DOCTORADO EN ARQUEOLOGÍA

Sociales
Facultad de Ciencias Sociales UNICEN

Curso de Doctorado

Arqueología estructural: correspondencias entre materialidades, paisajes y procesos cognitivos

Dictado por:

Dr. Felipe Criado-Boado

Instituto de Ciencias del Patrimonio (INCIPIT) del Consejo Superior de Investigaciones Científicas (CSIC), España

Dra. María Silva-Gago

Consejo Superior de Investigaciones Científicas (CSIC), España

Fecha:

23 al 27 de junio de 2025

Horarios:

Lunes: 14 a 20 h

Martes a viernes: 9 a 15 h

Modalidad Presencial

Lugar: Facultad de Ciencias Sociales, Campus Universitario de Olavarría.

Doctorado en Arqueología

Curso

1.Título:

Arqueología estructural: correspondencias entre materialidades, paisajes y procesos cognitivos

2. Docentes a cargo:

Dr. Felipe Criado-Boado y Dra. María Silva-Gago

3. Fundamentación y objetivos:

Curso teórico-práctico en que se complementarán los contenidos teóricos con prácticas de metodologías de análisis cognitivo aplicables al estudio de la materialidad, fundamentalmente "eye-tracking" (análisis de seguimiento de movimientos oculares). El curso puede ser de utilidad tanto a profesionales de la arqueología, como la antropología, etnografía y estudios del patrimonio. Se basa en el proyecto XSCAPE sobre Mentes Materiales, un subsidio de investigación otorgado por el Consejo Europeo de Investigación (ERC). Título completo: “Material Minds. Exploring the Interactions between Predictive Brains, Cultural Artefacts, and Embodied Visual Search” (acronym XSCAPE, ERC-European Research Council, Synergy Grant ERC-2020-SyG 951631).

4. Contenido y bibliografía:

Se repasarán contenidos de teoría arqueológica y arqueología del paisaje actualizados con nuevas aproximaciones a la concepción de la mente y al estudio de la cognición humana y los procesos cognitivos. Se estudiará la relación entre la cultura material y la mente; la interacción entre los «códigos materiales» de las sociedades humanas y la aparición y el desarrollo de las mentes humanas.

Una temática transversal importante del curso será ver cómo se construyen las estructuras culturales y simbólicas, cómo se puede interpretar su existencia y genealogía desde el estudio de la cognición humana y cómo todo ello se relaciona con diferentes tipos de formaciones socio-culturales. El estudio de los cambios en estos «códigos materiales», interaccionando con los procesos sociales, es parte integrante de la comprensión del surgimiento de la mente.

Se analizarán conceptos básicos, y su aplicación a la práctica arqueológica, como: mente y racionalidad, estructuras de pensamiento, materialidad, xscape, modelo interno, percepción 4E+A, inferencia activa.

El curso revisará la influencia de las materialidades en el procesamiento cognitivo y mental. En concreto, analizará la capacidad de predicción de la mente estudiando cómo los estímulos perceptivos afectan al comportamiento sensoriomotor mediante técnicas de seguimiento ocular y de movimiento y modelización computacional. Las principales preguntas de investigación que se tratarán en el curso, son:

- ¿Cómo modifican los mundos que construimos los humanos al modo en que la mente procesa la información? ¿Afectan, en concreto, las estructuras materiales de nuestro entorno artificial los patrones de atención y procesamiento del pensamiento?

El objetivo del curso es mostrar cómo la cultura material modifica los patrones de procesamiento de la información y la atención y mostrar, sobre todo, de qué forma esta temática puede ser positivamente estudiada en arqueología y antropología. Este rango de cuestiones sólo puede abordarse desde un punto de vista multidisciplinar y empírico que combine los principales trabajos y metodologías de la ciencia cognitiva sobre el comportamiento visual, la atención y la interacción encarnada, con estudios arqueológicos e históricos basados en datos rigurosos. Para ello en el curso se revisarán las principales metodologías procedentes de la psicología y la neurociencia, como las técnicas de seguimiento ocular, EEG o seguimiento del movimiento corporal.

