

Gianmarco Alberti

Archaeologist (Ph.D.)

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<http://uniud.academia.edu/GianmarcoAlberti>
<https://impactstory.org/GianmarcoAlberti>
<http://cainarchaeology.weebly.com>
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1. Summary
2. Education History
3. Research Interests
4. Technical Skills
5. Employment History
6. Additional Information
7. Academic Appointments
8. Awards and Achievements
9. Referee Activity
10. Publications

1. Summary

I am an archaeologist (Ph.D.) with interests in pottery seriation, radiocarbon chronology, household archaeology, ceramic style and identity, communal food consumption, settlement archaeology, and analysis of activity areas at the site level.

I am also interested in spatial analysis (GIS) and statistical modelling, and in statistics applied to archaeological data, with a focus on multidimensional scaling techniques (*Correspondence Analysis* in particular).

2. Education History

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|------|---|
| 2012 | <p><u>Ph.D. in Archaeology</u> - University of Udine (Italy) Dissertation's Title: <i>Social Organization and Community Practices. Analysis for a reconstruction of the social organization of the Aeolian communities during the Middle Bronze Age</i> (in Italian). European Qualification Framework level: 8</p> |
| 2007 | <p><u>Master of Arts in Archaeology</u> - University of Lecce (Italy) Dissertation's Title: <i>The Middle Bronze Age in the Aeolian Archipelago. The Milazzese pottery repertoire and the Aegean component</i> (in Italian). Grade: 70/70 European Qualification Framework level: 8 (<i>Diploma di Specializzazione</i>)</p> |

2003

Laurea quadriennale in Classics and Archaeology - University of Catania (Italy)
Thesis' Title: *The Thapsos facies in the area of Syracuse (Sicily). The problem of the Aegean component (in Italian).* Grade: (110/110 *cum laude*)
European Qualification Framework level: 7

3. Research Interests

- GIS, spatial analysis, spatial modelling
- Statistics and Multivariate Techniques applied to archaeological data
- Chronology (absolute, relative); Pottery seriation; seriation techniques
- Radiocarbon chronology and Bayesian chronological modelling
- Archaeology of death
- Household archaeology
- Social analysis of funerary and domestic contexts
- Identity, ceramic style, feasting in small scale to complex societies
- Cultural and contextual facets of Aegean imports to central Mediterranean Bronze Age contexts

4. Technical Skills

- Use of GIS software (ArcGIS, QGIS)
- Use of 3D GIS software (Esri's ArcScene and QGIS' Qgis2threejs plugin)
- Use of spatial analysis software (e.g., PASSaGE, SAM)
- Use of LiDAR processing tools (LiDAR module in ArcGIS and SAGA-GIS, Global Mapper, LasTools)
- Use of main statistical software (e.g., R, STATISTICA, JMP)
- Simple and Multiple Correspondence Analysis for data structure interpretation
- Use of Statistics for data exploration, hypothesis tests, and multivariate analysis
- Use of programs (OxCal and BCal) for Bayesian radiocarbon calibration and modelling
- Use of Microsoft Access and Excel
- Use of the main word processors (Microsoft Word, Pages, Open Office)
- Use of Corel Draw, Corel Photo-Paint, Adobe Acrobat
- Website Editing (RapidWeaver, iWeb)

Statistical computer programs (see full description at: <http://cainarchaeology.weebly.com/>)

- R
- 'CAinterprTools': R package for Correspondence Analysis interpretation
 - 'CAseriation': R package for seriation via Correspondence Analysis
 - 'ca.scatter': R function for Correspondence Analysis scatterplots
 - 'ca.plus': R function for interpretation-oriented Correspondence Analysis scatterplots
 - 'scalar.stress': R function for scalar stress calculation
 - 'prob.phases.relat': R function for posterior probability for relations between two Bayesian radiocarbon phases
 - 'ppd.plot': R function for Posterior Probability Density plot of Bayesian modeled radiocarbon dates
 - 'BRsim': R function for Brainerd-Robinson similarity coefficient
 - 'perm.t.test': R function for permutation t-test
 - 'plot.mw': R function to plot Mann-Whitney test' result
 - 'plot.kw': R function to plot Kruskal-Wallis test' result
 - 'chi.perm': R function for permutation-based Chi square test of independence
 - 'log.regr': R function for binary Logistic Regression modelling
 - 'model.valid': R function for binary Logistic Regression internal validation
 - 'auc.adjust': R function for optimism-adjusted AUC

