On the Paths of Prehistory

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On the Paths of Prehistory

Tracking mobility and relationships from Neolithic to Bronze Age in central Sicily

Dario Calderone

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Contents

List of Figures and Tables ..... **ii**
Acknowledgements ..... **v**
Introduction **1**
Chapter 1. Presentation of the Case Study **3**
Geomorphology and topography of Milena area 3
Prehistoric archaeological context 6
The Neolithic and Eneolithic phases 6
The phases of the Bronze Age 8
Chapter 2. The Prehistoric Landscape of Milena **11**
Dominant settlement trends 11
Milena in the Neolithic and Eneolithic periods 12
Milena in the Early Bronze Age 13
Milena in the Middle Bronze Age 14
Open problems and prospects for research, protection, and valorisation 15
Chapter 3. Methods **17**
Data collection in the field – The use and contribution of UAV technology and photogrammetry 17
The use of GIS applications 22
Use of satellite remote sensing 23
Application of multispectral remote sensing 23
Chapter 4. Discussion of the Data, Prehistoric Routeways, and their Relationship with Historical Roads **26**
Middle Neolithic Period to the Early Copper Age 29
The Late Copper Age to the Middle Bronze Age 35
Pathways and cultural relations during the Bronze Age 38
Ancient routeways through Serra del Palco towards the Agrigentine coast 38
Ancient routeways through Sant'Angelo Muxaro to the Agrigentine coasts 41
Conclusion **44**
Bibliography **46**
Appendix: Topographical Catalogue of Sites **59**
Catalogue of archaeological sites 95

List of Figures and Tables

Figure 1. Map of Sicily showing the location of the territories Milena, Campofranco, and Sutera around the rivers Platani and Gallo d'Oro in the white box. Colorized version of the DEM from Tinitaly DEM made available by the Sezione di Pisa Istituto Italiano di Geofisica e Vulcanologia (Tarquini et alii 2007; 2023). 3

Figure 2. Aerial photograph of the Sicani Mountains in the Milena area. 4

Table 1. Archaeological phases, their absolute chronology of Sicilian prehistory, combined with ceramic styles 7

Figure 3. Areas with signs of occupation during the Neolithic and the Copper Age. 7

Figure 4. Areas with signs of occupation during the Bronze Age in the Milena territory. 9

Figure 5. Entrance to the Tholos B at Monte Campanella (photo by the author). 9

Figure 6. Position of Tholos tombs in the territory of Milena. 10

Figure 7. Milena, Serra del Palco. CTR regione Sicilia overlayed by orthographic UAV photo. The locations of the different prehistoric settlement phases are marked in color. Neolithic settlements are marked by a green dot, Copper Age settlements in red, and Bronze Age settlements in orange. 11

Figure 8. Milena, Monte Conca. CTR regione Sicilia overlayed by orthographic UAV photo. The locations of the different prehistoric settlement phases are marked in color. Neolithic settlements are marked by a green dot, Copper Age settlements in red, and Bronze Age settlements in orange. 12

Figure 9. Tombs located on the rocky spur in Lantaro Minico (photograph by the author). 18

Figure 10. Dense point cloud of the aerial photogrammetric survey of a site made with 3DF Zephyr software 19

Figure 11. Textured mesh of the aerial photogrammetric survey of a site made with 3DF Zephyr software 19

Figure 12. The DEM of Monte Conca (Milena-CL) created with the 3D model resulting from aerial photogrammetry images from a drone and processed with the 3DF Zephyr software. 20

Figure 13. Orthophoto processed with the 3DF Zephyr software and extrapolated from the three-dimensional model created with aerial photogrammetric image sets collected by a drone in the the locality of Rocca Aquilia (Milena-CL). 20

Figure 14. Finished 3D model, processed with 3DF Zephyr software. Courtesy of the Regional Department of Cultural Heritage and Sicilian Identity - Soprintendenza BB. CC. AA of Caltanissetta 21

