McDONALD INSTITUTE MONOGRAPHS

Temple places

Excavating cultural sustainability in prehistoric Malta

By Caroline Malone, Reuben Grima, Rowan McLaughlin, Eóin W. Parkinson, Simon Stoddart & Nicholas Vella

Volume 2 of Fragility and Sustainability – Studies on Early Malta, the ERC-funded *FRAGSUS Project*

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With contributions by
Stephen Armstrong, Jennifer Bates, Jeremy Bennett, Anthony Bonanno, Sara Boyle, Catriona Brogan, Josef Caruana, Letizia Ceccerelli, Petros Chatzimpaloglou, Nathaniel Cutajar, Michelle Farrell, Katrin Fenech, Charles French, Christopher O. Hunt, Conor McAdams, Finbar McCormick, John Meneely, Jacob Morales Mateos, Paula Reimer, Alastair Ruffell, Ella Samut-Tagliaferro, Katya Stroud & Sean Taylor

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This project has received funding from the European Research Council (ERC) under the European Union's Seventh Framework Programme (FP7-2007-2013) (Grant agreement No. 323727).

Published by:
McDonald Institute for Archaeological Research
University of Cambridge
Downing Street
Cambridge, UK
CB2 3ER
(0)(1223) 339327
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www.mcdonald.cam.ac.uk

ISBN: 978-1-913344-03-0

Cover design by Dora Kemp and Ben Plumridge.
Typesetting and layout by Ben Plumridge.

On the cover: *Digital scan of the Kordin III excavation in 2015, by John Meneely.*

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Dedication – in memoriam
John Davies Evans David Hilary Trump

Malta may be small in scale but it has had a rich and important archaeological past which has been explored and enjoyed by many past scholars. A visit to the Archaeology Museums of Malta and Gozo testifies to a long history of collecting, scholarship and passion dating back to the early to mid-nineteenth century. It is a heritage that is beloved by Malta and its visitors alike.

The editors of this volume wish to pay tribute to two remarkable 'visitors' to Malta, each of whom, in their own way, made great contributions to our present appreciation of the islands' ancient past and supported our early researches, teams and ideas. Now we want to record our debt as some of the continuing scholars of Maltese prehistory, since we cannot imagine where we could have begun our current quest to take the story onwards and deeper without their prior work.

On behalf of the whole *FRAGSUS* team, we wish to dedicate this volume to their enduring memory.

Professor John Davies Evans (OBE) (1925–2011) arrived in Malta in 1952 from Cambridge to commence the task of organizing the war-damaged museum collections in preparation for a synthesis of Maltese prehistory. His task was enormous, and involved a new assessment of the pottery and material culture sequence of Maltese prehistory. He prepared his now classic study *The Prehistoric Antiquities of the Maltese Islands*, published in 1971, which has remained the primary compendium of reference to this day. Together with carefully targeted excavations, John Evans set in train the many questions that inspired not only David Trump, his successor, to explore and challenge the complex story of Malta's prehistoric past, but also ourselves over the last 35 years. John noted important aspects of sequence, material connectivity and, of course, the temples. These he recorded and described in such detail that his work remains vitally important today.

David Hilary Trump (OM) (1931–2016) succeeded John Evans, having already experienced Maltese prehistory in the field with him, and became the Curator of the Museum of Archaeology for five years until 1963. In that short time, he too made an enormous impression on the understanding of prehistoric Malta. His work at Skorba (as we discuss in Chapter 7) was inspired and informed, and it too set the direction for the future explorations of prehistory in the islands. David Trump maintained his interest in Malta throughout his career, leading regular study tours to the island and latterly, with ourselves, undertaking the sustained programme of fieldwork at the Xagħra Brochtorff Circle (1987–9). He wrote numerous books and papers on Malta's prehistory, popular and academic; and his contribution has been widely acknowledged through museum displays, the award of the Order of Merit of Malta and an Honorary Degree from the University of Malta for which he felt hugely honoured. But back in the United Kingdom, from whence both these scholars came, there has been less mention of their work on Malta. Evans moved eastwards to Crete in his research interests, and has been identified mainly with that work; whilst Trump, a retiring and extremely modest individual, did not promote his achievements on Malta during his teaching years at Cambridge, which was arguably too theoretical to fully appreciate his remarkable contribution.

Figure 0.1. *David Trump and John Evans together at the Deya Conference, Mallorca (*c. *1983) (reproduced with permission of Judith Conway, niece of John Evans).*

Acknowledgements

Firstly, the *FRAGSUS Project* is the result of a very generous research grant from the European Research Council (Advanced Grant no. 323727), without which this and two partner volumes and the research undertaken could not have taken place. We heartily thank the ERC for its award and the many administrators in Brussels who monitored our use of the grant. The research team also wants to record our indebtedness to the administrators of the grant within our own institutions, since this work required detailed and dedicated attention. In particular we thank Rory Jordan in the Research Support Office (Queen's University Belfast – QUB), Laura Cousens (Cambridge University – UoC), Glen Farrugia and Cora Magri (University of Malta – UM), the Curatorial, Finance and Designs & Exhibitions Departments in Heritage Malta (HM) and Stephen Borg at the Superintendence of Cultural Heritage (SCH).

All archaeological excavations described in this volume were carried out using standard methods, in accordance with the policies of the SCH, in particular the guidance given in the document *Operating Procedures and Standards for Archaeology Services – February 2013*. Permits to enable excavation, survey, sampling and study were granted through the SCH and we are especially grateful to Anthony Pace and Nathaniel Cutajar for their unstinting efforts to ensure fieldwork was enabled.

Taċ-Ċawla

The Taċ-Ċawla excavations were directed by Prof. Caroline Malone, and the crew consisted primarily of students and staff from UoC, UM and QUB, supervised by Stephen Armstrong, Jeremy Bennett and Conor McAdams, with additional supervision from Dr Simon Stoddart, Dr Sara Boyle and Dr Emily Murray. We are also very grateful for Dr George Azzopardi who sought out accommodation for the project, assisted on site, and with his colleagues in HM enabled access to space for storage, environmental sampling and finds processing in Rabat. John Cremona and his colleagues in the Ministry for Gozo also played an important role in enabling site clearance and facilities at Taċ-Ċawla, and in securing the site following our work, with the long-promised surrounding wall. We also acknowledge a great number of local Gozitan businesses, hardware stockists, JCB drivers and cafe and restaurant owners, who supported our work in so many ways.

Santa Verna

The Santa Verna excavations were directed by Prof. Caroline Malone, assisted by Dr Simon Stoddart and Dr Rowan McLaughlin. The crew consisted primarily of a number of students and staff from UoC, QUB and UM, supervised by Stephen Armstrong, Jeremy Bennett, Dr Catriona Brogan and Eóin Parkinson. Dr Evan Hill wet-sieved the soil samples using flotation and the site was sampled for soil micromorphology and geochemistry by Prof. Charles French, Dr Sean Taylor and Conor McAdams. During the excavation, our understanding of the extant megalithic structure was improved by the superb plan produced by Stephen Ashley. Tiomoid Foley conducted a condition survey of the megalithic remains, the results of which were incorporated into an MSc project. Rupert Barker made a short film of the excavations – *A Day on a Dig* (https://youtu.be/cGNOGpq746I). Digital laser scanning was undertaken by John Meneely. Individuals whose efforts are warmly acknowledged include Stephen Armstrong, Dr Catriona Brogan, Dr Bela Dimova, Dr Paola Filippucci, Dr Reuben Grima, Laura James, Lottie Stoddart and Dr Sean Taylor, who supervised trenches, organized field assistants and gave logistical support to the running of the project. At Santa Verna, we particularly thank Dr George Azzopardi (HM) for his invaluable logistical

help at the start of the excavations and insightful comments made throughout, and Ella Samut-Tagliaferro, Cristian Mifsud, Mevrik Spiteri and Daphne M Sant Caruana, who accommodated the wet-sieving and flotation operations at the Ġgantija World Heritage site visitor centre. This was facilitated by Prof. Nick Vella and Chris Gemmell (UM), who organized and set up the sieving system. We acknowledge the interest taken in our work by other organizations including Xagħra parish council, Wirt Għawdex, and the staff and pupils at Gozo College. Indeed, the *FRAGSUS* team was delighted by the level of interest in the excavations shown by local residents and other visitors to the site. We particularly acknowledge the help, understanding and patience of the residents who offered us the use of their garage to store tools and equipment overnight, and the local farmer who provided gifts of bananas and kindly offered the use of his pumphouse as a tool shed. We especially thank Joseph Attard Tabone for his interest in and support of all our work, especially at Santa Verna.

Ġgantija

The Ġgantija excavations in 2015 were directed by Prof. Charles French, Dr Simon Stoddart, Dr Sean Taylor and David Redhouse, assisted by Stephen Armstrong, Jeremy Bennett, Dr Catriona Brogan, Conor McAdams, Aran McMahon, Eóin Parkinson, Jacob Pockney and Mariele Valci. Flotation of soil samples was undertaken by Dr Evan Hill. Digital laser scanning was undertaken by John Meneely. The field researchers comprised the geophysical survey team in 2014 under the supervision of David Redhouse and Dr Alistair Ruffell with assistance from Jeremy Bennett. Dr Sara Boyle and Jeremy Bennett undertook initial survey of the WC section area in 2014.