- Excel
- Kruskal-Wallis Excel Template
 - Chi-square Excel Template

-XLTRS (Excel Template for Robust Statistics)

Languages

English (very good)

Italian (mother tongue)

5. Employment History

October 2016

Project researcher

Department of Classics and Archaeology – **University of Malta**

Project: LARSOCS (*Low Altitude Remote Sensing Of Compact Sites*), funded by The University of Malta and Research, Innovation, Development Trust Fund (RIDT). The aim of the project is to create a low cost capability for low altitude aerial remote sensing and survey for archaeology, which can also be used for other areas of research including geosciences, environment, resource and cultural heritage. The highly interdisciplinary colleagues brings together archaeologists, engineers and scientists to develop an effective methodology for imaging of small sites and processing the data captured; and to develop a simple and effective low cost guidance system which will allow controlled low level flight over archaeological sites to record stages in the excavation process.

-Duties: 3D modeling from photogrammetry, processing and analysis of DEM and DTM in GIS environment.

March 2014-June 2016

Research Support Officer II

Department of Classics and Archaeology – **University of Malta**

-Duties: research into Maltese landscape archaeology, with a focus on setting up a GIS laboratory within the Department and building a GIS geo-database of prehistoric and historical evidences in the Maltese archipelago. The work also comprised, among other things, georeferencing and digitizing modern survey sheets as well as historical cadastral maps, LiDAR data processing, analysis and processing of Digital Elevation Models, analysis and processing of airborne imagery, building predictive models (by means of Logistic Regression in GIS environment) for land productivity quality. I delivered a presentation at the 2014 Annual Meeting of the European Association of Archaeology (EEA) held in Istanbul. I also designed and put online a website for showcasing the results of the University of Malta team's research in the framework of the FRAGSUS project (<http://fragsusuom.weebly.com>). I took also care of the logistic for project seminars in Malta, and of the logistic of fieldwork in Malta and overseas. I also delivered hour lectures on Sicilian Middle Bronze Age settlement archaeology, quantitative archaeology, and the use of GIS in archaeology.

-Related publications: 3

2009-2012

Ph.D. student with scholarship

University of Udine

-Duties: research into the social organization of the Bronze Age communities in North East Sicily (i.e., Aeolian Islands) with focus on radiocarbon chronology, activity areas analysis, material culture patterning and settlement architecture/layout at the site-level, archaeology of household, identity, and communal food consumption.

-Related publications: 1, 9, 15

2007-2009

Member of research project

University of Catania

Project (PRIN 2007) *Beyond equality: Communal space and the individual dimension in Mediterranean Prehistory*, coordinated by Prof. V. La Rosa

-Duties: study of Middle Bronze Age settlement contexts in Sicilian North and South-East to address the issues of the chrono-typological development of the local ceramic repertoires and of settlement architecture and layout.

-Related publications: 2, 18, 19

2006-2007

Consultant

Archaeological Superintendence of Catania (Italy)

-Duties: Preparation of the International Exhibition titled *In Ima Tartara: Preistoria e leggenda delle grotte dell'Etna* (organized by Regione Sicilia-Assessorato ai BB.CC.AA-Soprintendenza di Catania; Centro di Archeologia Cretese-Università di Catania; Scuola Archeologica Italiana ad Atene). preparation of panels providing information on funerary rituals during the Sicilian prehistory, and on the Sicilian prehistoric chronology and cultural phases.

-Related publications: 17

2005-2007

Member of research project

University of Catania

Project (PRIN 2005) *Central and Eastern Mediterranean in the 2nd millennium B.C.: The development of an international network through inner transformations and external projections*, coordinated by Prof. V. La Rosa, funded by the Italian Ministry of the Scientific Activities

-Duties: study of the archaeological evidence from Sicilian Bronze Age funerary contexts to address the issues of the development of local hierarchical social structures and of trade networks between Sicily and Aegean.

