

Grotta Mora Cavorso

During the Neolithic Age

Grotta Mora Cavorso During the Neolithic Age

Edited by

Mario Federico Rolfo,
Katia Francesca Achino,
Maurizio Gatta,
Leonardo Salari
and Letizia Silvestri

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FOREWORD

BY ROBIN SKEATES

Our knowledge of the Early Neolithic in West-Central Italy has been transformed in recent years by new archaeological fieldwork and scientific data. As in East-Central Italy, we can now see a rapid initial spread of agricultural communities from c. 5800 cal BC—along the Tyrrhenian coast, through the island archipelagos, and deep inland—followed by a long period of consolidation and growth in socio-economic networks and in related ritual practices. In Lazio, Early Neolithic communities extended from the Tyrrhenian islands and coast (e.g. Pyrgi), across the lowland plains and hills (e.g. La Marmotta, Tenuta Torrenova, Guidonia, San Pietrino), up into the Simbruini Mountains (e.g. Grotta Mora Cavorso, Grotta Le Fosse). Connections between them are indicated by the widely shared use of Impressed Ware, as well as by the circulation of insular obsidian. Recent excavations of two contrasting but complementary sites have added significantly to our understanding.

The village of La Marmotta tells us much about daily life in an Early Neolithic settled community. It lies on the edge of Lake Bracciano, a large freshwater lake situated about 20 km inland from the Tyrrhenian coast. Underwater excavations have identified the remains of 14 wooden houses. These have been dated by dendrochronology to 5538–5290 BC (and by radiocarbon to c. 5500–5200 cal BC). Five dugout canoes of oak, accompanied by large wooden paddles, have also been found. Their significance to the community might be reflected in the numerous boat models of clay found at the site. Other wooden artefacts include sickles with flint blades, cups, plates, spoons, and spools. Basketry, textiles and cordage have also been identified. Inorganic artefacts include: pottery vessels—some decorated with cardial impressed, incised and painted motifs; ground stone querns, axes and ornaments; and flaked flint and obsidian blades. All the standard Neolithic domesticated species are present in the faunal assemblage, all usually slaughtered at a young age and therefore exploited primarily for their meat, and two types of domestic dog. A variety of wild species was also hunted. The lake-edge environment, with its fertile volcanic soil, also supported the cultivation and gathering of an equally wide range of edible domestic and wild

plants. However, only a few human remains were found at this site: all teeth from living members of the community.

Quite the opposite is the case at the Early Neolithic cave site of Grotta Mora Cavorso, which tells us about the ways of death of members of a contemporary community, in addition to deepening our understanding of their rather different lived lives. This site lies on the steep side of the upper Aniene Valley, at an altitude of 715 m in the Simbruini Mountains, about 65 km inland from the Tyrrhenian coast. Initially, from as early as 5850 cal BC, the upper chambers, illuminated by the cave entrance, were dwelt in sporadically by small-scale Neolithic groups, as evidenced by hearths, pits and cultural deposits containing small quantities of ceramics, lithics and animal bones, including domesticated sheep/goat. Four centuries later, between c. 5400–5200 cal BC (contemporary with the occupation of La Marmotta) the inner part of the upper chamber and a tortuous series of dark and humid lower chambers and corridors were repeatedly used by the living in rites of passage. These resulted in the underground deposition of the remains of at least 28 deceased individuals—initially as articulated primary depositions. Small quantities of cultural materials deposited alongside included impressed, incised and painted pottery, ornaments of shell, steatite, bone and clay, a polished greenstone axe-head, chipped stone tools, and lamb meat bones.

The evidence for human diet and subsistence helps to contextualise this site-specific information. The overall faunal assemblage from the cave comprised herded and hunted species: sheep/goat, pig, cattle and dog, and hunted animals ranging in size from red deer to hare. Plant food traces included a cereal grain, a seed, Panicoid grasses, olive and Cornelian cherry. Given the agriculturally marginal location of the cave, it is interesting to note that the deceased human individuals belong not only to both biological sexes but also to all age classes. Assuming they died within the environs of the cave, this could suggest that family groups moved along the Aniene Valley, perhaps seasonally between the lowlands and uplands, and even on into the intermontane Fucino Lake basin, sustained by their herded animals and by hunting and gathering. This impression is supported by stable carbon and nitrogen isotope analyses of the human remains, which indicate a diet based on a large proportion of meat and animal-derived protein, and only a low proportion of cereals. Whether or not these people carried hunter-gatherer ancestry in their genes, their relatively mobile herder-hunter-gatherer lifestyle indicates that there was more than one way to be ‘Neolithic’ in Central Italy during the sixth millennium BC.

