

María Coto-Sarmiento

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EDUCATION

Barcelona Supercomputing Center- University of Barcelona (Spain) Phd in Archaeology (Computational Archaeology)

2015- 2019

Thesis: Quantifying the cultural change: An evolutionary approximation to the olive oil amphorae production from *Baetica* province (ss. I-III) (Spanish/English (conclusion and some chapter)

EPNet Project. Production and Distribution of Food during the Roman Empire: Economic and Political Dynamics.

Supervisors: Prof. José Remesal (University of Barcelona), Dr. Xavier Rubio-Campillo (University of Edinburgh)

University of Seville (Spain) Mphil in Archaeology and Cultural Heritage

2008-2009

Thesis: "La cerámica pintada de tipo turdetano en Caura (Coria del Río, Sevilla)" (Highest mark)

Supervisors: José Luis Escacena

University of Seville (Spain) MA in History

2003-2008

WORK EXPERIENCE

2015-2019

Researcher in Archaeology at Barcelona Supercomputing Center (ERC-funded PhD Fellowship)

EPNet Project. Production and Distribution of Food during the Roman Empire: Economic and Political Dynamics

2017

Visiting Scholar (three months)

The aim of this research stay was to develop a statistical framework to understand the amphora production (More info here https://github.com/Mcotsar/Edinburgh_research)

University of Edinburgh

2013

Museum educator in exhibition "*Iberos: nuestra civilización antes de Roma*"

Institution Obra Social La Caixa

Seville (Spain)

2012

Museum educator in exhibition "*Romanorum Vita*"

Institution Obra Social La Caixa

Seville (Spain)

2005-2014

Field archaeologist and ceramologist (analysis and drawing) in archaeological settlements in Spain in collaboration with different universities

University of Seville, CSIC (Consejo Superior de Investigaciones Científicas), University of Valencia, University of Extremadura, Université Toulouse II, Le Mirail.

PUBLICATIONS

Journal articles

COTO-SARMIENTO, M., RUBIO-CAMPILLO, X. & REMESAL, J. (in prep.): "The markings of the trade: exploring the patterns of olive oil production in Roman Baetica"

COTO-SARMIENTO, M., CARRIGNON, S., RUBIO-CAMPILLO, X., & REMESAL, J. (2019): Simulando el aprendizaje: modelización basada en agentes para comprender la producción anfórica en el Imperio Romano. *Instrumenta*, 65 Universitat de Barcelona.

COTO-SARMIENTO, M., RUBIO-CAMPILLO, X. & REMESAL, J. (2018): "Identifying social learning between Roman amphorae workshops through morphometric similarity", *Journal of Archaeological Science*, 96, 117-123. DOI: <https://doi.org/10.1016/j.jas.2018.06.002>

RUBIO-CAMPILLO, X., COTO-SARMIENTO, M., PEREZ, J. & REMESAL, J. (2017): "Bayesian analysis and free market trade within the Roman Empire". *Antiquity*, 91, 1241-1252. DOI: <https://doi.org/10.15184/aqy.2017.131>

ESCACENA, J.L. & COTO-SARMIENTO, M. (2010): "Altares para la eternidad". *Spal*, 19: 149-185. ISSN: 1133-4525.

COTO-SARMIENTO, M. (In press): "Nuevas perspectivas de estudio: la cerámica turdetana dentro del marco postprocesualista", en *Estrat Critic nº6*. Universidad Autónoma de Barcelona.

Proceedings

COTO-SARMIENTO, M.; CARRIGNON, S., RUBIO-CAMPILLO, X. & REMESAL, J. (in press): An Agent Based Model to Detect Variations in the Transmission of Potters from Baetica Province, *The Making of Value and the Value of Making*, 19th International Congress of Classical Archaeology, 22- 26 Mayo, Cologne/Bonn, 2018.

COTO-SARMIENTO, M. (2011): "Resucitando identidades perdidas: problemas en torno a la cerámica turdetana", en *Actas Oficiales de las III Jornadas de Jóvenes en Investigación Arqueológica, JIA 2011 (Barcelona, 5-7th May 2010)*, *Estrat Jove*, nº5, Vol. II: 293-304. ISSN: 1887-8687.

Chapters in books

RUBIO-CAMPILLO, X. & COTO SARMIENTO, M. (in press): "New Approaches To Old Questions: The Exploration Of Large-Scale Trade Dynamics Using Hypothesis-Testing Frameworks". *Oxford Studies on the Roman Economy*

COTO-SARMIENTO, M. (2018): "La cerámica pintada de tipo turdetano en Caura. Aproximación a su tipología", *Caura. Arqueología en el estuario del Guadalquivir. Colección SPAL Monografías Arqueología Núm.: XXVI*, Universidad de Sevilla.