-Related publications: 16, 20, 21

2005-2009

Consultant

Cittadinanzattiva Onlus (Italian not-for-profit organization)

Duties: data mining and statistical analyses of survey data.

6. Additional Information

Other professional experiences

- 2015 Shortlisted for the Research Associate position at the *Institute of Archaeology – University College London* (project: Supply and demand in prehistory? Economics of Neolithic mining in NW Europe).
- 2015 Shortlisted for the Research Associate position at the *Institute of Archaeology – University College London* (project: Changing the face of the Mediterranean: land cover and population since the advent of farming).
- 2013 Shortlisted for the Visiting Scholar position 2013-14 at the *Institute for European and Mediterranean Archaeology* (SUNY Buffalo).
- 2012 Positive evaluation at the competitive examination for the position of Teaching Fellow in Prehistory and Proto-history (University of Salento-Lecce).
- 2008 Positive evaluation at the competitive examination for the position of Teaching Fellow in Prehistory and Proto-history (University of Catania).

Participation at conferences

- 2014 Oral communication at the 2014 Meeting of the European Association of Archaeology (Istanbul).
- 2011 Oral communication at the *15th Symposium on Mediterranean Archaeology (SOMA)* (University of Catania, Catania).
- 2006 Oral communication at the *Postgraduate Cypriot Archaeology (POCA) Conference Island Dialogues-Cyprus in the Mediterranean network* (Univ. of Edinburgh).
- 2005 Oral communication at the Conference *Emporia. Aegeans in the Central and Eastern Mediterranean*, 10th Intern. Aegean Conference (Athens).
- 2004 Oral communication at the *Primo Simposio Siracusano di Preistoria Siciliana in memoria di Paolo Orsi* (Siracusa).

Field experience

- May 2015 Organization of the logistic and participation to the environmental fieldwork in Sicily, led by Dr. Michelle Farrell (Queen's University Belfast) for the purposes of the EU-funded FRAGSUS project (Principal Investigator Prof. Caroline Malone)
- 2004-2006 Cavallino (University of Lecce) - native Apulian settlement (Bronze to Hellenistic Age)
- 2004-2006 Rocavecchia (University of Lecce) - native Bronze Age fortified settlement with Aegean ceramic imports and metalworking activities
- 1997 Paphos-Cyprus (University of Catania)

Website design and maintenance

- Correspondence Analysis in Archaeology*
<http://cainarchaeology.weebly.com> Website that aims to introduce the statistical exploratory technique called *Correspondence Analysis*. It is taken into account from an archaeological perspective, and is illustrated by means of worked examples. Scripts and packages to perform Correspondence Analysis in R are also described.
- FRAGSUS Project – University of Malta*
<http://fragsusuom.weebly.com> Website aiming at showcasing the achievements of the research performed at the Department of Classics and Archaeology (University of Malta) in the framework of the EU-funded 'FRAGSUS' project.

Unpublished studies

- 2006 *Bronze Items from Thapsos' cemetery. External connections, elites, and status symbols.* Supervisor: Prof. Riccardo Guglielmino (University of Lecce)
- 2006 *The Middle Bronze Age in Sicily. A Comparison between the Thapsos and Milazzese facies.* Supervisor: Prof. Anna Maria Bietti Sestieri (University of Lecce)
- 2005 *The interaction between Greeks and Native People in eastern Sicily. New light on the funerary inventories from Monte Finocchito cemetery near Noto.* Supervisor: Prof. Maria Grazia Semeraro (University of Lecce)

- 2005 *Domestic Architecture at Morgantina (Aidone). Dynamics of development and transformation between the Hellenistic and Roman Republican period.*
Supervisor: Prof. Liliana Giardino (University of Lecce)
- 2004 *Data from the Survey in the territory of the Greek polis of Eloro (Noto).*
Supervisor: Prof. Marcello Guaitoli (University of Lecce)
- 2004 *Interpretation of the aero photogrammetric documentation of the territory near Eloro (Noto).*
Supervisor: Prof. Giuseppe Ceraudo (University of Lecce)
- 2004 *Order vs Chaos? Some thoughts on the associations between theatric terracotta types in the Greek necropolis of Lipari.* Supervisor: Prof. Adele Filippo (University of Lecce)
- 2004 *Symbolic value of the sacred landscape in Caria between IV-II BC.* Supervisor: Prof. Francesco D'Andria (University of Lecce)

