



McDONALD INSTITUTE MONOGRAPHS

Temple places

Excavating cultural sustainability in prehistoric Malta

By Caroline Malone, Reuben Grima, Rowan McLaughlin,
Éóin 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

Illustrations by

Steven Ashley, Caroline Malone, Rowan McLaughlin, Stephen Armstrong,
Jeremy Bennett, Catriona Brogan, Petros Chatzimpaloglou, Michelle Farrell,
Katrin Fenech, Charles French, Conor McAdams, Finbar McCormick, John Meneely,
Alastair Ruffell, Georgia Vince & Nathan Wright



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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
eaj31@cam.ac.uk
www.mcdonald.cam.ac.uk



McDonald Institute for Archaeological Research, 2020

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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.*

Edited for the Institute by James Barrett (*Series Editor*).

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CONTRIBUTORS

STEPHEN ARMSTRONG
Archaeology, College of Humanities, University of
Exeter, UK
Email: sa622@exeter.ac.uk

STEPHEN ASHLEY
Norfolk Museums Service, Shirehall, Market
Avenue, Norwich, UK
Email: steven.ashley@norfolk.gov.uk

DR JENNIFER BATES
Dept. of Anthropology, Penn Museum, University
of Pennsylvania
Email: jenbates@sas.upenn.edu

JEREMY BENNETT
Department of Archaeology, University of
Cambridge, Cambridge, UK
Email: jmb241@cam.ac.uk

PROF. ANTHONY BONANNO
Department of Classics & Archaeology, University
of Malta, Msida, Malta
Email: anthony.bonanno@um.edu.mt

DR SARA BOYLE (NOW STEWART)
Ordnance Survey of Northern Ireland, Land &
Property Services, Lanyon Plaza, 7 Lanyon Place,
Town Parks, Belfast, Northern Ireland

DR CATRIONA BROGAN
14 Glenmanus Village, Portrush, Antrim, Northern
Ireland
Email: cbrogan03@qub.ac.uk

DR JOSEF CARUANA
Head Office Heritage Malta, Ex Royal Naval
Hospital, Kalkara, Malta
Email: josef.caruana@gov.mt

LETIZIA CECCARELLI
Department of Chemistry, Materials and Chemical
Engineering 'G. Natta', Politecnico di Milano, P.zza
Leonardo da Vinci, 32, 20133 Milano, Italy
Email: letizia.ceccarelli@polimi.it

DR PETROS CHATZIMPALOGLOU
Department of Archaeology, University of
Cambridge, Cambridge, UK
Email: pc529@cam.ac.uk

NATHANIEL CUTAJAR
Head Office Heritage Malta, Ex Royal Naval
Hospital, Kalkara, Malta
Email: nathaniel.cutajar@gov.mt

DR MICHELLE FARRELL
Centre for Agroecology, Water and Resilience,
School of Energy, Construction and Environment,
Coventry University, Coventry, UK
Email: ac5086@coventry.ac.uk

DR KATRIN FENECH
Department of Classics & Archaeology, University
of Malta, Msida, Malta
Email: katrin.fenech@um.edu.mt

PROF. CHARLES FRENCH
Department of Archaeology, University of
Cambridge, Cambridge, UK
Email: caif2@cam.ac.uk

DR REUBEN GRIMA
Department of Conservation and Built Heritage,
University of Malta, Msida, Malta
Email: reuben.grima@um.edu.mt

SHEILA HAMILTON DYER
Department of Archaeology and Anthropology,
Bournemouth University, Bournemouth, UK
Email: shamiltondyer@bournemouth.ac.uk

PROF. CHRISTOPHER O. HUNT
Faculty of Science, Liverpool John Moores
University, Liverpool, UK
Email: c.o.hunt@ljmu.ac.uk

PROF. CAROLINE MALONE
School of Natural and Built Environment, Queen's
University, Belfast, Northern Ireland
Email: c.malone@qub.ac.uk

CONOR McADAMS
Centre for Archaeological Science School of
Earth and Environmental Sciences, University of
Wollongong, New South Wales, Australia
Email: cm065@uowmail.edu.au

DR FINBAR McCORMICK
Emeritus, School of Natural and Built Environment,
Queen's University, Belfast, Northern Ireland
Email: f.mccormick@qub.ac.uk

DR ROWAN McLAUGHLIN
School of Natural and Built Environment, Queen's
University, Belfast, Northern Ireland
Email: r.mclaughlin@qub.ac.uk

JOHN MENEELY
School of Natural and Built Environment, Queen's
University, Belfast, Northern Ireland
Email: j.meneely@qub.ac.uk

DR JACOB MORALES MATEOS
Departamento de ciencias historicas, Universidad de
Las Palmas de Gran Canaria, Spain
Email: jacobmoralesmateos@gmail.com

DR ANTHONY PACE
UNESCO Cultural Heritage, Valletta, Malta
Email: anthonypace@cantab.net

DR EÓIN PARKINSON
Department of Classics & Archaeology, University
of Malta, Msida, Malta
Email: ewparkinson24@gmail.com

PROF. PAULA REIMER
School of Natural and Built Environment, Queen's
University, University Road, Belfast, Northern
Ireland
Email: p.j.reimer@qub.ac.uk

DR ALISTAIR RUFFELL
School of Natural and Built Environment, Queen's
University, University Road, Belfast, Northern
Ireland
Email: a.ruffell@qub.ac.uk

ELLA SAMUT-TAGLIAFERRO
Formerly of the Superintendence of Cultural
Heritage, Malta

PROF. PATRICK J. SCHEMBRI
Department of Biology, University of Malta, Msida,
Malta
Email: patrick.j.schembri@um.edu.mt

DR SIMON STODDART
Department of Archaeology, University of
Cambridge, Cambridge, UK
Email: ss16@cam.ac.uk

KATYA STROUD
Head Office Heritage Malta, Ex Royal Naval
Hospital, Kalkara, Malta
Email: katya.stroud@gov.mt

DR SEAN TAYLOR
Department of Archaeology, University of
Cambridge, Cambridge, UK
Email: st435@cam.ac.uk

PROF. NICHOLAS C. VELLA
Faculty of Arts, University of Malta, Msida, Malta
Email: nicholas.vella@um.edu.mt

DR NATHAN WRIGHT
School of Social Science, The University of
Queensland, Brisbane, Australia
Email: n.wright@uq.edu.au

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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 com-

plex 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.

Tač-Ċawla

The Tač-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 Tač-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 Ġhawdex, 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 Kinnaid (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:

Spring and Summer 2014, Gozo – Tač-Ċawla, In-Nuffara, Ta' Marziena, Ġgantija, Gozo landscapes

UoC	Dr Simon Stoddart	CI/Direction
UoC	Prof. Charles French	Geoarchaeology
UoC	Dr Sean Taylor	Geoarchaeology
UoC	Jennifer Bates (MRes)	Soil sieving
UoC	David Redhouse	Technical staff
UoC	Hettie Hill	Field assistant
UoC	Angus Knight	Field assistant
UoC	Theo Arnold Foster	Field assistant
UoC	Rosanna O'Keefe	Field assistant
UoC	Kate Wilson	Field assistant
UoC	Louise Green	Field assistant
UoC	Emma Brownlee	Field assistant
UoC	Dr Letizia Ceccarelli	Pottery study
HM	Dr George Azzopardi	Landscape archaeology
HM	Katya Stroud (MA)	Field/survey assistant
HM	Joanne Mallia (MA)	Archaeology/archives
HM	Iona Muscat (MA)	Archaeology/archives
HM	Marie Elena Zammit (MA)	Archaeology/archives
Norfolk CC	Steven Ashley	Illustration
Indep	Phil Wright	Field assistant
Indep	Dr Rebecca Enlander	Field assistant
Indep	Lottie Stoddart	Catering/illustration
QUB	Prof. Caroline Malone	PI/Direction

QUB	Conor McAdams	Field assistant
QUB	Stephen Armstrong	Field assistant
QUB	Lorraine Barry (MSc.)	Survey/technical
QUB	Dr Sara Boyle	Research coordination
QUB	Jeremy Bennett	Field/survey assistant
QUB	Dr Alastair Ruffell	GPR survey
QUB	Alix Baxter	Field assistant
QUB	Eóin Parkinson	Field assistant
QUB	Dr Emily Murray	Staff supervisor
QUB	Anastasia Boomsma	MSc. training
QUB	Deborah Schroeter	MSc. training
QUB	Claire Privilege	MSc. training
QUB	Laura Patrick	MSc. training
QUB	Joel Goodchild	MSc. training
QUB	Michael Lavery	MSc. training
QUB	Naomi Finn	Catering
QUB	Tiomoid Foley	Field assistant
QUB	Jake Morris	Field assistant
QUB	Jonny Small	Field assistant
QUB	Dr Michelle Farrell	Environmental PDRA
QUB	John Meneely	Digital scanning
QUB	Conor Graham	Survey/technical
QUB	Michael Armstrong	Field assistant
Rome	Mariele Valci	Field assistant

Acknowledgements

Swansea	Lucy Stoddart	Ecology assistant
UM	Dr Reuben Grima	Fieldwork direction
UM	Dr Nick Vella	CI/Direction
UM	Dr Katrin Fenech	Environmental analysis
UM	Prof. Patrick Schembri	Environmental direction
UM	Nicole Micalcuff	Field assistant
UM	Jessica Scicluna	Field assistant
UM	Luke Brightwell	Field assistant

UM	Tamsin Kingman	Field assistant
UM	Kay Mallia	Field assistant
UM	Karl Cachia	Field assistant
UM	Cecilia Zammit Endrich	Field assistant
UM	Annalise Agius	Field assistant
UM	Joseph Grima	Field assistant
UM	Dean Galea	Field assistant

April 2015, Gozo – Santa Verna, Ġgantija, In-Nuffara

UoC	Dr Simon Stoddart	CI/Direction
UoC	Jeremy Bennett (MSc.)	Survey supervisor
UoC	Dr Letizia Ceccarelli	Ceramics and finds
UoC	Prof. Charles French	Geoarchaeology
UoC	Dr Sean Taylor	Geoarchaeology
UoC	David Redhouse	Survey supervisor
UoC	Robert Barratt	Digital recording
UoC (CAU)	Donald Horne	Site supervisor
UoC (CAU)	Katie Hutton	Site supervisor
UoC	Laura James	Site supervisor
UoC	Dr Paola Filippucci	Student training
UoC	Dr Bela Dimova	Student training
UoC	Charles Barker	Student training
UoC	Tansy Branscombe	Student training
UoC	Imogen Coulson	Student training
UoC	Olivia Crawford	Student training
UoC	Louise Green	Student training
UoC	Josie Howl	Student training
UoC	Isaac Lawton	Student training
UoC	Jodie Manners	Student training
UoC	Aran McMahon	Student training
UoC	Susanne Navara	Student training
UoC	Jacob Pockney	Student training
UoC	Lily Rice	Student training
UoC	Alisa Santikam	Student training
UoC	Rebecca Seakins	Student training
UoC	Finnoula Taylor	Student training
UoC	Katherine Wilson	Student training
UoC	Conor McAdams (M.Phil)	Geoarchaeology
UoC	Dr Ronika Power	Human osteology
UoC	Dr Letizia Ceccarelli	Pottery study
INDEP	Rupert Barker	Filmmaker

Norfolk CC	Steven Ashley	Illustration/planning
QUB	Prof. Caroline Malone	PI/Direction
QUB	Dr Rowan McLaughlin	Senior site supervisor
QUB	Eóin Parkinson (MSc.)	Site supervisor
QUB	Dr Catriona Brogan	Site supervisor
QUB	Stephen Armstrong (M.Arch.Sci.)	Site supervisor
QUB	John Meneely (MSc.)	Digital survey/technical
QUB	Dr Sean Pyne O'Donnell	Coring
LJMU	Dr Chris Hunt	Coring
QUB	Dr Rory Flood	Coring
QUB	Dr Michelle Farrell	Coring
QUB	Dr Finbar McCormick	Zooarchaeology
QUB	Tiomoid Foley (M.Arch.Sci.)	Survey assistant
QUB	Rory Sutton (M.Arch.Sci.)	Field assistant
QUB	Claire Holmes (M.Arch.Sci.)	Field assistant
QUB	Dr Evan Hill	Environmental
IAC Ltd.	Christina O'Regan (MSc.)	Field assistant
RDS	Charlotte Stoddart (MA)	Field assistant
Indep.	Rupert Barker	Film maker
ROME	Mariele Valci	Field assistant
SCH	Ella Samut-Tagliaferro (MA)	Site supervisor
SCH	Bernardette Mercieca (MSc.)	Human osteology
UM	Gillian Asciak	Student training
UM	Stephanie Parisi	Student training
UM	Maja Sausmekat	Student training
UM	Leslie Torwie	Student training
UM	Dr Reuben Grima	Landscape

Acknowledgements

June–July 2015 – Kordin Temple

UoC	Dr Simon Stoddart	CI/Direction
UoC	Jeremy Bennett (MSc.)	Survey
UoC	Dr Letizia Ceccarelli	Ceramics
UoC	Matthew Greenhill	Field assistant
UoC	Beth Whitlock (MPhil)	Field assistant
MEPA	Tony Zammit (MSc.)	MEPA
MEPA	Joseph Magro Conti (MSc.)	MEPA
QUB	Prof. Caroline Malone	PI/Direction
QUB	John Meneely (MSc.)	Survey
QUB	Dr Rowan McLaughlin	Principal supervisor
QUB	Eóin Parkinson (MSc.)	Site supervisor
QUB	Dr Catriona Brogan	Site supervisor
QUB	Dr Finbar McCormick	Zooarchaeology
QUB	Dr Evan Hill	Molluscs/sieving
SCH	Ella Samut-Tagliaferro	SCH
Swansea	Lucy Stoddart	Field assistant
UM	Chris Gemmell	Logistics
UM	Rebecca Farrugia	Site supervisor
UM	Dr Sean Taylor	Geoarchaeology
UM	Prof. Anthony Bonanno	Ceramics
UM	Dr Nicholas Vella	CI/Direction
UM	Dr Reuben Grima	CI/Direction
UM	Adrian Camilleri	Field assistant
UM	Aidan Lehane	Field assistant

UM	Anne Marie Schembri	Field assistant
UM	Gavin Borg	Field assistant
UM	Gillian Asciak	Field assistant
UM	Prof. John Betts	Survey
UM	Leanne Azzopardi	Field assistant
UM	Luke Briitghtwell	Field assistant
UM	Maja Sausmekat	Field assistant
UM	Daniela Formosa	Field assistant
UM	Mara de Richter	Field assistant
UM	Maria Serpina	Field assistant
UM	Melanie Debono	Field assistant
UM	Nico Muscat	Field assistant
UM	Nicole Micaloff	Field assistant
UM	Nidia Lisic	Field assistant
UM	Rachel Grillo	Field assistant
UM	Sefora Borg	Field assistant
UM	Tamsin Kingwell	Field assistant
UM	Tore Lomsdalen	Field/survey assistant
UM	Sandy Pirani	Field assistant
UM	Tamsin Cauchi	Field assistant
UM	Ryan Grech	Field assistant
UM	Gabriel Farrugia	Field assistant
UM	Dwayne Haber	Field assistant
UM	Dean Galea	Field assistant

April 2016 – Skorba excavation

UoC	Dr Simon Stoddart	CI/Co-Direction
UoC	Jeremy Bennett (MSc.)	Field assistant
UoC	Eóin Parkinson (MSc.)	Field assistant
HM	Dr Josef Caruana	Heritage assistant
QUB	Prof. Caroline Malone	PI/Direction
QUB	Dr Rowan McLaughlin	Assistant direction

QUB	Dr Catriona Brogan	Field assistant
QUB	Stephen Armstrong (M.Arch.Sci.)	Field assistant
QUB	Emma Hannah (MPhil)	Field assistant
SCH	Ella Samut-Tagliaferro	Field manager
Univ. St Andrews	Dr Timothy Kinniard	OSL/geomorphology

Summer 2016 – Pottery and finds analysis (University of Malta)

UoC	Dr Simon Stoddart
Norfolk CC	Steven Ashley
QUB	Prof. Caroline Malone

QUB	Dr Rowan McLaughlin
QUB	Stephen Armstrong
QUB	Dr Catriona Brogan

June 2017 – Pottery analysis (University of Malta and National Museum of Archaeology)

UoC	Eóin Parkinson (MSc.)
QUB	Dr Rowan McLaughlin
QUB	Prof. Caroline Malone

QUB	Dr Catriona Brogan
QUB	Dr Lisa Coyle McClung

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 Xaghra 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 Taç-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.

