

New Prehistoric Discoveries on Fortifications in Sicily

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Sicily was the homeland of the Neolithic people, who populated Malta towards the end of the 6th millennium and the beginning of the 5th century BC with the Stentinello Culture (5100-4500 BC). It was during the second wave of migration of the Neolithic people that the cultural phenomenon of the Maltese megalithic temples (3600-2500 BC) was created. Regarding stone tools, for which mineral resources were lacking in the Maltese geological formation, Sicily (and more specifically the Hyblaean Mountains) was also the land of origin of flint and the obligatory passage of obsidian from Lipari and Pantelleria, as well as greenstone for axes and axe-shaped pendants coming from Calabria and the Western Alps.

Keywords: Sicily, trichrome, warriors, robberies, fortifications

Cultural Origins of the Neolithic

The Neolithic was the first phase of trade for relations with the Aegean Sea, now the Middle East, and the Anatolian region, via Puglia, which was the first area in which the Neolithic settled. Initially, they only used the island's coasts, not the inland areas, but then they began to colonize vast areas, starting with hillside cultivation and mountain livestock farming, humanizing those previously uninhabited areas. Another theory holds that the Neolithic arrived in the Adriatic from Sidari (Corfu, Greece) or from Indo-European peoples around 6400 BC, and that impressed pottery was also attested at the same time, along with an increase in sheep and goat herding (Fitula, 2017). The first migratory flows of people with a Complex Pattern introduced technological innovations. Sicily, with its ceramic production, polished stone processing, and weaving, made a fundamental contribution to the economic development of southern Italy. It was also the time of the emergence of permanent settlements. These groups arrived from the opposite coast of the Ionian Sea, from the Adriatic coasts of Greece (Balkan route), and from Albania. The original culture of the Sicilian Neolithic, however, appears to be that of Yamna, perfectly integrated with the Kurgan people (4500 BC). Other minor routes included Eastern and Central Europe with Indo-European groups, but also African groups, with peoples arriving from the Maghreb, bringing the Pre-Stentinellian Facies of Capsian tradition. HP metaophiolites (parts of the oceanic crust overexposed to the Earth's crust) came from Liguria, which traded for obsidian. Tiryns-type amber beads were exported from the Aeolian Islands to central and northern Italy. It was all this wealth, linked to a strong dynamism, that created the "new rich", who stood out from the others, creating that diversification, which became broader as time passed.

Research at the Uzzo Cave, where stratigraphic methods allow us to trace the evolutionary and chronological line from the Mesolithic to the Neolithic, along with other considerations and studies, has demonstrated the

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important and decisive contribution of local populations to the birth and evolution of the Neolithic. Based on the evidence from the Uzzo Cave, the process of Neolithization began around the middle of the 7th millennium BC and was characterized by the expansion of hunting areas, increased exploitation of marine resources, diversified plant harvesting with a particular focus on wild legumes (the cultivation of which would be of fundamental importance during the Early Neolithic, 6400 BC), and above all through the domestication of animal species. It was during the subsequent period, in the Middle Neolithic, when the Stentinello culture spread, characterized by an at times elaborate, studied, and refined decorative syntax, that the type of open-air settlement would begin, with the establishment of agro-pastoral societies. The next phase is that of the two-tone and three-tone ceramics, the first with pictorial decoration.

The sequence of Neolithic cultures, documented in Sicily but not in complete stratigraphic order, has been uncovered thanks to excavations conducted in the Aeolian Islands, starting from the Middle Neolithic, as we will see, characterized by the Castellaro Vecchio culture of the Stentinellian type. The Lipari obsidian is black or blackish-grey in reflected light and grey in transmitted light; of the six flows, two (Gabellotti and Acqua Calda) are ancient. The Pantelleria obsidian, on the other hand, is black, shiny or opaque, with greenish veins, has poor transparency, and is green in transmitted light. Of the three flows, one seems to be the most certain, that of Balate dei Turchi, and it is probably no coincidence that the three workshop-stations are located in the southern part of the island. In the overview of obsidian distribution, which concerns not only the Neolithic, it is clearly visible how the Lipari obsidian has bypassed the Lazio-Pontina area and Sardinia in its distribution area. Pantelleria's is more limited.