On behalf of all scholars interested in the Italian Neolithic, I thank the authors for sharing the results of their multi-method research in Mora Cavorso through this informative volume. As a result of their detailed work on a particularly complex set of cave deposits, we now know more about how the living engaged with the deceased as part of their dynamic lives in Early Neolithic West-Central Italy.

Robin Skeates
Department of Archaeology, Durham University, UK.

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For the second time this decade, we need to mention many friends and colleagues that have made this new volume on Grotta Mora Cavorso possible.

Once again, the Shaka Zulu Speleo Club of Subiaco comes first, and especially our dear Nerone and Elia, as well as the Cappa family, without whom this cave would have never been discovered, investigated, and made known worldwide for its archaeological significance. We are eternally grateful to you and the Sbaraglia family for your unconditional and invaluable support and friendship.

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CHAPTER I

INTRODUCTION

BY M.F. ROLFO, K.F. ACHINO, M. GATTA,
L. SALARI AND L. SILVESTRI

1.1 - Aims and objectives of the Grotta Mora Cavorso volume series

This volume series results from a decades-long research on one of the most important late prehistoric sites of Central Italy, Grotta Mora Cavorso (Jenne, Rome; referred to as GMC hereafter). The first volume (Rolfo *et al.* 2021) focused on the protohistoric and historic levels of the site, while a third and final volume, expected in a few years, will cover the Pleistocene, Palaeolithic, and Mesolithic/Early Holocene contexts. This second volume provides a complete overview of the Neolithic layers of the cave.

The aims of this series are manifold. First, we intend to provide a complete critical overview of this archaeological site in its context. This will be accomplished by offering a comprehensive analysis of the historically and archaeologically known evidence of the Upper Aniene Valley area, with a special, but not exclusive, focus on GMC. This will allow other scholars to incorporate a large body of new data into future research, both on a micro-scale and on a macro-scale. There has been little interest in our knowledge of the archaeology here for too long, especially the prehistory of such an important region. Secondly, we intend to enlighten the non-academic audience about an unexplored archaeological area, thus helping local institutions to use the published information to increase tourism here. The Upper Aniene Valley, partially included in the protected Regional Natural Park of the Simbruini Mountains, is a naturalistic treasure, rich in rare and endangered wild fauna and flora, boasting a wealth of forests, pure water springs, watercourses, and natural caves with impressive speleothems. It is also characterised by some of the most ancient and remarkable Late Antique and medieval monasteries in Europe. The area is also quite renowned for its

trekking routes, as well as for its medieval religious and artistic attractions, while prehistoric archaeology plays only a marginal role in tourism for the moment. By making the results of our research internationally available, we hope to provide one more, crucial reason, to visit this wonderful area.

The last key aim of this series is to offer a working example of how a multidisciplinary and contextual approach can sensibly improve the understanding of archaeological sites. The results of our research on GMC and its context prove that integrating a wide range of disciplines, from hard sciences to social sciences, can lead to an unexpectedly enhanced understanding of the history of a site. Therefore, we hope similar holistic approaches as ours will be adopted for future cave research in Italy and elsewhere, so that cave sites no longer suffer from being studied in isolation or limited ways.

1.2 - Aims and objectives of Grotta Mora Cavorso – Volume 2

Why did humanity deliberately choose to abandon a hunter-gatherer lifestyle? What event or human-based decision led groups, around 10,000 years ago in the Southeastern Mediterranean, to consciously opt to become food producers, marking the prehistoric phase known as the Neolithic? The answers—indeed, there are many—are diverse and, at least theoretically, all plausible. Scholars have suggested reasons ranging from the need for new forms of sustenance in a rapidly changing environment to the pursuit of lifestyles that could support larger communities requiring more food supplies. Some researchers argue that the driving force may have been the search for a sacred entity created "in their image and likeness" (Cauvin, 1994; Boyer, 2001; Schmidt, 2006).

What is certain is that after these radical decisions, human life in the Mediterranean basin was never the same. Within a few millennia, the Neolithic spread across the Mediterranean, reaching the Italian peninsula and beyond.