Joseph Magro Conti
Superintendent of Cultural Heritage, Malta
September 2020

Chapter 6

Kordin III

Rowan McLaughlin, Catriona Brogan, Eóin W. Parkinson,
Ella Samut-Tagliaferro, Simon Stoddart, Nicholas Vella
& Caroline Malone

6.1. Introduction

The following presents the results of the four-week excavation campaign at the Kordin III megalithic complex in June–July 2015 (site code: KRD2015), Paola, Malta (Fig. 6.1). The excavations were undertaken by the *FRAGSUS*¹ research team, with assistance from students from the University of Malta. The excavations at Kordin III were aimed at locating intact archaeological deposits related to the Temple Period in order to retrieve samples for radiocarbon dating, as well as palaeoenvironmental and palaeoeconomic reconstruction. Following the findings of previous excavation campaigns at Tač-Ċawla, Santa Verna, Ġgantija and In-Nuffara, all located on Gozo, the Kordin III excavations sought to establish a relative and absolute chronology for the site and the wider Temple Period on Malta, as well as to understand the environmental and geoarchaeological setting of the Kordin III complex and consider its relationship with the lost sites of Kordin I and II (see Fig. 6.8)

6.2. The site

6.2.1. Location and physical setting

Kordin III forms part of a larger megalithic landscape that also comprised two nearby groups of prehistoric ‘temple-like’ monuments, known as Kordin I and II (also referred to as ‘Cordin’ and ‘Corradino’). Both Kordin I and II were recorded and partially excavated between 1892 and 1909 (Figs. 6.2 & 6.3), but their remains have since been lost to building and development (Ashby *et al.* 1913; Caruana 1896; Evans 1971, 67). The approximate location of the two lost monuments has now been developed as an industrial estate in the 1960s (Figs. 6.4 & 6.5). Their destruction was probably contemporary with the demolition of a large fortification wall, part of which still survives today (Fig. 6.7). The Kordin sites are located on the

east-facing slopes of a hill along the southern margin of the Grand Harbour of Valletta and are situated near the Tarxien temples and the hypogea at Hal-Saflieni and a lesser known site, Santa Lucija.

Before the constraints now imposed by modern-day buildings, walls and trees, those standing at Kordin III in the past would have had extensive views from the site to the west over some 23 sq. km; a view that ranged as far as the Mellieħa Ridge, some 13 km



Figure 6.1. Location map of Kordin III.

away. This prominence can be demonstrated by the application of 'viewshed' analysis in a computerized GIS (Fig. 6.6; Chapter 12). Kordin III is located on disturbed soils upon Globigerina bedrock at 35.87°N, 14.50°E at an elevation of around 40 m.

6.2.2. History of the site

In 1908, a group of megalithic ruins were identified on Kordin hill close to Paola (Figs. 6.2 & 6.2). The ruins were found in a field named Ix-Xagħra ta' Cordin, located south of the road which led down into Marsa from the Military Detention Barracks. At the beginning of the twentieth century, the site was defined by a mound of earth, from which large slabs and limestone blocks stood out. Kordin South, today known as Kordin III, was first excavated in May 1909 by Thomas Ashby of the British School at Rome together with R.N. Bradley, T.E. Peet, and N. Tagliaferro (Fig. 3.6 shows images of the 1909 works). The goal of the 1909 excavation was to identify the extent of the megalithic ruins. During the first research visits, the outline of two apses and a large stone at their entrance were identified amongst the scattered remains. Site works began with soil removal in specific areas that traced the extent of stone alignments. These localized interventions later developed

into the clearance of almost the entire archaeological site. Several areas revealed floor levels and fills that were excavated, some only partially, others down to bedrock. As work progressed, some areas of the remains were also reconstructed. The remains explored during the 1909 excavation were recorded and at least two site plans of the archaeological site were drawn. The cultural material was described using Tagliaferro's pottery classification and compared with other sites in Malta and Gozo, Ħal Saflieni in particular. Despite this, comparative dating of the various types of pottery proved futile. Details on this intervention were published by Ashby *et al.* (1913). In 1925, a boundary wall was constructed to close off Kordin III (Fig. 6.7) and to ensure that the curtilage of the site was protected as an ancient monument. In retrospect, the wall (instigated by Zammit) ensured the survival of the site, as the area became rapidly industrialized in the mid-twentieth century.

The site of Kordin III was subject to further archaeological excavations in 1954 in a programme of research that aimed to understand the chronological sequence of early Malta (Evans 1971, 67). A number of small trenches (Trenches A–E) were opened by John D. Evans in different locations within the Kordin III main

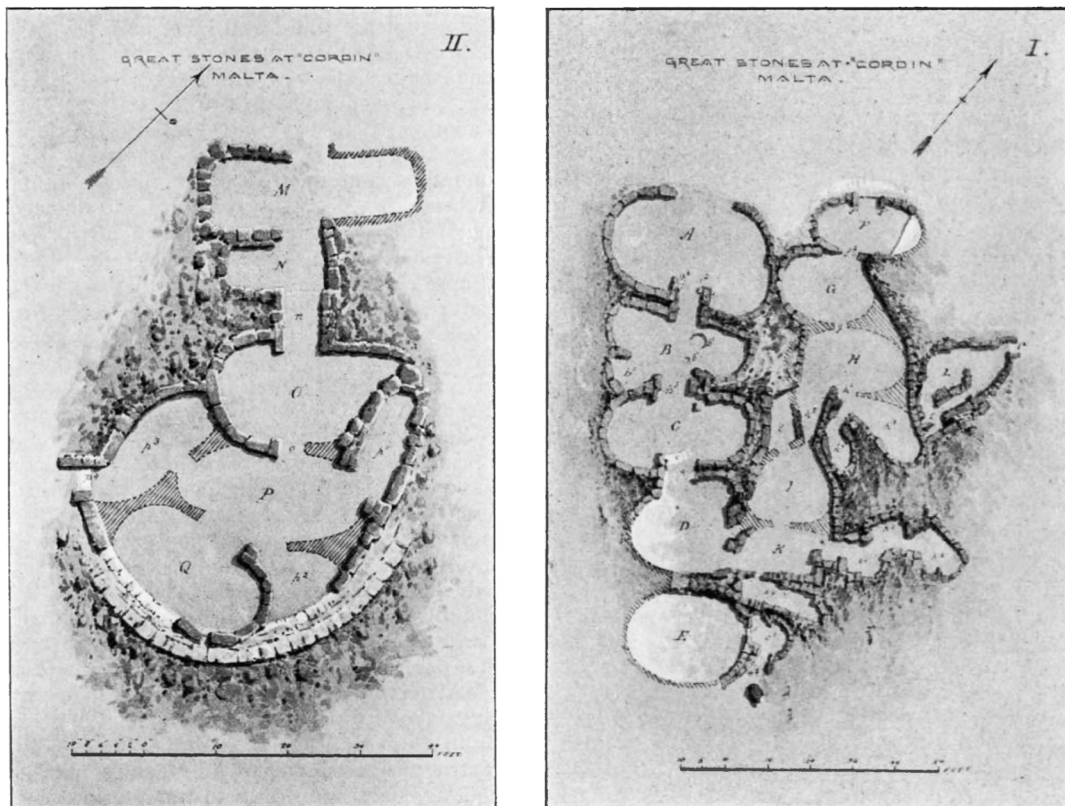


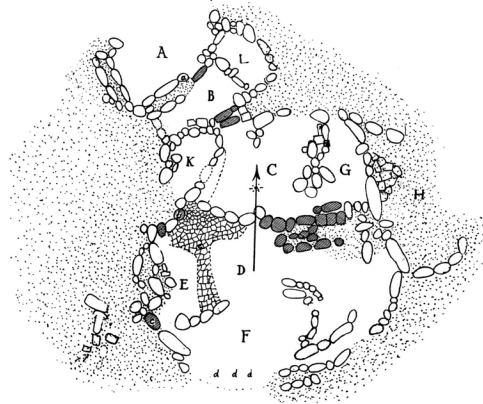
Figure 6.2. The temples of Kordin I and Kordin II as recorded by Caruana (1896).

P.B.S.R. VI. Plate II.

PLAN OF REMAINS AT CORRADINO HILL

(1st Group.)

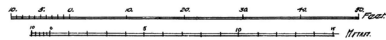
(Western.)



REFERENCES.

- Vertical } Stones
- Horizontal } Stones
- Stone pavement
- Backing rubble

a



Whitman & Bees, Photo-Litho, London.

P.B.S.R. VI. Plate III.

PLAN OF REMAINS AT CORRADINO HILL.

(2nd Group)

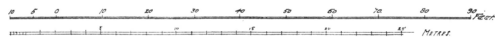
(Eastern)



REFERENCES

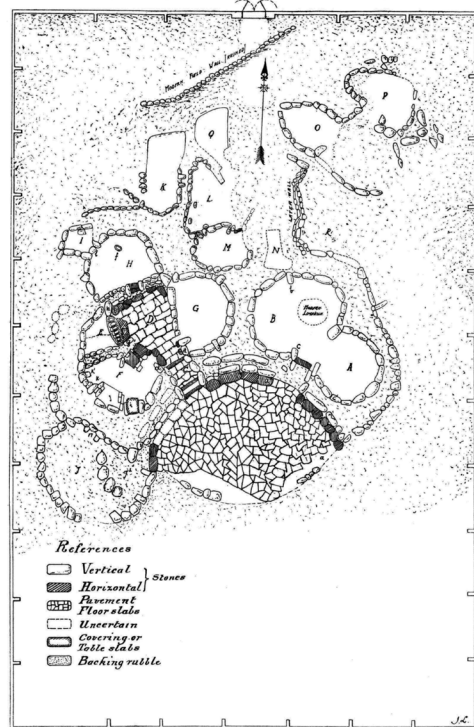
- Horizontal } Stones
- Vertical } Stones
- Backing rubble
- Uncertain
- Covering or tile slabs
- Stone Floor

b



Whitman & Bees, Photo-Litho, London.

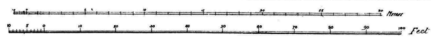
PLAN OF MEGALITHIC RUINS ON CORRADINO HILL AT 'IXAGHRA TA CORDIN'



References

- Vertical } Stones
- Horizontal } Stones
- Pavement
- Floor slabs
- Uncertain
- Covering or tile slabs
- Backing rubble

c



Whitman & Bees, Photo-Litho, London.

temple complex and the smaller northern structures as illustrated in Figures 6.2 & 6.43 to test stratigraphy and chronology. The 1953 intervention was reported in Evans's 1971 publication on the Prehistoric Antiquities of the Maltese Islands. Evans included a site plan of Kordin III, adapted from Ashby *et al.*'s 1913 excavation plan (Fig. 6.10). Other records published in 1971 included a section drawing of the stratification identified within Trench C, as illustrated in Figure 6.11. Through these excavations, the intent was to date or at least phase, the monument and re-assess the pottery sequence. The results suggested that although the site contained earlier buildings, the surviving remains dated from the Ġgantija phase (c. 3600–3100 BC).

In 1957, restoration works at the Kordin III site were undertaken to stabilize damage incurred during WWII when the site was hit by blasts from explosive bombs, some of which also shattered the boundary wall. These events had littered the site with debris and were reported to have caused considerable damage to the megalithic ruins. During the early post-war years, more stone slabs from inside the apses and passages of Kordin III were dislodged by intruders.

Further exploratory trenches were cut by David Trump in July 1961. Trump's interventions at Kordin

Figure 6.3. Ashby's plans: a) Kordin I; b) Kordin II; and c) Kordin III (Ashby *et al.* 1913).

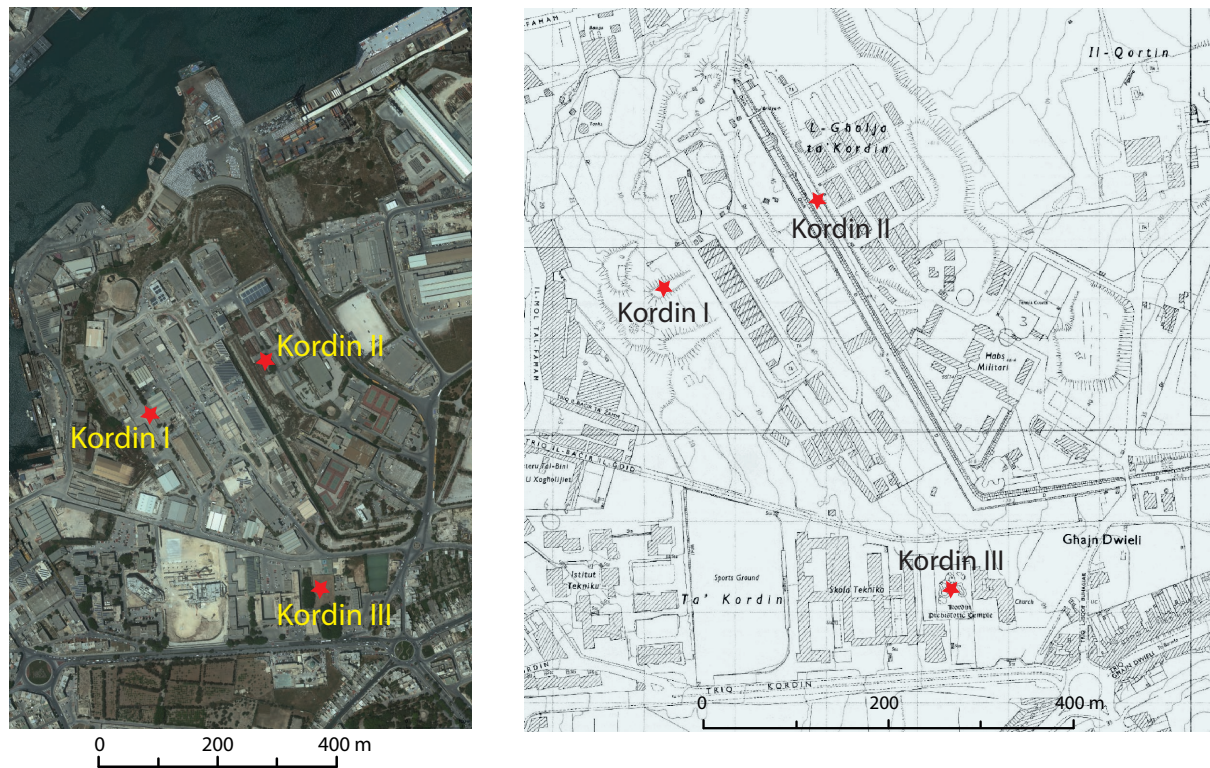
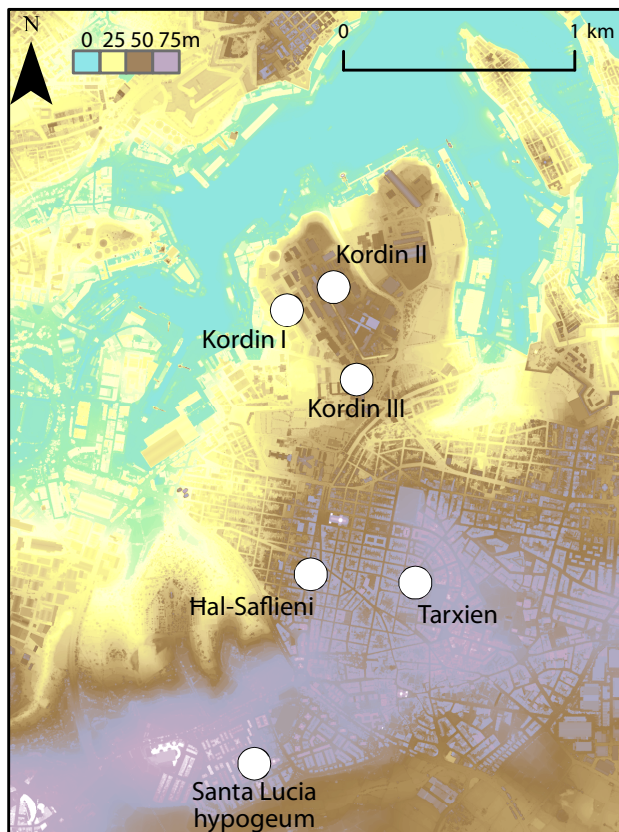


Figure 6.4. Orthophotograph (left) and 1968 survey map showing the location of the Kordin temple complexes (by permission of the former Malta Environment and Planning Authority).



III were associated with his second campaign at Skorba and other sites, which aimed to clarify the chronological sequence for Maltese prehistory especially after the Skorba excavations had indicated the transposition of the Żebbuġ and Mġarr phases. During this intervention, three trenches (Trench A – C) were opened as illustrated in Figure 6.11. In his field notes, held at the National Museum of Archaeology, Trump concluded that Kordin III secured the sequence of the Mġarr–Ġgantija phases.

In 1980, several prehistoric Maltese Temple sites were inscribed on the World Heritage List, but the list excluded Kordin III. From 1987 to 2016, the site was managed by a voluntary organization, Fondazzjoni Wirt Artna, whilst the other sites were cared for by the Museums Department/Heritage Malta. Between 2001 and 2004, the site was used as a case-study for the TEMPER Project led by the University of Cambridge (Borg 2007). In 2006, the Department of Classics and

Figure 6.5. Location of prehistoric sites in the area with a shaded relief digital elevation model derived from LiDAR.