It is likely that the Lipari Islands' unique geographical location played a decisive role in their ability to distribute the product, which reached its peak in the final Neolithic period with the Diana culture (4000-3400 BC), when, among other things, the first metal smelting slag appeared.

With the beginning of the Neolithic, around the middle of the 6th millennium BC, with the advent of agriculture, livestock farming, and pottery, families and villages diversified according to their wealth. Besides significant internal disputes, the most significant was that of dealing with the emergence of the new warrior society that began to attack and pillage villages.

And it was with the Trichrome Culture (5100-4500 BC) that villages were fortified, where strategic and defensive concerns prevailed. The introduction of painted pottery attracted new populations, which led to changes and hostility with pre-existing societies. Only the smaller islands (the Aeolian Islands) showed no substantial changes, testifying to the fact that those places were not invaded by the violent hand of man. That guerrilla warfare among primitive societies was not a rare occurrence, and that it was the "colonizers" who introduced it to those peaceful societies, seems certain. In short, in these societies, the norm was not peace but rather a periodic, constant state of war. It should first be emphasized that the starting point is constituted by the many archaeological indicators of warfare, including research on battlefields, analysis of defensive installations, reconstruction of weapons systems, iconography (i.e., the study of any images related to warfare on vases, wall paintings, small works, sculptures, etc.), and the study of skeletal remains (especially signs of trauma identified in individual tombs or mass graves, in some cases evidence of actual massacres). A significant difference is seen only at the end of the Bronze Age, a period in which the spread of cavalry and all related artifacts suggests more organized and larger-scale fighting, now more for control of trade routes than competition for agricultural land. In reality, in the most ancient periods, they were tools occasionally used in clashes between tribes (tool-

weapons), but over time and with the evolution of Neolithic societies toward greater complexity, they became weapons now only occasionally used as tools (weapon-tools). Institutionalized warfare first appeared during the 5th millennium BC and then, more massively, in the 3rd millennium BC, coinciding with three other phenomena: a clear gender differentiation in funerary ideology, the formation of the elite, and a drastic expansion of copper metallurgy, thus clearly offering a “package” of hypotheses that future research could confirm or deny. Already in the final phase of the Neolithic (3500 BC), all of Sicily was frequented by commercial traffic. This was the period when, alongside the peaceful coastal communities, groups of warriors with entirely new weaponry, a lithic and metal industry serving a military purpose, emerged. The ceramic and metal forms found affinities with the Hellenic environment, where these groups of warriors originated, seeking not only the most fertile areas but also immediate riches such as copper. In central-western Sicily, stratigraphies are often found with layers of ash from the burning of huts, undoubtedly due to the violence of the attackers. However, it was with the end of the Bronze Age and the beginning of the Copper Age that this violent element became even more evident.

Eneolithic and Bronze Age, Population Migrations and Trade

The Castelluccian villages were all fortified and close together, as if to stem a dangerous enemy, again coming from Hellas, but this time the Mycenaean influx supplanted the Castelluccian Culture (2100-1400 BC), bringing with it the new Thapsos Culture (1400-1200 BC) and locating the new site on the Magnisi peninsula facing Augusta and Syracuse. Various weapons, such as swords, daggers, and curved daggers, originating from the Mycenaean area or at least definable as “Mycenaeanized,” have been found both in Thapsos and in other southeastern and southwestern centers of the island. The weapons from Thapsos exhibit Aegean characteristics and are thought to have been crafted by Mycenaean craftsmen.

Birth of Warrior Societies and the Evolution of Fortified Architecture

Sicily’s wealth diversified with the obsidian trade, which brought significant economic benefits to the entire island. Obsidian was mined on Pantelleria and the Aeolian Islands, but Sicily took full advantage of its central location in the Mediterranean, becoming the richest region in the area. Aside from the crisis of the early Eneolithic, with the arrival of metals, which were completely lacking in Sicily, it carved out a key role in the trade of tin, which from Spain reached the Aegean and what is now the Middle East, and copper, which, as a finished product, circulated throughout the area, obligatorily passing through Sicily.