Figure 15. Flowchart of the image preprocessing. 24

Figure 16. Archaeological areas of Mustansello and Cimicia-Finaita: a) the hut identified in the Cimicia-Finaita area, b) the orthophoto of the Cimicia-Finaita archaeological site captured by drone aerial photography, c) the area of Mustansello, as seen through a multispectral filter, revealing traces of prehistoric archaeological remains. 24

Figure 17. Positions of overlapping medieval and prehistoric archaeological sites around the medieval road system on the colorized version of the DEM from Tinitaly DEM (made available by the Sezione di Pisa Istituto Italiano di Geofisica e Vulcanologia; Tarquini et alii 2007; 2023).....28

Figure 18. Territory of the municipality of Milena: Relationship between the River Gallo d'Oro and the principal mountain peaks on the Carta Tecnica Regionale (Regione Sicilia).....29

Figure 19. Distribution of Neolithic settlements along the territory of Milena in relation to the mountain ranges and the flow of rivers and streams on a colorized version of the DEM from Tinitaly DEM (made available by the Sezione di Pisa Istituto Italiano di Geofisica e Vulcanologia; Tarquini et alii 2007; 2023).....31

Figure 20. Positioning of the ruins of the so-called 'Roman bridge' over the Carta Tecnica Regionale
(Regione Sicilia).....32

Figure 21. Monte Conca, reconstruction of the medieval road route in correspondence with the so-called Roman bridge over the Carta Tecnica Regionale (Regione Sicilia).....32

Figure 22. The reconstructive hypothesis of the location of prehistoric routes, superimposed on the medieval roads around the Conca and Paolino mountains, subsequently developed in a southerly direction, reaching the bottleneck between Monte Maniscalco and Rocca Amorella over the Carta Tecnica Regionale (Regione Sicilia). 33

Figure 23. Medieval period routes and hypothesized prehistoric paths near Serra del Palco and the Neolithic settlement superimposed on the Carta Tecnica Regionale (Regione Sicilia).34

Figure 24. Reconstruction of Neolithic period pathways in the territories of Campofranco and Milena. Generated from Map data 2015 ©Google.....35

Figure 25. The hypothesis about the pathways through the Milena territory during the Copper and Bronze Ages in the direction of Monte Grande and Serra del Palco (Calderone 2024). Generated from Map data 2015 ©Google. 36

Figure 26. Tholos tomb in Pizzo Menta (photo by the author).....37

Figure 27. Interior of the Tholos at Pizzo Menta (photo by the author).....37

Figure 28. Distribution of the Grotticella and Tholos tombs in the municipality of Milena. 39

Figure 29. An example of a Grotticella tomb in the Mustansello area (photo by the author).....39

Figure 30. Viability hypothesis about the positioning of the course of the Platani River and the towns of Milena and Sant'Angelo Muxaro. Generated from Map data 2015 ©Google. 42

Figure 31. Grotticella and Tholos tombs in Rocca Aquilia.....43

Figure 32. San Paolino and Mezzebi, areas with signs of occupation on Neolithic, Copper Age, and Bronze Age sherds CTR, 1: 5,000 scale.....59

Figure 33. Cimicia-Finaita, areas with signs of occupation on Copper Age, Bronze Age, CTR, 1: 5,000 scale.....60

Figure 34. Rocca Aquilia I-II-III, CTR, 1: 5,000 scale.....63

Figure 35. Rocca Aquilia I-II-III, CTR, 1: 5,000 scale.....64

Figure 36. Rocca Aquilia I-II-III, areas with signs of Byzantine occupation, CTR, 1: 5,000 scale. 64