The site under study, GMC (Jenne, Latium, Central Italy), and the discoveries made there form part of this great movement. They reveal diverse stories that contribute to a much more complex human dynamic. These findings speak of a Neolithic community of farmers, herders, and hunters navigating the inland mountainous regions of the Italian peninsula, moving along river valleys, and exchanging goods with other human groups. The people of this community lived, died, and buried their dead in ways never seen before,

laying their loved ones to rest in the heart of a mountain. The cave thus became both a refuge and a tomb, a shelter, and a place of peace.

For archaeologists, such prehistoric use of the cave turns it into a privileged repository, preserving and returning fragments of the past. Through archaeological excavation and laboratory study, these fragments are scientifically explained and later narrated in an accessible and engaging way. They are rediscovered histories—one story, or many brought back to memory and retold.

The most significant archaeological evidence from GMC pertains to the prehistoric period known as the “Neolithic.” But what exactly is the Neolithic? Beyond the chronological and cultural label applied by scholars, it is a pivotal period in human prehistory, marked by economic and social transformations and population movements. Prehistory is foremost a history of humans and their migrations, encounters, and clashes.

This work first defines this period within the framework of human prehistory and illustrates its spread within the Italian peninsula, particularly Central Italy (Chapter I). Subsequently, we discuss conducted archaeological research, discoveries, and the excavation of the burials and Neolithic ossuary (Chapter II). We then examine the archaeological materials from pottery finds, to faunal remains, and stone artefacts (Chapters III to VI). These findings provide insights into the site’s occupational dynamics and the characteristics of the community that frequented it.

Finally, we present the bioarchaeological evidence, including studies on botanical remains (pollen) and anthropological analyses of the human remains from the necropolis (Chapter VII). Lastly, we introduce the micromorphological data, which reconstructs the occupation dynamics within the cave's habitation layers and identifies the economic practices carried out at the site (Chapter VII).

The conclusions (Chapter VIII) will reinterpret the collected data from a historical perspective, attempting to delve into the “emotional” choices of a Neolithic agropastoral community that imbued the cave as a place with strong symbolic and ritual value.

1.3 - The Neolithic: the first human “revolution”

The “Neolithization” phenomenon attested in the Tyrrhenian side of Central Italy is part of a broader process of acculturation and demographic diffusion

of the “Neolithic package” originating from the Balkan area; it first appeared in Southeastern Italy and rapidly spread to the Adriatic coasts of Central Italy.

The process of “Neolithization” dated between the 9th-8th millennium BC and originating in the Near East, is characterised by a transition from a foraging economy to one based on production, agriculture, and livestock, together with the technological innovation of pottery production. The “Neolithic package” remained predominantly consistent throughout the Mediterranean basin between the 9th and 4th millennium BC, although expressed in diverse cultural forms. This combination of demographic diffusion and the acculturation of Paleo-Mesolithic populations shaped Europe over more than four millennia, fostering new forms of aggregation and power structures; among these, the creation of large villages, the beginning of lineage-based kinship structures, and the advent of social differentiation are the most relevant. These important economic and cultural transformations are evident in the archaeological record; key examples include evidence of increased village dimensions, the introduction of defensive structures within settlements, diversified funerary practices (inhumation, collective burials, ossuaries, and ritual depositions of selected human bones) and the onset of long-range trade networks.

These transformative features that changed the lives of prehistoric populations led scholar Vere Gordon Childe to coin the term “Neolithic Revolution” in the 1930s (Childe, 1936).

A century later, this term, while still in use, has been revisited and refined, thanks to the contributions of numerous scholars. Today, the term Neolithic encompasses a profound transformation of symbols, cults, and religious practices, deeply interwoven with an economy based on agriculture and animal husbandry. This “Neolithic package” stimulated a dynamic process that crossed Europe from southeast to northwest to the Atlantic coasts and the British Isles.