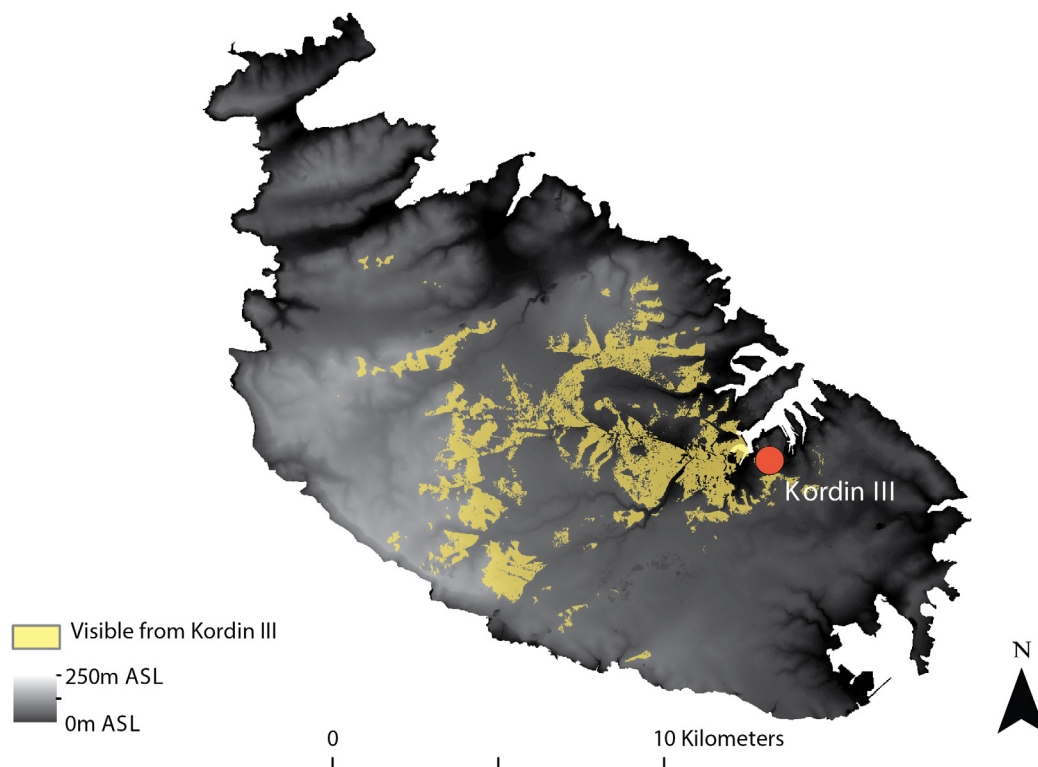


Figure 6.6. Location map of Kordin III also indicating the ground-level viewshed calculated using a LiDAR-derived digital terrain model of Malta.

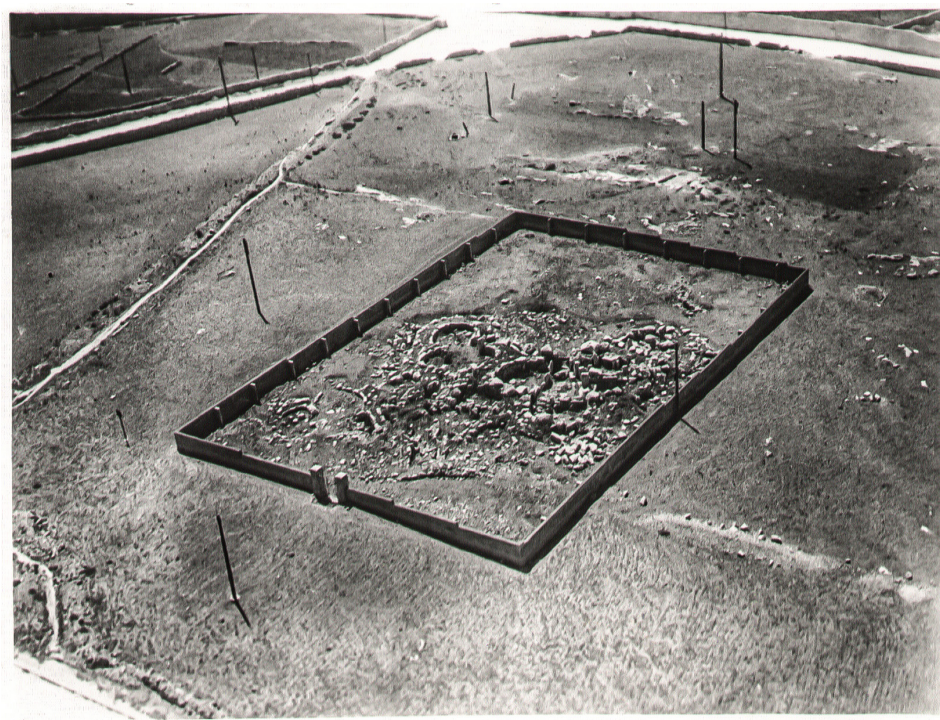


Figure 6.7. Image of Kordin III surrounded by the enclosing wall before the area was developed as an industrial estate (1925).



Figure 6.8. Site photos from Ashby and Peet's 1909 excavation at the Kordin sites (Ashby Archive photographs, reproduced with permission, The British School at Rome, all rights reserved (1-XXX.075; 2-XXXVIII.023; 3-TA-XXVII.048, 4-XXX.065; 5-XXX.055; 6-XXX.087; 7-XXX.068; 8-XXX1.001).

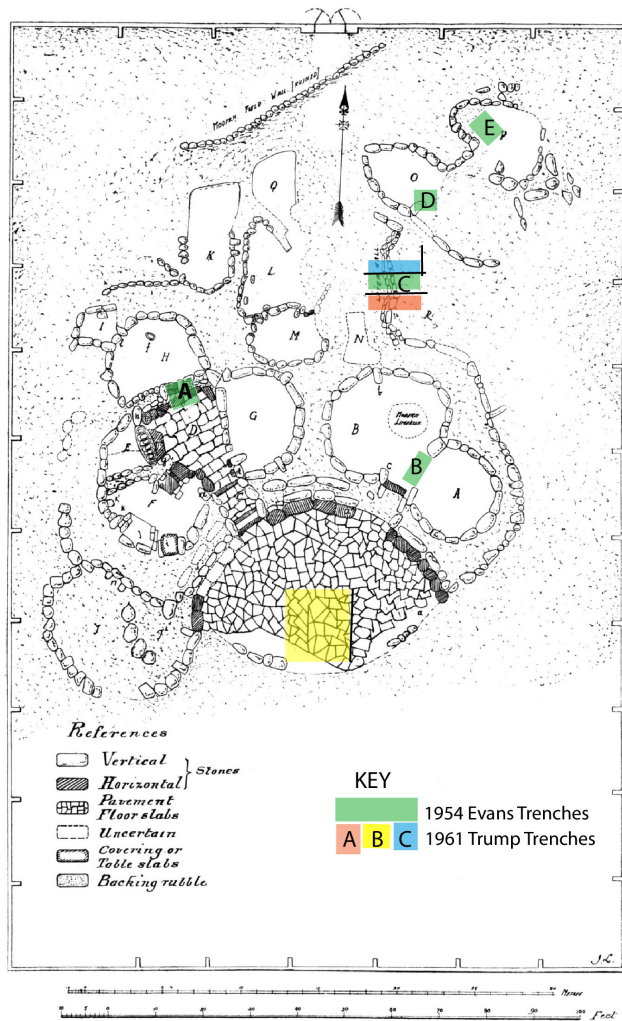


Figure 6.9. Ashby's plan of Kordin III showing the locations of Evans' and Trump's trenches (prepared by Mevrick Spiteri for the FRAGSUS Project).

Archaeology at the University of Malta carried out a survey of the monument in the northeastern corner of the site, and recorded the trefoil-shaped structure typical of temple buildings (Fig. 6.12), as had been suggested previously by both Magro Conti (2000) and Pace (2004). Heritage Malta (HM) assumed management of the site in 2016.

6.3. Methodology and personnel

The 2015 excavation took place from 22 June to 17 July. Excavation was done entirely by hand, under the direct supervision of University of Malta and FRAGSUS Project personnel. The excavations were directed by Prof. Caroline Malone and Dr Nicholas Vella, assisted

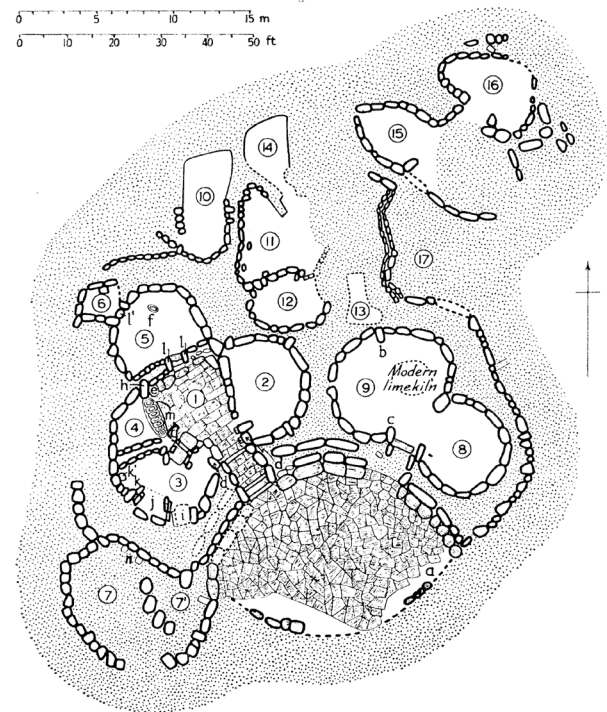


Figure 6.10. Evans' plan of Kordin III (adapted from Ashby et al. 1913).

by Dr Reuben Grima, Dr Simon Stoddart, Dr Rowan McLaughlin and Ella Samut-Tagliaferro. The crew consisted mainly of students from the University of Malta (see acknowledgements and Fig. 6.44), supervised by Jeremy Bennett, Dr Catriona Brogan, Rebecca Farrugia, Prof. John Betts and Eóin Parkinson. In this report, levels are given in metres above sea level (ASL). In total, five areas were granted a permit for excavation from the Superintendence of Cultural Heritage (SCH), three within the confines of the walled site and two outside it to the west. These were Trench I (A, B and C), Trench II (A and B), Trench III and outside the confines of the enclosed walled temple site, Trench IV (A and B) (Fig. 6.13). The areas within the walled area incorporated shade protection (see photos) as required for June-July fieldwork. The narrow width of the trenches and their precise orientation was dictated by the excavation permit, and this arrangement did not enable complete investigation of some of the structural aspects or deposits. The trenches were sited to test a variety of external parts of the temple complex, areas that had not received much attention in the earlier campaigns and were little understood in relation to the work done by Ashby and Peet during the first major campaign of work more than a century ago (§6.2.2).

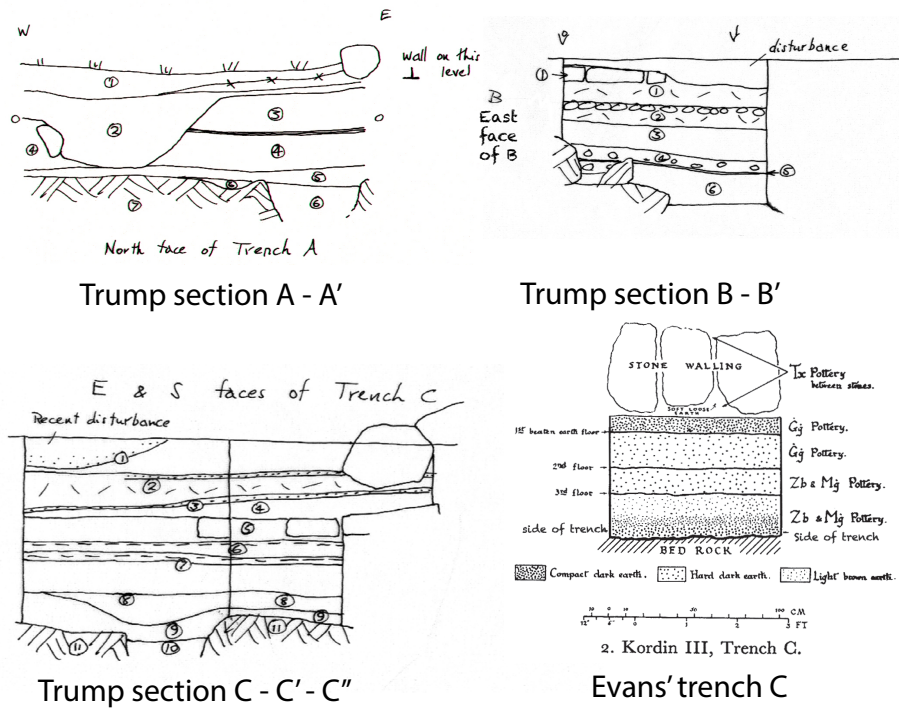


Figure 6.11. Evans' and Trump's section and trench drawings, the location of which are shown in Figure 6.9.

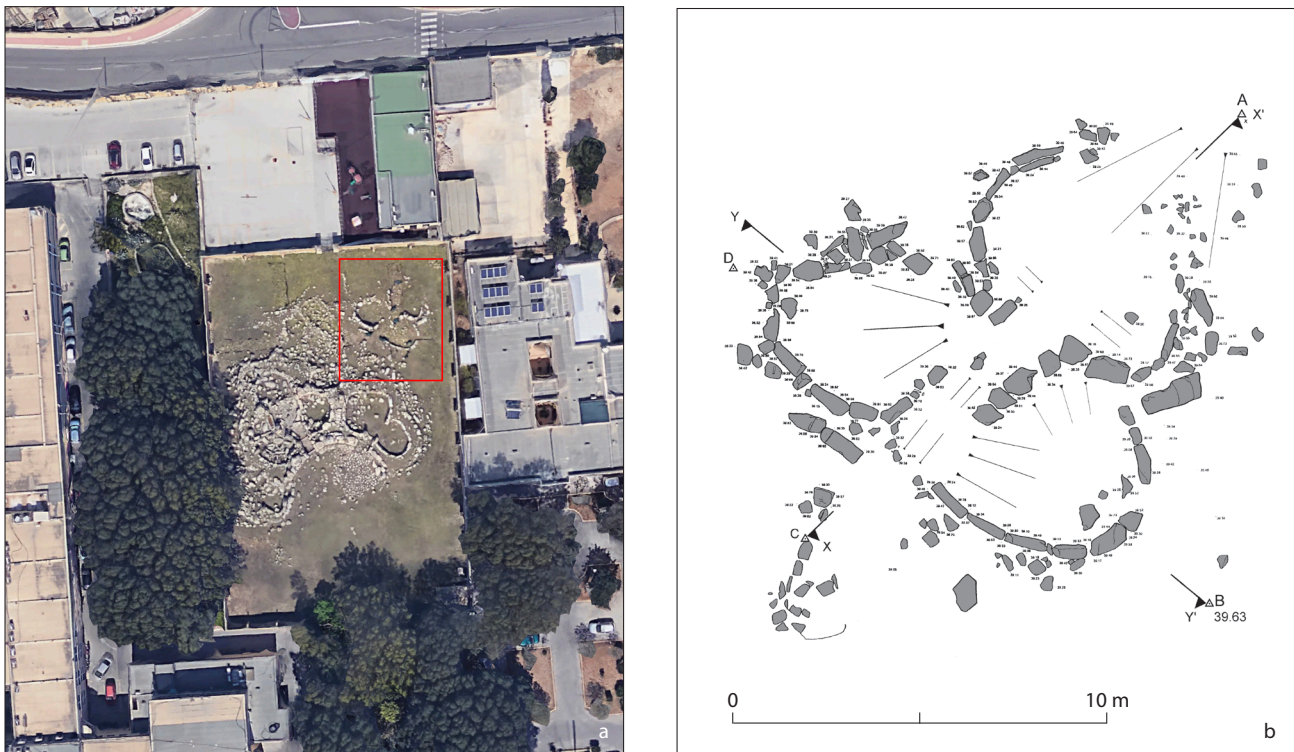


Figure 6.12. a) Aerial view of Kordin III; b) detail showing the survey carried out in 2006 by the University of Malta.



Figure 6.13.
Location of the 2015
trenches at Kordin
III overlain on air
photograph.