Until then, and precisely because the island lived off maritime trade, only the coastal area was populated. However, new groups of warriors, born to plunder the riches of others, began their forays along the Sicilian coasts. This led to a retreat towards the interior of the island, with the birth of new villages and the construction of structures designed to defend the village itself, first with deep ditches and then with mighty walls along the perimeter of the site.

As mentioned previously, the introduction of metal alloy intensified trade between Sicily and central and northern Europe in the 3rd millennium BC, where Sicily continued to be the hub of the two routes. The first included the Phlegraean and Aeolian Archipelagos, the northwestern centers of Sicily and Calabria, while the second involved Pantelleria, Malta, and the southern coasts of Sicily. Copper was traded in oxhide ingots known as “oxhide.”

The arrival of people from the Italian peninsula interrupted trade with the Aegean, and through the Aeolian Islands, there was an opening with Etruria for violin-bow fibulae of the Sub-Apennine and Proto-Villanovan type. This was the phase in which we witnessed the structuring of the agricultural landscape, and pine trees predominated in the extensive forests.

Bronze made it possible to construct more effective weapons, and it is well known that once a tool is available to resolve a potential dispute to one's advantage, little is done to avoid it; indeed, there is a temptation to create it. It is probably no coincidence that the Bronze Age (2250-1230 BC) coincides with the period in which wars became more frequent, with destructive effects for the losers. During the same period, the first aristocratic states, led by powerful groups of warriors, emerged in the Middle East (De Palmas, 2024). During this period, Mycenaean influence was still present but began to give way to an Apennine and Sub-Apennine culture (southern Italy, 1300-1150 BC), due to the migratory movements of populations from southern Italy, which brought not only new cultural influences but also the use of iron (Camera, 2017). Significant sites include the Milazzo sites in the province of Messina, where a type of culture known as the Ausonian culture (1220-800 BC) appears, which later complemented the Thapsos culture. The Ausonian culture, which encompasses the Aeolian Islands and northeastern Sicily, takes its name from the Ausonian people, who originated in southern Italy and extended their influence into Sicily during this period. Another particularly significant site is Pantalica, which, initially influenced by Mycenaeans, later exhibits Ausonian influences. This is the height of prehistoric guerrilla warfare. It is a history of populations constantly on the move due to the bellicose nature of the entire region, where every border represented a violent confrontation between different ethnic groups. After the invention of the weapons described above, the main advance in the sector was the use of copper for their manufacture (around 3000 BC). Bronze made it possible to construct more effective weapons, and it is well known that once a tool is available to resolve a potential dispute to one's advantage, little is done to avoid it; indeed, there is a temptation to create it. It is probably no coincidence that the Bronze Age coincides with the period in which wars became more frequent, with destructive effects for the losers. During the same period, the first aristocratic states, led by powerful groups of warriors, emerged in the Middle East. During this period, Mycenaean influence was still present but began to give way to an Apennine and Sub-Apennine culture, due to the migratory movements of populations from southern Italy, which brought not only new cultural influences but also the use of iron. Significant sites include the Milazzo sites in the province of Messina, where a type of culture known as the Ausonian culture appears, which later complemented the Thapsos culture. The Ausonian culture, which encompasses the Aeolian Islands and northeastern Sicily, takes its name from the Ausonian people, who originated in southern Italy and extended their influence into Sicily during this period. Another particularly significant site is Pantalica (1200-800 BC), which, initially influenced by Mycenaeans, later exhibits Ausonian influences (Nicoletti, 2017). This is the height of prehistoric guerrilla warfare. It is a history of populations constantly on the move due to the bellicose nature of the entire region, where every border represented a violent confrontation between different ethnic groups. After the invention of the weapons described above, the main advance in the sector was the use of copper for their manufacture (around 3000 BC).