1.4 - The early Neolithic of Central Italy

A comprehensive understanding of the Neolithization process along the Tyrrhenian side of Central Italy is currently not possible, partly due to the lack of systematic research on the territory. Most studies focus on later chronologies and more striking archaeological evidence, such as the multiple and collective burials in artificial caves dated to the Eneolithic. Similarly, studies often devote research on the introduction of complex

settlement systems intended for territorial control, attested from the end of the third millennium BC. Based on this framework, only a few specific publications note Neolithic archaeological testimonies of sporadic settlements and/or collective burials in natural caves, to the detriment of a preferred broad territorial overview. Despite the limited dataset, the significant collective work “Le ceramiche impresse nel Neolitico antico in Italia e nel Mediterraneo” (Fugazzola Delpino *et al.* 2002), focusing on impressed pottery and its diffusion, represents a valuable resource. Nevertheless, many aspects of the Neolithization process remain unclear. Anzidei and Carboni (2020) provide an interesting contribution to the reconstruction of settlement dynamics during the Neolithic; unfortunately, they limit the study to the territory within the municipality of Rome. The scarcity of Mesolithic evidence along the Tyrrhenian area, restricted to a few, often coastal, sites, further complicates the reconstruction of the Neolithic context. The Castelnovian Mesolithic facies, widely attested in northern Italy, is rare in the Tyrrhenian area. Here, researchers identify an undifferentiated Epipaleolithic phase, transitional to the Mesolithic and early Holocene (Lo Vetro and Martini, 2016). Key sites such as Riparo Blanc and Grotta della Serratura on the Latial and Campanian coasts, as well as Grotta Continenza at Trasacco and Grotta di Pozzo in Abruzzi, which boasts both Castelnovian facies and Souveterrian facies, belong to this chronological framework. The internal areas of the Tyrrhenian region, far from the coasts, subjected to swamping, favour the Neolithization process (Fugazzola Delpino, 2002). However, we cannot rule out that the constant rising of the sea during the early Holocene led to a loss of information along coastal areas. The changes to coastlines could have covered sites closest to the ancient coasts, except for the sites of Pyrgi and Palidoro (Fig. 1-1, 30; see Anzidei, 1987; Fugazzola Delpino *et al.* 1999; Silvestri *et al.* 2020 and bibliography within). Early Neolithic settlements therefore favoured hilly areas along river communication axes, such as Poggio Olivastro, Torre Crognola, and Monte Rozzi (Fig. 1-1, 27), or the reliefs of the Tolfa Mountains (see the sites of San Pietrino, Grottini di Rota, Tufarelle, and Bufalareccia (Fig. 1-1, 25, and 26). The settlements of “La Marmotta” at Bracciano, and Monteverene near Vico Lake are located further inland but still in humid areas. Close to wetlands and waterways, or on plateaus, are the southern sites of Casale del Pescatore (Fig. 1-1, 31), Le Caprine di Montecelio, Marco Simone, and Colle della Capriola (Fig. 1-1, 17). Finally, it is worth mentioning the funerary sites of Grotta Antica, at Sant’Oreste (Fig. 1-1, 23) and Grotta delle Sette Cannelle at Ischia di Castro (Fig. 1-1, 18). At Grotta Antica, located on the slope of the Soratte Mountain, there was a scattering of human remains across the internal surface of the cave,

representing a typical collective burial practice, also seen at GMC (Fig. 1-1, 15). Those from Grotta delle Settecannelle practised selective burial and particular ritual practices, as seen through evidence of the child's skull placed in a circle of stones on a potsherd covered in red ochre. Extensive territorial research by the Superintendency of Rome brought to light at least 12 Neolithic archaeological contexts within the municipality of Rome, indicating an increasingly widespread human presence during the earliest phases of the Neolithic (Delpino, 2020a). However, the fragmented nature of the data prevents a cohesive reconstruction of territorial occupation patterns. Along the Adriatic coast of Central Italy, there is Neolithic evidence along the coastal areas and inland, as in the Fucino area, at Santo Stefano (Fig. 1-1, 10), Continenza (Fig. 1-1, 12), Paterno, Praja and Sant'Angelo (Fig. 1-1, 6) (Grifoni Cremonesi, 2003). Cultural and funerary practices took place in natural caves in this area, as at Grotta Sant'Angelo and Grotta Continenza, where there are burials of adults, young, children, and infants, as well as the deposition of slaughtered dogs, sheep, and pigs (Wilkens, 1990; 1996).