6.4. Results: Trench I

Trench I consisted of three 2 m-wide interconnected lengths forming a ‘T’ near the northeastern corner of the site, designed to investigate a small trefoil temple structure (identified as ‘O’ by Ashby *et al.* (1913), and 15-16 by Evans 1971). Trench IA ran east–west through the area, Trench IB ran north–south from the northern edge of Trench IA, and Trench IC ran north–south from the southern side of Trench IA (Fig. 6.14). Topsoil throughout Trench I was identified as Context (1),² a firmly compacted loam with a covering of grass and other weeds, from which the megalithic remains protruded. Topsoil (1) was removed by mattock and trowel to reveal a number of different underlying spreads of soil and stones, some of which were directly associated with the upstanding megaliths, and some that were clearly spreads of material deposited during relatively recent times. These are described below.

6.4.1. Trench 1A

Trench 1A investigated the area within Apse ‘S’ of the trefoil structure, the threshold area that led into it, and extended into an area immediately the west of the

megalithic structure. Three megaliths in the western part of the trench (M16, M17 and M18) were assigned the context number (25). The southern part of the lobe wall, where it intersected with the trench, contained five megaliths (M1, M2, M3, M4 and M5) which were assigned context number (26); and three megaliths (M42, M43 and M44) at the northern edge of the wall were assigned Context (27) (Fig. 6.15).

6.4.1.1. Contexts inside ‘Room S’

Investigation of the foundations of ‘Room S’ were undertaken in two small sondages dug to bedrock at 38.45 m ASL. A 1.25 × 0.75 m sondage was placed near the western entrance of the ‘Room’, and a 0.8 × 0.7 m sondage was placed against the inner lobe wall (Fig. 6.15). Both sondages contained a similar stratigraphic profile. Above bedrock in the western sondage, Context (99) formed an orange-brown silt loam layer with a distinctive dry and crumbly texture. The layer contained nine highly fragmented pieces of Skorba pottery, and nothing from the Temple Period, indicating that the layer was thus a remnant palaeosol, containing material from a much earlier phase of occupation than the overlying structure. A radiocarbon date of 3670–3380

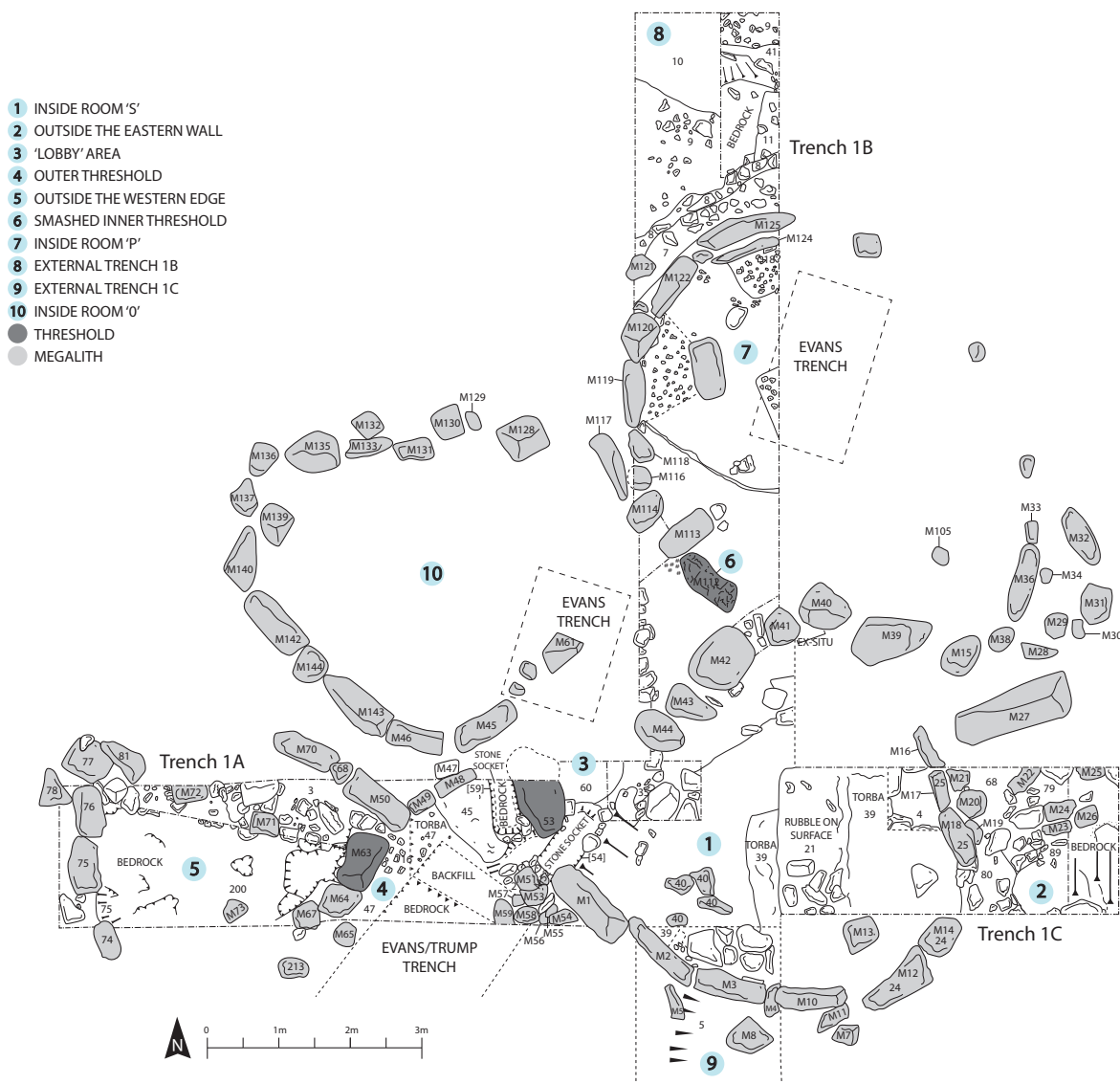


Figure 6.14. Overview of Trench I.

cal. BC (UBA-33019, 4803±50), however, was obtained from a sample of *Olea cf. europa* (olive) charcoal from Context (99). This date relates to the Mġarr phase (Fig. 6.16), and provides a lower boundary for the period of the activity and structures that lay above. A virtually identical layer, Context (91B), was exposed in the eastern sondage. Above Context (99) in the western sondage Context (96) presented a dark brown silt loam. This was interpreted as palaeosol from a pre-temple phase. Although some 52 pottery sherds were found in Context (96), few were diagnostic (the latest being one Mġarr-phase sherd). Samples from charred *Hordeum* and *Triticum* grains in the layer returned radiocarbon dates of 3510-3200 cal. BC (UBA-33018, 4614±33) and 3090-2900 cal. BC (UBA-33017, 4363± 40) respectively.

Context (91) was a very similar deposit to (96), and was exposed in the eastern sondage above (91B). The layer did not contain any pottery, but a wet-sieved sample of the fill contained a charred *Triticum* grain which was radiocarbon dated to 3500-3150 cal. BC (UBA-33015, 4593±31). Taken together in a Bayesian model of two successive phases, the radiocarbon evidence obtained from these trenches indicates that the pre-temple soils dated to a phase of activity falling roughly between 3500 and 3000 BC – the Ġgantija phase (Fig. 6.16).

The equivalent Contexts (40) and (92) that lay above the remnant soils were encountered next. These formed a layer of large, flat stones arranged to form a level and flat foundation for a *torba* (ground limestone plaster surface) floor layer, much like stone paving in

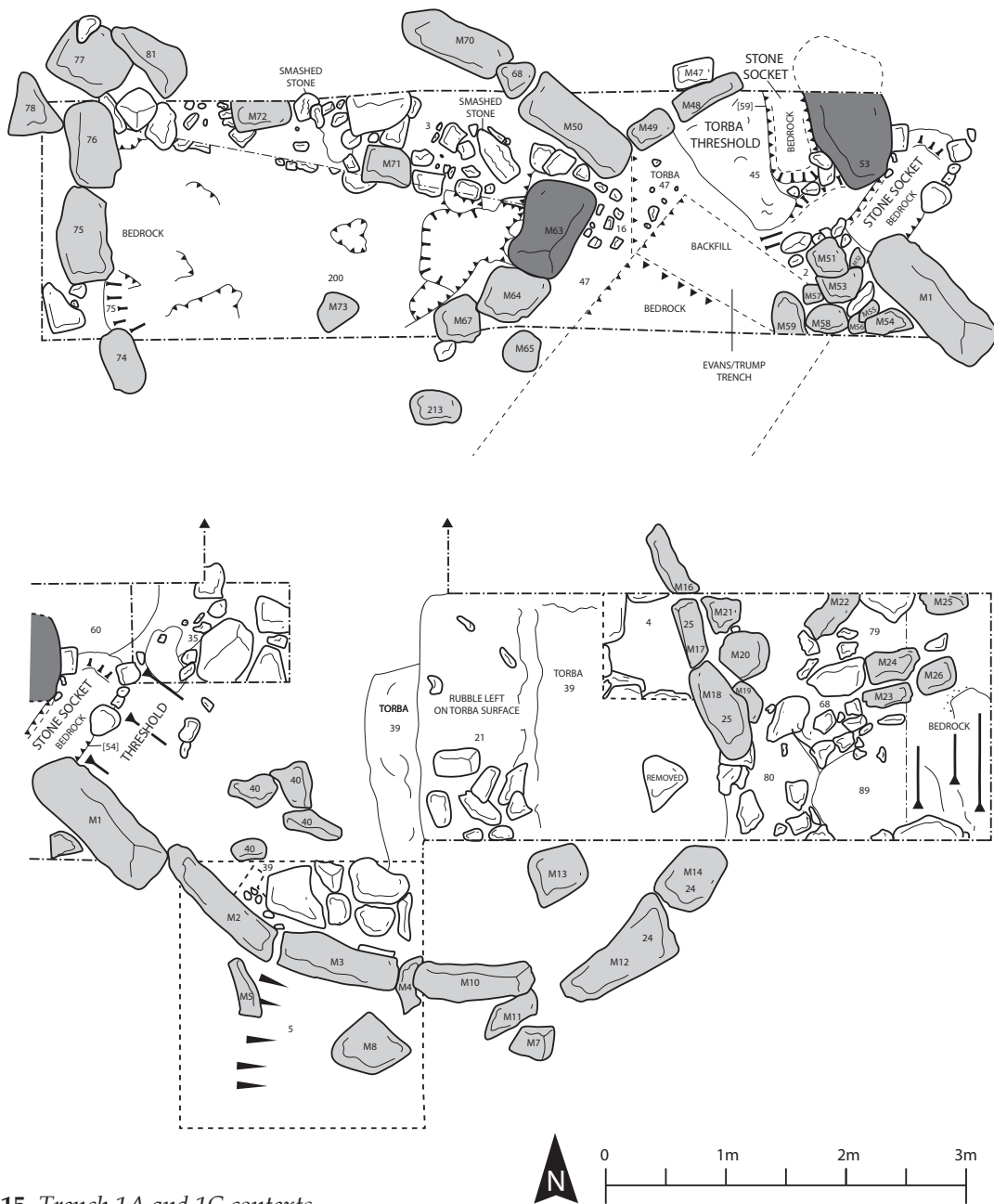


Figure 6.15. Trench 1A and 1C contexts.

appearance. Similar stone paving is found elsewhere at Kordin III, most notably in the entrance court of the main temple. These stones were directly covered by a *torba* layer, discussed below (30/39/90) (Figs 6.14 & 6.15); this may suggest that the paving slabs found elsewhere at Kordin were also foundation deposits, and were also once covered by *torba*, which has long-since eroded away. The recurrence of a paving-stone feature is a point of contrast with other temple sites in Malta, where typically spreads of smaller stones appear to have had the same foundation purpose (e.g. Evans

1971, Plate 23). Indeed, it is interesting that elsewhere in Trench I, smooth exposures of bedrock had been used as level foundations for much of the megalithic structure, hinting that the paving slabs functioned as a synthetic bedrock, and achieved the required level for a floor. There may also be a symbolic significance, beyond the functional or mundane, that the particular construction methods had in the minds of the builders.

The *torba* covering these stones was Context (30), comprising a *torba* floor, pale grey in colour. The floor butted against megalith M64 and covered the

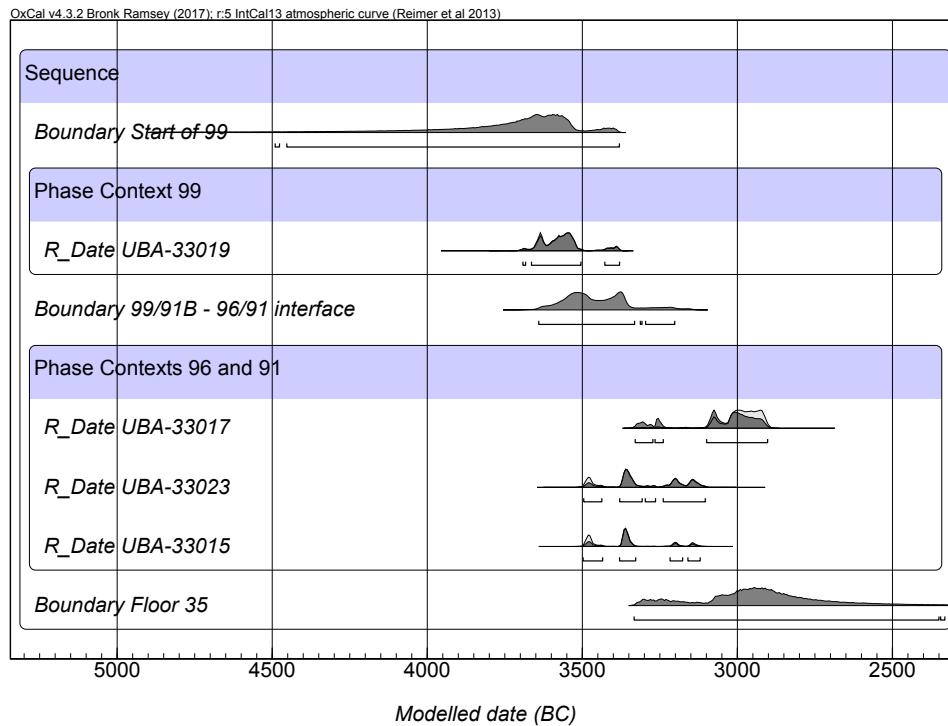


Figure 6.16. Bayesian model of the radiocarbon dates obtained from sondages in Kordin III Trench I.

'threshold' leading to Apse 'S' (Fig. 6.15). The layers of soil overlying different areas of the *torba* were excavated separately, and so the same layer was assigned the context numbers (39) and (90), until it became apparent that the deposits were all the same entity. The upper surface of *torba*, constituting the relatively flat floor within Apse 'S', was assigned as Surface {35}. The apse space measured some 3 m in diameter, and was encircled by the apse wall: Contexts (25), (26) and (27). The *torba* floor Surface {35} was exposed over the entirety of the trench, but was left intact, except for the two sondages discussed above. Bayesian analysis of the radiocarbon determinations sought from beneath {35} suggest that the building was constructed after 3300 cal. BC (Fig. 6.16).

A sondage was opened directly east of the lobe wall of Apse 'S' in deposits which showed signs of disturbance from a previous excavation, presumably that of Ashby in 1909. At the base of the sondage, Context (29) comprised a concentration of medium- to large-sized stones, 25–35 cm in diameter, and was interpreted as stony packing material set against the wall (25); this was left intact and not excavated further. Above this was Context (28), an accumulation of fine silt loam with large stones embedded within it. This was followed by general backfill Contexts (13) and (12), a brown to reddish-brown mottled soil, speckled with

broken *torba* differentiated on account of the greater frequency of large stones compared with Context (13).

Elsewhere, removal of the topsoil in the eastern area of Apse 'S' revealed deposit (23), a disturbed dark brown, gritty silt loam, possibly resulting from the collapse/movement of the megaliths in more modern times. A similar, but less compacted, layer was found immediately below this was identified as Context (22). Overlying (22), Context (3) formed a layer of medium to large flattish stones, which appear to have been set into Context (22), with finds of mixed prehistoric pot and modern materials, including glass.

Abutting Context (23) traces of *torba* floor were identified directly below topsoil at the northern edge of Apse 'S', at the junction of trenches 1A and 1B. The *torba* fragments identified as Context (16) had become mixed within a matrix of small stones with brown soil, and stratified below Context (17). Context (17) formed a 10 cm-thick layer of firm, dark brown silty loam, devoid of cultural material, which had accumulated during some unknown period, between the prehistoric temple layers and modern times.