Book reviews

(2015): GARCÍA FERNÁNDEZ, Francisco J. y GARCÍA VARGAS, Enrique (eds.), *Comer a la moda. Imitaciones de vajillas de mesa en Turdetania y la Bética Occidental durante la Antigüedad (s. VI a.C.-VI d.C.)*, Publicacions de la Universitat de Barcelona, Col·lecció *Instrumenta* 46, Barcelona.

INTERNSHIPS

2012

Scholarship at Institute of Anthropology at University of Seville (Spain)
Assistant (library)

2011

Scholarship at Institute of Archaeology at University of Seville (Spain)
Research Assistant

WORKSHOPS & SUMMER SCHOOLS

2016

Summer School "Archaeology of the future: data driven, Data Mining, Data Analysis, and Data Driven Archaeology"
June, University of Pisa (one month)

2010

Summer School in Classical Archaeology

XI workshop of Classical Archaeology in *Baelo Claudia* (Bolonia, Cádiz, Spain)

June-July, University of Cádiz (two months)

PARTICIPATION AND COLLABORATION IN OTHER RESEARCH PROJECTS

2018-current

Data analyst

Sexual harassment in Archaeology

University of Barcelona

2013- current

Project TELLUS. Prehistory and Archaeology in the south of Spain (HUM 949)

Prehistory and Archaeology department of University of Seville

2011- 2013

Project Historiografía y Patrimonio Andaluz (HUM 402)

Prehistory and Archaeology department of University of Seville

CONFERENCE PRESENTATIONS

Invited Talks

YUBERO, M.; **COTO-SARMIENTO, M.**, "Sexual harassment in Archaeology: a spanish case study", Seminario de Arqueología de Género, Universitat de Barcelona, 26th April 2019

Talks

Dusting off the sexual harassment in Spanish Archaeology, 41st annual Theoretical Archaeology Group Conference, 16th-18th December 2019

Siti tibi data levis: New approaches to understand the Roman economy from computational archaeology, Universitat de Barcelona, 12th-13th December 2019

The markings of the trade: exploring the patterns of olive oil production in Roman Baetica. 24th Annual Meeting of the European Association of Archaeologists, 5- 8th September 2018.

An Agent Based Model to detect variations in the transmission of potters from Baetica province. 19th International Congress of Classical Archaeology, Cologne/Bonn, 22- 26th May 2018

El uso de la metodología cuantitativa y de simulación aplicada a la producción anfórica del Imperio Romano, XI Jornadas de Jóvenes en Investigación Arqueológica, Tarragona, 9-12th May 2018

How do potters learn? Exploring cultural transmission in Iberian amphorae production within the Roman Empire. New approaches to late prehistoric and Roman Iberia, Edinburgh, UK, 21st November 2017

Understanding amphorae production with Agent Based Modelling: the case study of Baetica province. Theoretical Roman Archaeology Conference, Durham, UK. March 28th and 31st 2017

Identifying social learning mechanism in the amphorae production within Roman Empire, Computer Applications and Quantitative Methods in Archaeology, Atlanta, Georgia. March 14th and 16th 2017

I want to break free. Examples of good and bad practices (spanish case) of open data, Summer School. Archaeology of the future: data driven, Data Mining, Data Analysis, and Data Driven Archaeology. Pisa, June 2016.

Quantifying the cultural change: an evolutionary approximation to interpret the amphorae production in the Roman Empire, Computer Applications and Quantitative Methods in Archaeology. Oslo, 29 March-2nd April 2016

Digging your rubbish: a (not) new perspective to understand the amphorae production in the Roman Empire, Jornada d'Investigadors Predoctorals Interdisciplinària. Barcelona, 2nd February 2016

Ceci n'est pas de l'archéologie? A Bayesian approach to understand consumption dynamics in Ancient Rome, 5th Student Conference on Complexity Science (SCCS). Granada, 9-11th September 2015

La cerámica pintada de tipo turdetano de Caura, Congreso Caura. Arqueología en el Bajo Guadalquivir. Coria del Río, 24-26th February 2014.

Problemática de estudio en torno a la cerámica común turdetana, Seminario Interdepartamental: Ciencias de la Antigüedad. Sevilla, 21st -28th March and 11-18th April 2011.

Resucitando identidades perdidas: problemas en torno a la cerámica turdetana, III Jornadas de Jóvenes en Investigación Arqueológica. Barcelona, 5-7th May 2010.

Nuevas perspectivas de estudio: la cerámica turdetana dentro del marco postprocesualista, I Jornadas de investigadores predoctorales en Ciencias de la Antigüedad y de la Edad Media. Barcelona, 27-29th October 2010.

El rol de la familia. Una mirada desde la arqueología. XV Jornadas culturales Luis Vélez de Guevara. Écija, Sevilla, 12th May 2011.

Posters

Cultural changes of baetican olive oil amphorae from an evolutionary perspective. Winter Workshop Young Social Learning Researchers, 27th January 2017.

Social learning of pottery-making techniques: An Agent Based Model to understand the amphorae production patterns in the Roman Empire. Culture Conference. When and How does Cumulative Culture Emerge? 9Th -10th of June 2016.

