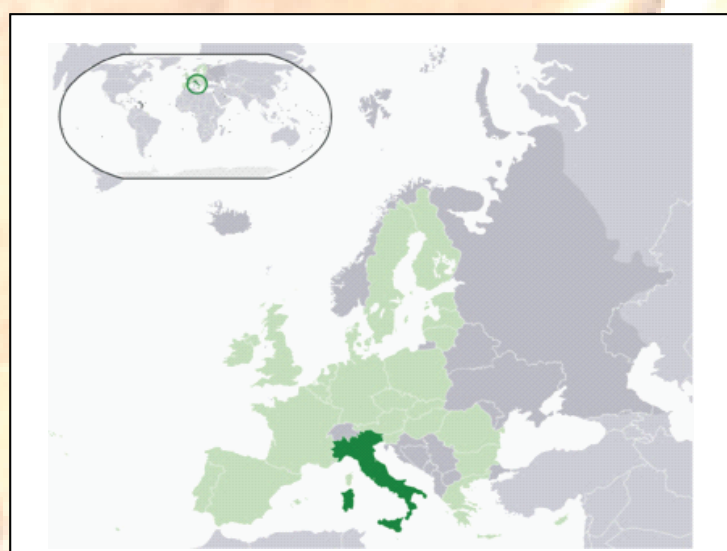


# Central Mediterranean Submerged Prehistory. The Mesolithic - Neolithic passage in Sicily through Island, Seaways and Maritime Connectivity

ALBA MAZZA alba.mazza@gmail.com  
Researcher - external consultant Soprintendenza del Mare

## Introduction

Since antiquaries studies and later on archaeological research was carried on in Sicily, investigations were mostly focused in the classical antiquities and mythological world, the investigations were generally carried on in a small focused horizon, try to understand the material culture and the site itself, and poorly connected the archaeological evidence to the surrounding landscape. Each site become a “virtual island” isolated in space and time and not connected to a general understanding of the evolution of the landscape. Nowadays, studying paleolandscape in relation to coastline sites in Sicily and Sicilian Archipelagos has the potential to make a crucial Contribution to our understanding of the occupation dynamics of Mesolithic-Neolithic transition.