We thank especially HM and its staff on Gozo, who enabled access and provided much assistance at this busy World Heritage Site (the most visited ancient site in the islands), namely George Azzopardi, Daphne M Sant Caruana and Nicolene Sagona.

Kordin III

The excavations were directed jointly by Prof. Caroline Malone and Prof. Nicholas Vella, assisted by Dr Reuben Grima, Dr Rowan McLaughlin, Ella Samut-Tagliaferro and Dr Simon Stoddart. The crew consisted mainly of students from UM, who participated as part of their annual training excavation. They were supervised by Jeremy Bennett, Dr Catriona Brogan, Rebecca Farrugia, Dr Reuben Grima, Tore Lumsdalen and Eóin Parkinson. Flotation of soil samples was undertaken by Dr Evan Hill. Digital laser scanning was undertaken by John Meneely and Jeremy Bennett. We also acknowledge the kind assistance of Fondazzjoni Wirt Artna, the Malta Heritage Trust, who granted access to the site.

Skorba

The excavations were directed by Prof. Caroline Malone and Dr Rowan McLaughlin, who were assisted by Stephen Armstrong, Jeremy Bennett, Dr Catriona Brogan, Emma Hannah and Eóin Parkinson. OSL profiling and geoarchaeological sampling was performed by Prof. Charles French, Dr Timothy Kinnaird (University of St Andrews), Dr Simon Stoddart and Dr Sean Taylor. The site was laser scanned by Jeremy Bennett. We thank HM for enabling access to the site and Dr Josef Caruana and Katya Stroud for supporting the work.

In-Nuffara

The excavations were directed by Dr Simon Stoddart and Dr Rowan McLaughlin, who were assisted by Stephen Armstrong, Stephen Ashley, Robert Barratt, Donald Horne, Katie Hutton, Christina O'Regan and Leslie Torwie. Many thanks to Dr George Azzopardi (HM) and Ella Samut-Tagliaferro (SCH) for their logistical support. John Meneely laser scanned the silos and analysed the volumetric data. We thank Dr Anthony Pace and Nathaniel Cutajar and their staff from the SCH for enabling access to the site.

Post-excavation

The Department of Classics and Archaeology, UM, kindly offered storage space during the project and accommodated the post-excavation team in the sunny courtyard where pottery and finds were studied. We thank Chris Gemmell in particular for his invaluable help throughout the project, but especially in enabling storage of material and access to it for the project team and the logistics on various sites and for his skilled assistance in setting up the flotation processing. In Belfast, Emma Hannah undertook data entry, sample sorting and volume indexing, and Georgia Vince assisted with data entry and logistics and produced many of the excavation plans and section drawings used throughout this volume. She also archived and scanned the project records along with the original Cambridge Gozo Project, and these are now housed in the National Museum of Archaeology, Valletta. In Malta, pottery was studied by Stephen Armstrong, Stephen Ashley, Prof. Anthony Bonanno, Dr Catriona Brogan, Prof. Caroline Malone, Lisa Coyle McClung,

Rowan McLaughlin, Eóin Parkinson and Dr Simon Stoddart. We thank Prof. Nicki Whitehouse for her enthusiastic support and advice on environmental matters. Thin section slides were produced by Dr Tonko Rajkovača of the McBurney Laboratory, Department of Archaeology, University of Cambridge. We are very grateful to Sharon Sultana (Curator) of the Museum of Archaeology for not only housing the study material but also providing access to it in 2017. Stephen Ashley and Prof. Caroline Malone illustrated the pottery and small finds. Dr Catriona Brogan assisted in the production and editing of this volume. We also wish to thank Ben Plumridge, Production Editor, for seeing this and the two companion volumes through the arduous process of publication. Thanks too, to Jason Hawkes (copy editing), Olivia Shelton (references) and Emma Hannah (indexing) for their careful work on the volume.

Permits and access

The *FRAGSUS* team is very grateful to the heritage bodies of Malta, namely HM and the SCH and their officers, who enabled access to sites and provided the permissions and opportunities to study the buried archaeology. It cannot be over-emphasized just how privileged the *Project* has been in having access to excavate and examine the exceptional sites of prehistoric Malta. Not only is the entire category 'Maltese Temple' protected, but most sites are also inscribed within the UNESCO World Heritage Site listing for Malta. Some readers may wonder why very small trenches and sondages were permitted at all, whilst others may query the value of small investigations. This volume presents a range of scales of study from the small to the large across prehistoric sites and assesses the value of particular data sets that have been collected. Together with Volume 1, which examines the wider landscapes and environments of early Malta, and Volume 3, which examines the bones and lives of the ancient individuals, this volume fills the middle ground – the sites themselves, and we thank all our collaborators and volunteers in this venture. In particular, we thank the willing site assistants, volunteers, surveyors, cooks and illustrators who gave their time and energy to the archaeological work, and we list them below:

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Foreword

Joseph Magro Conti

Consider, 5000 years ago you are on one of the smallest islands in the Mediterranean, which has no water sources, dependent on brief winter rain showers, shallow soil patches, with only stone, clay and salt as natural resources, perhaps a few trees and shrubs. How would you live in such environment? This second volume of the *FRAGSUS Project* (2013–18) provides readers with fresh information achieved through high quality scientific research on palaeoenvironmental analysis, radiocarbon dating, human and faunal bone studies as well as on ceramics, lithics, domestic contexts and monuments, fully addressing five main questions targeted by the project. The support of the European Research Council has been transformative in making this new knowledge about Maltese prehistory more understandable and accessible, as a reader will discover throughout this and the other two volumes.

The coming of *FRAGSUS* was a long journey. Twenty-seven years passed since I first met the main protagonists of this project, Prof. Caroline Malone and Dr Simon Stoddart. They left a long-lasting positive impression on me. I was an archaeology undergraduate at the University of Malta in 1993, under the academic guidance of Prof. Anthony Bonanno, with colleagues Nicholas Vella (now Professor, and former Head of the Archaeology Department at the University of Malta) and Dr Anthony Pace (my predecessor as Superintendent of Cultural Heritage). I was on my first archaeological research excavation by an Anglo-Maltese mission at the unique Neolithic mass burial site of the Xagħra Brochtorff Circle in Malta's sister island of Gozo. A couple of decades later I had the opportunity to participate on other research digs in Malta with Malone-Stoddart, this time as part of *FRAGSUS* at Kordin III Neolithic temples in Malta, a site about which I had long endeavoured to raise awareness for its better understanding and management.

The Temple Period is renowned for the monumental megalithic structures (presumed temples) and the associated underground mass burial places, which offer an aura about the Neolithic mindset, belief system, organisation, ritual and physical capabilities in engineering and art. But what should be further intriguing to the reader is another aspect of human life – how the early people lived? What evidence is there for this aspect from the Temple Period? Previously, such questions were largely without much evidence except sporadic discoveries of typical deposits and material culture, but which were very lacking in data to advance site prediction and environmental data collection. The very few huts so far discovered and interpreted as domestic were ephemeral and thus prone to unrecorded destruction during building construction. I was pleased to contribute my knowledge of domestic sites to the publication of the Gozo study in 2009, and delighted to write this Foreword. This work records the next stages of discovery of the inhabitation record of the Maltese islands, most notably at Taċ-Ċawla, a site preserved from development by the action of the Superintendence.

In the past fifty years, the Maltese Islands have undergone successive building booms, each significantly endangering Malta's historic environment. In my quest as an applied archaeologist/heritage manager for over two decades at the Planning Authority and for the past two years as Superintendent of Cultural Heritage, I have endeavoured to collaborate with disparate stakeholders to save or mitigate impacts on the fragile remains of the past, and to raise awareness. The findings from *FRAGSUS* will be an especially useful source of information for policy makers, heritage managers, regulatory agencies and conservation scientists in their quest to preserve and understand Malta's past. The study enables them to make informed decisions about future human impacts on the archaeological heritage, mainly caused by

Figure 0.2. *Joseph Magro Conti at Kordin.*

building development on the small island environment and its island society and economy.

This volume is a seminal interdisciplinary study, not only for Maltese prehistory but also a milestone in world prehistory more generally. As prehistory pre-dates the invention of writing, the approach of *FRAGSUS*'s research agenda turns archaeo-environmental data into 'words' by digging deep into the embryonic matrix of garden soils on which the temples builders sustained themselves. The project can now explain queries about this sustainability, a theme that is still relevant to modern generations. With the use of multidisciplinary and multinational teams of specialists, the study placed innovative scientific approaches at the fore, and addressed silent aspects that go beyond the traditional art-historical basics of Grand Traditions. The investigations into the core essence of life five millennia ago belong to new scientific approaches.

The *FRAGSUS Project* has addressed lacunae and used unconventional approaches in theory and method to obtain robust scientifically-backed results that have filled in significant gaps in the research agenda of Maltese prehistory and beyond. Equally, the results have surely raised many questions for future research agendas. I look forward to further collaboration, and I am eager to see more collaborative projects between Maltese veterans and upcoming academics and our overseas colleagues.