The clashes to invade Sicily became frequent and very violent, so starting from the Thapsos Culture (1400-1250 BC), the villages, all on elevated sites, took on a defined urban form with imposing fortifications. Many villages even built internal fortifications, thus dividing the settlement into clearly defined lots. Evidence of the violent nature of the clashes, which occurred practically throughout the island, are the weapons found in tombs

at sites from this period and later, such as triangular-based bronze swords, spearheads, arrowheads, daggers, and even various types of axes—winged, eyed, cannon, and even flat—which they used for close-quarters combat. By the end of the Bronze Age, Sicily had been almost entirely conquered by peninsular groups, except for the area of Pantalica, which retained Aegean culture within its borders, and the Agrigento area with Sant'Angelo Muxaro and the Sicani area (Tusa, 1992).

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Figure 1. Fortificazione protostorica a torrioni di Montagna Vecchia (Corleone).

New Discoveries from Geophysical Surveys

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radar, which helps us understand the subsurface. But we are in the early stages of these technological innovations, so progression will yield the most concrete results.

Fortifications at the End of the Bronze Age

The Sicanians (8th century BC) were driven from eastern Sicily by the arrival of peoples from the peninsula, called Sicels, likely identified with the Apulian-Lucanian group. Archaeological research shows a very specific fact: the clashes were extremely violent, and in the end the Sicels prevailed, although in the 9th century BC they had to contend with Greek colonization, which began its influence from the Catania area and from Syracuse. These Greeks settled in eastern Sicily with equal violence, driving the Sicels further inland, always ready to engage the enemy. It was clearly sulfur that attracted interest in the vast Agrigento area, which was used for skin care for humans and animals, in agriculture, and to maintain the temperature of copper and tin furnaces. Between the 13th and 12th centuries BC, in the 5th century BC, the fortification of three villages—Caldara (Aragona), Sant'Angelo Muxaro, and Monte Campanella in Milena—and the simultaneous destruction of the trading post of Cannatello confirm the arrival of new peoples who, violently displacing the former, imposed new trade routes. Western Sicily was the prerogative of the Sicanians, the Elymians, and the Phoenician-Punic trading posts. According to Homer, the Elymians came from the destruction of the ancient city of Troy, while others believe they came from the area of present-day Liguria, where the same toponyms are found for the names of representative cities (Erice, Segesta, Entella) and the same typology of paintings and vase engravings. Very little is known about this people, who nevertheless played an important role during the Greek colonization of Sicily and fought vigorously for territorial assertion, often supporting other neighboring peoples (Tusa, 1992).

Prehistoric fortifications in Sicily testify to a complex social and defensive organization, evolving from Neolithic entrenched villages to the imposing stone walls of the Bronze Age. Key sites include the entrenched village of Stentinello (Syracuse), the Faraglioni Village on Ustica, and the fortifications of Mursia on Pantelleria, protected by massive walls.

Main Fortifications and Prehistoric Sites

Faraglioni Village (Ustica): One of the best-preserved settlements (1400-1200 BC), characterized by a 250-meter-long and up to 5-meter-high perimeter wall.

Mursia (Pantelleria): Bronze Age settlement (2nd millennium BC) surrounded by a massive rough stone wall and protected by a village of huts.

Stentinello (Syracuse): Entrenched village dating back to the Neolithic (Impressed Pottery culture), surrounded by ditches.

Pantalica (Syracuse): Famous for its rock-hewn necropolises (a UNESCO World Heritage Site), it featured a complex defensive structure throughout the area, including the Filiporto area.

Grotta dei Genovesi (Levanzo): More than a fortification, it is a rock art site (Upper Paleolithic, 12,000 years ago).

Main Features

Evolution: From Neolithic trenches to dry stone walls, often double-walled, of the Bronze Age.

Purpose: Defense from external attacks and raids, as well as marking the internal organization of the settlement.

Materials: Predominantly local dry stone.

These structures indicate a clear need for protection, suggesting a well-organized and stratified society thousands of years before the arrival of the Greeks.

Typical Archaeological Sites

Ustica (1400-1200 B.C.)