Research area



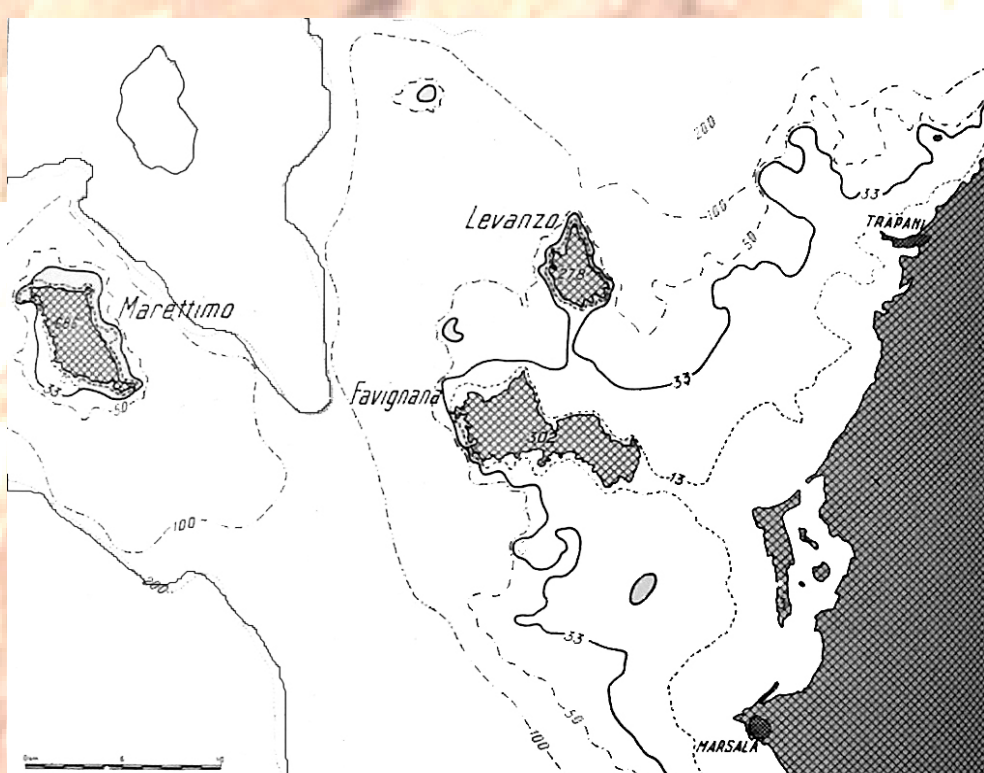
Genovese cave, Levanzo Island, Sicily



Genovese Cave entrance from the sea view and graffiti representing bulls and fawns.  
Chronology for this first phase is 9694 ± 110 not calibrated

## Archaeological background

The process by which the Neolithic arrived in Sicily is currently a hotly debated topic. Some scholars argue that people were coming straight from Near East (bringing farming, pottery, etc.), others scholars speculating on the arriving from North Africa, others later have suggested that the Mesolithic population of gradually adopted a farming lifestyle on their own terms. What is agreed is that some contact must have occurred in the centuries around 6000 BC for the change to happen at all, and that this most likely happened across the seaways and thanks to the Islands and Archipelagos all around Sicily.



Palaeogeographic map of Egadi Archipelago when Levanzo and Favignana were connected to Sicily, at the same time of the graffiti evidence at Genovese Cave.



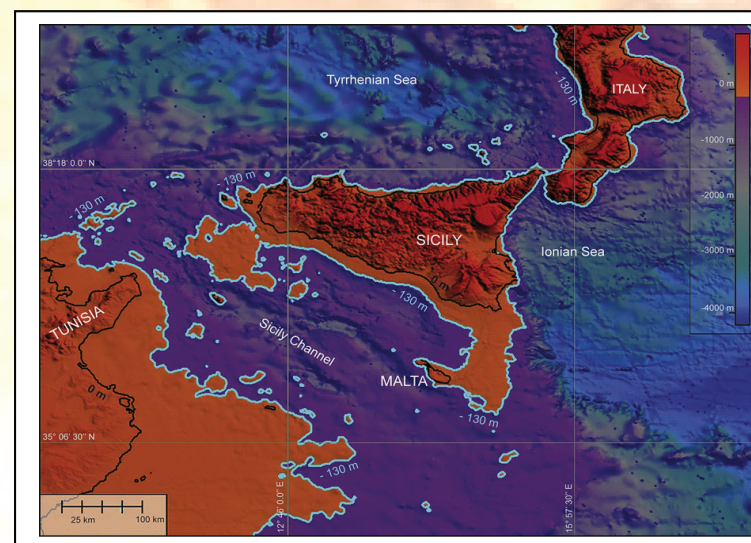
Genovese Cave, wall painting. Chronology for this phase is 4770 ± 100 calibrated

It is highly possible that the transition from hunter-gatherer to farming was favoured by the presence of wider coastal plains in front of those caves, such as Uzzo and others in western and northern coasts of Sicily where we got the traces and the evidence of such change. It is widely proved, using the value of postglacial marine transgression, that till the period of Mesolithic - Neolithic transition coastal plains in front of those caves were much more extended favouring farming and herding activities. The facility of sea approach, thank to those wide coastal plains, still identifiable some meters below actual sea level, made easy the “discovery” of sea by the Mesolithic hunters and gatherers. Mesolithic stratified deposits are, in fact, filled with valves of sea molluscs, indicating a first timid approach toward the most accessible parts of the sea, where from the land it was possible to gather limpets, clams, *trochus*, *patella* and other molluscs. This first happy contact between man and sea constitutes the prologue to what happened, not only in Sicily but also in the other areas of the Mediterranean starting since the 7<sup>th</sup> millennium BC. Mediterranean Sea was discovered through fishing, but suddenly it became, through seafaring, also the greatest opportunity of cultural, ethnic and economic interrelations.