Figure 37. M. Grande I-II-II-IV-V, CTR, 1: 2,500 scale. 67
Figure 38. Mustansello I-II, CTR, 1: 5,000 scale. 68
Figure 39. Chiartesì, CTR, 1: 5,000 scale. 69
Figure 40. Zellante, CTR, 1: 5,000 scale. 70
Figure 41. Zellante, CTR, scale 1: 5,000. 71
Figure 42. Baruna, CTR, 1: 5,000 scale. 72
Figure 43. Raffo Piano Zazzi, CTR, 1: 5,000 scale. 73
Figure 44. Cozzo Reina, CTR, 1: 5,000 scale. 74
Figure 45. M. Conca, West-Gola Zubbio-Carruzzata, CTR, 1: 5,000 scale. 76
Figure 46. M. Conca West area-Gola Zubbio-Carruzzata, CTR, 1: 5,000 scale. 76
Figure 47. M. Campanella, CTR, 1: 5,000 scale. 77
Figure 48. Pirito Rocca Amorella I-II, CTR, 1: 5,000 scale. 79
Figure 49. Serra del Palco Mandria, CTR, 1: 3,000. Scale. 80
Figure 50. Serra del Palco Mandria, CTR, 1: 3,000 scale. 81
Figure 51. Locality of Buonanotte, reports on CTR map, 1: 5,000 scale. 82
Figure 52. Monte Raffe I-II, CTR, 1: 5,000 scale. 85
Figure 53. Rocca Ranni I-II, CTR, 1: 5,000 scale. 86
Figure 54. Piccirillo, Bronze Age area on CTR map, 1: 5,000 scale. 87
Figure 55. Lantaro Minico, reports area on CTR map, 1: 5,000 scale. 92
Figure 56. Vetrano, Iannicu and Pietroda Romana, CTR, 1: 5,000 scale. 93

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Introduction

This work presents the results of research on the hilly and slightly mountainous area among the Sicani Mountains in the province of Caltanissetta, in the central-southern region of the island of Sicily, that falls within the borders of the municipalities of Milena, Sutera, and Campofranco. The municipality of Milena is mainly an agricultural area with a great deal of natural landscapes that are protected by law, such as the Monte Conca natural reserve as well as tracts of forested land protected by the state government. Because the region was never heavily urbanized, archaeological assets in the area are often found in relatively uncontaminated natural contexts. The study of the geographical locations of archaeological sites and the analysis of prehistoric and historical roads were essential in creating an in-depth map of the territory. This map helped identify where archaeological evidence is located and where the passage of the Francigena path is recorded. The Magna Via Francigena, a pilgrimage route connecting Palermo to Agrigento, passes through most archaeological sites analyzed. The multidisciplinary research project presented in this volume combines archaeology, geomorphology, remote sensing, and digitization of cultural heritage to create an updated topographical catalog of the archaeological heritage in this part of the island. The catalog at the end of the book shows the current condition and distribution of archaeological heritage in the area, which can contribute to the planning of new activities and future research. This part of the island has a great deal of archaeological evidence, with evidence of continuous human occupation from the Middle Neolithic period to the arrival of the Normans during the Middle Ages. The study begins by analyzing the territory from a strictly geomorphological point of view, in order to have a profound understanding of the geographical area of reference, including its orography and abundant water and mineral resources. From these analyses, the study moves on to topographical assessments, which answer strictly archaeological questions on prehistoric and historical road conditions.

The hinterland of Milena was extensively researched and excavated between the 1970s and the early 2000s. Despite being recognized for the natural and cultural importance of its landscapes, as demonstrated by a Landscape Piano created by the *Regione Siciliana* in 2015,[1] no new archaeological excavation activities have taken place in the area for over twenty years. This has created a significant gap in our knowledge and interpretation of the archaeological heritage present in the region, especially considering the technological advancements that archaeologists have used to support their research in recent decades. Therefore, the main objective was to refocus attention on this area by gathering the data obtained from research in the past and combining it with new non-invasive technologies such as GIS applications, satellite remote sensing, and aerial photography. The project also aimed to incorporate technological tools such as drones, cameras, and laser scanners to digitize the area's cultural heritage sites. Extensive research was conducted to identify and select the main issues related to the study and protection of the archaeological heritage. Special attention was given to prehistoric archaeological heritage since it is the most widespread in the Milena area. It was essential first to understand the most suitable approach to solving each problem without causing damage to these delicate archaeological assets. Specific interventions were carried out once a particular situation or need was identified. The interventions were executed using the correct methodology and tools to minimize errors, optimize time, and reduce costs.