Bibliografía

Clark, A., et al., (2024) Extending the Predictive Mind. Australasian Journal of Philosophy 102, 1, 119-30. https://doi.org/10.1080/00048402.2022.2122523

Criado-Boado, F., (2013) Arqueológicas. La razón ausente. Barcelona: Editorial Bellaterra.

Criado-Boado, F., et al., (2019) Coevolution of Visual Behaviour, the Material World and Social Complexity, Depicted by the Eye-Tracking of Archaeological Objects in Humans. Scientific Reports 9, 1, 3985. https://doi.org/10.1038/s41598-019-39661-w

Criado-Boado, F., et al., (2023) Gazed Pottery: an Archaeometric-Cognitive Approach to Material Culture Visuality. Journal of Archaeological Science, 154, ISSN 0305-4403, https://doi.org/10.1016/j.jas.2023.105770

Criado-Boado, F., et al., (2024) Archaeologiques of sight: The visual world fosters the engagement between doing, seeing, and thinking. Journal of Anthropological Archaeology, 73. https://doi.org/10.1016/j.jaa.2023.101568

Di Paolo, L., et al., (2024) Active Inference Goes to School. The Importance of Active Learning in the Age of Large Language Models. OSF, https://doi.org/10.31219/osf.io/zwa83

Guénin--Carlut, A., et al., (2023) The Cognitive Archeology of Sociocultural Lifeforms. OSF, https://doi.org/10.31219/osf.io/qxszh

Millán-Pascual, R., et al., (2021) Materialidades, espacio, pensamiento: arqueología de la cognición visual. Trabajos de Prehistoria, 78, 7-25. https://doi.org/10.3989/tp.2021.12262

Millán-Pascual, R., et al., (2023) Materialities, Space, Mind: Archaeology of Visual Cognition. Journal of Neolithic Archaeology, 25, 67–88. DOI: https://doi.org/10.12766/jna.2023.3

Vindrola-Padros, B., (2023) Outline of a theory of breakage. Anthropological Theory, 23(3), 255-291. https://doi.org/10.1177/14634996221139900

5. Modalidad de dictado:

Presencial, teórico-práctica.

6. Duración del curso:

30 horas reloj.

7. Modalidad de evaluación:

Combinación de dos cosas: 1) Cuestionario a completar por el alumnado el último día de clase que muestre la recepción por parte de éste de los conceptos esenciales del curso; 2) ensayo libre individual en el que el alumnado comente los contenidos del curso y su aplicabilidad a sus investigaciones concretas.

CURRICULUM VITAE
Dr. Felipe Criado-Boado

Part A. PERSONAL INFORMATION

First name	Felipe		
Family name	Criado-Boado		
Gender (*)	Male	Date of Birth	04/09/60
Social Security, Passport, ID number	32443314C		
e-mail	felipe.criado-boado@incipit.csic.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-4235-706X	

A.1. Current position

Position	Professor of Research // Director of INCIPIT-CSIC		
Initial date	11/01/2012		
Institution	Spanish National Research Council (CSIC)		
Department/Centre	Institute	of Heritage Sciences (INCIPIT-CSIC)	
Country	SPAIN	Phone no	600901720
Keywords	Archaeology; Prehistory; Cultural landscapes; Visual Cognition; Materiality; Neuroarchaeology		

A.2. Previous positions (research activity interruptions)

Period	Position/Institution/Country/Cause of the interruption
31/10/2001	CSIC Professor of Research on Archaeology
22/07/1991	USC Senior Lecturer of Prehistory

A.3. Education

PhD, Graduate Degree	University/Country	Year
PhD in History	Universidad de Santiago de Compostela	1989
MA in Geography and History	Universidad de Santiago de Compostela	1982

Part B. CV SUMMARY

Archaeologist, Professor of Research at the Spanish National Research Council (CSIC) since 2001. In 2023, I got the Spanish National Research Award “Ramón Menéndez Pidal” for Humanities. Director of the Institute of Heritage Sciences of CSIC, based in Santiago. Principal Investigator and coordinator of the ERC Synergy Grant "XSCAPE: Material Minds" funded by the ERC call (2021-27). I was elected president of the European Association of Archaeologists (EAA) from 2015 to 2021, Coordinator of the Humanities and Social Sciences Area of CSIC from 2003 to 2008, Manager of the Science and Society Area of CYTED from 2009 to 2014. I was Visiting Scholar at the University of Cambridge during 1986-87. Full Professor at the University of Santiago from 1991 to 2000. Have taught courses in different Spanish and foreign universities.