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Superintendent of Cultural Heritage, Malta
September 2020

Chapter 7

Skorba

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7.1. Introduction

This chapter presents the results of an archaeological excavation at the megalithic temple site of Skorba,[1] Mġarr, Malta (Fig. 7.1), undertaken by the *FRAGSUS Project*[2] team. Skorba represents the most 'recent' large-scale temple excavation (other than the long campaign at Tas-Silġ from 1964 until the present). It was also the site that demonstrated, through the application of scientific dating, the true antiquity of the Temple Culture and its Neolithic antecedents. David Trump spent a relatively short time investigating the site before fieldwork ceased following his transfer back to Britain on the declaration of Malta's Independence in 1964. Trump's (1966) quite short report on the site was a model of detailed brevity, noting the importance of the stratigraphic relationships that tallied with pottery styles and radiocarbon dates, as well as aspects of the possible multi-period functions of the site. Subsequently, the chronology obtained from Skorba was interpreted as the yardstick of Malta's prehistory, and the culture sequence was accepted without further debate. As more chronological data has been obtained and added to the prehistoric story of the islands, particularly from the Xagħra Brochtorff Circle in the 1990s, the Skorba chronology has presented a robust demonstration of the model devised by Trump. Nevertheless, there were many gaps in the sequence, with immense periods of undated prehistory between the earliest occupants and the later Temple Period that remained untested and unfilled by new dating estimations. Skorba, therefore, was considered one of the principal locations where *FRAGSUS* should apply a programme of accurate new dating, not only to test the Skorba stratigraphic interpretations, but also to investigate the very early phases of Neolithic occupation and relate these to other sites, such as Santa Verna, Kordin III and Taċ-Ċawla (see Chapters 3, 4 and 5).

The work of the *FRAGSUS Project* in 2016 was therefore conducted with the aim of recovering plant remains and animal bones from earlier Neolithic strata (Pre-Temple Period Għar Dalam and Skorba phases) for dating and analytical purposes. The goal was to compare their speciation, isotopic content and radiocarbon age with similar samples recovered from *FRAGSUS Project* excavations elsewhere in the Maltese islands, especially our excavations at Santa Verna on Gozo in 2015 (Chapter 4), which had already provided a comparative stratified sample of the successive cultural phases of that site in 2015. The Skorba fieldwork also provided an opportunity to undertake Optically Stimulated Luminescence (OSL) dating of the stratigraphy in order to understand site formation processes and to provide an independent and comparative chronological control for the radiocarbon sequence. This parallel chronological study acknowledges the site's important role in the chronology of Maltese prehistory (Table 7.1). Here we present a description of the results of the fieldwork, including physical descriptions of the stratigraphy and the main finds; these are then interpreted within the wider context of the Neolithic central Mediterranean and Temple Period Malta.

7.2. The site

7.2.1. Location and physical setting

The site is located on the side of the Bidnija Ridge in north western Malta, near the village of Żebbiegħ in Mġarr parish. The bedrock in this locality is Upper Coralline Limestone which is covered by thin layers of largely artificial L-Ingin-series silty clay loam (Lang 1960). The site lies 114 m above sea level on rising ground partly terraced into the hillside, with a southern aspect and overlooking the L-Imselliet valley and Binġemma Ridge beyond. The site is part of a landscape that is rich in contemporary prehistoric

Figure 7.1. *Location map of Skorba.*

sites; it lies some 850 m east of the Ta' Ħaġrat temples, 3.5 km south of the Xemxija tombs, and 4 km and 5 km respectively southwest of the Tal-Qadi and Buġibba temples (Fig. 7.2). The site also lies approximately 1.5 km east of a now destroyed stone circle structure at Ta' Żammitellu (*Museums Annual Report 1919–1920*, 1920). 'Li-Skorba' was originally a local name given to the group of fields and terraces that surround the site (*Museums Annual Report 1938–1939*, 1939). The 2016 excavations were centred on coordinates 33S 0443900m E, 3975530m N (UTM grid ED1950 datum) or 35.92070 deg. N, 14.37758 deg. E (WGS84 datum).

7.2.2. History of the site

Today, the importance of Skorba is widely recognized, having been conferred UNESCO World Heritage status in 1980. Yet, up until the start of the last century the site was almost unknown. Records from the early twentieth century only document a single 4-m high Coralline Limestone 'menhir', or standing stone, at the site illustrating the extent to which the site had been buried over the millennia (Trump 1966, 2008). In 1937, survey work carried out by Captain C.G. Zammit, Curator of Archaeology at the National Museum of Malta, revealed further megalithic remains incorporated into the surrounding field walls (*Museums Annual Report 1937–1938*, 1939). Subsequent small-scale excavations at the site uncovered more buried megaliths, including a slab decorated with pitting, similar to those found at other megalithic temple sites. On the basis of the 1937 fieldwork, the site was classified as a potential temple site and the land was purchased by the government.

7.2.3. The 1961–63 campaign

In 1960, the decision was made to excavate the site fully, and between 1961 and 1963 five excavation campaigns were undertaken at Skorba under the direction of David Trump (Fig. 7.3). These excavations were hugely significant in advancing our understanding of the chronology of prehistoric Malta. This is because the undisturbed site contributed a near-complete stratified sequence of cultural material from each phase of the Early Neolithic, Temple Period and Early Bronze Age. Furthermore, Trump's campaign was the first to utilize radiocarbon dating within the Maltese islands, and was among the earliest applications of radiocarbon dating in the Mediterranean. A total of eight dates were obtained from Skorba, Tarxien and Ta' Ħaġrat, ranging from the Għar Dalam phase through to the Tarxien Cemetery

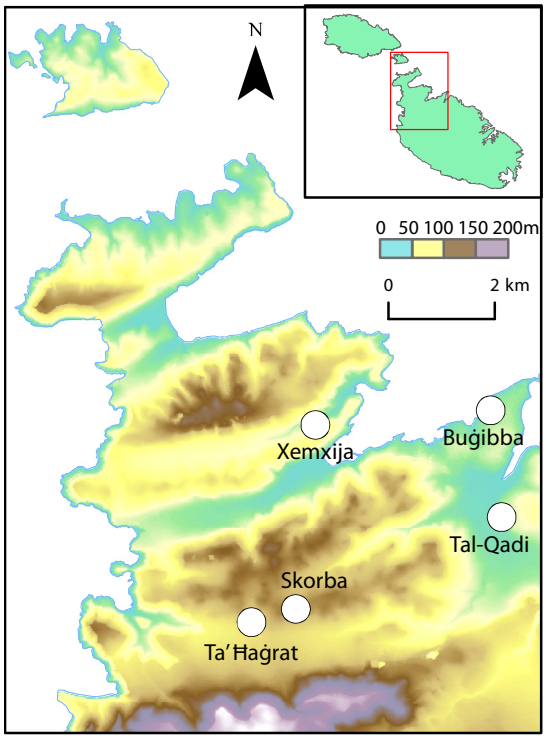

Figure 7.2. *Map of Skorba and nearby Temple Period sites within their local topography.*

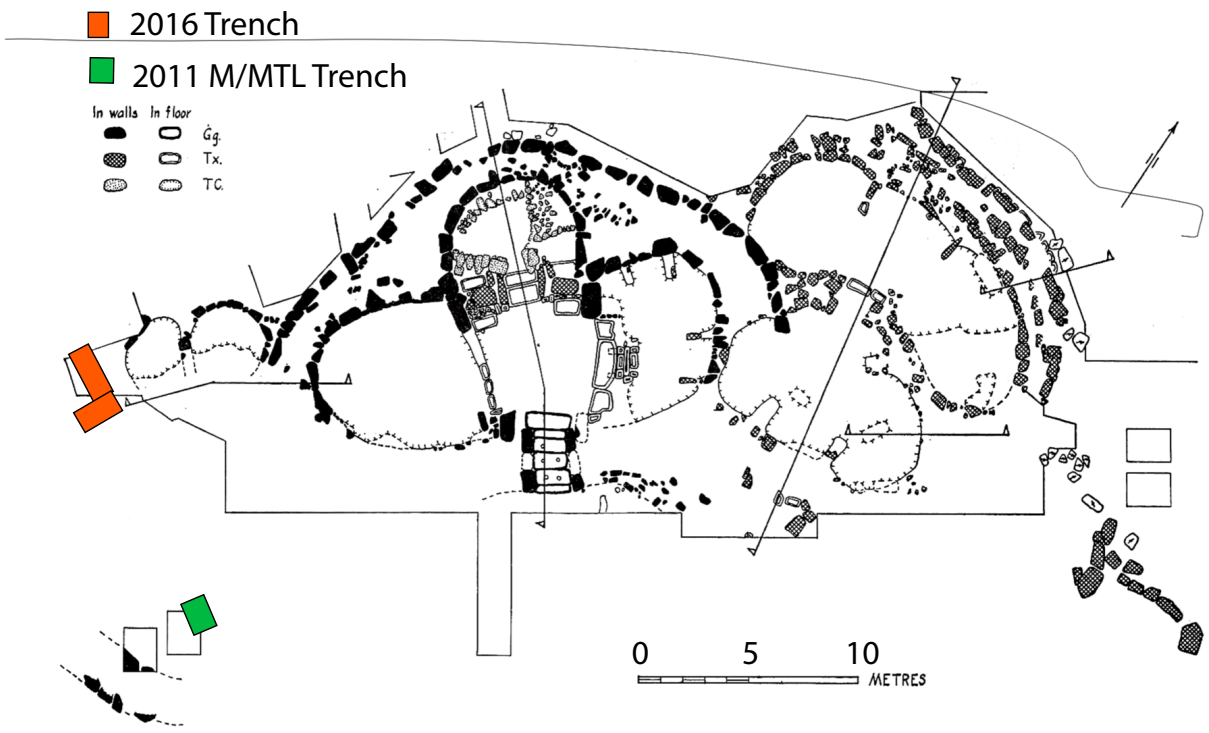

Figure 7.3. *Trump's (1966) site plan of the Skorba 1961–63 excavations. The locations of 2011 and 2016 excavation trenches are highlighted.*

phase, and this sequence categorically demonstrated their early chronology (Renfrew 1973). The 1961–3 excavations also identified a pottery-type previously unrecognized on the Maltese Islands, duly named Skorba ware, between the Għar Dalam and Żebbuġ layers that had stylistic similarities with Sicilian and south Italian Serra d'Alto and Diana-Bellavista wares (Trump 1961). The importance of Trump's excavations at Skorba for the chronology of Mediterranean prehistory was immediately apparent when the identification of Skorba ware resolved the lively debate between Bernabò Brea (1960) and Evans (1960) on the phasing of Maltese prehistory and its relationship with Sicily (Chapter 12).