7. Academic Appointments

Lecturing activity

- 16 June 2016 Invited Lecturer
Department of Classics and Archaeology - **University of Malta**
-Duties: 2-hours lecture on *Beyond Storing Data: the Potential of Geographic Information System.*
- 15 December 2015 Invited Lecturer
Department of Classics and Archaeology - **University of Malta**
-Duties: 2-hours lecture on *Geographic Information System and Maritime Archaeology. A short introduction by means of worked examples.*
- 27 October 2015 Invited Lecturer
Department for the Built Environment - **University of Malta**
-Duties: 2-hours lecture on *The use(s) of Geographic Information System: a short, problem-oriented, (hopefully) commonsense introduction*
- 11-18-25 March 2015 Invited Lecturer
Department of Classics and Archaeology - **University of Malta**
-Duties: 2-hours lectures on *Statistics for Archaeologists* for BA (Hons) students in Archaeology.
- 1 December 2014 Lecturer
Department of Classics and Archaeology - **University of Malta**
-Duties: 2-hours lecture on *From artefacts and architecture to social organization: the case of the Aeolian islands in the Middle Bronze Age* following ARC 2034 *The prehistory of Sicily and Sardinia* (6 ECTS).
- 13-14 May 2014 Invited Lecturer
Dept of History and Preservation of Cultural Heritage - **University of Udine**
-Duties: 2-hours lecture on *Correspondence Analysis in Archaeology: utility, issues, interpretation* for PhD students in Archaeology.
- Fall 2013 Lecturer
Arcadia University the College of Global Studies (Siracusa campus)
-Duties: six hours of lectures (1 ECTS) on *Material culture, spatial patterns, and social organization: a view from Bronze Age Aeolian archipelago* and *Statistics in*

archaeology: approaches and perspectives as a module of the course “CSAR 350 - Crossroads of Civilizations: Archaeology of Ancient Sicily”.

June 2013

Instructor

Arcadia University the College of Global Studies (Siracusa campus)

-Duties: instructor of the *GIS and R 'ggmap'* module (2 ECTS) of the program “FSDA 310S - Field School in Archaeology” undertaken by the Arcadia University – The College of Global Studies at Ognina (Siracusa).

May 2012

Invited Lecturer

University of Catania

-Duties: lecture on *Statistical approaches for the analysis of the ancient funerary contexts* as a module of the course on Archaeology and History of Art of the Ancient Near East (3 ECTS) held by Prof. Nicola Laneri.

2009-2012

Invited Lecturer

University of Udine

-Duties: lectures on *Settlement archaeology, material culture and spatial patterns interpretation* and other themes related to my doctoral research.

Jan-Dec 2007

Lecturer

University of Catania

-Duties: (a) course (3 ECTS) on *Funerary practices in Sicilian prehistory: from theory to the analysis of the archaeological data*; (b) guided tours at some key archaeological sites and local Museums; (c) looking after graded assignments and final exam.

Mentoring activity

Dec 2014-Apr 2016

Co-supervisor

Department of Classics and Archaeology - **University of Malta**

-Duties: co-supervisor of Miss Jessica Spiteri's MA dissertation in Archaeology on *Exploring Connectivity in the Central Mediterranean in Prehistory* (supervisor: Dr Nicholas Vella).

Apr-Oct 2015

GIS advisor

Department of Classics and Archaeology - **University of Malta**

-Duties: GIS advisor for Mr Bernard Cachia Zammit's MA dissertation in Archaeology on *Conflict Archaeology in the Landscape: A Survey of World War II Defences at Selmun, Malta* (supervisors: Dr Timmy Gambin and Dr Stephen Spiteri).