6.4.1.2. 'Outside' the eastern wall

The eastern end of Trench IA exposed a 2.1 m-long section through deposits 'outside' the curving apse wall of the megalithic structure. Here, a series of buried

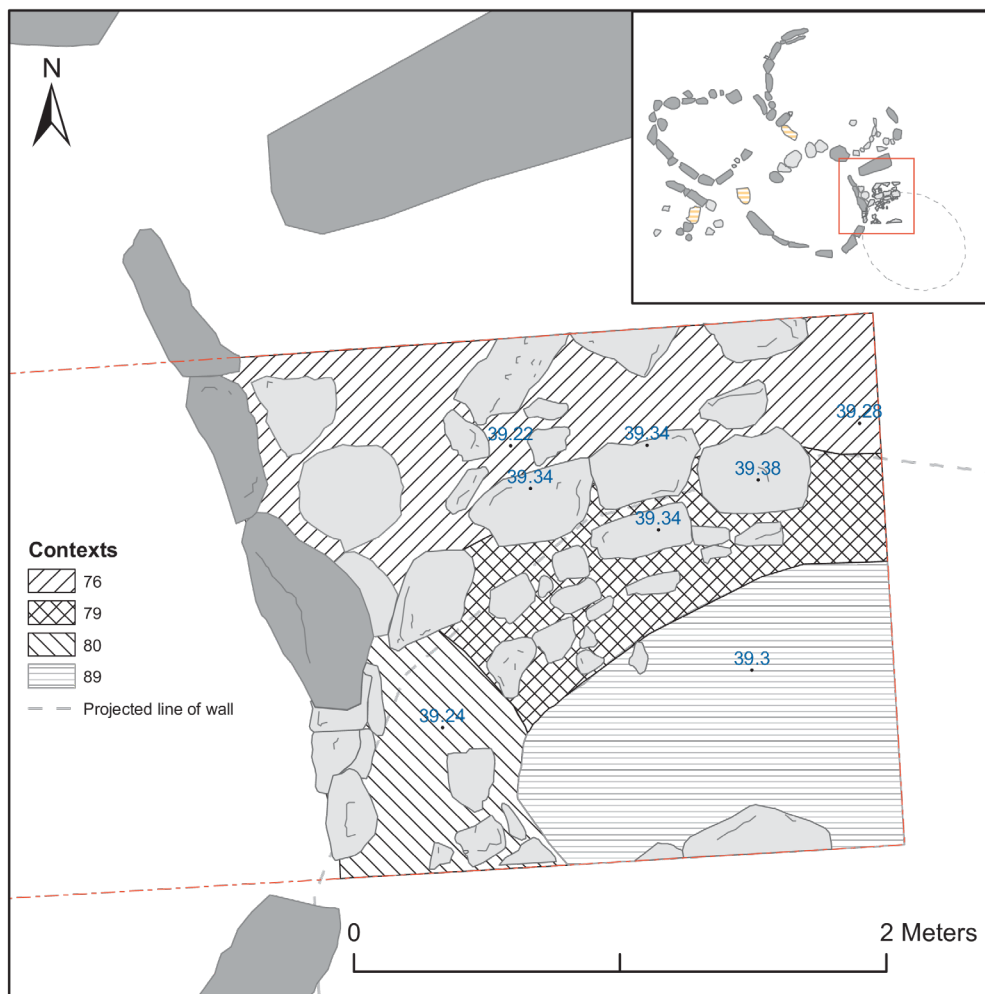


Figure 6.17. Mid-excavation plan of eastern end of Trench I showing stones (68), associated contexts, and projected outline of apse (see also Fig. 6.35).

soil horizons were encountered, but no clear structural features or floors were found, and the stratigraphy could not be matched directly to the layers bounded by the megalithic wall. These layers were left intact, except for a 0.7 m-wide sondage dug to bedrock at 38.54 m ASL across the easternmost end of Trench IA (Fig. 6.15). This sondage revealed Context (97) at its base, a firm brown layer of dry, crumbly earth, 0.45 m deep, which was perhaps deliberately deposited as a foundation layer. The ceramic finds consisted of highly fragmented prehistoric pottery, including at least one identifiable sherd of Ġgantija phase pottery, thereby suggesting that the floor and associated structures also date to the Ġgantija phase or later. A spread of flattish, medium sized stones, Context (68), lay above. These stones were roughly arranged in three distinct lines, and were perhaps the vestiges of a robbed-out wall (Fig. 6.15). A quern stone (SF159) was found among these stones. At



Figure 6.18. Photograph of torba floor (89) and sondage in Context (97).

the same stratigraphic position with (68) (Figs. 6.17 & 6.18) were three mixed layers of greyish soil, Contexts (76), (79) and (80), and a *torba* floor, Context (89) (Fig. 6.18). These layers contained an assemblage of mixed very highly fragmented Earlier Neolithic and Temple Period pottery. This was covered by Contexts (28) and (44) forming a greyish silty soil, as a lens within (28), each containing a small assemblage of mixed prehistoric pottery. The superficial topsoil layers were (12) and (13). The floors and walling revealed at this end of the trench suggests the megalithic buildings in this part of the site were once more complex in plan (Figs. 5.14 & 6.15). Further excavation or geophysical survey in the northeast corner of Kordin III would most probably reveal hidden structures, now buried by only a few centimetres of topsoil.

6.4.1.3. 'Outer threshold' area

Further west, Trench IA captured the line of the outer wall associated with the western apse of the building, and another threshold stone with associated megaliths. The excavation revealed a patchwork of *torba*, stones and other deposits. These were excavated to the level of the floor of the entrance to the megalithic building, which was a *torba* floor found at 39.24 m ASL and identified as Context (45). This was a firm, pale-coloured plaster layer covering an area at least 0.9 m north–south by 0.5 m east–west, somewhat disturbed at the western end and had a sharp, smooth edge at its eastern side. This was covered by Context (46), a brown silt loam containing a piece of struck obsidian debitage (SF113) and a small quantity of prehistoric pottery. In places, between Contexts (45) and (46), traces were found of another, poorly preserved *torba* floor, Context (47). A square stone socket [50], with vertical sides 0.6 m long and 0.25 m deep was set into (46). The Fill (51) of the socket was a reddish brown soil, and contained highly fragmented pottery and animal bones; it was perhaps the remains of a more widespread rubbish layer once covering this part of the site, but only preserved within the stone socket.

South of these floors and associated layers, Context (53) comprised a flattish stone, also identified as M63, with a longitudinal wide, shallow groove worked across it. This butted against the *torba* floor and was interpreted as an intact, *in situ* and inset threshold stone, or perhaps the base of a posthole, at the western side of Apse 'S'. It seems likely that stone M63 originally formed part of the entryway to apses 'O' and 'P' from the north of Apse 'S'. Next to it, Context [59] represented a stone socket measuring 0.7 × 0.3 × 0.15 m reaching bedrock. The socket was filled by a friable layer of reddish-brown fine sandy loam, Context (52), which also covered threshold M63 and partly covered Context (39), the

main *torba* floor deposit in Apse 'S', described above. This layer contained a very highly fragmented mixture of prehistoric pottery. Above this was topsoil (Fig. 6.16).

The excavation trench of Evans was also rediscovered in 2015. This had been extended by Trump and was located at the southern edge of the Trench IA, which overlapped it by approximately 0.7 m. The trench was assigned cut number [82] and contained backfill (83), a brown fine silty clay loam that had seemingly been sieved in the past as it contained low pottery counts and few other coarse components.

6.4.1.4. 'Outside' the western edge of the building

The archaeological deposits uncovered west of threshold (53) were 'outside' the walls of the megalithic building and, therefore, of a somewhat different character. At the extreme western end of Trench I, a 0.5 m sondage was dug to investigate the depth of deposits and identify whether or not there were features such as floors associated with the rather random arrangement of megaliths visible on the ground surface, of which megaliths M74, M75 and M76 were the most prominent members. The sondage, however, revealed only one layer, Context (81), above bedrock. This was a relatively loose reddish-brown silt loam that measured 0.4 m thick and contained Ġgantija-phase pottery. The eastern section face of the sondage was extended into the deposits under three megaliths (M74, M75, and M76), which formed a line near the western edge of the trench. At their base there was a layer of medium-sized stones (94) enveloped within Context (95), a compacted sterile layer of clay and stone. Packing material, Contexts (86) and (87), made up of yellowish-brown silt loams with some orange mottling in the case of (86), surrounded the megaliths. A sherd of Saflieni-phase pottery was found in (86) along with 13 unidentifiable Temple Period sherds; this was the only occurrence of Saflieni pottery in a prehistoric context found during the 2015 excavations at Kordin III.

Between the three megaliths M74–M76 and the threshold stone M63, there was a sequence of midden deposits. These were disturbed near the ground surface, but intact where buried deeply (Fig. 6.19). They spanned some 3.5 m of the trench, and existed to a depth of approximately 1 m. Above bedrock, Context (71) was revealed as a dark reddish-brown silt loam that was very rich in pottery and bone, and also contained charcoal, sometimes in concentrated pockets, and fine lenses of orange-coloured silt. When seen in section, it contained a patch of darker brown soil, Context (70), that had the appearance of being the fill of a feature cut into (71) (Fig. 6.19) The pottery assemblage from these contexts was dominated by Ġgantija-phase sherds, but also included a significant number of Mgarr-style

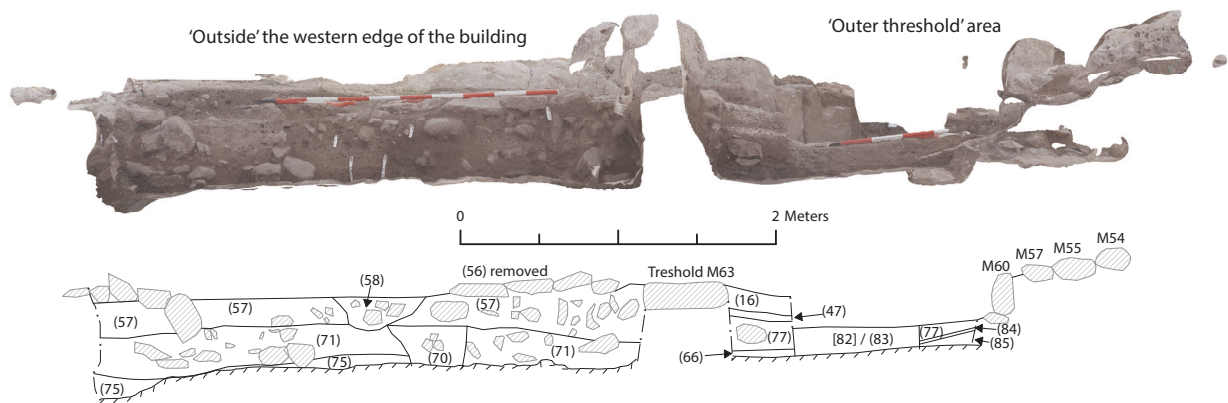


Figure 6.19. Photographic section and section record of (70) and (71), of the western edge of the building.

examples (Fig. 6.20). The deepest parts of deposit (71) were excavated separately as Context (75), as the matrix was somewhat firmer than the material above, and had a more pronounced pinkish hue, but was otherwise identical to (71) and indeed the boundary between the two layers was unclear (Fig. 6.19).

A layer similar to (71) was identified as Context (66), on the opposite side of megalith M63, (*i.e.* 'inside' Apse 'S'). Yet, because the excavation did not disturb megalith (71), it was not clear whether they were the

same. The relative frequency of pottery sherds (e.g. Żebbuġ: Mġarr: Ġgantija), however, although similar was not identical in both contexts (Appendix A6.4). The upper part of Context (66) was excavated separately as Context (77), which was identical to the layer above except for less fragmented pottery. A *Hordeum* grain found within Context (77) dated the layer to 3630–3360 cal. BC (UBA-33016, 4684±46), confirming the Ġgantija-phase date for the deposit (Fig. 6.16). Below (66), bedrock was encountered. Taken together, however,



Figure 6.20. Mġarr pottery from midden deposit (71).



Figure 6.21. Three stone discs from Context (71) (SF167).

Contexts (71), (77) and (66), and (75) discussed above, represented a mound of midden-like material over which the megalithic structure was built. There was no natural, sterile soil in this part of the site, implying that the soil had been removed or had naturally eroded away before the midden material was deposited.

The outside edge of the megalithic wall was found to be encircled by a number of angular stones each approximately 0.25 m in length, assigned Context (72) (Fig. 6.19). Among these were two much larger stones which were assigned Context (73), and together with (72) formed a facade or revetment supporting the megalithic structure. Further west, Context (57) was a dark brown layer of fine sandy loam, containing pebbles, animal bone and a large quantity of prehistoric pottery. Above this, there was a spread of angular, wedge-shaped stones, Context (56), was enveloped in a mixed topsoil-like deposit, which also contained animal bone, much prehistoric pottery and modern debris. Within this layer there was a circular bowl-shaped modern pit, 0.4 m in diameter and 0.2 m deep, filled by Context (58), which was similar to (56) and contained struck obsidian and iron debris, that may have been fragments of ordnance derived from WWII.

6.4.1.5. Superficial contexts

A layer of stones (3) intermixed with friable loam (2) was uncovered under topsoil (1) at the western end of

Trench IA (Figs. 6.14 & 6.15). Elsewhere in the trench, a friable, Context (4), a reddish-brown sandy loam, was detected. This contained a mixture of prehistoric and modern pottery sherds, glass and other debris and was clearly modern topsoil. It contained a scatter of large and medium-sized stones, Context (21), which did not form any structure or surface. These stones perhaps represented the collapse of parts of the megalithic structure during relatively recent times.

6.4.2. Trench IB

Trench IB captured the walls of the northern apse of the megalithic building which was previously designated Room 'P' by Ashby *et al.* (1911), and a passageway that led into it. The megalithic wall itself was named Context (6), and was a curvilinear alignment of five large megaliths (M119 to M115) and several other stones. One of these, megalith M122, had a small quantity of a calcareous plaster-like substance, Context (15), adhering to its southeastern vertical edge. The 'plaster' has been noted during the survey of the site in 2006, and was believed to be a remnant of internal rendering, once much more widespread over the inside walls of the apse. Another megalith, M123, had what appeared to be tool marks on the surface. Once topsoil was removed, each part of the structure was excavated separately, as described below (Fig. 6.22).

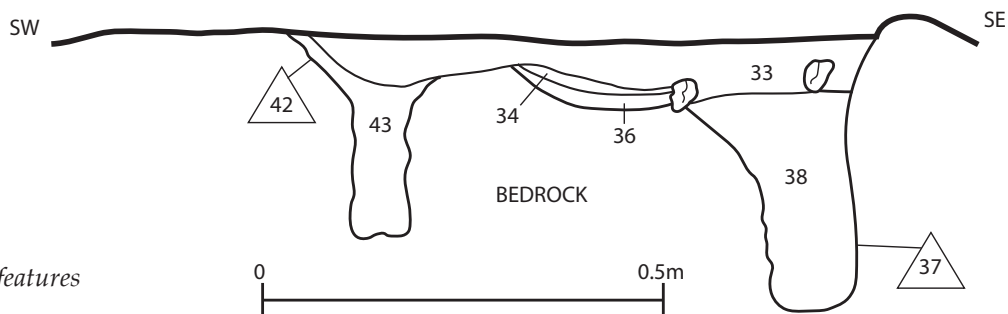


Figure 6.22. Small features in Trench 1B.

6.4.2.1. Inner ‘smashed’ threshold area (Figs. 6.14 (number 6) & 6.15)

Wall (27) formed an alignment of four megaliths in Trench I (M41–M44). This separated the main space, Apse ‘P’, from a rectangular passageway that became known during the excavation as the ‘smashed threshold area’. This passageway originally led from the ‘lobby’ area into Apse ‘P’. The bedrock found under this area had traces of *torba* adhering to it. In the centre of the passageway, a rather unusual threshold stone appeared to have been ‘smashed’ with the angular fragments left *in situ*. The apparently damaged stone measured 1 × 0.4 m, and was orientated northwest–southeast, standing proud of the bedrock by approximately 4 cm (Fig. 6.24). The surface of the stone, together with the surrounding bedrock, was Surface {69}. Covering this, Context (32) represented a jumble of large and small stones, soil and ground limestone dust within a matrix of sandy silt loam, interpreted as the collapsed remains of part of the megalithic structure, perhaps originally the roof. A large stone within this rubble was removed, and the pocket of soil found under it was sampled separately as Context (67) in order to date accurately when the collapse event may have occurred, but unfortunately



Figure 6.23. Possible stone pendant (SF132), from Context (67).

no suitable sample for dating was found. A possible stone pendant (SF132) (Fig. 6.23) was found within this, together with four large sherds of Ggantija-phase pottery. Contexts (14), (19) and (20) lay above this, all topsoil-like deposits containing prehistoric pottery but mixed with modern debris. Context (14) stopped rather abruptly along a line at right angles 1 m north of Wall (27), and hence seemed likely to signal a previous excavation trench – perhaps dating from Ashby’s campaign in 1909 and was given cut number [65].