A fascinating new chapter in the history of the Mediterranean is heightening interest in an archaeological settlement that, over decades of study and excavation, has yielded a rich and sophisticated collection of artifacts, testifying to the existence of a sophisticated and wealthy community on the small island of Ustica. Its existence was abruptly interrupted around 1200 BC by a still-mysterious natural or anthropogenic event. A significant discovery from geophysical surveys conducted in the “Villaggio dei Faraglioni,” the ancient settlement on the island of Ustica dating back to the Middle Bronze Age (Sicily), sheds new light on the construction techniques of defensive structures in prehistoric Mediterranean areas. The research campaign, which involved geologists, geophysicists, architects, and archaeologists, began with the need to study, using non-invasive techniques, some semi-buried structures that occasionally emerge on the ground outside the defensive wall (Fersini, 2024). Thanks to the new working method, it was possible to accurately and completely non-invasively locate the deep foundations of the outer wall, which was as long as the main wall and served as the first defensive barrier (Figure 2). The style of the vases, although locally developed, recalls that of the contemporary ceramics of the Milazzese Village of Panarea, in the Aeolian Islands, and that of the Thapsos Style vases, so named after the well-known prehistoric site discovered on the Magnisi peninsula in the Syracuse area.



Figure 2. Fortificazione preistorica Ustica.

Santuario di Polizzello (CL)

The archaic sanctuary of Polizzello was built in the second half of the 8th century BC on the acropolis of the mountain of the same name, approximately 900 meters above sea level, over pre-existing rectangular structures dating to the Late and Final Bronze Age phases. The large sacred area is enclosed by a temenos wall, the wall that surrounds the sacred space, separating it from the profane (Figure 3).