8. Awards & Achievements

2009-2011

Scholarship from the University of Udine - Ph.D. cycle XXIV

Oct.2015-Sept.2016

Publons award: Top reviewers for Sentinels of Science: Arts and Humanities

9. Referee Activity (reviewer record available at: <https://publons.com/author/339676/gianmarco-alberti>)

Journals

2014-current

Archaeometry (number of manuscripts reviewed: 1)

Current Anthropology (1)

International Journal of Osteoarchaeology (1)

Journal of Archaeological Science (1)
Open Archaeology (4)
PLoS ONE (4)
Radiocarbon (1)
R Journal (1)
Rubriq (1)
West & East (1)

Books
2016

Grant S. McCall. *Archaeology by Numbers: A Handbook of Strategies for Quantitative Research*. Routledge

10. Publications

Books and monographs

- [1] **2012** *Social Organization and Community Practices. Analysis for a reconstruction of the social organization of the Aeolian communities during the Middle Bronze Age.*
Ph.D. Dissertation, University of Udine, supervisor: Prof. Elisabetta Borgna
- [2] **2008** *La ceramica eoliana della facies del Milazzeese: studio crono-tipologico e culturale sulla base dei dati editi da Filicudi, Lipari, Panarea, Salina (in Italian with English summary).*
BAR IS 1767, Archaeopress 2008, ISBN 9781407302560

Journal articles and chapters

- [3] under review **G. Alberti, R. Grima, N. C. Vella.** *The use of GIS and 1860s cadastral data to model agricultural suitability before heavy mechanization. A case study from Malta*
Submitted to [PLOS ONE](#)
- [4] under review **G. Alberti.** *New light on old data: toward understanding settlement and social organization in Middle Bronze Age Sicily through quantitative and multivariate analysis*
[Journal of Archaeological Science: Reports](#)
- [5] in press **G. Alberti.** *Correspondence Analysis.*
Invited entry for *The SAS Encyclopedia of Archaeological Sciences*, edited by Sandra Lopez Varela; Wiley-Blackwell (in press).
- [6] **2015** **G. Alberti.** *CAinterprTools: An R package to help interpreting Correspondence Analysis' results.*
In [SoftwareX](#) 1-2, 2015, 26-31
- [7] **2015** **G. Alberti.** *The aid of Bayesian radiocarbon modeling in assessing the chronology of Middle Bronze Age Sicily at the site level. A case study.*
In [Journal of Archaeological Science: Reports](#) 2, 2015, 246-256
- [8] **2015** **G. Alberti.** *Brocche Base Ring II da contesti del Bronzo Medio in Sicilia: produzione levantina, cipriota, o locale? Alcune considerazioni.*
In AKROTINIA. Contributi di giovani ricercatori italiani agli studi egei e ciprioti, edited by L. Bombardieri, A.M. Jasink, 12/2015; Firenze University Press.
- [9] **2015** **G. Alberti.** *Material Culture and People. Some Methodological Remarks on the Study of Aeolian Middle Bronze Age Settlement Contexts.*
In 'SOMA 2011 Proceedings of the 15th Symposium on Mediterranean Archaeology, held at the University of Catania 3-5 March 2011', edited by

Pietro Maria Militello and Hakan Ö niz, BAR S2695 2015. ISBN 9781407313443, 185-195

