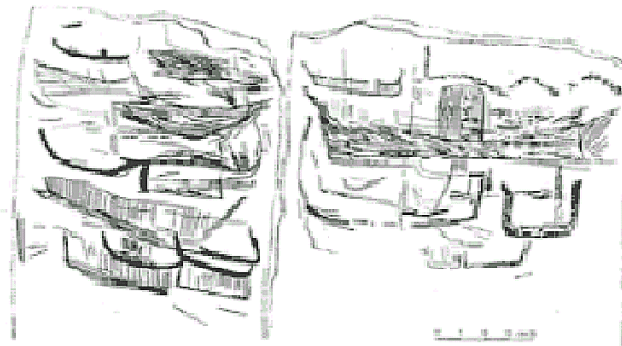
The Maltese Megalithic Temples could very reasonably be identified with the "*many temples built and dedicated to many gods*" described in Critias. In the Maltese Islands, with an overall area of only 313 km², about forty-three temples have been identified. The better-preserved temples and contemporary temple models show evidence of an advanced architectural technology reflected in the techniques used in the quarrying, carriage, and lifting of these megalithic building blocks. The technologies adopted by the temple builders confirm a detailed understanding of masonry construction systems with the development of intelligent functional solutions to bypass the

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limitations of the local material. Stone was imaginatively used through the construction phase of the sanctuaries from their foundations to their roofing.

Plato also recorded that the *Atlantoi* maintained a fleet of triremes for commerce with other lands. The Maltese Temple people are also known to have maintained cultural and trade links with other surrounding regions including the lands in Tyrrhenia, the Aegean, and possibly the North African coast - conforming to Plato's statement in *Timaeus* that "*Now in this island of Atlantis there was a great and wonderful empire which had rule over the whole island and several others, and over parts of the continent, and, furthermore, the men of Atlantis had subjected the parts of Libya within the columns of Heracles as far as Egypt, and of Europe as far as Tyrrhenia.*" These links required the construction of marine craft. Forty different graffiti depicting various types of ships have been identified on the adjacent uprights in the third temple of the Tarxien group of temples. The presence of these sea craft depictions confirm that during the period the maritime traffic to and from the islands was very much a going concern, while shipbuilding was already at an advanced stage of development. The Tarxien graffiti depict a number of sea craft building technology elements showing characteristics generally attributed to Cycladic, Cretan, Assyrian, and Egyptian ships.

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Tarxien Temple [Malta]: ship graffiti

Navigation requires a good understanding of astronomy, and there is sufficient evidence to suggest that the Maltese Temple Culture people were well versed with astronomical concepts. The temple axis have been shown to be rather scattered but the greater majority of those studied appear to lie between south-east and south-west suggesting that the choice of this orientation was made with some purpose in mind. The most obvious relationship for the preferences in temple orientation to suggest is an astronomical alignment, notably the main celestial bodies in the sun and moon. Observations carried out by different researchers at Mnajdra Temple have definitely shown that the central passage of the third temple is aligned with the solar equinoxes. On the first day of spring (equinox), the sun shines directly along the main passage and up to the main altar of the temple. Investigators have further shown that at both the summer and winter

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solstice sunrise, only a narrow beam of light filters through the main doorway. This beam lights up the outer edge of one of two upright stones flanking an inner doorway. Another temple that shows a relationship to the rising sun is the main temple at Hagar Qim whose minor axis is aligned with sunset at the summer solstice.

Temple alignments to moonrise have also been described. The axes of the larger temples at Ta' Hagra, Ggantija and Hagar Qim are all approximately directed towards moonrise when the moon is at its extreme southern declination; while the main axis at Hagar Qim which has doorways at both ends, is also aligned with moonset at the maximum declination north. Less accurate alignment to moonrise at the maximum declination south can be seen in the axis of the main temple at Skorba and the smaller temple at Ggantija. These calendar observations would have served to guide the Temple builders in their farming activities. Besides the evidence suggested by the orientations of the various temples, it is further known that the early Maltese had a detailed awareness of astronomical objects as deduced from the symbols incised on a rock slab found in the Tal-Qadi Temple. These symbols appear to represent stars and a crescent moon.

There is no doubt that the *Atlantoi* developed mythological concepts to attempt explain life-event uncertainties like failing crops, life and death. Mythology often implies a belief in supernatural forces or

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beings that are both different and superior to living men in that they directly or indirectly exercise a benign or harmful influence. Atlantidean mythology, hellenised by Plato, dealt with the origins of the people and culture; while the gods wrath was kept in abeyance through sacrificial rituals performed in temples. The destruction of *Atlantikos* was attributed to the wrath of the supreme being. It is the function of ritual practices or ceremonies to encourage a benign influence, and prevent or neutralise harmful influences. The Maltese Megalithic Temples are a definite implication that this culture practised rites pertaining to mythological concepts. Two types of cults have been identified in the Maltese Megalithic Culture - the first represented by the above ground temples/sanctuaries dealt with Fertility; while the second represented by the underground sanctuaries and tombs dealt with Death. Both the Atlantoi and the Maltese Megalithic Culture people practice a bull-related cult with bull sacrifice. Many of the features of the Megalithic culture of Malta have close parallels to the culture attributed by Plato to the *Atlantoi* of *Atlantikos*.

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Tarxien Temple [Malta]: bull frieze

The Atlantis debate has primarily seesawed between the believers and the sceptics. A review of Plato's texts confirm that the author was very careful to record his sources and trace the catastrophic story. Other texts from Egypt [Ermitage Papyrus of Leningrand] and Mesopotamia [Curse of Akkad] written in the late centuries of the third millennium BC confirm the occurrence of a catastrophic event affecting the Mediterranean world. Archaeological evidence has further supported this widespread event with the social collapse of several Old World circum-Mediterranean Kingdoms including the Maltese Megalithic Temple Culture that occurred about 2200 BC. The evidence points towards the catastrophe occurring as a result of a massive volcanic eruption that resulted in a drop in global temperature bring with it a "Little Ice Age" resulting in a desertification process in the Mediterranean region. All the evidence seems to support the fact that some historical reality lies behind Plato's story. Furthermore based on

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geology, biogeography, and the Classical texts, there appears to be increasing evidence for the presence of a large landmass in the Central Mediterranean, now represented only by the Maltese and Pelagian Islands. The Maltese Megalithic Temple Culture which flourished circa 3700 - 2500 BC is the most likely candidate to emulate the Atlantidean culture.