All my work led to 197 **publications** (17 books, 130 papers and 60 book chapters), 250 oral presentations at conferences, and 50 published works of essay and dissemination. My research production is openly available in Digital.CSIC. Altogether receiving 7430 citations (Hi 42); being the highest cited Spanish archaeologist. My international

reputation was acknowledged by incorporating my bio to the *Encyclopedia of Global Archaeology* (https://link.springer.com/referenceworkentry/10.1007/978-3-030-30018-0_2594), a text that gives a good representation of my career and contribution to Archaeology and the Humanities.

Moreover, I have supervised 23 doctoral theses, 24 bachelor's theses and 31 master's theses. Supervisor of more than 20 postdocs established at the CSIC, Spanish universities and universities abroad. I have also trained several technicians who work for the public and private sectors, either in academics or business companies.

My research focuses on Landscape Archaeology, Cognition and Materiality, Cultural Heritage, Archaeology and Society, and Public Science in Cultural Heritage. I have carried out research projects and fieldwork in Galicia, Spain, Portugal, UK, Chile, Argentina and Uruguay.

My main interest has always been the **study of space**. Everything else came from there.

Even though my devotion is to fundamental research, my strong commitment to the production of knowledge relevance in the social world, following the model of the science value chain, has directed my career through **three main avenues**: *thinking archaeology*, *engineering research capacities* and *managing science*. My research trajectory has been shaped through the cooperation with public and private entities, training people and engaging different communities. As a whole, I try to keep a symmetrical balance between fundamental and applied research and between the academic and the social realms. **Five main stages** could be identified in my threefold career.

Formative years: Between 1980 and 1990, I studied Megalithism, the origins of monumental architecture and landscape archaeology. I became an assistant professor at the University of Santiago in 1983, was a visiting scholar at Cambridge University (1986-87), began a large project on landscape archaeology (*Bocelo Project*, 1987-91) and attempted to set up a research group. I received my PhD in 1989.

Between **1991 and 2000**, I developed a theoretical framework for studying cultural landscapes and a theory of archaeological visibility, while making an early move towards cultural heritage and a first approach to the cultural heritage value chain. I received tenure in 1991 and set up the *Landscape Archaeology Research Group* in the USC. With this group, I worked on applied research and on heritage impact assessment from the perspective of cultural landscapes. We carried out hundreds of knowledge transfer activities in archaeology and the humanities through research contracts managed by the USC, including the archaeological assessment of major infrastructures in Galicia (Galician Gas pipeline networks, motorways, etc). These resources allowed the maintenance of a large research group and the facilities to sustain fundamental and applied research at a time when knowledge transference and the archaeological market were not yet developed.

Between **2001 and 2010**, I delved into the archaeology of space and developed an interpretive method to sustain the production of archaeological meaning. Gradually, I became increasingly engaged with community archaeology and studied the different modes of scientific practice. In 2001 I was recruited by CSIC as Professor of Research. My research group moved to the CSIC, although it maintained a firm base at the USC. It

was transformed into the *Laboratory of Heritage*. In 2003 I was named *director of the CSIC section of Human and Social Sciences*, a responsibility I held until December 2008. I was in charge of the section's scientific strategy that brought together 16 different research institutes involving more than 1500 people, of the creation of the new Centre of Human and Social Sciences in Madrid, and of the recruitment policy.

Between **2011 and 2020**, I proposed the "xscape" concept to explain the formal regularities in the different dimensions of past human landscapes; embraced a soft model of science for Humanities and Heritage; and turned towards cognitive science. This goes hand in hand with a holistic and critical approach to cultural heritage and the interest in heritagization processes. In 2010 the *Institute of Heritage Sciences* (INCIPIT) was created as a CSIC research institute and I was named its first director. It was interesting to consolidate a new institute in the stormy waters of the Great Recession. Between 2009 and 2013 I was head of the Area of Science and Society of CYTED (a Program of Science and Technology for Development funded by the Latin-American Conference of Presidents) and assistant to the Spanish State Secretary of Research. From 2015 to 2021 I was elected president of the EAA (the *European Association of Archaeologists*); I took this responsibility amidst a huge crisis of the Association. By the time I left, the association counted over3000 members, had a clear political and disciplinary strategy, healthy economics, and powerful positive mood. Amidst the COVID pandemic, the EAA was the only one of the big international academic organizations in our fields that in September 2020 managed to hold its entire annual meeting virtually.