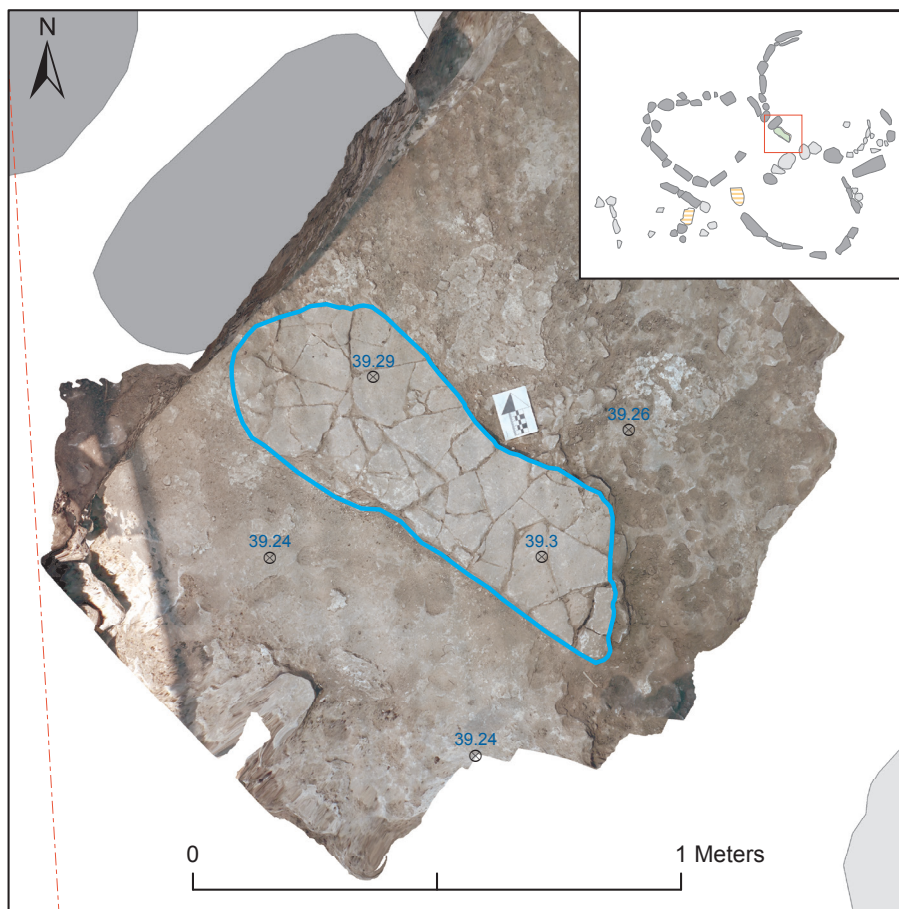


Figure 6.24. Image of the smashed threshold stone, derived from a SfM model, with spot levels in meters ASL.



Figure 6.25. a) Smashed threshold stone in context; b) in detail.

6.4.2.2. Apse 'P'

This was the northernmost identifiable structure at Kordin III, and the excavation here did not reveal any great depth of deposit. The wall of the structure was identified as Context (6). Bedrock was encountered c. 0.3 m below the ground surface at approximately 39.3 m ASL, over the entire span of the trench in Room 'P', except for several features, most of which were likely natural in origin, that had become filled with deposit. These included Contexts [49], a crevice, and Context (36), a spread of dry, gritty orange brown sterile silt clay found within a natural depression in the bedrock. A Layer (34) of consolidated, slightly porous brecciated limestone dust and coarse particles covered Context (36), and was perhaps the remnant of a *torba* floor. Crevice [49], which measured 0.7 m north–south and at least 0.5 m east–west, extended beyond the edge of the trench and was 0.7 m deep. Its fill Context (48), was a brown silt loam, weakly cemented against the edges of gully [49]. This contained undiagnostic prehistoric pottery, suggesting that perhaps it was not natural in origin, but had been deliberately buried to level out the site. Two possible features were cut into bedrock, [37] and [42]. Possible posthole [37] had steep, regular sides and a flat circular base 0.05 m in diameter. The opening measured 0.25 × 0.18 m, orientated north–east–southwest. The feature had sudden brakes of slope at all sides, which are characteristics of a structural feature of some kind. It was filled by (38), a mixture of

brown silt, fine gravel and occasional small stones, and a few sherds of undiagnostic prehistoric pottery. An adjacent circular posthole [42] was 0.07 m in diameter, had vertical sides and an irregularly shaped but flat base. Its opening tapered outwards with curved sides, reaching a diameter of 0.15 m. Its fill, Context (43) was a mid-brown silt loam with occasional small stones and Skorba-phase pottery. It is therefore possible that both these cut features (Figs. 6.22 & 6.29) are unrelated to the temple, but instead date to an earlier phase of the site's history. These possible features were covered by Context (33), a dry, gritty mid-brown silt loam, clearly topsoil derived and much disturbed by roots and insects. The sequence was continued by Context (18) a thin layer of brown silt loam containing a very small quantity of highly fragmented and delicate prehistoric pottery, and topsoil (14).

Preserved on the inner face of the northern edge of the megalithic wall, on megalith M122, there was a remnant patch of plaster or render that presumably once covered the inside surfaces of the walls of this megalithic building. Further evidence of this material was unearthed during the 2015 excavation, as several pieces of 'plaster' were found in topsoil (14) where it butted the megalithic wall (6) (Figs. 6.14, 6.26 & 6.27).

The plaster fragments were seemingly identical in composition to the fragment still adhering to M122, Context (15), but had become dislodged from the megalithic wall and were enveloped in topsoil. The



Figure 6.26. Photo-model of megalithic wall (6) and fragments of plaster (15).

topsoil 'behind' the plaster, sandwiched between it and the wall, was assigned Context (24) in the hope that cultural material might date it when it became detached. No material was identified, however, and the soil was far too contaminated with roots and living organisms to contemplate radiocarbon dating. A stray fragment of plaster in the topsoil was coloured black and red on its surface (SF15) (Fig. 6.28).

6.4.2.3. 'Outside' the northern edge of the building Trench I extended for some 3 m beyond the outer wall of apse 'P'. Between the megaliths themselves, Context (31) was a gritty gravelly silt loam with randomly distributed stone rubble, interpreted as packing material; pottery was mainly from Ġgantija-phase. A small struck chert point (SF109, Fig. 11.15) was found in the packing (Fig. 6.30). The outside of the megalithic wall

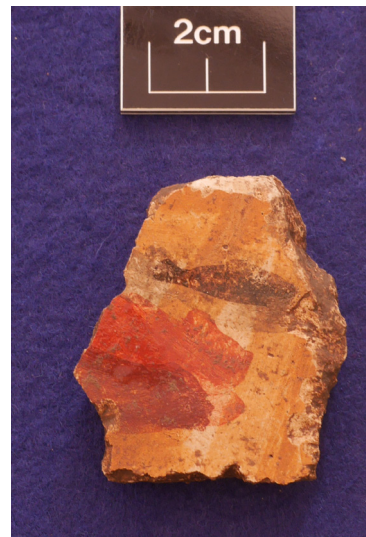


Figure 6.28. Fragment of plaster with pigment (SF15) from topsoil in Trench IB.

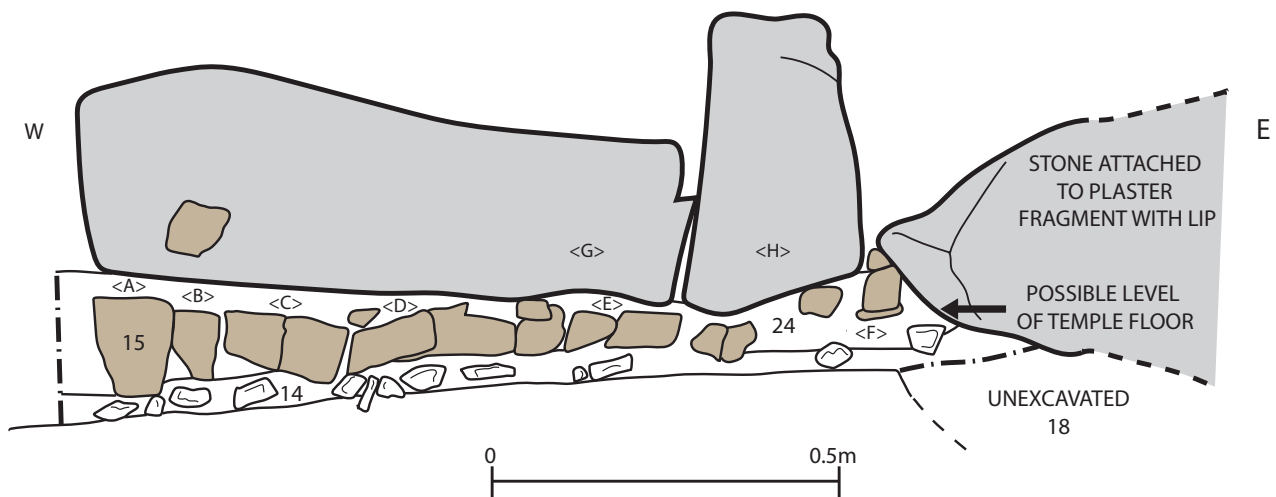


Figure 6.27. Section drawing of plaster fragments (Context 15, coloured) in Context (14).



Figure 6.29. Post-excavation photograph of [37] and [42] looking west.

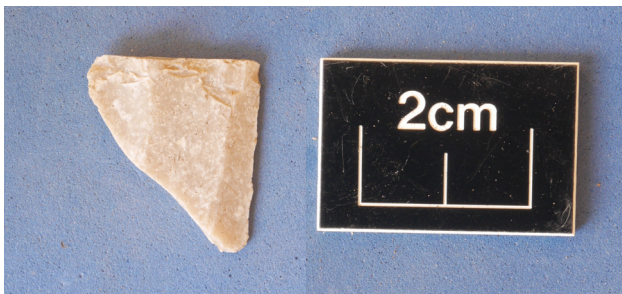


Figure 6.30. Struck chert (SF109) from Context (31).

was encircled by a line of stones, 0.2–0.4 m in length, Context (8). This was interpreted as a kind of revetment similar to Context (72) outside Apse 'S'. These stones were not disturbed.

Further north, under topsoil, the excavation encountered an assortment of medium-sized stones set in a matrix of compacted topsoil, Context (9). Many of the stones were firmly adhering to a thick layer of porous, almost tufaceous, lime-based deposit, presumably a natural concretion that had developed over time, sandwiched between the stones and bedrock. The concretion was identified as Context (11). These deposits were covered by topsoil, here given the Layer number (10).

6.4.3. Trench IC

The southern part of Trench I extended 1.5 m beyond the outer wall of Apse 'S' (Figs. 6.14 & 6.15). The stratigraphy was founded on Context (93), a compacted reddish-brown soil resembling a disturbed *terra rossa*, which also contained a small number of Mġarr sherds and nothing else that was diagnostic. Taken together, these deposits represent palaeosols from a time that preceded the main phase of megalithic construction at Kordin. Their possible Mġarr date is significant given the predominance of Ġgantija-phase archaeology elsewhere on the site. This was covered by Contexts (74) and (78), which were separated by Megalith M5 and another large stone at a lower level (Figs. 6.31, 6.32 & 6.33). A firm reddish-brown silt loam faced Context (74), containing unsorted stones, a large quantity of pottery (particularly Żebbuġ-phase sherds but also Mġarr and Ġgantija styles) and animal bone. This was a build-up of material and did not necessarily have any direct relationship with the megalithic building. In the centre of the trench that separated it from Context (78), there was a spread of a similar deposit, somewhat paler in colour. The only diagnostic pottery in this spread was from the Mġarr-phase (Fig. 6.34a). The topsoil in Trench IC, identified as Context (5), contained a sling stone typical of the Ghar Dalam-phase (Fig. 6.34b).

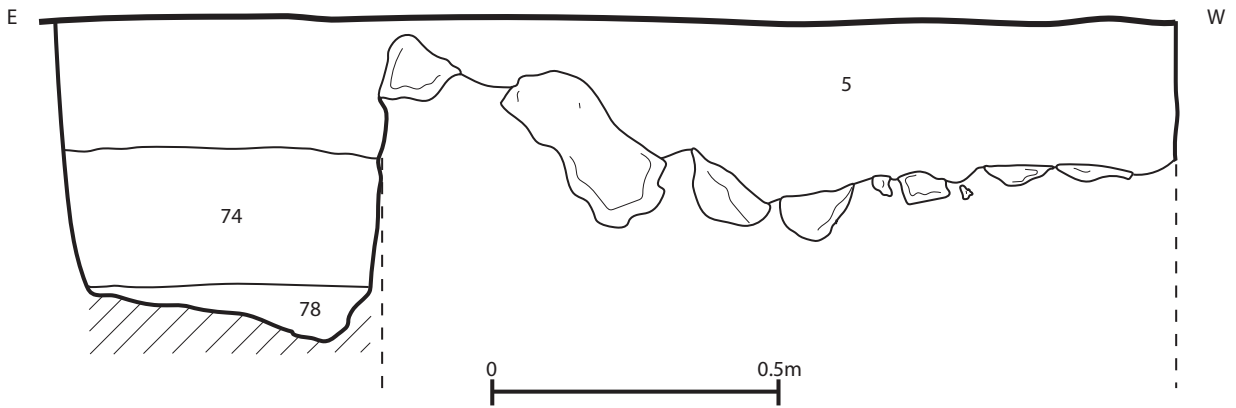


Figure 6.31. North-facing section in Trench 1C.

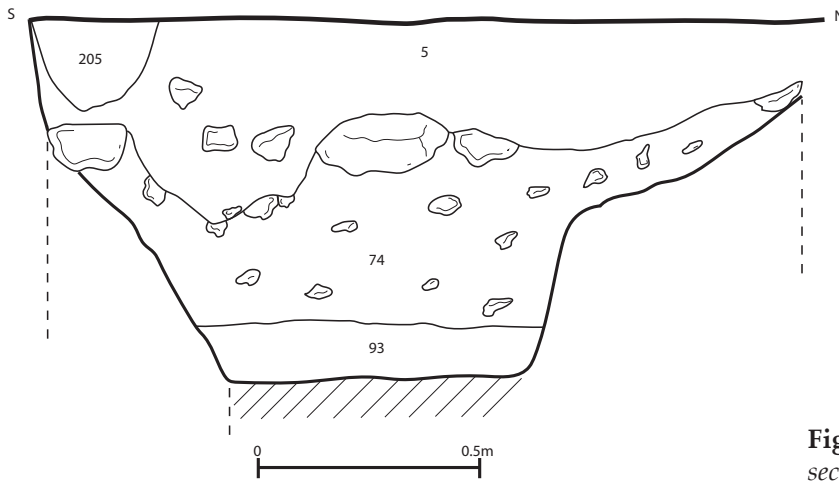


Figure 6.32. East-facing section in Trench 1C.

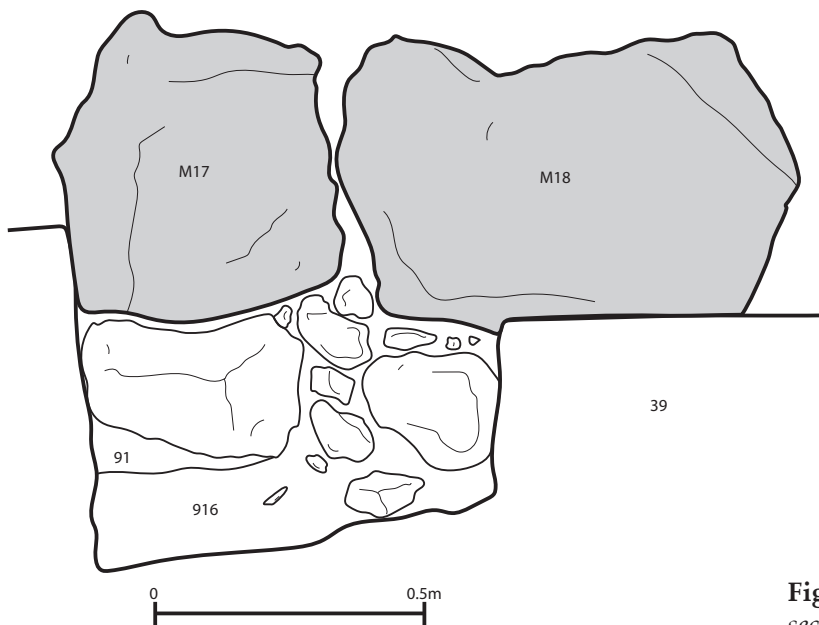


Figure 6.33. South-facing section in Trench 1C.