[1] Piano Paesaggistico Regione Siciliana 2015, Ambiti regionali 6, 7, 10, 11, 12 e 15 ricadenti nella provincia di Caltanissetta.

The first chapter of the research focuses on analyzing the actual needs of prehistoric archaeological contexts. This involves a detailed identification of the unique characteristics and needs of an archaeological heritage that is essentially fragile and demanding. The subsequent part of the chapter describes in detail possible solutions to the problems identified in the first part of the chapter. After gathering this preliminary information, the second chapter focuses on a detailed description of the case study. The chapter starts by examining the geomorphological framework of the area, with a particular emphasis on the topography of the territory. This aspect is significant as the geomorphological conditions of the region over the centuries heavily influenced settlement dynamics. The presence of rivers and mountain ranges has also affected the road system in both historical and prehistoric eras, as it does today in an area where the road network is still lacking in some places. In the interest of comprehensive research that incorporates multidisciplinary knowledge to understand the past, ample space is given to the analysis of geological factors that may have influenced human settlement and productive activities such as the raising of livestock, agriculture, and mineral extraction. The same chapter also provides an in-depth review of previous studies highlighting the prehistoric settlements' systemic diffusion across the mountains and hills and their contact with the Aegean peoples during the Middle Bronze Age, evidenced by the presence of imported materials such as copper ingots. This part of the work is solely for compiling purposes and focuses on reconstructing the dynamics that have driven prehistoric communities to systematically and continuously settle in this area of Sicily over the millennia. Through the compilation of previous works and studies, the chapter describes the dominant settlement trends and cultural contexts created between the Middle Neolithic and the Copper Age, up to the Early and Middle Bronze Ages. The compilation of previous studies was also essential for constructing a GIS system that can accommodate the state of research and other relevant information, including the aggregation of geo-topographical and historical-archaeological data. It is the third chapter that begins to cover the experimental activities of the research, carried out with the contributions of both materiel and expertise provide by the Department of Civil Engineering and Architecture (DICAR) of the University of Catania. The chapter describes the work carried out in the field with the help of UAV technology, drone aerial photogrammetry, terrestrial photogrammetry, and remote sensing. It also explains the steps taken to acquire the data and their post-processing. The detailed explanation of these steps serves to benefit future archaeological research and valorization efforts for the heritage in the area, which will be discussed further in subsequent chapters. The team used remote sensing to tackle the challenge of dealing with a large territory and the impossibility of conducting new archaeological excavations in the short term. Modern technologies allowed them to obtain unpublished data without requiring new excavations. The same chapter also describes numerous other activities in the field, including mapping all archaeological remains and signs of occupation using drones and GPS. All the information gathered during fieldwork was entered into a GIS portal. This allowed for careful data analysis by relating them to each other and the findings from previous research conducted in the last century. Combining geological and geomorphological data made it possible to identify new settlements and hypothesize about prehistoric routes concentrated in certain areas. The data also provided insight into the relationships between this part of Sicily and the rest of the island and the Mediterranean. The fourth chapter organizes the collected data, creating a census of 46 different sites, each of which was verified in person, often requiring long journeys on foot due to the often rugged and mountainous terrain that was not always accessible by car. Each site in the census was mapped and described in a topographical catalog, which is included as an appendix to the book. The sites of the census are then considered and analyzed together to present new hypotheses about trade, productive activities, and settlement dynamics in the regions.