## Selected bibliography

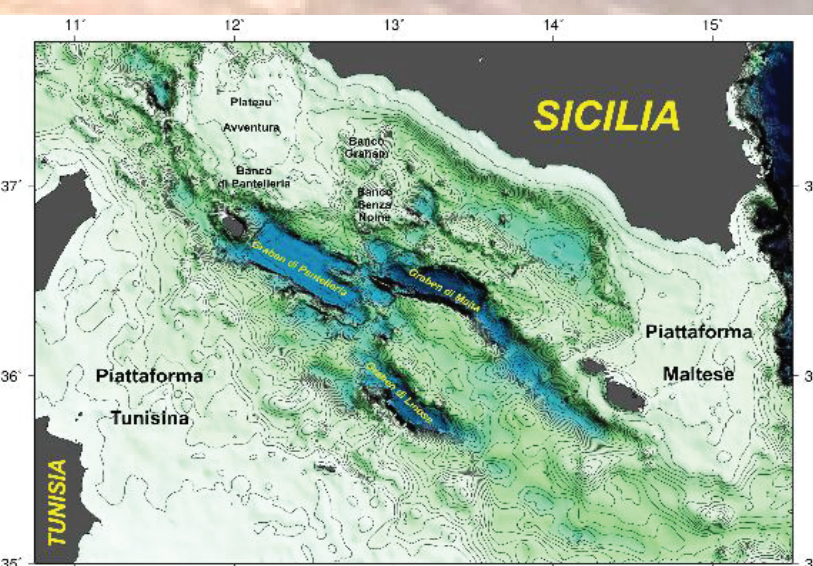
- Agnesi V., Macaluso T., Orrù P., Uzzega A. (1993). Paleogeografia dell'Arcipelago delle Egadi (Sicilia) nel Pleistocene Sup.- Olocene. *Naturalista Siciliana*, s. 4, 12(1-2), 3-22.
- Antonoli F. (1997). Problemathe relative alle variazioni recenti del livello del mare e sue interazioni con le comunità preistoriche della Sicilia. In Tusa S. (ed.) *Prima Sicilia 1997*, Palermo, 147-155.
- Antonoli F., Cremona G., Imbriani F., Puglisi C., Romagnoli C., Silenzi S., Valpreda E., Verrubbi V. (2002) New data on the Holocene sea-level rise in NW Sicily (Central Mediterranean Sea). *Global and Planetary Change*, 34, 121-140.
- Basile B., Di Stefano G., Lena G. (1988) Landings, ports, coastal settlements and coastlines in Southeastern Sicily from prehistory to late antiquity. In Raban, A. (Ed.) *Archaeology of Coastal Changes*, *Proceedings of the First International Symposium "Cities on the Sea—Past and Present*, 404. BAR International Series, 15-33.
- Camps G. (1987) Le mouton au Néolithique ancien dans les pays de la Méditerranée occidentale. In J. Guillemin, J. Courtil, J.-L. Roudil, J.-L. Vernet (eds.) *Premières communautés paysannes en Méditerranée occidentale*, C.N.R.S. - Paris, 209-214.
- Civile D., Lodoio E. et alii 2010, The Pantelleria graben (Sicily Channel, Central Mediterranean): An example of intraplate 'passive' rift. *Tectonophysics*, 490, 173-183.
- Evans J.D. (1977) Island archaeology in the Mediterranean: problems and opportunities. *World Archaeology*, 9, 1, 12-26.
- Flemming N.C., Bailey G.N., Courtillot V., King G., Lambeck K., Ryerson F., Vita-Finzi C. (2003) Coastal and marine palaeo-environments and human dispersal points across the Africa-Eurasia boundary. *Maritime Heritage*, in Brebbia C. & Gambin T. (Eds.) *Advances in Architecture*. WIT Press, Southampton, 61-74.
- Graziosi P. (1962) *Levanzo. Pitture ed incisioni*. Firenze.
- Lambeck K., Antonoli F., Purcell, A., Silenzi, S. (2004) Sea level change along the Italian coast for the past 10,000 yrs. *Quaternary Science Reviews* 23, 1567-1598.
- Lodoio E. 2010, When the Sicily Channel was an archipelago, abstract del congresso SGI.
- Martineau, M.P. (1966) Marine terraces in Malta. In Lythgoe, J.N., and Woods, J.D. (Eds.) *Symposium of the Underwater Association 1965*. Underwater Association, UK, 68-71.
- Scicchitano G., Antonoli F., Castagnino Berlinghieri E.F., Dutton A., Monaco C. (2008) Submerged archaeological sites along the Ionian coast of Southeastern Sicily (Italy) and implications with the Holocene relative sea-level change. *Quaternary Research* (in press).
- Shackleton J.C., van Andel T.H. & Runnels C.N. (1984) Coastal Paleogeography of the Central and Western Mediterranean during the last 125,000 years and its archaeological implications. *Journal of field Archaeology*, V.11, 307-331.
- Tusa S. (1985) The beginning of farming communities in Sicily : the evidence of Uzzo cave. *Papers in Italian Archaeology IV*, II, BAR 244, 61-74.