Clustering the past: the use of multivariate analysis to understand cultural dynamic. 2Nd BSC International Doctoral Symposium, 5th – 7th May 2016.

GRANTS AND FUNDINGS

2017. Severo Ochoa Mobility Grant visiting. University of Edinburgh (2000 €)

2003-2008. Spanish government bursary for students. University of Seville (3000 €/year)

CONFERENCES & SESSIONS ORGANIZED

Conferences

2016-2018

Co-organizer of the Conference Jornada d'Investigadors Predoctorals Interdisciplinària (JIPI) Barcelona, 2nd February 2016, 9th February 2017 and 19th February
<http://www.ub.edu/jipi/organizers.html#mcoto>

Sessions

2018

Co-organizer session "Computational Models in Archaeology", 24th Annual Meeting European Association of Archaeologists, 5-8th September 2018.

Co-organizer session "Mental health in research", Jornada d'Investigadors Predoctorals Interdisciplinària (JIPI). Barcelona, 19th February 2018

Co-organizer roundtable "Women in research", Jornada d'Investigadors Predoctorals Interdisciplinària (JIPI). Barcelona, 19th February 2018

2017

Co-organizer session "Evolution of Cultural complexity II", Conference on Complex Systems, September 21, 2017, Cancún, Mexico
<https://ccs17.bsc.es>

Co- organizer roundtable "Women in research", Jornada d'Investigadors Predoctorals Interdisciplinària (JIPi)
Barcelona, 9th February 2017

FIELD EXPERIENCE

2014. **Archaeological excavation.** Las Delicias (Écija, Sevilla, Spain). Dir: Enrique García-Vargas. 2nd - 6th June.
2014. **Archaeological excavation.** Silla del Papa (Cádiz, Spain). Dir: Pierre Moret. May.
2011-2012. **Pottery Drawer.** Coria del Río (Seville, Spain). September 2011-February 2012.
2010. **Pottery Drawer.** Catedral de Sevilla (Seville, Spain). November-December.
2010. **Archaeological excavation.** Carissa Aurelia (Cádiz, Spain). Dir: Juan Fournier. 20th September-1st October.
2010. **Archaeological excavation.** Cerro Borreguero (Badajoz, Spain). Dir: University of Cádiz. August.
2010. **Archaeological excavation.** Baelo Claudia (Cádiz, Spain). Dir: University of Cádiz. July.
2008-2009. **Archaeological prospection.** Olivares-Albaida (Seville, Spain). Dir: Urbano López. October 2008-December 2009
2009. **Archaeological excavation.** Patio de Banderas (Seville, Spain). Dir: Miguel Ángel Tabales. 1st -19th June.
2009. **Archaeological excavation.** Itálica (Santiponce, Seville, Spain). Dir: Álvaro Jiménez. May.
2008. **Archaeological excavation.** La Bastida de les Alcusses (Moixent, Valencia, Spain). Dir: Jaime Vives-Ferrándiz. July.
2009. **Archaeological excavation.** La Bastida de les Alcusses (Moixent, Valencia, Spain). Dir: Jaime Vives-Ferrándiz. July.
2007. **Commercial archaeologist.** Archaeological excavation. Seville (Spain). Dir: Arqueología y Gestión S.L.L. March-September.
2006. **Archaeological excavation.** Itálica (Santiponce, Seville, Spain) Dir: Juan Bosco. 17th-16th July.
2005. **Archaeological excavation.** Plaza de España (Écija, Sevilla, Spain). Dir: Sergio García-Dils de la Vega. March.

EDITION

2017- 2018.
Assistant Editor. Special issue "Evolution of Cultural Complexity" in Adaptive Behavior Journal.

LANGUAGES

Spanish: Mother Tongue
English : Fluent (daily practice) B2 Cambridge
Catalan: Good
French : Elementary

COMPUTER SKILLS

OS: Windows, Linux Mint, Ubuntu, iOS.
Publishing: Microsoft Office, OpenOffice, LaTeX.
Programming: R program, Python (learning), MySQL
Statistical analysis/Visualizing: Excell, R.
Digital: Adobe Photoshop, GIMP, Autocad, Corel Draw, Inkscape. QGIS
Repositories: Git
Other: PAUP (phylogenetic), Filemaker, Zotero

MISCELLANEOUS

- Graphic designer of different conference posters (https://github.com/Mcotsar/Poster_designs).
- Member of the blog [Jevons Paradox](#) about Science, Power and Technology (in Spanish)
- I sometimes write about tips for PhD students and Mental Health in Academia [here](#) (in spanish)
- Love travelling, reading, drawing, bad coding and Twitter.

REFERENCES

Xavier Rubio-Campillo

Lecturer of Archaeology at University of Edinburgh

xavier.rubio@ed.ac.uk

José María Cela

Computer Applications in Science and Engineering Director at Barcelona Supercomputing Center

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Daniel García-Rivero

Lecturer of Archaeology at University of Seville

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