In **2021**, the INCIPIT was facing a solid present and a promising future, occupying new premises with a total extension of 2600 m2 (contributing to the design and construction of these new headquarters was another milestone of my career), and held a total crew of over 92 persons. In this moment, I was fortunate enough to obtain an ERC SyG project (acronym XSCAPE) on *Material Minds: Exploring the Interactions between Predictive Brains, Cultural Artefacts and Embodied Visual Search*. This project involves four PIs: Andy Clark, Luis M. Martínez, Johannes Müller and myself as **corresponding PI**. It aims to study how the worlds we build and inhabit alter our own minds and the ways in which we process that information, analysing how the material structures of our buildings, artefacts and landscapes change the fundamental patterns of our thought and attention. In this way, understanding change in these 'material codes' becomes part of understanding the emergence of the modern mind. The idea of the project arose from my early research on cultural spaces.

Proud of my service **to consolidate research capacities** (entanglements of people and infrastructures). I have received more than €23 million in funding for my institutions; just the percentage allocated for overheads amounts to more than the public salary I have been paid in my entire life. However, the true dimension of this funding is that it has allowed me to create more than 300 jobs in research (they total 1000 years of work), heritage studies and applied archaeology. I have supervised 22 PhD and 53 MPhil dissertations, all of them available online. I have also trained ca. 20 postdoctoral researchers who are now active in several academic institutions in Spain and abroad (PO, UK, SW, DE, CO, CH, AR, UR), and (2 of them) working for private companies.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications

1) Criado-Boado, F., Martínez, L.M., Blanco, M., Alonso-Pablos, D. & Verdonkschot, Archaeologiques of Sight: the visual world fosters the engagement between doing, seeing, and thinking. *Journal of Anthropological Archaeology*, Volume 73, ISSN 0278-4165, https://doi.org/10.1016/j.jaa.2023.101568

2) Millán-Pascual, R., Martínez, L.M., Alonso-Pablos, D., Blanco, M., Verdonkschot, J. and **Criado-Boado, F.** (2023) Materialities, Space, Mind: Archaeology of Visual Cognition. *Journal of Neolithic Archaeology*, 67-88. https://doi.org/10.12766/jna.2023.3.

3) Criado-Boado, F., Martínez, L.M., Blanco, M., Alonso-Pablos, D., Porto, Y. & Barrio-Álvarez, del, E. (2023) Gazed Pottery: An Archaeometric-Cognitive Approach to Material Culture Visuality. *Journal of Archaeological Science* 154: 105770. https://doi.org/10.1016/j.jas.2023.105770.

4) Constant A., Tschantz A., Millidge B., **Criado-Boado F.**, Martinez L.M., Müller J. & Clark A. 2021. The Acquisition of Culturally Patterned Attention Styles under Active Inference. *Frontiers in Neurorobotics,* 15: 729665. https://doi.org/10.3389/fnbot.2021.729665

5) Criado-Boado, F., D. Alonso-Pablos, M.J. Blanco, Y. Porto-Tenreiro, A. Rodríguez-Paz, E. Cabrejas-Domínguez, E. del Barrio-Álvarez & L.M. Martínez (2019). Coevolution of visual behaviour, the material world and social complexity, depicted by the eye-tracking of archaeological objects in humans. *Scientific Reports* 9: art3985. doi: 10.1038/s41598-019-39661-w

6) González-Ruibal, A., P. Alonso González & **F. Criado-Boado** (2018). Against reactionary populism: Towards a new public Archaeology. *Antiquity* 92(362): 507-515. doi: 10.15184/aqy.2017.227

7) Criado-Boado, F., C. Parcero-Oubiña, C. Otero-Vilariño, E. Cabrejas-Domínguez & A. Rodríguez-Paz (2016). *Atlas Arqueolóxico da Paisaxe Galega*. Edición Xerais. ISBN 978-84-9121-048-1.