Overviews of the site, its history, and accounts of the 1961–3 excavations are provided by Trump (1966, 2015), Evans (1971) and Zammit & Mallia (2008). Trump's (1966) excavations revealed a remarkably complete sequence of occupation, linked to a number of structures at the site, dating from the Għar Dalam phase through to the Tarxien phase. The earliest structures at the site were an oval hut and its enclosing wall dating to the Early Neolithic Għar Dalam phase (and was the focus of our work in 2016). The Għar Dalam phase structures were succeeded by faint traces of a slightly later wall structure that possibly dated to the Grey Skorba phase. In the eastern part of the site, a large two-roomed structure with plastered floors was uncovered and contained large quantities of later Neolithic Red Skorba pottery. Broken terracotta figurine fragments, worked animal bone and numerous goat crania were found in the northern room alongside substantial amounts of animal bone. Trump (1966) interpreted this structure as a 'shrine', rather than as a domestic structure on the basis of these finds and the irregularity of their location. The next phase of activity at the site was represented by several Żebbuġ phase huts, some with clay floors and hearths still identifiable. Evidence of Mġarr phase activity was scarce, with only a single hut-structure identified during the excavations.

The most active period at Skorba appears to have been the Ġgantija phase, which Trump (1966) identified in both settlement and ritual-temple activity. The settlement evidence was attested by the remains of two hut sites. The 'Hut of the Querns' formed a substantial mud-brick structure, located to the north of the main temple structure and this was excavated in its entirety. It is likely the hut pre-dated the temple structure as it appeared to have been deliberately destroyed in order to make way for the temple. The other hut was located in the southeastern section of the site and named the 'Hut of the Hollow'. Finds from the structure indicate that it survived into the Saflieni phase before being destroyed by a later extension to

Figure 7.4. *Trench M during its 2011 re-excavation (reproduced with permission, Maltese Temples Landscapes Project).*

the main temple. The main phase of temple building was in the Ġgantija phase, with the construction of a simple trefoil megalithic temple plan which was constructed over the earlier Għar Dalam strata. Later, the interior of the Ġgantija structure was extensively remodelled during the Tarxien phase, and expanded with the construction of a four-apse building to the east of the main temple. In 2011, a re-excavation and enlargement of one of the 1961 trenches (Trench M: Fig. 7.4) was undertaken by the Malta Temple Landscapes Project (T. Darvill, pers. comm.).[3]

7.3. Methodology of the 2016 campaign

The 2016 excavation took place from 4 to 15 April, following a winter and spring of exceptionally dry weather in Malta, which rendered the soils dry, dusty and difficult to differentiate. Great emphasis was placed on establishing meaningful stratigraphy and robust sampling methods during the excavation. One of the key aims was the retrieval of undisturbed Early Neolithic buried soils that pre-dated the Temple Period activity of the overlying temple structure. Such buried soils were likely to be similar to those found at Santa Verna during the 2015 *FRAGSUS* spring fieldwork season (Chapter 4), and were important for providing comparison and confirmation of the local environment and chronology during the early phases of the site. The 2016 excavation trench was strategically positioned in an area where the westward course of the Għar Dalam phase wall (§7.2.3) was expected to emerge, in approximately the area of Trump's (1966) trench 'Y'. The 2016 trench was located beyond the present eastern boundary fence of the temple site, abutting a modern field wall to north (Figs. 7.5 & 7.6). Before excavation commenced, the area was obscured by the branches of a wild fig tree and heaps of stone rubble, dead vegetation and debris. The tree was growing from the southern corner of the 4 × 2 m trench that was originally proposed, so in consultation with the Superintendence of Cultural Heritage (SCH) and Heritage Malta (HM), the shape of the 2016 excavation trench was adapted so that the tree would not be significantly disturbed. A reverse 'L' shaped trench was instead placed so as to circumvent the location of the tree (Figs. 7.6 & 7.7). Once loose stones, vegetation and rubbish had been cleared, the location of the 1961 trench 'Y' was marked out using a Total Station that had been programmed with the necessary coordinates in advance. The 1961 backfill was excavated first, before intact archaeological layers were recorded *in situ* and excavated. A total of 223 litres of soil was sampled and

Figure 7.5. *Work during the autumn 1961 excavation season with position of the 2016 trench indicated.*

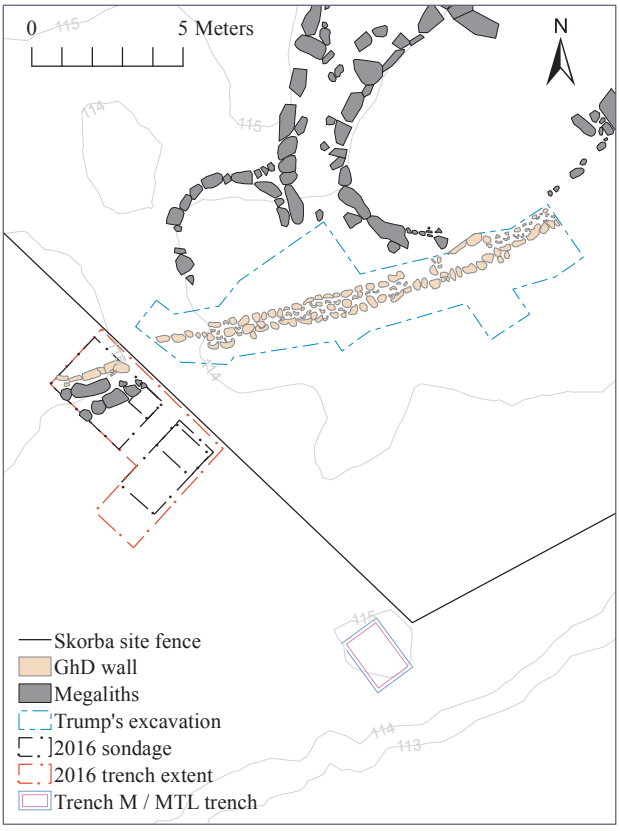

Figure 7.6. *Location of the 2016 trench.*

processed for flotation in order to retrieve samples for environmental analysis and radiocarbon dating. Of the six samples submitted for radiocarbon dating, only one faunal specimen failed.

7.4. Results

The following account of the excavations at Skorba has been divided into four sections: the northern corner (§7.4.1), the central sondage (§7.4.2), the eastern corner (§7.4.3) and the upper levels (§7.4.4). Following initial clearance, and the removal of the superficial deposits, the Temple Period wall, Context (14)/(17), was encountered. The stones of the wall were left undisturbed and the excavation continued down through the deposits on either side of the structure, forming a small exploratory area in the northern corner of the trench, as well as a small sondage to the southeast. The main trench was extended and opened to the southeast to confirm whether a similar stratigraphy extended beyond the bounds of the central sondage (Fig. 7.8).

Figure 7.7. *Photograph of the 2015 trench, with the enclosed WHS monument visible beyond the fence.*

7.4.1. Northern corner

The lowest layers of the trench (Figs. 7.12 & 7.13) lay above bedrock as a brown sandy silt loam, and these represented a natural *in situ* soil, much depleted in organic content. This deposit was excavated in two spits: the lower 0.3 m, Context (28), contained little cultural material, although both Għar Dalam and Skorba phase sherds were present, whereas the upper 0.2 m, Context (24) (Figs. 7.8, 7.9 & 7.10), contained a large number of Skorba phase pottery fragments and a number of shell beads (SF5) (Fig. 7.11). A radiocarbon date of 5280 to 4960 cal. BC (UBA-33710, 6158±51) was obtained from this layer from a *Hordeum* grain. OSL dates from the buried soil gave a similar date range (8780 ± 710, 8090 ± 590 and 7760 ± 560 BC) for the onset of soil formation as at Ġgantija (Volume 1, Appendix 2; Table 7.1). These two contexts abutted Context (21), which was an intact course of the quite slight remains of the Għar Dalam wall, found at approximately 113.2 m ASL. The height matched the level and the curve of the exposed Għar Dalam wall in the fenced-in excavated Skorba World Heritage Site enclosure. The new section of wall was left undisturbed *in situ* in the base of the 2016 trench (Fig. 7.6).