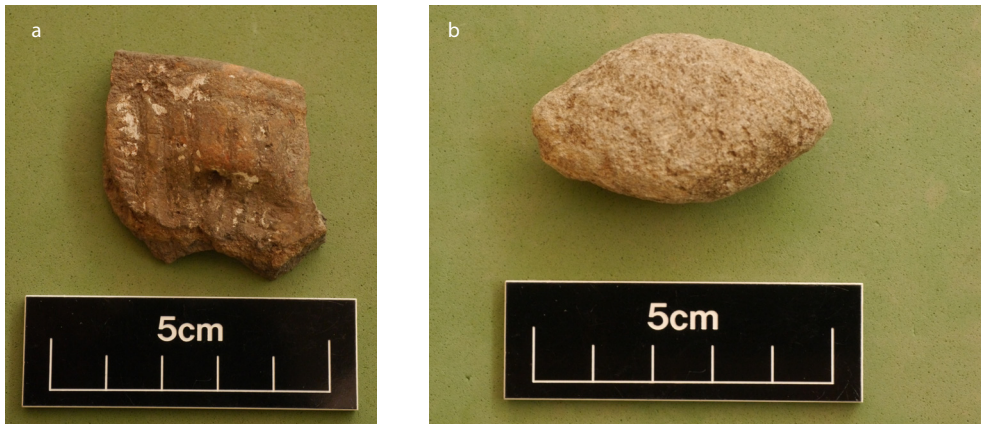


Figure 6.34. *a) Sherd of Mğarr pottery from (93); b) Slingstone from topsoil (5) in Trench IC.*



Figure 6.35. *Mid-excavation photograph of Trench IC showing (93) after removal of (78).*

6.5. Results: Trench II

Trench II consisted of two separate 2 m-wide strips; Trench IIA running north-south and Trench IIB running westwards from near the southern end of IIA (Fig. 6.36). Trench II was opened in order to investigate what appeared to be various ruined structures north of the main Kordin III temple, and it was hoped that the area had not been subject to much excavation in the past, and therefore the stratigraphy of the area would be intact.

6.5.1. Trench IIA

The layers of soil present in Trench IIA were founded on Context (144), a firm sandy loam, containing small crumbs of poorly preserved Skorba-phase pottery but also one sherd tentatively identified as Roman-period. This was covered by (135), a similar layer containing sporadic finds of mixed prehistoric pottery, including Skorba and Ġgantija-phase sherds. This was covered by

(119), a firm, dark brown silt, that was relatively sterile. The sequence was continued by a series of related but distinctly coloured deposits: Context (110) at the northern end of the trench; Context (121), a band of light grey soil running across the trench; Context (112), an extensive spread of brown soil; Context (113), a roughly circular patch of orange-brown soil approximately 1 m in diameter; and Context (114), a mixture of greyish soil and stones, found along the southern edge of the trench. Context (121) proved to be the upper fill of a steep-sided trench, 0.8 m wide, whose upper fill was (111). Both of these fills contained relatively modern ceramics. It is possible that this was cut during Ashby's excavation campaign in 1909. Similarly, Context (114) was found to be the fill of a cut that spanned the width of the trench from stones (107) by a distance of 0.8 m and was 0.17 m deep. From these layers, two alignments of large stones, perhaps fragments of a destroyed megalithic building, contexts (106) and (107) were protruding along the

southern end of the trench. The stones were found to be resting within a matrix of dark brown silty sand, Context (108), which was bereft of cultural material. These assorted layers were covered by Context (102) – a sandy loam that contained modern material. The topsoil in Trench IIA, which was very similar to that found in Trench I, was identified as Context (100). A friable lens within it, Context (101), was a modern feature.

Taken together, the various layers in Trench IIA indicate that this part of the site, although once containing signals of Temple Period and Early Neolithic activity, was heavily disturbed during the twentieth century and perhaps during Roman times also.

6.5.2. Trench IIB

Trench IIB was also heavily worked and had little remaining stratigraphy. The sequence in this part of the excavation was founded on Context (145), a disturbed

terra rossa extending to bedrock that contained some Skorba-phase pottery and a slingstone (SF131). An interesting sequence of deposits relating to a former *torba* floor was found in the centre of the trench. This consisted of a series of differently coloured floor layers, each approximately 2–3 cm thick. These were contexts (153), (152) and (151), were exposed, recorded and all were left *in situ* except for a small sample taken for the study of their micromorphology (Fig. 6.37). Context (153) was a light brown soil covered by a mottled grey/brown Context (152) in turn supporting (151), a pinkish grey *torba* floor of some kind. This sequence was covered by Context (150), a firm pinkish brown sandy silt containing three pieces of chert (SF139–141) and large sherds of undiagnostic prehistoric pottery. This was covered by Context (143), a firm deposit of brown sandy silt, containing mostly Mġarr pottery, a piece of obsidian (SF133) and a possible slingstone (SF140).



Figure 6.36. Trench II during excavation in 2015, at different stages of work: a) Trench IIA before excavation; b) the start of excavation; c) during excavation; d) sondage in Trench II.



Figure 6.37. Torba floor in Trench II (151) and related layers, prepared for micromorphological sampling block removal.

In the centre and in the western part of the trench, the sequence was continued by disturbed layers: Context (132), a dark reddish brown soil containing prehistoric pottery mixed with modern finds; Contexts (116) and (115), which were soil accumulations with few finds, and topsoil-like Context (109).

The eastern part of the trench presented a more elaborate stratigraphy. Sondages dug into the layers above revealed that covering (145) was a similar *terra-rossa* like Context (155), which was not excavated. Cutting this was a 0.77 m-wide linear feature [160=161] containing two fills: Context (159), a group of medium-sized stones typically *c.* 0.3 m in any dimension and associated with one sherd of Skorba pottery; and Context (149), a layer of rubble containing earlier Neolithic and undiagnostic Temple Period pottery. Covering this was (147), a mixture of soil and rubble and almost pure Mġarr sherds among those that were identifiable. Two small, broken chert blades and a piece of chert (SF146–148) were also found within Context (147). Charcoal samples taken from (147) returned a date of 3630–3375 cal. BC (UBA-33020, 4741±45). Context (142), a pale grey soil diffusely covering an area 0.5 × 0.1 m, and a similar Context (136=158) were at the same level. These deposits had been disturbed by a rectangular pit [138], cut into (136) measuring 0.5 × 0.4 m orientated north-south, filled with (128), a friable dark brown silt

containing plaster fragments, a large number of bones and a relatively small quantity of Temple Period pottery. It is possible this was a midden deposit or rubbish pit. At the same point in the stratigraphy, there were three Globigerina slabs, perhaps each forming part of a floor, lying flat and at various angles to each other. These were assigned Contexts (122), (123), (124) and (129). An arc of slightly smaller stones was positioned immediately westwards and was assigned context number (126). A dark brown silt (131) encompassed these stones and included one large Temple Period sherd broken into three. The sequence was continued by Context (156), a compacted pale greyish brown deposit only 2 cm thick, which was found along the southern edge of the trench. This context contained Mġarr pottery, and perhaps constituted an earth floor or what was once an open surface, with the layers above it interpreted as layer collapse and build-up of material. Context (133) covered (156) and was accompanied at a similar level by Context (148). Both of these contexts were very dark brown clayey silts, of which (133) was left unexcavated, whilst (148) contained a sling stone (SF135, see Chapter 11) and no pottery later than the Mġarr phase. A radiocarbon date of 3260–2900 cal. BC (UBA-33021, 4391±34) from a *Hordeum vulgare* grain was obtained from Context (148). This date falls within the Saflieni phase, and is therefore either from an intrusive

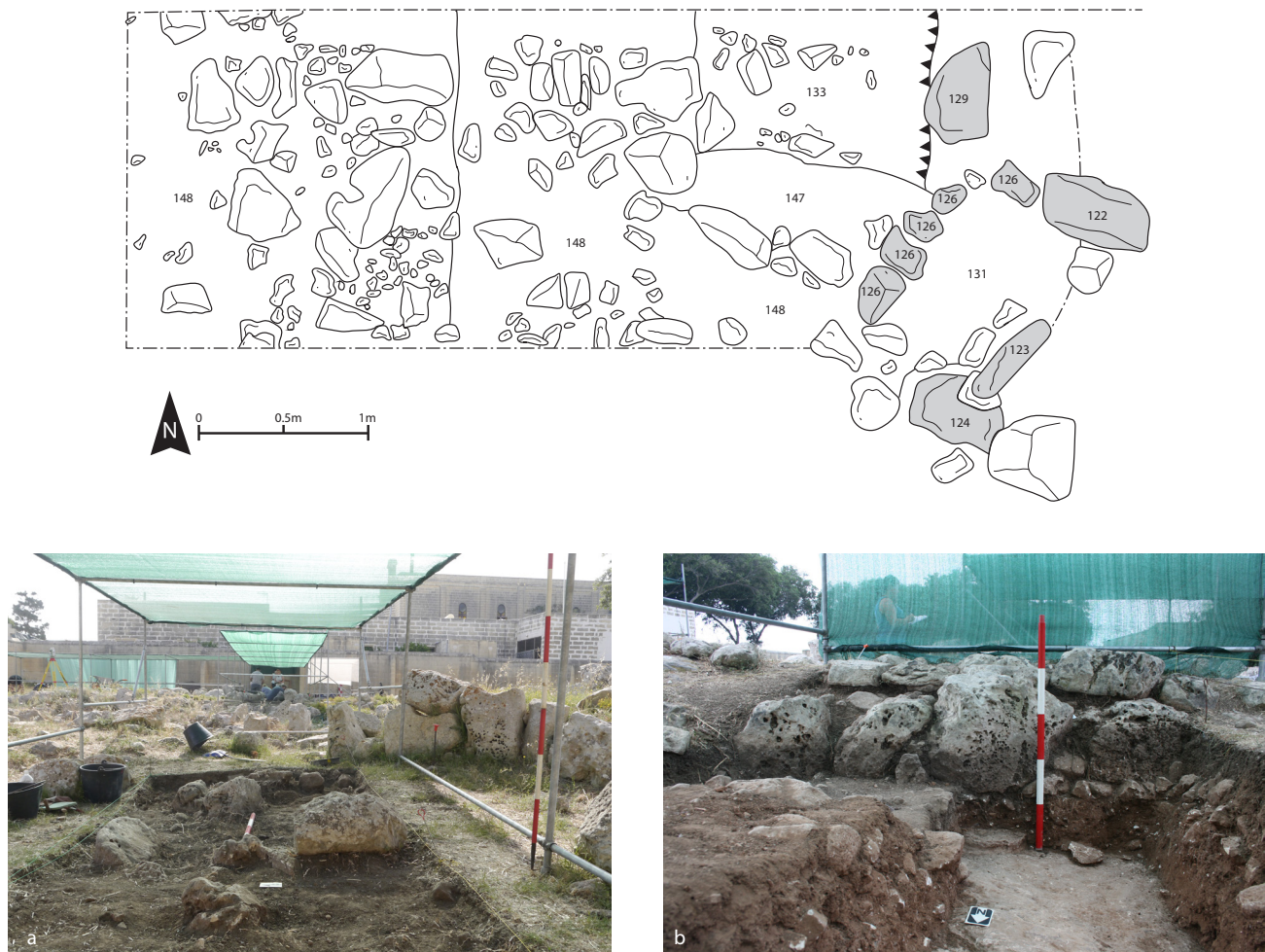


Figure 6.38. a) Plan of Trench II (Contexts 131, 133, 147, 148); b) Trench II looking east; c) Trench II looking east with megaliths 126 exposed.

grain, or a signal that the Mġarr phase ceramic material found in considerable density in this part of the site is disturbed and residual (Chapter 2).

The superficial deposits in the trench consisted of Context (146), a friable dark brown silt loam with plentiful stone rubble and Ġgantija pottery. Two large stones (154), measuring c. 0.4 m in all dimensions, were associated with this, and may be part of a collapsed structure. A stony Layer (125) covered (154) and (146). At the same point in the stratigraphy, there were dark brown silt sands (134) and (139), which were both rather stony, especially in comparison to Context (105), which covered them but was otherwise similar. Context (126) was a line of medium sized stones found at the same level that formed an arc. Several other contexts occurred at this point: Context (127), a stone rubble in a matrix of soil; Context (140), a compacted, dark brown deposit, containing rubble (141), sherds of Mġarr and Ġgantija pottery and a small, broken obsidian blade

(SF127 see Chapter 11); and Context (130), a roughly circular patch of firmly compacted dark grey sandy silt, which was only 4 cm thick and therefore perhaps the remnant of an earth floor. Context (103/117) was placed above these layers, and consisted of a compact black sandy loam, very similar to topsoil, containing some stones. Finds included prehistoric pottery (mostly of the Ġgantija type) and some modern debris such as glass, and a Globigerina Limestone block, Context (104), measuring 0.72 × 0.45 × 0.33 m.

6.6. Results: Trench III

Trench III was placed to examine the stratigraphy at the southwest corner of the site, as there were no records of investigation by Evans or Trump in this locality. Contexts (220), (219), (214) and (213) were found immediately above bedrock. All were sterile and rather compacted mid-brown clay loams, presumably 'natural' palaeosols.

These were covered by: Context (215), a soil accumulation containing undiagnostic Temple Period pottery and chert; and (216), a layer of firm silt that butted against (215), which on the basis of pottery finds was probably Ggantija in date. A modern radiocarbon date of AD 1994–1995 (UBA-33022, 1.1238 ± 0.0037) was obtained from an *oryza* grain likely to have worked its way down into this Layer. In the northern part of the trench, the next level was Context (211), a firmly compacted yellowish

brown silt loam. This was rich in prehistoric pottery, bone and chert. The pottery from this layer contained a mixture of mainly Temple Period ceramics, including two sherds of Safflieni-phase ceramics (Fig. 6.40a). Context (217), a spread of stones not associated with cultural material, was observed at the same point in the stratigraphy in the northeastern part of the trench. This was covered by dumps of stones and soil, which were assigned context numbers (208) and (212). Context (212) resembled the footing for a wall that had subsequently collapsed and had largely been robbed away. Context (210) covered these layers, taking the form of a firmly compacted yellowish-brown silt loam that contained animal bones and prehistoric pottery.

The more superficial deposits in the trench had evidence for disturbance. Contexts (207) and (209) were two very similar orange brown silt loams that were probably the same entity. They contained a significant amount of prehistoric pottery, chert debitage and struck chert pieces (Appendix A6.2), as well as



Figure 6.39. a) View of Trench III, looking west; b) test trenches in Trench III; c) Stratigraphic sequence exposed in Trench III looking north.



Figure 6.40. a) Pottery from Context (211); b) Obsidian blade (SF138) from Context (312).

modern ceramics and plastic fragments. These contexts were found on either side of a band of firmly compacted orange-brown soil, which was assigned as Context (201). This cut through the topsoil, and was thus interpreted as an old trench, presumably from Ashby's excavation. The cut was assigned context number [202] and was 0.9 m wide, running north–south. It contained a decorated clay tobacco pipe and sherds of prehistoric pottery, including many Ghar Dalam-phase sherds. Contexts (203) and (221) lay above this and consisted of modern soils mixed with many small stones, as well as a large shallow sub-circular Pit [205], 0.8 m in diameter. This pit contained two contexts: the basal Fill (206) and the upper Fill (204), which upon investigation proved to contain modern ceramics and other debris, including pieces of iron. This pit is similar to Context (58) in Trench I and could indicate WWII damage. The topsoil in the trench was Context (200), a firm, rocky dark brown silt loam much disturbed by roots from nearby trees and containing chips of Globigerina Limestone. The latter had presumably been deposited by workers dressing the stones of the nearby boundary wall. The profile through the section of the trench is illustrated in Figure 6.39.

6.7. Results: Trench IV

Trench IV was, in fact, two separate small units that were positioned outside the perimeter wall to establish whether or not the site extends beyond the walled enclosure.³ The aim was to break down the heritage definition of the site, by working outside the protected area.

6.7.1. Trench IVA

This trench contained two patches of sterile *terra rossa* found immediately above bedrock: Contexts (313) and (316). Above this lay palaeosols that were equivalent Contexts (310) and (314). Both were firm orange-brown clay slits with sherds of Early Neolithic pottery in poor condition; and Context (317), a sterile patch of darker soil, disturbed by roots. Context (309) covered these and comprised a dark brown sandy silt loam containing modern porcelain and debris. Excavation revealed that this was the fill of a cut feature [311], although the size and shape of the cut were not clear due to the limited size of the excavation unit. This was covered by Context (307) (Fig. 6.41), a layer of medium-sized stones including one with plough marks, which was perhaps a terrace build-up; and, in turn, Context (305), which was a friable, culturally sterile, dark greyish-brown sand. Next came Context (301), a firm sandy loam made up of topsoil and poorly sorted stony inclusions. When viewed in section, it was possible to make out three distinct layers in this deposit, although these were grouped together during their excavation. The context was likely associated with various phases of recent agricultural and horticultural activity in this area. Topsoil (300) overlay the whole area.

6.7.2. Trench IVB

Founded on bedrock, the sequence in this trench consisted of natural *terra rossa* (318) which was covered by (306), a firm dark yellowish brown sandy silt. This had been disturbed during relatively recent times by an amorphous Cut [315], filled with dark brown clayey



Figure 6.41. *a) View of Trench IV looking east with exposed bedrock; b) Stratigraphic sequence in Trench IV.*

sand (312) that contained modern porcelain as well as prehistoric pottery and an obsidian blade (SF138, Fig. 6.40b and Chapter 11). Overlying this was Context (304), a somewhat darker silt with relatively few stony inclusions, prehistoric pottery and a broken chert blade (SF4). This was covered by modern, made-up ground, Context (303). Surrounded by this was Context (308), a discrete pocket of bright white building waste, which was assigned a context number as it was a highly visible ‘layer’ in section, but not meaningful archaeologically. The topsoil was Context (302). Taken together, these

layers probably represent the down slope movement of sediments from the temple site, trapped here by the contour of the underlying bedrock.