8) Criado-Boado, F. (2015). Archaeologies of Space: an inquiry into modes of existence of Xscapes. In: K Kristiansen, L Šmejda & J. Turek, (eds.) *Paradigm Found: Archaeological Theory–Present, Past and Future. Essays in Honour of Evžen Neustupný*. Oxbow Books,61-83. ISBN 9781782977704.

9) Kaal, J., **F. Criado-Boado**, et al. (2013). Prehistoric land use at an archaeological hot-spot (the rock art park of Campo Lameiro, NW Spain) inferred from charcoal, synanthropic pollen and non-pollen palynomorph proxies. *Journal of Archaeological Science* 40(3):1518-1527. doi: 10.1016/j.jas.2012.09.024

10) Criado-Boado, F., A. Martínez-Cortizas & M.V. García Quintela (2013). *Petroglifos, paleoambiente y paisaje. Estudios interdisciplinares del arte rupestre de Campo Lameiro (Pontevedra)*. CSIC (Traballos de Arqueoloxía e Patrimonio; 42). ISBN 978-84-00-09664-9.

11) Parcero-Oubiña, C., **F. Criado-Boado** (2013). Social change, Social resistance. A long-term approach to the processes of transformation of social landscapes in the NW Iberian Peninsula. In *The Prehistory of Iberia: Debating Early Social Stratification and the State*. Routledge, 249-266. ISBN 978-0-415-88592-8.

12) Criado-Boado, F. (2012). *Arqueológicas. La razón perdida*. Edicións Bellaterra. ISBN 978-84-7290-567-2.

13) Gianotti-García, C., P. Mañana-Borrazás, **F. Criado-Boado**, E. López-Romero (2011). Deconstructing Neolithic Monumental Space: the Montenegro Enclosure in Galicia (Northwest Iberia). *Cambridge Archaeological Journal* 21(3): 391-406. doi: 10.1017/S0959774311000436

C.2. Congresses

1) Lecture "The prehistory of ways of looking: a joint approach from archeology and neuro-science". University of Chile (Santiago de Chile, 28 Nov 2018)

2) Lecture "Doing, Seeing, Thinking. Is an 'archaeology of sight' possible?". Ole Klindt-Jensen 100 year Memorial Lecture 2018. University of Aarhus (Denmark). (Aarhus, 9 May 2018).

3) Lecture "From landscape to mindscape: visual cognition and archaeology". The Institute of Archaeology of the Czech Academy of Sciences (Prague, 8 March 2018).

4) Keynote lecture of the Colloquium "Archaeology of Mountain Landscapes" 10th IEMA International Conference, University of Buffalo (USA) (Buffalo, 8 April 2017).

5) Xscape: concepts and practices for a Fundamental Landscape Archaeology. Munro Lecture, The University of Edinburgh, (17 Nov 2016).

6) Distinguished Lecturer in the Center of Archaeology of Stanford University (CA, USA), October 2012.

C.3. Research projects

1) *Material Minds: Exploring the Interactions between Predictive Brains, Cultural Artefacts, and Embodied Visual Search, XSCAPE Project.* EU H2020 ERC-2020-SyG 951631. Principal Investigator: Felipe Criado Boado. Role: **Corresponding Principal Investigator**. Other PIs: Andy Clark (USussex, UK), Luis M. Martínez (IN-CSIC), Johannes Müller (CAU, GE). 01/121/2021-31/10/2027. Budget: 10,279,972 (total); 4,153,636 (F. Criado´s part)

2) *CHEurope: Critical Heritage Studies and the Future of Europe_Towards an integrated, interdisciplinary and transnational training model in cultural heritage research and management*. Funded by Horizon 2012-Research and Innovation Framework Programme. Role: **Principal Investigator**. 01/11/2016-31/10/2020. Budget: 743.619 €.

3) *GEOARPAD: Patrimonio cultural de la Eurorregión Galicia-Norte de Portugal: Valoración e Innovación*. Funded by Interreg V A España Portugal (POCTEP). Role: **Principal Investigator**. 01/10/2015-30/09/2019. Budget: 426.091 €.