Context (20) lay above the Għar Dalam wall and comprised a fine-grained deposit, containing sherds of Red and Grey Skorba pottery. Another alignment of stones, Context (18), overlay Context (20) and comprised rough Coralline blocks 8–20 cm in length, loosely arranged within the fill. These stones were probably the disturbed upper courses of the Għar Dalam wall, Context (21), also found by Trump in the adjacent 1960s excavation area (Fig. 7.13b). They were probably dislodged by the construction of a structure associated with the later wall, Context (14)/(17) (Figs. 7.9, 7.13a & 7.14 show the location of the sondage in section).

7.4.2. Central sondage

A 0.35 m deep spit of friable cream-hued soil, Context (30), lay above the bedrock in the central sondage. It contained only Għar Dalam and Skorba phase pottery, accompanied by a radiocarbon date of 5006 to 4771 cal. BC (UBA-33711, 5996±46) from a *Lens* seed. Above Context (30), another 0.25 m spit, Context (26), was

similar in composition to (30) but contained Żebbuġ as well as Early Neolithic pre-Temple Period sherds. Contexts (22) and (23) overlay this layer. Context (22) formed a patch of dark, fine silt loam, 1 × 0.8 m in extent, and was contained within a 0.15 m deep depression confined to the western corner of the trench. Context (23) extended over the remaining area of the trench, and presented a cream-brown layer of silt, containing flecks of charcoal and lenses of white material, perhaps remnants of *torba* floors. Ġgantija, Mġarr and Żebbuġ pottery sherds were found in this layer. A lens of pale yellow-grey silt, Context (13), overlay these deposits, and contained mixed Temple Period pottery. This was, in fact, the only strata in the 2016 excavations to yield a Tarxien phase sherd (potentially introduced by later disturbance). Context (12) was above (13), in the eastern corner of the central sondage, and consisted of a layer of soil and stones that was rich in Temple Period pottery and lithics. The deposit was somewhat disturbed by the roots of the nearby fig tree. Context (12) was overlain by Context (3), a layer of rubble that was intermixed with a friable orange hued loam, and also by Context (10), a firm reddish-brown soil. Both of these contexts were located to the south and east of the Temple Period wall (Context (14)/(17)).

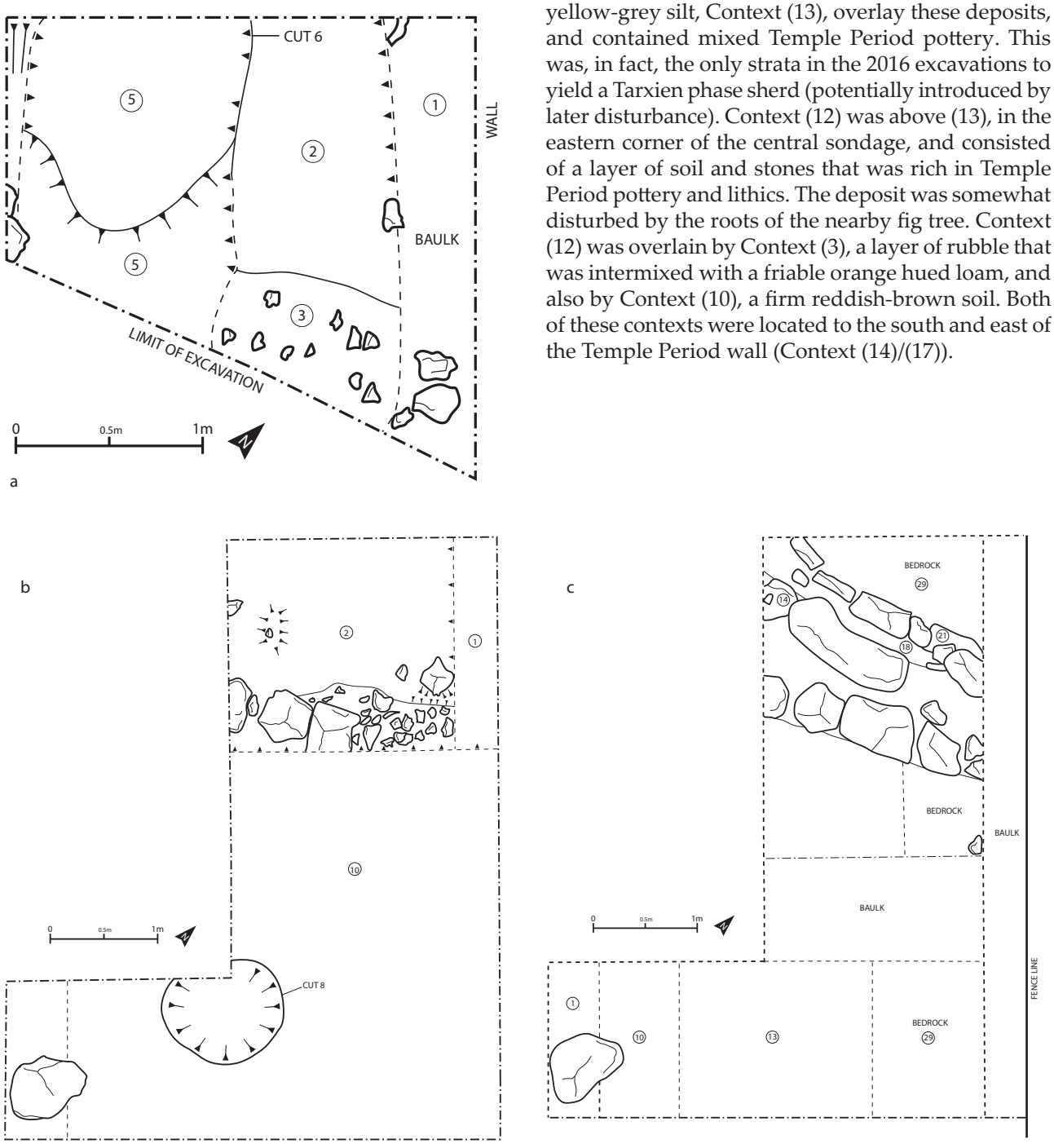

Figure 7.8. *a) Northwest end of trench – intermediate levels, Context 6 the Trump sondage cut; b) The southeast trench superficial contexts; c) Details of the Għar Dalam and the Ġgantija phase walls. The right hand section is recorded in Figure 7.9.*

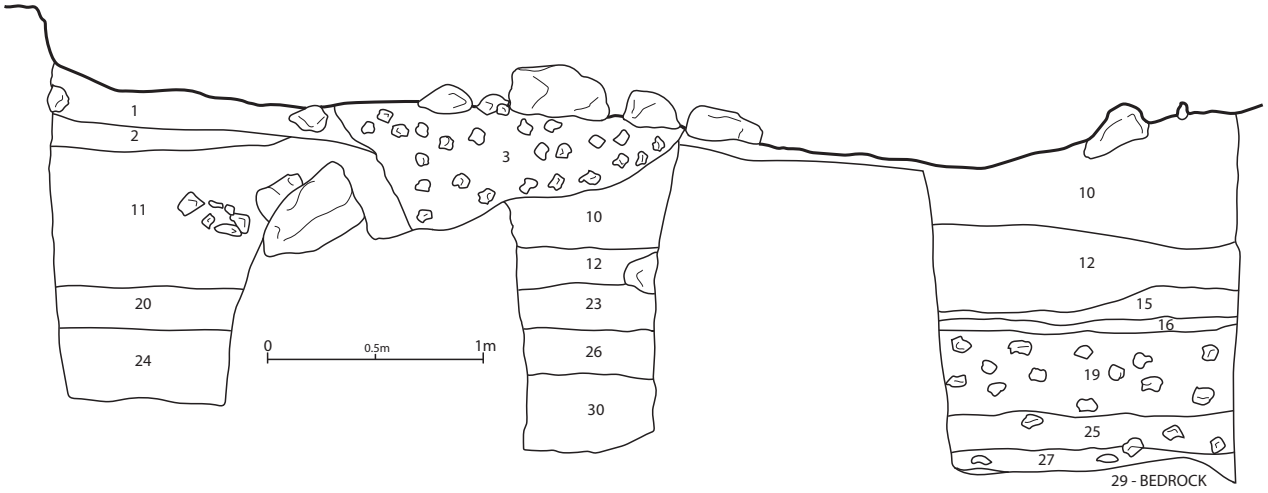

Figure 7.9. *Southwest-facing vertical section showing northern corner (far left), central (centre) and eastern corner (far right).*