6.8. Discussion

6.8.1. Palaeosols

The presence of an earlier soil, preserved by the megalithic ‘temple’ at Kordin III was attested by Contexts (93), (91B), (97) and (99) in Trench I, all of which were a similar orange-brown, dry, relatively coarse-grained

deposit. This palaeosol deposit repeats the pedostratigraphic pattern uncovered by recent excavations at ‘temple’ sites in Gozo, specifically Santa Verna and Ġgantija (Chapters 4 and 5). Unlike at Santa Verna and Ġgantija, however, the Kordin palaeosol was disturbed during the Temple Period, with the introduction of bones and plant remains dating to 3500 to 3400 cal. bc. The addition of material probably occurred when the megalithic structure was being built. The palaeosol was also in a thinner and fragmented state, and it proved impossible to retrieve an intact sample to study its micromorphology.

6.8.2. Possible Skorba phase features

In Trench IIB, rubble layers (149) and (159), associated with Skorba pottery, were found in a linear ‘cut’ made in sterile deposits, but not completely excavated. Context (149) also contained some Temple Period pottery and was, therefore, not a sealed Skorba-phase layer. It is possible that some kind of earlier Neolithic structure or surface once existed here and was destroyed during the Temple Period phase of activity. Indeed, of the 117 contexts from the 2015 excavations that contained pottery of any kind, 51 contained residual Skorba-phase pottery, indicating that activity during that time was widespread over the entire site (Appendix A6.3). Though it is noted that undisturbed Skorba-phase structures at Kordin III have yet to be discovered.

6.8.3. Mġarr phase layers

Mġarr-phase activity was found in both Trench I and Trench II at Kordin. Two large structural stones associated with Mġarr-phase layers were buried below a build-up of material that had accumulated against the southern edge of Ashby’s Room ‘S’. The Mġarr-phase layers abutted the eastern side of the wall where the upper Context (71) contained slightly more Mġarr pottery than the lower Context (77). Without further excavation, it is difficult to ascertain the relevance of these stones and the associated Mġarr pottery. Yet, it is possible that this may have been a substantial structure, possibly even an Mġarr-phase hut similar to the one excavated by Trump (2015, 36) at Skorba; or it may even represent a more substantial Mġarr-phase temple that pre-dated the main temple and the trefoil structure.

Elsewhere on the site, Mġarr levels were also located in Trench II. These consisted of several layers that contained either purely Mġarr pottery or pottery dating to no later than the Mġarr-phase. No definitive structures were found in association with these Mġarr layers, although it possible that Context (156) may represent an Mġarr-phase earthen floor or old land surface.

6.8.4. Pre-temple Ġgantija phase layers

Evidence of pre-temple Ġgantija-phase activity is represented in the form of a thick layer of midden material, over which the later trefoil structure was built. The midden, comprised of Contexts (71), (75), (77) and (65), was made up of a thick layer of soil containing numerous sherds of pottery, dating primarily to the Ġgantija phase, as well as a large amount of animal bone and charcoal. It is difficult to provide a definitive interpretation for these deposits, although it is possible that they may represent the remnant of feasting activity at the site, before the megalithic structures were built. It would appear that the midden material was cut into on the eastern side in order to construct the trefoil structure. The animal bone assemblage contained sheep, goat, pig and cattle in the usual proportions for prehistoric sites in Malta (Chapter 9).

6.8.5. The megalithic ‘temple’ and its date

The evidence from the excavation indicates that the trefoil structure dates to the end of the Ġgantija phase c. 3000 bc. Radiocarbon dates obtained from pre-temple layers (91), (91b), (96) and (99), located under the *torba* floors of Apse ‘S’, provide a *terminus post quem* for the construction of the trefoil building, dating it to the Ġgantija phase or later. This is supported by the discovery of the rich Ġgantija-phase midden Context (71), (75), (77) and (65) that were found to run below Apse ‘S’ and finds of Ġgantija-phase pottery from within the packing material of the wall in apse ‘P’.

The excavation also revealed that the trefoil structure was not built in a single phase but rather appears to have been modified and added to throughout its use. The original structure consisted of apses (or Ashby’s ‘Rooms’) ‘O’, ‘P’ and ‘S’, although there are hints that there may have been a fourth apse (§6.4.1.2). Outside the eastern wall of the trefoil structure, adjoining Apse ‘S’, vestiges of a possible robbed-out curvilinear wall and traces of a *torba* floor were discovered. This structure was only partially excavated and, based on the current evidence, it is not possible to ascertain if it was part of the original building or a later addition.

Before the construction of the trefoil structure it would appear that the builders attempted to create a more level surface by either levelling sections of bedrock (as was discovered under apse ‘P’), or by laying stone paving slabs, similar to the ones located in the forecourt area of the main temples at Kordin. This was slightly different to the composition of foundation layers found at the other Maltese temples, where smaller stones were used instead. The walls of the trefoil structure comprised double skin walls that were infilled with loose packing stones.

The apses were roughly 3 m in diameter and were floored with *torba*, which in some instances was replaced several times during the buildings' use. In apse 'P' traces of a calcareous plaster-like render (15) found adhering to M122 and a larger section that appears to have become dislodged from the wall indicate that the interior of these buildings may have been rendered and painted. Evidence of internal render has also been recovered from Ġgantija and Santa Verna, which demonstrates that this was not a feature unique to Kordin.

The excavation revealed that the trefoil structure was augmented through the addition of a 'lobby' area and an 'outer threshold' area to the west of the structure. The lobby was constructed between the outer to apses 'P' and 'S' linking them to the outer threshold area. The threshold area acted as an entrance into the trefoil structure, whose western extent was delimited by a threshold stone, separating the internal areas of the structure from this more open space.

Possible evidence of roof collapse was found in the 'lobby' area, just outside of apse 'P'. A layer of small and large stones mixed with plaster, Context (32), was

found to overlie the smashed threshold stone. As (32) contained pottery no later than the Ġgantija-phase, it seems likely that the threshold stone may have been smashed in prehistory, perhaps as a result of this roof collapse or other related violent events.

6.8.6. Later activity

The 2015 excavations contributed new evidence to understanding the level of very sparse activity in post Neolithic times at Kordin III. No Bronze Age pottery sherds were identified within any of the strata – not even residual material from within topsoil contexts. Many topsoil and disturbed contexts did contain Roman and post-medieval / modern pottery, although there was no clear spatial patterning to these finds.

6.8.7. Re-arrangement of the megaliths

A comparison between Ashby *et al.*'s 1909 plan and the site as surveyed in 2015 reveals that several stones have moved. They have either appeared since 1909, or disappeared altogether (Fig. 6.42). The megaliths south of the 'smashed threshold' stone were not

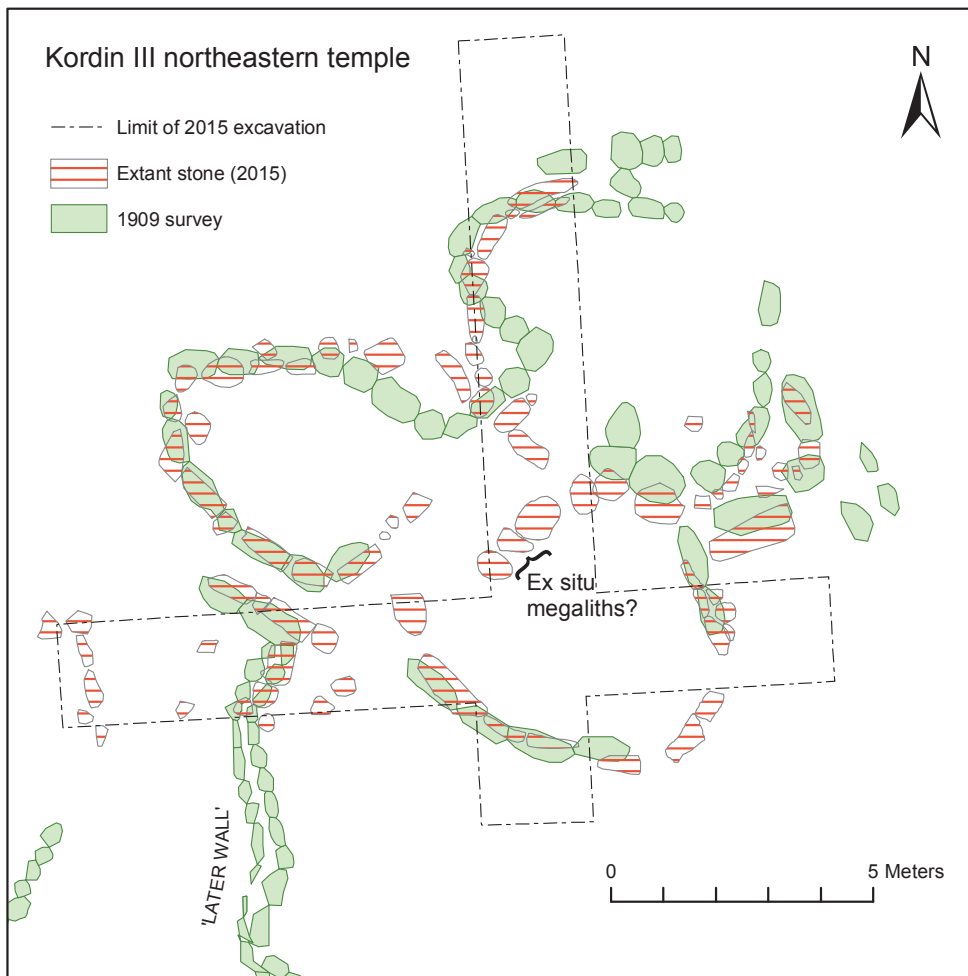


Figure 6.42. Overlay of 2015 FRAGSUS survey of the trefoil temple on Ashby's 1909 plan.



Figure 6.43. Sectioned deposit revealing the ‘modern’ tin cup at the base of section, under megalith.

planned in 1909; a tin cup (Fig. 6.43) found under one of them suggests they were moved into their current position during relatively recent times. It is possible that the temple was heavily disturbed by bomb blasts during WWII, which Evans notes did displace some of the stones (Evans 1971, 67). Possible bomb damage at Kordin was recorded in both Trench I and Trench III, where circular pits containing a mixture of pre-historic and modern material including iron debris were recorded. The iron debris is likely to represent the remains of exploded ordnance. Further destruction occurred at the site when intruders gained access to the site through the compromised outer wall, which had been damaged by bomb blasts, and the intruders vandalized the site (Evans 1971, 67; MAR 1946–7, 2; MAR 1956–7, 1–2). These two events may account for the differences observed between the 1909 survey and the present layout of Kordin III.

6.9. Conclusion

Whilst it may seem trite to state that the temples of Kordin III have a long and complex history, the

recurring theme from our excavation has been the examination of evidence that suggests just that. While they are battered and damaged from activity in recent centuries, the very survival of these structures in their current urban setting is remarkable. Indeed, they are especially valuable given the unfortunate fates that befell the neighbouring complexes of Kordin I and II. Kordin III is sited in a prominent place in the landscape, overlooking significant swathes of countryside as well as the Grand Harbour, one reason perhaps why the site was chosen in prehistory as a place on which to mark, build and celebrate. The extant megaliths are a palimpsest of structures dating to various points of the Mġarr and Ġgantija phases of the earlier Temple Period, and our excavations have gathered significant new data about the sequence and the economy of narrow slices of time within this. Of particular importance are the midden-like deposits found outside the western edge of the small ‘temple’ building in Trench 1 that were sealed by subsequent construction. The midden provides valuable data for the kind of activities that occurred at these megalithic complexes, in terms of the consumption of meat (Chapter 9) and the elaborate ceramic material culture associated with the implied feasting (Chapter 10). Importantly, the quantity of the rather rare and little known Mġarr pottery retrieved from Kordin III adds considerably to the range of forms and decoration of the style (see Chapter 10). In the case of the 2015 excavations, the retrieval of traces of feasting activities early in the Ġgantija phase, around 3400 cal. bc are important because they are early and dated. They constitute one clear example to suggest that the temple complex functioned as a place of formal ritual consumption and performance – activities that the *FRAGSUS* questions have focused on. It seems likely that such feasts and events acted to bind ancient society together, and the evidence helps us contextualize the Maltese megaliths as monuments that were integral with celebrations. We return to these themes later in this volume.

In conclusion, the 2015 work at Kordin III has effectively tackled some of the *FRAGSUS* questions, by adding considerably to knowledge of food materials in the earlier Temple Period. These data expand our discussions on the role of temple structures and on where they lie in their landscapes, and allow us to model more effectively how they were related. In hindsight, we would have liked to have sampled beneath the floors of Trench 1 more thoroughly, to explore the primary phases of building and the environment in which the early episodes took place. Such evidence is significant, since the more superficial levels that were examined all proved to be disturbed and unsuitable for the extensive environmental sampling that was conducted at the



Figure 6.44. *View of excavation before closure, showing exposed lobe walls in Trench 1.*



Figure 6.45 *Laser scan of Trench 1 after removal of shading at end of excavation (John Meneely).*



Figure 6.46.
The team at Kordin.

Table 6.1. *Kordin III and the FRAGSUS questions.*

FRAGSUS questions	Kordin III
1a. What was the impact of human settlement on Malta?	
1b. How rapid was the process of deforestation, erosion and degradation?	
1c. When did technical mechanisms to manage the environment develop – such as terracing, water and food storage?	
1d. Were such mechanisms in place before or after the Temple Culture collapsed?	Kordin III fell out of use before end of the Temple Period.
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?	Kordin complex of sites on the edge of the harbour and overlooking the wide Maltese landscape had access to many resources, evidenced by occupation from at least Skorba phase. Evidence for long continuity through earlier Temple Period.
2b. Were the monumental temples instrumental in the process of sustaining cultural life?	Kordin III represents an early example of temple function with food evidence in place.
3a. What sort of agriculture was used, and what did people eat, especially as the landscape became increasingly degraded and the environment more unpredictable?	Cereals and pulses in use at site. Stock animals evidently slaughtered and eaten at site.
3b. Were there failures in the food supply?	Abandonment of site by the full Temple Period could imply that the major site, Tarxien, close by assumed the role of feasting centre in the third millennium BC. Possibly water supply failed locally.
3c. What impact did diet, disease and stress have on the population?	Feasting evidence implied at Kordin III with animals evidently eaten and disposed of within the precinct.
4a. What was the size and nature of the early Maltese population?	Small scale of Kordin III and its neighbouring monuments implies a much lower population density compared with late Temple Period times with huge temple complexes.
4b. What role did demographic connectivity (immigration) play in maintaining island sustainability?	Evidence of imported chert and obsidian. Stock and plants.
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?	End of the Temple Period not evidenced at Kordin, which may have been little used by that time.
5b. Was there a hiatus between the Temple Culture and later Bronze Age settlers?	No Bronze Age at the site to demonstrate this. Slight earlier Neolithic evidence beneath later Temple Period occupation could imply a break between, but this is not dated.
5c. Are other hiatuses apparent in the sequence, such as between the earlier Neolithic and the Temple Period?	The presence of earlier Neolithic activity in Ghar Dalam and Skorba phases implies settlement in the sixth / early fifth millennium BC.

other sites reported on in this volume. Yet, Kordin III is a protected and extremely important site, and potentially soon to be added to the World Heritage Site list of temples in Malta. We were privileged to examine the deposits in the most expansive excavations on the site since their first study in 1908–9. (Figs. 6.44 & 6.45).

Notes

1. *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/>
2. In the descriptions of contexts that follows, layers, fills and structural contexts are denoted in parentheses (), cut features in square brackets [], and surfaces in curly brackets { }.
3. As a biographical note, this was by far the most comfortable part of the site to excavate, located securely in the shade with a good internet connection from the local technical school.

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.

Editors:

Caroline Malone is a Professor in the School of Natural and Built Environment, Queen's University Belfast.

Reuben Grima is a Senior Lecturer in the Department of Conservation and Built Heritage, University of Malta.

Rowan McLaughlin is Senior Researcher in the Department of Scientific Research at the British Museum, and previously Research Fellow for the *FRAGSUS Project*; he is honorary research scholar at Queen's University Belfast.

Eóin W. Parkinson completed his PhD at Cambridge University and is currently Leverhulme Research Fellow at the University of Malta.

Simon Stoddart is Reader in Prehistory in the Department of Archaeology, University of Cambridge.

Nicholas C. Vella is Associate Professor of Mediterranean Archaeology in the Department of Classics and Archaeology, University of Malta.

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