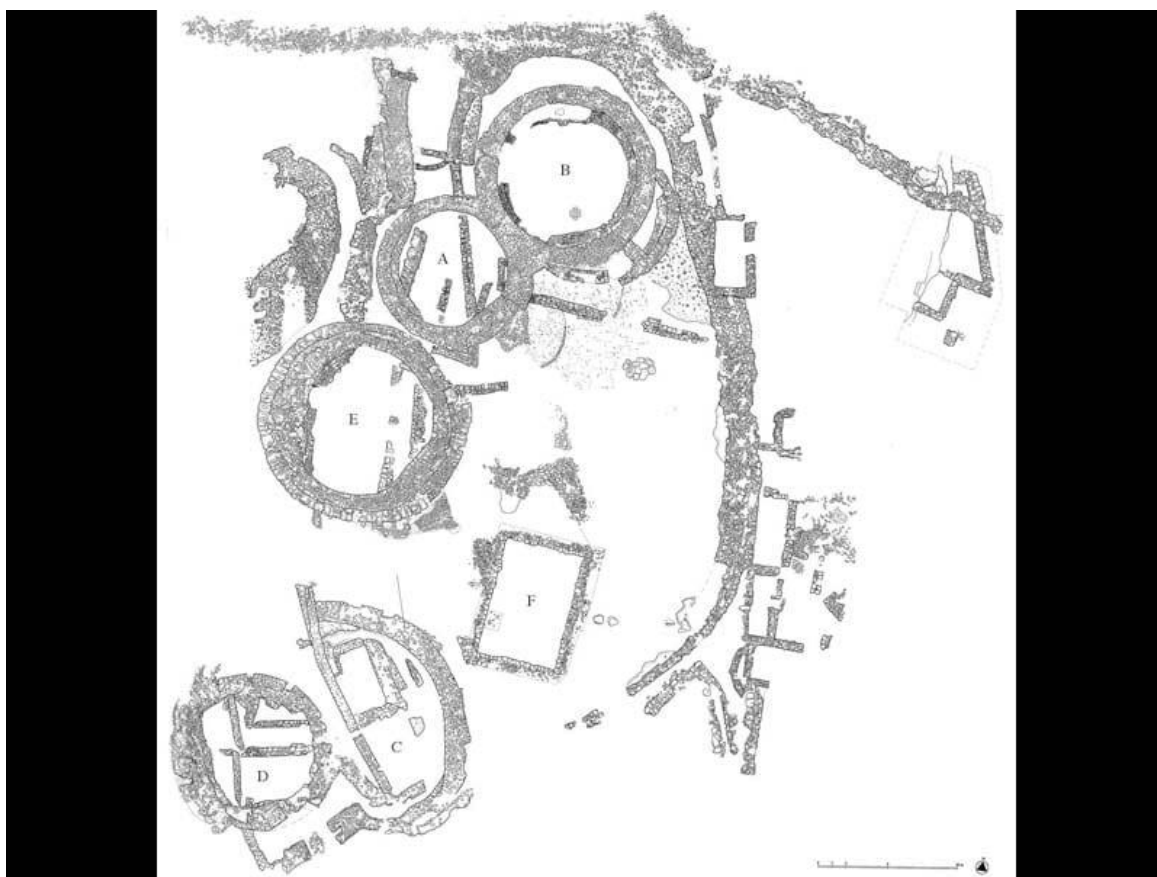


Figure 3. Planimetria con fortificazione di Polizzello.

Other examples of Bronze Age fortified villages are known in eastern Sicily (Petraro di Melilli and Thapsos) and on Pantelleria, where a monumental enclosure wall delimits the village of Mursia.

Stentinello (5000 B.C.)

It is a fortified village from the Neolithic period (8000 BC) that gave its name to an eponymous cultural facies. Walking through the village, you can see the holes for the posts of the huts, which here were rectangular. The village features a characteristic fortification trench (a ditch that encircles an oval-shaped area of approximately 200 x 180 meters) dug into the limestone and reinforced with a stone agger inside.

Ispica (2200 B.C.)

Natural defenses were the thick, dense vegetation and the river that flowed at the bottom of the valley, fordable in a few places and which divided the Cava into two parts. There was also a natural barrier consisting of an enormous block of rock that closed the passage towards the current town of Ispica, to the south of the Cava. Later the inhabitants added real fortification works described as a “megalithic wall” [unsourced]. This area is in fact referred to as the “Barriera.” (Figure 4). The archaeologist Pace states that the caves of the Cava d'Ispica are to be distributed over a couple of millennia, even if they have “already all been fancifully attributed to very ancient peoples and ages.” The most ancient ones are to be attributed to the Sicani, who lived here for many centuries, delayed, because they were isolated, in their traditional forms even during the classical age. But for the most part they are catacombs from early Christianity, such as the “Grotta della Larderìa,” cave dwellings, sanctuaries (Santa Maria and San Pancrati), dating back to after the 6th century AD.



Figure 4. Fortificazione preistorica Ispica.

Pantelleria (2300-1000 B.C.)

Pantelleria's prehistoric fortifications are represented by the monumental Muro Alto di Mursia, an imposing wall dating back to 1750-1450 BC (Bronze Age) that protected the village of the same name, located on the northwestern coast. Two hundred meters long, originally 7-8 meters high, and with a 10-meter base, it is one of the most extraordinary examples of defensive structures of the period in the Mediterranean (Cattani, 2001) (Figure 5).



Figure 5. Fortificazione preistorica Pantelleria.

Conclusions

Beginning in the Neolithic, prehistoric warrior societies in Sicily developed primarily during the Late Eneolithic and Bronze Ages (c. 2300–1000 BC), a period when the island became a strategic crossroads for trade in the Mediterranean. Craftsmanship and influences from the Aegean Sea favored the emergence of a complex social organization, often structured into tribes or “chiefdoms,” with a warrior ruling class.

The dominant elements of Sicilian warrior societies were undoubtedly Aegean contacts and the presence of Mycenaean goods and cultural models, which influenced the emergence of warrior elites, forcing communities to build defensive settlements, a sign of a growing need for protection and territorial conflicts. The Castelluccio Culture also introduced a settlement model organized for defense, with the development of social hierarchies through the establishment of chiefdoms (a dominant site surrounded by numerous villages), for better defense across the territory.

In any case, Sicily has demonstrated its ability to build a structured society capable of organizing territorial defense.

Unfortunately, archaeological research, given the vastness of the island, is proceeding haphazardly, but the numerous conferences organized represent an opportunity to discuss new scientific data.

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