## Paleo - geographic background

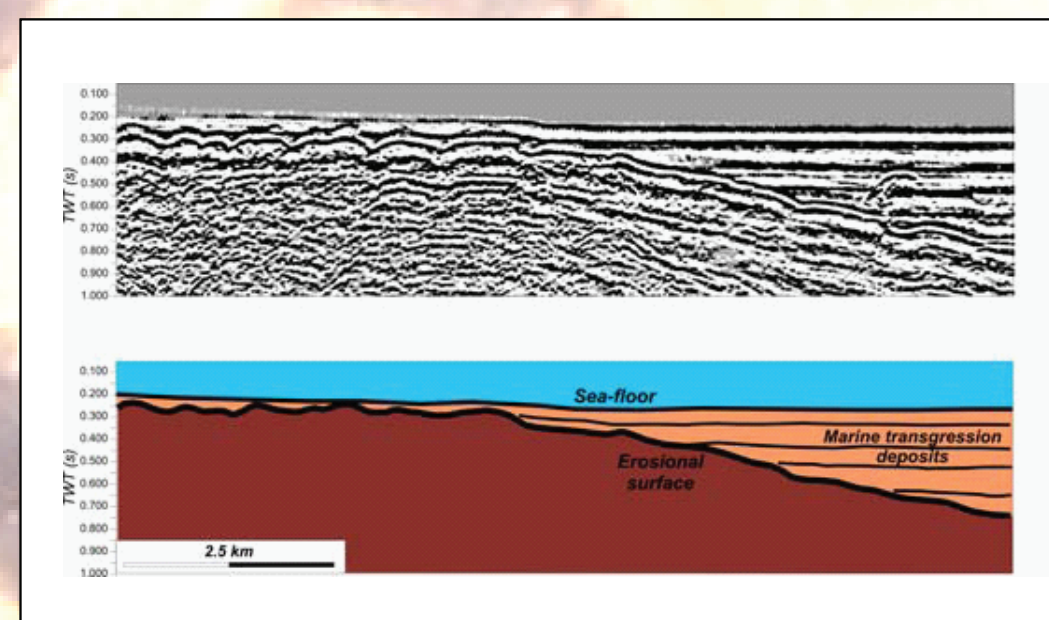


Sicily at LGM

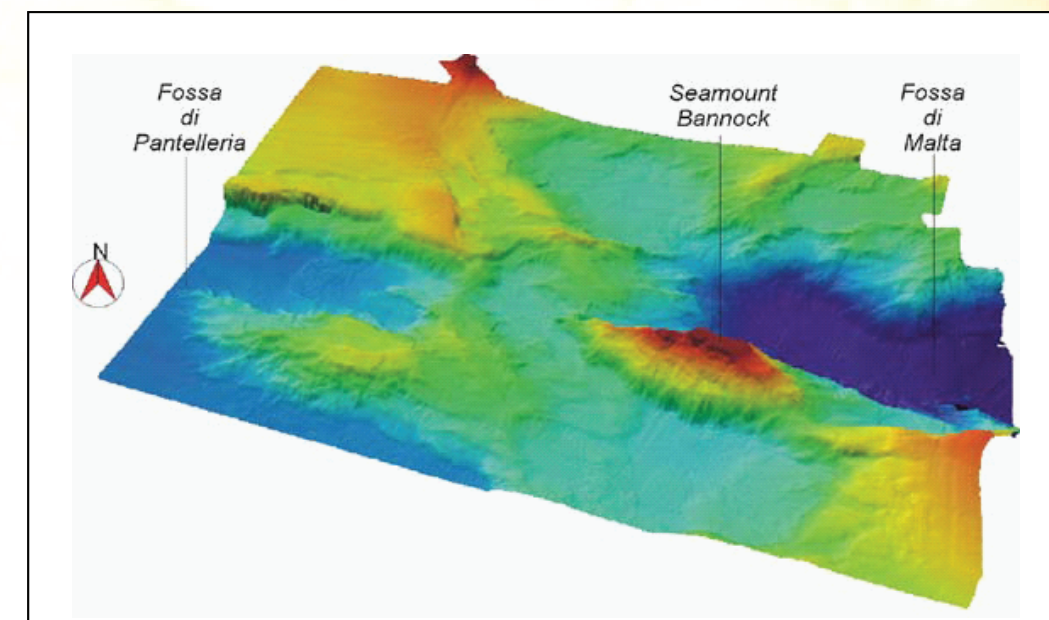
During Mesolithic, Neolithic and Bronze Age the geography of central Mediterranean was much more different than today. The complete different shape of Europe during the last human civilizations is an important factor of knowledge that cannot be forgotten like it was till now. Eustatic movements during glacial cycles have meant that most prehistoric coastlines are now underwater. During the