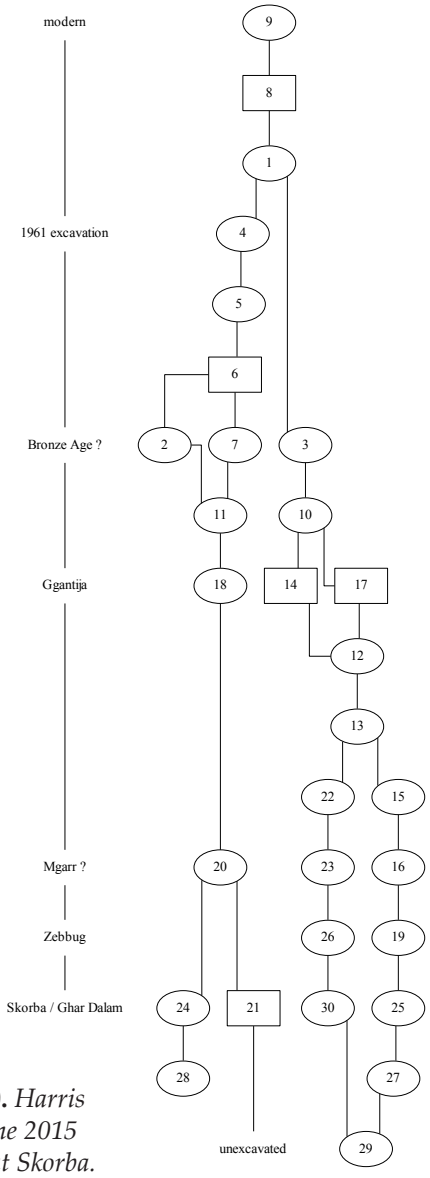

Figure 7.10. *Harris matrix for the 2015 excavation at Skorba.*

Figure 7.11. *Shell beads (SF5) recovered from the* FRAGSUS *excavation at Skorba.*

Figure 7.12. *Section of northwest end of trench, the Trump sondage is identified by its straight vertical cut.*

7.4.3. Eastern corner

Context (27) was located at the base of the sondage in the eastern corner of the trench and consisted of a 0.1 m deep firm creamy-brown deposit with infrequent stone inclusions, containing Skorba phase pottery (Fig. 7.9). The layer above, Context (25), was a 0.15 m deep deposit, similar in composition to (27), although with more stone inclusions throughout, and it also contained Skorba phase pottery. Context (19) was located above this and was made up of a 0.2 m deep compact layer of creamy-grey soil mixed with medium-sized stones, which contained Żebbuġ phase and pre-Temple Period ceramics. This layer was covered by Context (16), a loose, sandy/stony layer 0.05 m deep that contained mainly undiagnostic, prehistoric pottery, with the exception of a small number of sherds representative of the Skorba, Żebbuġ and Ġgantija phases, and produced a radiocarbon date of 5039 to 4777 cal. BC (UBA-33708, 6005±51) derived from a *Hordeum* grain. A second radiocarbon date from a piece of unidentified charcoal yielded a date of 4706 to 4519 cal. BC (UBA-35590, 5756±35). Context (15) overlay (16) and resembled (23) in the central sondage, yielding Ġgantija phase and earlier pottery sherds, and a radiocarbon date of 5190 to 4790 cal. BC (UBA-33709, 6035±54), obtained from a *Hordeum* grain (see Table 7.1). These deposits constituted a Ġgantija phase terrace related to the construction of the three-apse temple structure situated within the site boundaries (Fig. 7.15).

7.4.4. The upper levels

A central sondage was opened on either side of the Temple Period wall (Fig. 7.16) located in the northern corner of the trench (§7.4.1). The wall, identified as Contexts (14) and (17), was a double line of coursed stones, forming the 'inside' and 'outside' skins of a gently curving arc of large sub-angular Coralline blocks, each typically 0.5 m in length (Fig. 7.8e & 8f). This structure was left intact during the 2016 excavations, but is likely to date to the Ġgantija phase, based on pottery found in lower levels butting either side of the wall (Context (23) above).

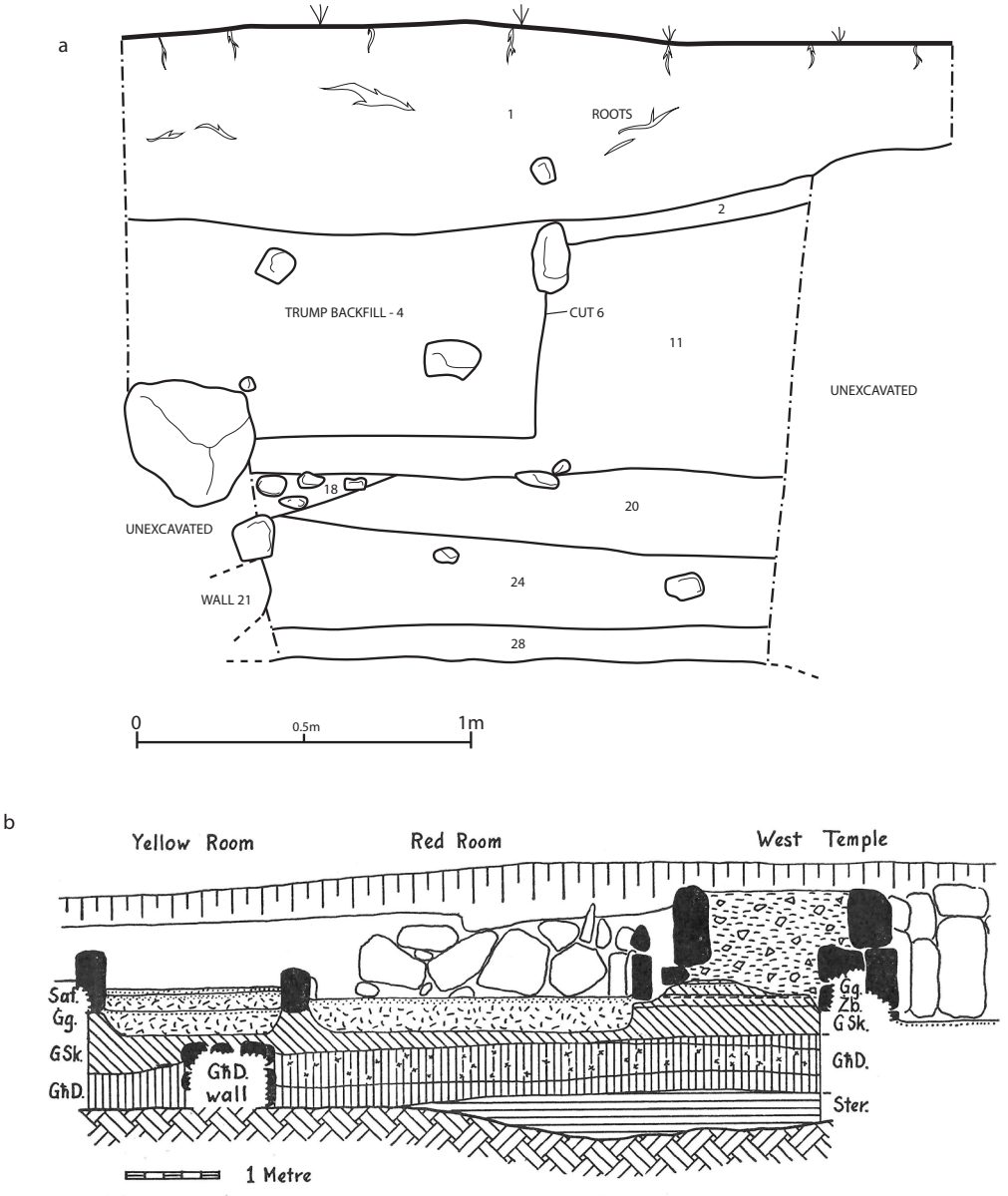

FIG. 6. Section across outbuildings and outer wall of West Temple, with underlying deposits.

Figure 7.13. *a) Drawing of southeast-facing vertical section of Trump trench 'Y'; b) Trump's 1966 record of the stratigraphy of the Għar Dalam wall area.*

Contexts (10) and (11) were both brown silt loams, located above the wall, where (10) was distinguished by a reddish hue and (11) by a lighter cream or pink colour. Pottery present in these layers included many prehistoric sherds (including Bronze Age Borġ in-Nadur examples), but also Roman sherds, and one modern glazed fragment from (10). Together, these layers were interpreted as the fills or base plough soil of an old field surface. Contexts (3) and (2) respectively formed the superficial layers which lay above. Context (2) was an intact stratum comprised of a moderately compacted light-grey-brown soil containing prehistoric pottery (including Borġ in-Nadur sherds). Immediately to the southeast of (2), Context (3) formed a layer of stones and rubble. Context (7) was also at this level and consisted of a lens of similar material to (2), which became apparent only after it had been excavated, once made visible in the southwest section face. Cut [6] represented the remnants of Trump's trench 'Y' (Figs. 7.12 and 7.13) which had been dug into Context (2). Its

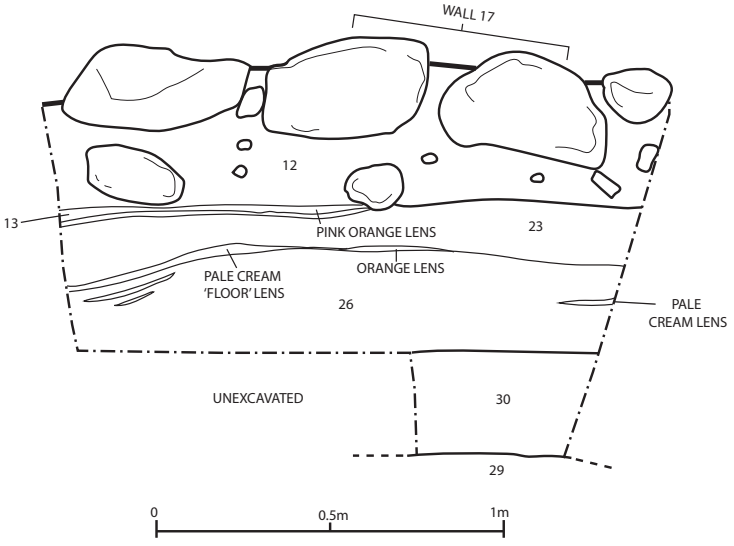

Figure 7.14. *Section drawing of the northeast corner of the trench, showing the deep sondage on the southeast side of the walls.*