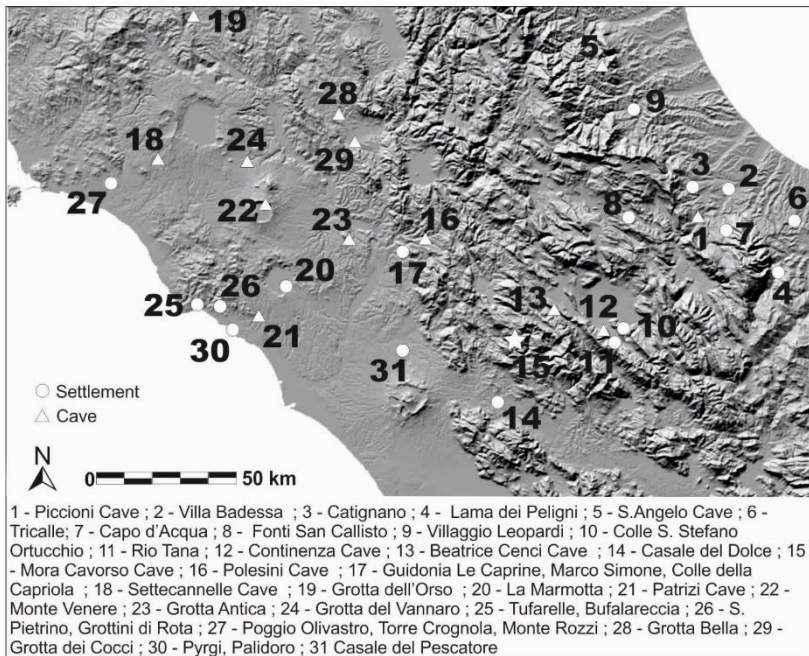


Fig. 1-1. Topography of Early Neolithic Sites in Central Italy.

1.5 - The Middle and Recent Neolithic in Central Tyrrhenian Italy

Between the 5th and 4th millennium B.C.E., the Neolithic did not spread widely in the middle Tyrrhenian area: the pedological features of the volcanic soils within the Roman countryside were not well-suited for technologically advanced agriculture; therefore, the introduction of the plough and irrigation did not come about until the 3rd millennium. Following these technological innovations, human presence was more widespread in flat areas, humid territories, and near watercourses. There is territorial continuity for settlements in the coastal areas of Palidoro and Pyrgi, while Setteville in northern Rome (Fig. 1-2, 2) and Valle Ottara (Fig. 1-2, 4) are examples of inland settlements. The settlement of Quadrato di Torre Spaccata and the few potsherds from Tenuta di Torrenova in the southeastern suburbs of Rome (Fig. 1-2, 6) date back to the Late Neolithic. In Southern Latium, notable examples are the systematically excavated settlement of Casale del Dolce (Fig. 1-2, 2) and the Neolithic site of La Selva/Colle Rampo (Fig. 1-2, 7). There is also much archaeological evidence in the southeastern sector of Rome, dated to the late Neolithic, within the alluvial plains on the slopes of the Alban Hills, thanks to the systematic research conducted by the Capitoline Superintendency (Delpino 2020b; La Marca 2020). Occasional visits to natural caves have been reported at Cavernette Falische and Grotta del Vannaro (Vt). At Grotta Patrizi (Sasso di Furbara, Cerveteri; Fig. 1-2, 3), there were burial depositions in natural caves, with human remains scattered over the walking surface. An exception is an undisturbed burial covered by a dry-stone wall; it is an adult male with various pathologies and with signs of a cranial trepanation, buried with fauna and potsherds as grave goods (Grifoni Cremonesi and Radmilli, 2001). Neolithic evidence in Central Tyrrhenian Italy and Latium suggests limited human presence between the 6th and 4th millennia. This “leopard-spot” presence changed in the subsequent Eneolithic period when the archaeological data suggests a more widespread human occupation in the region. This occupation is especially reflected in funerary evidence within the river plains between the Tiber, Sacco, and Aniene. At the beginning of the Metal Age, altered socio-economic conditions, combined with a different strategy of territory occupation, played a pivotal role, allowing a more organised control of the territory and the inland and coastal communication routes. The dawn of the final phase of prehistory gave way to the rise of new processes of social transformation, first characterised by “urban transformation” and followed by the creation of local city-states and then regional states for much broader reasons.