last phase of maximum glacial expansion between 75.000 and 10.000 years BP the outline of Sicily was deeply different



Bathymetric map of Sicily Channel.  
Three tectonic depressions are evident and four banks emerged at LGM:  
Adventure, Pantelleria, Greham and No Name.

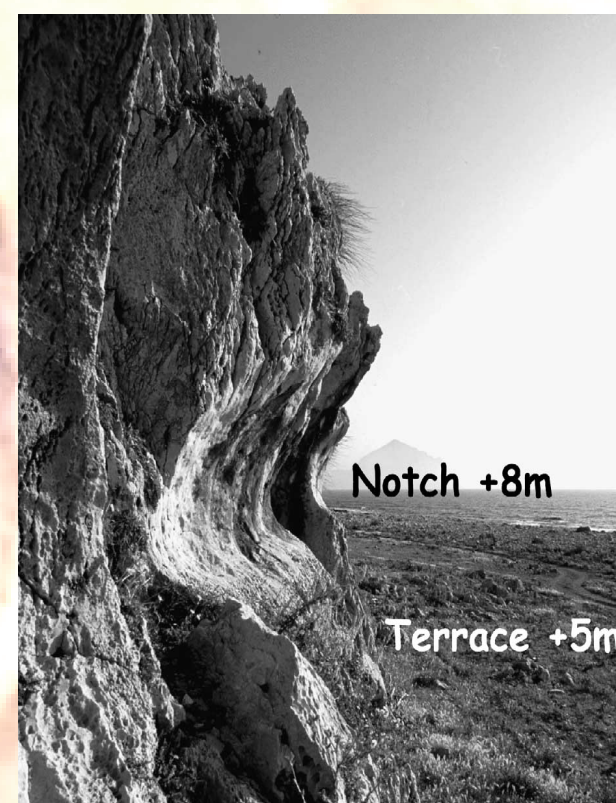


Seismic example of marine transgression in the Adventure Plateau, where a high-amplitude and continuous reflection (the erosional surface), and a sequence of transgressive deposits, are well recognizable.