Figure 7.15. *Photograph of the deposits in the eastern corner showing the terrace makeup deposits recorded in Figure 7.14.*

Figure 7.16. *Photograph of the Wall (14)/(17) revealed by sondages on either side.*

Table 7.1. *OSL and AMS dates from Skorba and the original dating from Trump's work.*

Lab. ID	^{14}C age	±	Calibrated date (95% CI)	Context	Material	Interpretation
FRAGSUS Belfast AMS dates						
UBA-35590	5756	35	4700–4520	16	Charcoal	Abandonment layer
UBA-33711	5996	46	5000–4780	30	*Lens* sp. seed	Temple complex (residual)
UBA-33708	6005	51	5030–4780	16	*Hordeum*	Neolithic settlement
UBA-33709	6035	54	5200–4790	15	*Hordeum*	Neolithic settlement
UBA-33710	6158	51	5280–4960	28	*Hordeum*	Neolithic settlement
Trump British Museum bulk-sample dates						
BM-142	5240	150	4350–3700	GC3 hut of querns	Charcoal	Presumably erroneous
BM-143	4380	150	3500–2550	West temple floor	Charcoal	Temple complex
BM-145	5000	150	4250–3350	ZA4	Charcoal	Likely mixture of material as per AMS date from Context 30
BM-147	5140	150	4350–3650	GA7	Charcoal	
BM-148	5175	150	4350–3650	RSk shrine	Charcoal	
BM-216	5760	200	5300–4100	FB6	Charcoal	Neolithic settlement
BM-378	6140	160	5500–4700	FB6	Charcoal	Neolithic settlement
BM-712	4478	56	3360–2940	GC3 hut of querns	Charcoal	Late Ġgantija phase settlement
FRAGSUS SUERC OSL dates						
OSL10 SUTL2925	7760 ± 560 BC			118 cm	constrains the final period the buried soil was exposed	
OSL11 SUTL2926	8090 ± 590 BC			128 cm	constrains the age of the buried land surface	
OSL12 SUTL 2927	8780 ± 710 BC			145 cm	constrains onset of soil formation	

fills were assigned contexts (4) and (5) and were only differentiated by their colour. Context (4) was a light grey and brown soil, whereas (5) had an orange hue and was also found in a band 'above' the 1961 trench, beyond the vertical cut; clearly it was a backfill slump. Above Context (2), the superficial topsoil was Context (1), and contained a large number of sherds of prehistoric pottery, from the Għar Dalam, Skorba, Żebbuġ and Ġgantija phases. The topsoil had been recently disturbed by a modern fire pit (Cut [8], Fill (9), which was recorded but was of no archaeological interest).

Figure 7.17. *Photograph of the initial clearance of topsoil of the trench.*

Figure 7.18. *Southeast facing section of trench showing locations of OSL for sampling the stratigraphy and Northeast corner (southwest facing) of the trench marking the OSL locations for dating the stratigraphy.*

Figure 7.19. *The column extracted for OSL dating in the northeast corner.*

7.5. Discussion

The work at Skorba was conducted to tackle some of the *FRAGSUS* questions (see Table 7.2), especially the chronological relationship of the Temple Culture with earlier occupation and also the possible hiatus suggested after the Temple Culture. Skorba had already informed on aspects of the early economies of successive Neolithic communities, but without much sense of how these might have differed over time. The hope was that the refined dating of known stratigraphic phases would expand our understanding of the possible economic and structural responses over time, related to the emerging environmental and climatic story of the project. The 2016 excavation did reveal some new insights and detail of two previously recorded aspects of the site: the Ġgantija phase terrace, and the Għar Dalam phase wall. Importantly, these features were exposed and sampled by the new work, which had plotted their extent well beyond the 'west temple' and the enclosed area of the site. Both previous campaigns in 1961 and 2011 had demonstrated that the terrace under the west temple was built during the Ġgantija phase (Fig. 7.15). Both studies had also noted that the underlying soils that constituted the build-up behind its wall contained mixed materials

Figure 7.20. *a) Area before excavation; b) general view of trench in relation to the main Skorba temple site beyond; c) work at the site, with sampling, sieving and excavation underway in 2016; d) The field team on tea break, with the main Skorba temple site in background (from front left clockwise: Petros Chatzimpaloglou, Eóin Parkinson, Simon Stoddart (chief rubbish remover), Emma Hannah, Stephen Armstrong, Catriona Brogan, Jeremy Bennett, Sean Taylor and Charles French (Caroline Malone behind the camera).*

from earlier phases. The 2016 excavations provided a much more secure stratigraphic link between the terrace soil and earlier structures, collecting samples that helped to frame the absolute chronology of the sequence. In summary, the stratigraphy, from the basal layers up, consisted of a layer of mixed Għar Dalam/Skorba phase material, pure Skorba layers, followed by Żebbuġ, Mġarr and Ġgantija layers. Trump's 1960s excavations were remarkable for their recovery of stratigraphy that encompassed nearly all of Maltese prehistory. The 2016 excavation was similarly successful, albeit on a smaller scale, in recovering a continuous sequence. Although later Temple Period phases (i.e. the Saflieni-Tarxien phases) were largely missing from the sequence, the 2016 excavation met its goal by providing a fresh examination of the timing of earlier phases of Maltese prehistory, through sampling and dating accurately collected organic material and sediments that produced single seed samples. Importantly the chronology of the site supports the

results from other *FRAGSUS* excavations, as well as providing an important absolute chronology for the Sicilian and southern Italian Middle-Late Neolithic (Chapter 2); these gave a rare insight into the earliest Neolithic of the Maltese Islands and wider central Mediterranean.

7.5.1. Contemporary settlement in southern Italy

One particularly interesting aspect of Skorba, revealed both by Trump in the 1960s and in the 2016 campaign, was the early Neolithic Għar Dalam wall. The wall extends beyond the modern temple monument boundary and probably into the field behind the temple, perhaps enclosing a space exceeding *c*. 70 × 25 m in extent. The presence of the enclosure, in spite of its modest size, suggests that space was demarcated, and that domestic places were marked with boundaries. The possible size implies that the Early Neolithic settlement at Skorba was substantial in size, and it is likely that there is buried settlement evidence under the hillwash in the slight hill behind the site, but without further investigation, we can only guess the extent.

To place the Skorba settlement in its context, we need to look beyond the sparse early settlement evidence of Malta and examine some of the contemporary evidence for demarcated domestic space from the central Mediterranean. In the 54 years since the original publication of Skorba, many new data have been presented relating to Neolithic settlements in Italy, including the reports on Passo di Corvo (Tiné 1983), Lagnano da Piede (Mallory 1987), Masseria Candelaro (Manfredini & Cassano 2005), Rendina in the Ofanto valley (Cipolloni Sampò 1977–82) and Ripa Tetta (Tozzi 2015), Capo Alfiere in Calabria (Morter 2010) and Piano Vento in southern Sicily (Castellana 1995) (see Whitehouse 2013). In recent years, similar ditched settlements have been identified in the western Mediterranean in Spain and Portugal demonstrating the widespread pattern of 'dwelling' and living in the earlier Neolithic in southern Europe.

Demarcation with a ditch or surrounding wall was widespread in the Sicilian and southern Italian Neolithic, and is particularly evident in the ditched villages, or *villaggi trincerati*, of the lowland Tavoliere of Apulia and the plain of Catania in Sicily. The often huge Tavoliere sites contained smaller 'C'-shaped ditch elements that formed individual domestic foci containing single or small groups of huts, outbuildings and activity areas (see Tiné 1983 for the evidence from Passo di Corvo). Contemporary settlement included more isolated and rarely ditched settlements in the low hill country of the Materano of Basilicata-Apulia and the Apennines, such as Lagnano di Piede (Mallory 1987). That site was estimated to be 4–7 hectares in extent, while other settlements consisted of extended hamlets such as Rendina (Cipolloni Sampò 1977–82). The lowland sites were typified by some multi-ditched sites, such as Passo di Corvo near Foggia, which contained scores of individual farmsteads within a 30 hectare area (Tiné 1983). Other ditched sites were much smaller and enclosed by single ditches and in some cases these also included low walls of rubble, such as Coppa Nevigata on the Apulian coast. The functional interpretation of the south Italian Neolithic ditches (and enclosures more generally) has included a role in herding and containing animals (Jones 1987), water management (Tiné 1983), or symbolic boundaries (Skeates 2000), although the structures evidently had a multitude of practical and social functions (Pessina & Tiné 2018; Robb 2007). An intriguing combination of both ditch and wall was recorded at the site of Stentinello in eastern Sicily (the type site for impressed-stamped pottery (Leighton 1999, Orsi 1890), and the Sicilian-south Italian variant of Għar Dalam ware). The Neolithic settlements at Piano Vento and Serra del Palco in southern Sicily (Castellana 1995) and Capo Alfiere (Morter 2010) in southern Calabria featured just walled enclosures that probably performed a similar practical and symbolic function to the ditches, and seem typical of the central Mediterranean (Pessina & Tiné 2018). Most sites seem to date from the mid- to late sixth millennium BC, broadly contemporary with the very modest walled enclosure at Skorba. This wall could be considered as the southernmost extension of the tradition of settlement demarcation within the central Mediterranean.