- [10] 2014 **G. Alberti.** *Modeling group size and scalar stress by logistic regression from an archaeological perspective.*
In PLoS ONE 9(3), 2014, e91510 (Impact Factor: 3.234)
- [11] 2013 **G. Alberti.** *An R Script to Facilitate Correspondence Analysis. A Guide to the Use and the Interpretation of Results from an Archaeological Perspective.*
In Archeologia e Calcolatori 24, 2013, 25-53
- [12] 2013 **G. Alberti.** *Issues in the absolute chronology of the Early–Middle Bronze Age transition in Sicily and southern Italy: a Bayesian radiocarbon view.*
In Journal of Quaternary Science 28(6), 2013, 630-640 (Impact Factor: 2.661)
- [13] 2013 **G. Alberti.** *Making Sense of Contingency Tables in Archaeology: the Aid of Correspondence Analysis to Intra-Site Activity Areas Research.*
In Journal of Data Science 11, 2013, 479-499
- [14] 2013 **G. Alberti.** *A Bayesian ¹⁴C chronology of Early and Middle Bronze Age in Sicily. Towards an independent absolute dating.*
In Journal of Archaeological Science 40(5), 2013, 2502-2514 (Impact Factor: 2.139)
- [15] 2011 **G. Alberti.** *Radiocarbon evidence from the Middle Bronze Age settlement at Portella (Aeolian Islands, Italy): chronological and archaeological implications.*
In Radiocarbon 53(1), 2011, 1-12 (Impact Factor: 2.842)
- [16] 2008 **G. Alberti.** *There is "something Cypriot in the air". Some thoughts on the problem of the Base Ring pottery and other Cyprus-related items from (local) Middle Bronze Age contexts in Sicily.*
In McCarthy (ed.), 'Island dialogues': proceedings of the Postgraduate Cypriot Archaeology Conference (POCA), 2006, University of Edinburgh Archaeology Occasional Papers 21, Edinburgh 2008, 130-153
- [17] 2008 **G. Alberti.** *Comparative cultural-chronological chart (Sicily, Aeolian Archipelago, Late Helladic Greece).*
In F. Privitera-V. La Rosa (eds), 'In Ima Tartara. Preistoria e leggenda delle grotte dell'Etna', Palermo 2008, 28
- [18] 2007 **G. Alberti.** *Minima Thapsiana. Riflessioni sulla cronologia dell'abitato di Thapsos.*
In Rivista di Scienze Preistoriche LVII, 2007, 363-376
- [19] 2006 **G. Alberti.** *Per una "gerarchia sociale" a Thapsos: analisi contestuale delle evidenze funerarie e segni di stratificazione.*
In Rivista di Scienze Preistoriche LVI, 2006, 369-427
- [20] 2005 **G. Alberti.** *The earliest contacts between south-eastern Sicily and Cyprus in the Late Bronze Age.*
In R. Laffineur, E. Greco (eds.), 'Emporia. Aegeans in Central and Eastern Mediterranean', Proceedings of 10th International Aegean Conference, Aegaeum 25, Eupen 2005, 343-351
- [21] 2004 **G. Alberti.** *Contributo alla seriazione delle necropoli siracusane.*
In La Rosa V. (ed.), *Le presenze micenee nel territorio siracusano*, Padova 2004, 99-170

Book reviews

- [22] **2010** **G. Alberti.** Review: R. D. Drennan, *Statistics for Archaeologists. A Common Sense Approach (2nd edition)*, New York.
In American Journal of Archaeology 114, 2010
- [23] **2009** **G. Alberti.** Review: D. Tanasi, *La Sicilia e l'arcipelago maltese nell'età del Bronzo Medio*, Palermo 2008.
In American Journal of Archaeology 113, 2009
- [24] **2008** **G. Alberti.** Review: C.J. Bergoffen, *The Cypriot Bronze Age Pottery from Sir Leonard Wooley's Excavations at Alalakh (Tell Atchana)*, Vienna 2005.
In American Journal of Archaeology 112, 2008
- [25] **2007** **G. Alberti.** Review: M.C. Martinelli, *Il villaggio dell'età del Bronzo medio di Portella a Salina nelle Isole Eolie (Firenze 2005)*.
In American Journal of Archaeology 111, 2007, 373-374
- [26] **2006** **G. Alberti.** Review: Andrea Vianello, *Late Bronze Age Mycenaean and Italic Products in the West Mediterranean. A Social and Economic Analysis.*(Oxford 2005).
In European Journal of Archaeology 9, 2006, 134-137
- [27] **2006** **G. Alberti.** Review of M Sannazaro (a cura di), *Ricerche archeologiche nei cortili dell'Università Cattolica. La necropoli tardoantica*, Milano 2001, and of S Lusuardi Siena-M P Rossignani (a cura di), *Ricerche archeologiche nei cortili dell'Università Cattolica*.
In Orpheus 22, 2004, 227-232