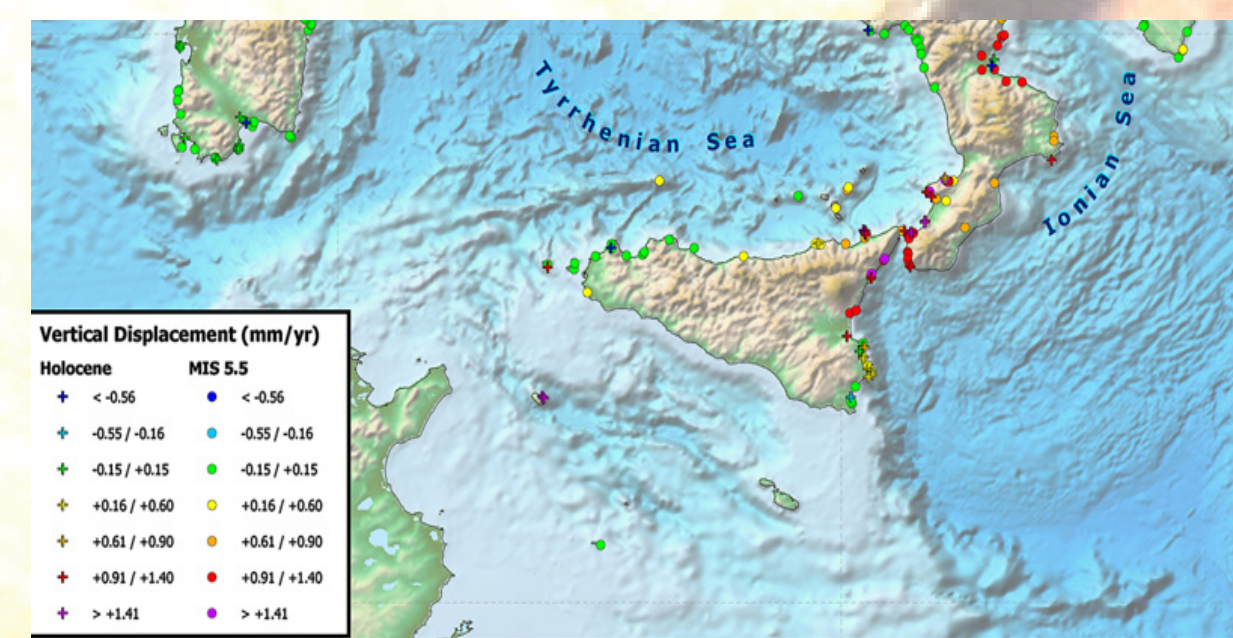


MBES bathymetric map of Bannock Seamount and near areas

This geographic situation lasted till the end of the last big glacial phase of Wurm dated back to about 10.000 years BP. Between the first millennia of the Postglacial period (Mesolithic and early Neolithic (10,000 and 6000 years ago), the level of the sea deeply changed reaching more or less the actual value.. Furthermore, geodynamic evolution caused local phenomena of land uprising interacting with the eustatic and sea variations. The complex relationship between eustatic (global sea-level) and isostatic (local elevation of the earth's crust) factors makes understanding the occupation patterns of Mesolithic-Neolithic transition more difficult. However is possible to state that lands were closer and communications easier.



Marine notch near Cala Mancina (NW Sicily).



Rates of vertical movements in Italy (mm/yr) averaged for the Holocene and for the last glacial cycle

## Conclusion

It is still without any doubt that spreading of Neolithic was deeply favoured by the closeness between regions nowadays much more distant each other. Taking into consideration such geographical factor we can easily understand why certain phenomena of transfer by sea of technological know-how, seeds and domesticated animals from the Balkans toward the southern Italian peninsula were so intense. Similarly we cannot pre-emptively discard the hypothesis that some domesticated elements may have been introduced from other areas like North Africa. Particularly this might



Obsidian tools from Lipari, Aeolian Archipelago



Circulation of Lipari and Pantelleria obsidian in Central Mediterranean Sea.

be the case of “Barbary Sheep” (*Ammotragus lervia*) introduction into Sicily. There is evidence that can be easily explained only if we take into consideration the totally different geographical situation mainly south of Sicily. As it is widely known during Neolithic obsidian was traded from the native places, such the Lipari, Sardinia, Pantelleria and Palmarola (limiting to central Mediterranean and excluding Aegean sources) and reached almost all the settlements of Sicily, Malta and southern Italy. If it is easily explainable how Lipari's obsidian could have reached Sicily and southern Italy, but it becomes difficult to imagine how obsidian from Lipari and Pantelleria could have reached Malta and Lampedusa. If Malta and Pantelleria are rarely visible from Sicily, Lampedusa is absolutely invisible from any surrounding land.. Again the presence of obsidian in Lampedusa, from Sicily and Pantelleria, but also from Pantelleria to Sicily and Malta could be easily explained if we take in mind the distance between those islands and Sicily was much less than today. It means that when we deal with island colonisation during prehistory we have to take into consideration that the geographic situation at that period was totally different.