The overall shape of the Skorba wall, from the little that can be traced, is not concentric like the ditches known from southern Italy and southeast Sicily. Instead it follows the contours of the slope, and what remains may have been only a short stretch of boundary walling that connected around the lower edge of the hillside, leaving the upper slope unwalled. This partial type of boundary echoes the boundary structure at Capo Alfiere, where the perimeter wall does not appear to have surrounded the entire site (Morter 2010). The small size and oval shape of the Għar Dalam hut structure at Skorba is quite typical of hut-house forms known from many of the ditched and walled sites, and its form returns later in the shapes of the early lobed temples, in the house forms of Għajnsielem and indeed, the later domestic structures at Skorba.

Trump's excavations at Skorba recovered a small assemblage of human remains from the Għar Dalam deposits (Mangion 1966a & b), consisting of cranial and mandibular fragments. The presence of human

Table 7.2. *Skorba and the* FRAGSUS *questions.*

***FRAGSUS* questions**	**Skorba**
1a. What was the impact of human settlement on Malta?	Enclosed terrace settlement with stone wall indicates early territoriality of settlement in Għar Dalam phase. Settlement continuity exploited the valley landscape around Skorba intermittently for millennia.
1b. How rapid was the process of deforestation, erosion and degradation?	Charcoal suggested burning and perhaps clearance of area while soils show depletion of humic matter, even the deeply buried soils at the site. The evidence supports theory of deforestation and erosion.
1c. When did technical mechanisms to manage the environment develop – such as terracing, water and food storage?	Earlier Neolithic settlement organization is apparent in the spacing and layout of successive structures. Major terrace constructed in front of temple, over the original Earlier Neolithic walled enclosure, compares with similar at other temples, enlarging the external social space, and reflecting potential in agriculture.
1d. Were such mechanisms in place before or after the Temple Culture collapsed?	Skorba's long occupation sequence implies successful storage, water supply and use of valley landscape through out Neoltihic.
2a. How did a very small island community in prehistoric times manage to sustain dense, complex life over millennia, and what specific social, economic and ritual controls emerged to enable this?	Skorba suggests the use of ritual as part of its long-term settlement continuity, from 'shrines' to temples. The possible association implies settlement was formalized and symbolic.
2b. Were the monumental temples instrumental in the process of sustaining cultural life?	Very likely Skorba played a role in centralizing ceremonial life and community identity, as well as providing an economic focus for local communities.
3a. What sort of agriculture was used, and what did people eat, especially as the landscape became increasingly degraded and the environment more unpredictable?	Evidence for cereals, pulses and domestic animals.
3b. Were there failures in the food supply?	Difficult to assess on present evidence, but clearly food was not abundant and wasted, since little bone remains intact or identifiable.
3c. What impact did diet, disease and stress have on the population?	
4a. What was the size and nature of the early Maltese population?	The scale of the settlement at Skorba might suggest a few dozen residents, but no detail on the full extent of settlement.
4b. What role did demographic connectivity (immigration) play in maintaining island sustainability?	Imported chert and obsidian in the form of cores and worked materials, as well as later imported pottery forms from Sicily, demonstrate connectivity throughout Neolithic. Stock and plants originally imported and improved types must have been from outside Malta.
5a. Was there social-economic or environmental failure at the end of the Temple Culture, and what may have caused society to collapse or change so drastically?	Trump identifies breaks and 'squatters' in the late deposits of the temple, suggesting new episodes of occupation. Without substantial settlement evidence, these cultural changes could imply aspects of failure.
5b. Was there a hiatus between the Temple Culture and later Bronze Age settlers?	Trump identified breaks on the basis of sterile deposits between phases. Tarxien Cemetery and Bronze Age levels were noted in specific upper deposits, indicating a distinct cultural break with Neolithic.
5c. Are other hiatuses apparent in the sequence, such as between the earlier Neolithic and the Temple Period?	The clear establishment of the early phase of Skorba extending over more than half a millennium, but with no evidence for dated occupation between *c*. 4800 and 3800 Cal. BC, strongly suggests drastic changes if not abandonment and thus a hiatus in the sequence..

remains in the Għar Dalam occupation layers might suggest that domestic sites in early Malta reflected similar practices in southern Italy and Sicily (Robb 1994; Conati Barbaro 2008; Dolfini 2015). Such burial was within or under or beside dwelling places, rather than formalized external cemeteries, and similar scatters of human remains were recovered from contemporary occupation layers at Għar Dalam cave (Despott 1917).

7.6. Conclusion

The 2016 excavations at Skorba have addressed several of the *FRAGSUS* questions (Table 7.2) and they provide important insights into and confirmation of the chronology of the Early Neolithic of the Maltese Islands. The work establishes the chronology of the earliest features (Għar Dalam wall) firmly, with additional AMS dates (Table 7.1) that refine the remarkably accurate dates achieved from comparatively large bulk carbon samples collected in the early 1960s. Indeed, the new dating confirms the later sixth millennium BC occupation of the site, some 1500 years before the Temple Culture emerged. Dating also suggests that the hiatus in human activity between the Skorba and full Temple Culture phases noted at Santa Verna is repeated at Skorba (note question 5c in Table 7.2). The 2016 excavation of Skorba, 50 years after the publication of the original 1966 report has provided an opportunity for a new discussion of the site and its legacy. Skorba is now more firmly placed within the context of the chronology from other sites in Malta and outside. Importantly, the refinement of chronology and the application of calibration and Bayesian statistics revise the dating of the first Maltese Neolithic phase (Għar Dalam-Skorba), which now can be considered as one extended episode of about half a millennium in length that links to many of the trends and changes in the environmental story of Malta (Volume 1).

In comparison with David Trump's ambitious fieldwork half a century earlier, the intensive 2016 programme of interdisciplinary applications focused on a small trench which has certainly added an unexpected level of new detail and archaeological understanding.

Notes

1. Site code: SKB2016.
2. *FRAGSUS*: Fragility and sustainability in restricted island environments: Adaptation, cultural change and collapse in prehistory. A collaborative programme of research between Queen's University Belfast, Heritage Malta, Cambridge University, the University of Malta and the Superintendence of Cultural Heritage, Malta. European Research Council seventh framework programme (FP7) 'Ideas' Advanced Grant: 323727. Principal Investigator: Prof. Caroline Malone http://www.qub.ac.uk/sites/FRAGSUS/
3. https://research.bournemouth.ac.uk/project/maltese-temples-landscape-project/

Temple places

The ERC-funded *FRAGSUS Project* (*Fragility and sustainability in small island environments: adaptation, culture change and collapse in prehistory, 2013–18*) led by Caroline Malone (Queen's University Belfast) has focused on the unique Temple Culture of Neolithic Malta, and its antecedents and successors through investigation of archaeological sites and monuments. This, the second volume of three, presents the results of excavations at four temple sites and two settlements, together with analysis of chronology, economy and material culture.

The project focused on the integration of three key strands of Malta's early human history (environmental change, human settlement and population) set against a series of questions that interrogated how human activity impacted on the changing natural environment and resources, which in turn impacted on the Neolithic populations. The evidence from early sites together with the human story preserved in burial remains reveals a dynamic and creative response over millennia. The scenario that emerges implies settlement from at least the mid-sixth millennium BC, with extended breaks in occupation, depopulation and environmental stress coupled with episodes of recolonization in response to changing economic, social and environmental opportunities.

Excavation at the temple site of Santa Verna (Gozo) revealed an occupation earlier than any previously dated site on the islands, whilst geophysical and geoarchaeological study at the nearby temple of Ġgantija revealed a close relationship with a spring, Neolithic soil management, and evidence for domestic and economic activities within the temple area. A targeted excavation at the temple of Skorba (Malta) revisited the chronological questions that were first revealed at the site over 50 years ago, with additional OSL and AMS sampling. The temple site of Kordin III (Malta) was explored to identify the major phases of occupation and to establish the chronology, a century after excavations first revealed the site. Settlement archaeology has long been problematic in Malta, overshadowed by the megalithic temples, but new work at the site of Taċ-Ċawla (Gozo) has gathered significant economic and structural evidence revealing how subsistence strategies supported agricultural communities in early Malta. A study of the second millennium BC Bronze Age site of In-Nuffara (Gozo) likewise has yielded significant economic and chronological information that charts the declining and changing environment of Malta in late prehistory.

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Published by the McDonald Institute for Archaeological Research,
University of Cambridge, Downing Street, Cambridge, CB2 3ER, UK.

Cover design by Dora Kemp and Ben Plumridge.

ISBN: 978-1-913344-03-0

UNIVERSITY OF CAMBRIDGE

ISBN 978-1-913344-03-0
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