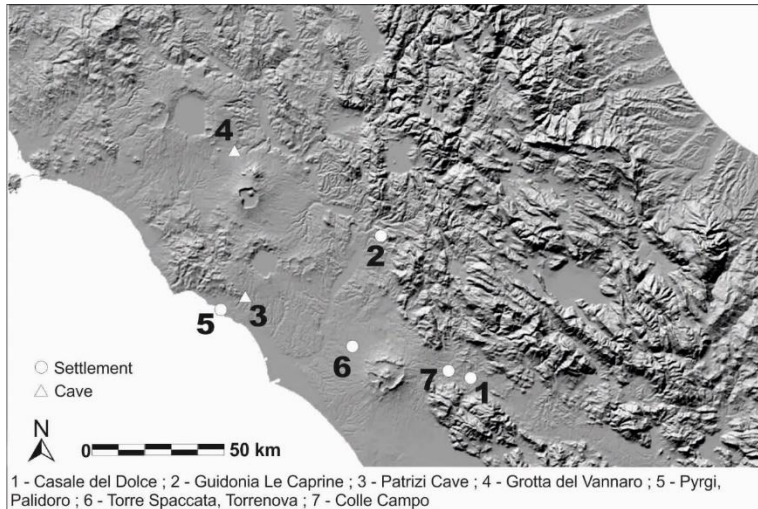


Fig. 1-2. Topography of Late Neolithic Sites in the Central Tyrrhenian area.

1.6 - The Neolithic of Aniene Valley - with the contribution of P. Ceruleo

Following the discovery of the archaeological site of GMC, a multidisciplinary survey project began parallel to on-site research to record the pre-protohistoric human presence in the Aniene Valley's caves. This project has led to the discovery of archaeological remains, and in some cases of rock art, in several newly found and previously known caves. In addition, to contextualize the GMC within the Aniene Valley's human occupation dynamics, we surveyed partially published cave sites in the area. For each cave, a map, and a profile, along with records of exact locations and elevations, are available. For completeness, we report historical archaeological evidence in the surveyed caves. This section introduces archaeological sites with archaeological evidence dated to the Neolithic and connected with the GMC findings. Over the past century, many scholars have taken an interest in the Aniene Valley, including the notable examples of G. De Angelis D'Ossat and C. Maxia for geology; L. Ceselli, G. Ponzi, U. Rellini, C. Piccolini, A. M. Radmilli, F. Sciarretta, F. Festuccia, F. Zabotti and P. Ceruleo for archaeology. In the Aniene Valley, apart from the polished stone axes cited by De Angelis D'Ossat (1897) discovered along the course of the Aniene, Neolithic evidence is limited, often decontextualised, and of uncertain provenance. Overall, there are two

categories for Neolithic evidence in the Aniene Valley: the first includes evidence found in well-dated and explored sites, both in caves and outdoors; the second offers sporadic evidence, mostly recovered on the surface, without reliable archaeological data and classified only according to their typology. Sites found in the second half of the 19th century and the first half of the 20th century fall into this last category. For this study, we divided the Aniene Valley into three areas: the Upper Aniene Valley - from its springs to Subiaco -, the Middle Aniene Valley - from Subiaco to Tivoli- and the Lower Aniene Valley - from Tivoli to the Tiber.

1.6.1 - The Upper Aniene Valley

Very few Neolithic evidence have been found in this area; in addition to GMC only Grotta Le Fosse (Vallepietra, RM) (LA 2231), recently discovered in the municipality of Vallepietra (locality “Le fosse”), near Colle Mariano should be mentioned (Fig. 1-3; Rolfo *et al.* 2024). The cave opens along a cliff at 1300 m above sea level, and there are numerous other, non-archaeological caves here as well. At the cave entrance, there is a large circular room, with small karst niches that branch off it. There are recent animal burrows present in the niches, with visible accumulations of soil. The evidence suggests an older cave occupation, particularly the mixed and semi-depurated pottery and obsidian remains. It is worth mentioning an oval pot with traces of black paint under the rim (Fig. 1-3, D), a retouched flint blade (Fig. 1-3, C; double oblique truncation), and an obsidian splinter. The abundant remains of domesticated and wild animals are currently under study. The archaeological evidence indicates an early phase of the Neolithic (facies Ceramiche impresse Tirreniche). A radiocarbon date of 6186 ± 40 BP (5218 BCE) from faunal remains is significantly close to the GMC dates.



Fig. 1-3. Grotta Le Fosse: A-B) Inside of the cave; C-D) Some of the finds discovered.