

María Coto-Sarmiento
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EDUCATION

Barcelona Supercomputing Center- University of Barcelona (Spain)

PhD in Digital Archaeology

February 2015- July 2019 (Submitted)

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 and Archaeology

2003-2008

WORK EXPERIENCE

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 Mirael.

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 Students in Archaeology

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

June-July, University of Cádiz (two months)

PARTICIPATION IN OTHER RESEARCH PROJECTS

2018-current

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

TALK CONFERENCES

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

COTO-SARMIENTO, M., CARRIGNON, S., RUBIO-CAMPILLO, X. & REMESAL, J. "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.

COTO-SARMIENTO, M., CARRIGNON, S., RUBIO-CAMPILLO, X. & REMESAL, J. "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

COTO-SARMIENTO, M., CARRIGNON, S. "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

COTO-SARMIENTO, M. "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

COTO-SARMIENTO, M., CARRIGNON, S., RUBIO-CAMPILLO, X. & REMESAL, J. "Understanding amphorae production with Agent Based Modelling: the case study of Baetica province". Theoretical Roman Archaeology Conference, Durham, UK. March 28th and 31st 2017

COTO-SARMIENTO, M., CARRIGNON, S., RUBIO-CAMPILLO, X. "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

COTO-SARMIENTO, M. "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.

COTO-SARMIENTO, M., RUBIO-CAMPILLO, X. & REMESAL, J. "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

COTO SARMIENTO, M. "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

COTO-SARMIENTO, M. , RUBIO-CAMPILLO, X. & REMESAL, J. "*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

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

COTO SARMIENTO, M. "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.

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

COTO SARMIENTO, M. "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.

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

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.

(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.

(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.

Posters

COTO-SARMIENTO, M., CARRIGNON, S. & RUBIO-CAMPILLO, X.: Cultural changes of baetican olive oil amphorae from an evolutionary perspective. *Winter Workshop Young Social Learning Researchers*, 27th January 2017.

COTO-SARMIENTO, M., CARRIGNON, S. & RUBIO-CAMPILLO, X.: 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.

COTO-SARMIENTO, M., RUBIO-CAMPILLO, X. & REMESAL, J. : *Clustering the past*: the use of multivariate analysis to understand cultural dynamic. *2Nd BSC International Doctoral Symposium*, 5th – 7th May 2016.

GRANT 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

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

EDITION

2017- Current.

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

COURSES

2018

- Open Science & The Humanities Conference. 21 June. University of Barcelona

- Troubleshooting Session: Key challenges for early-career researchers. 24-25 April. Barcelona Supercomputing Center.

2016

- Agent Based Modeling for archaeologists. Computer Applications and Quantitative Methods in Archaeology, Oslo

2015

- Data analysis and statistical inference. Coursera.
- R programming. Coursera.

2014

- An introduction with applications to archaeological data. Universitat de Barcelona.

LANGUAGES

Spanish: Mother Tongue
English : Good (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)
Statistical analysis/Visualizing: Excell, R.
Digital: Adobe Photoshop, GIMP, Autocad, Corel Draw, Inkscape.
Repositories: Git
Other: PAUP (phylogenetic), Filemaker, Zotero

OTHER INTERESTS

- 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) (<https://www.elsaltodiario.com/autor/paradoja-jevons-ciencia-poder>)
- Love travelling, reading, drawing, bad coding and Twitter.

REFERENCES

Xavier Rubio-Campillo
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José María Cela
Computer Applications in Science and Engineering Director at Barcelona Supercomputing Center
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Luce Prignano
Postdoc at Universitat de Barcelona (Studies Social Network Analysis (SNA))
luceprignano@gmail.com