4) *NEARCH – New scenarios for a community-involved archaeology*. Funded by Programa Culture 2007-2013, European Union. Role: **Principal Investigator**. 01/06/2013-31/05/2018. Budget: 203.900 €.

5) *CSD2007-00058, Tecnociencia del Patrimonio: Programa de Investigación en Tecnologías para la Conservación y Revalorización del Patrimonio Cultural*. Funded by

Ministerio de Ciencia e Innovación - CONSOLIDER. Role: **Project coordinator**. 29/11/2007-31/12/2013. Budget: 6.000.000 €.

C.4. Technology/Knowledge transfer

1) *TERRaS. Investigación, documentación e análise da orixe e evolución dos socalcos de cultivo en A Pobra de Brollón*. Funded by Xunta de Galicia (Total budget: 18.089,50 €). Role: **Principal Investigator**. 17/07/2019-16/01/2020.

2) *El Valor Social de Altamira* [Ref. 2013-P2Y]. Funded by Ministerio de Educación, Cultura y Deporte (Total budget: 108.900 €). Role: **Principal Investigator**. 01/09/2012-31/08/2014.

3) *Seguimiento, estudio y control de la Autopista Santiago-Alto de Santo Domingo (Dozón)* [Ref.2002-P1Y8M]. Funded by Dozón UTE (Total budget: 198.339 €). Role: **Principal Investigator**.

4) F. Criado Boado. 818/2012. Programa de ordenador "Arqueológicas: la razón perdida". España. 22/06/2012. Role: **Principal Investigator**.

5) From 1991 to 2010 I conducted over 100 research contracts on rescue archaeology, archaeological impact and heritage management that constituted an early and pivotal case of Transfer of Knowledge in the Humanities and allowed to consolidate my research group first in the USC and later in the CSIC.

CURRICULUM VITAE
Dra. María Silva Gago

Fecha del CVA	01/04/2025

Parte A. DATOS PERSONALES

Nombre	María		
Apellidos	Silva Gago		
Sexo	Mujer	Fecha de Nacimiento	10/05/1994
DNI/NIE/Pasaporte	77459561T		
URL Web			
Dirección Email	mariasilvagago@gmail.com		
Open Researcher and Contributor ID (ORCID)	0000-0003-1383-3039		

A.1. Situación profesional actual

Puesto	Investigadora postdoctoral		
Fecha inicio	2024		
Organismo / Institución	Consejo Superior de Investigaciones Científicas		
Departamento / Centro			
País		Teléfono	
Palabras clave			

A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora - indicar meses totales, según texto convocatoria-)

Periodo	Puesto / Institución / País
2022 - 2023	Técnica de Investigación / Consejo Superior de Investigaciones Científicas
2018 - 2022	Investigador en formación / CONSORCIO PARA CONSTRUCCION, EQUIP. Y EXPLOT. CENTRO N. INV. EVOLUCION HUMANA

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Doctorado en Evolución Humana, Paleoecología del Cuaternario y Técnicas Geofísicas Aplicadas a la Investigación	Universidad de Burgos, Universidad de Alcalá y Universidad de Oviedo	2022
Máster en Evolución Humana	Universidad de Burgos	2017
Grado en Historia	Universidad Santiago de Compostela	2016

Parte B. RESUMEN DEL CV

María Silva Gago has a degree in History (2012-2016) from the University of Santiago de Compostela, a master's degree in Human Evolution (2016-2017) from the Universities of Burgos, Alcalá and Complutense de Madrid, and a PhD in Human Evolution (2018-2022) from the Universities of Burgos, Alcalá and Oviedo. Her research focuses on the study of cognition from archaeological remains to understand how changes in the environment influenced the way we perceive, interact and relate to the world. She combines experimental archaeology with cognitive and neurosciences as well as cultural and visual studies and ethnoarchaeological approaches and perspectives. Her doctoral thesis addressed the study of the visual behaviour triggered by lithic technology, applying psychological methodologies such as eye-tracking to iconic Lower Palaeolithic stone tools in different scanning conditions, namely, visual exploration before touching the tools, when handling them and during tool-making. This project, co-funded by the Junta de Castilla y León and the European Social Funds, was developed at the National Research Centre on Human Evolution (CENIEH) in Burgos. The results from the experimental studies developed during her doctoral thesis have generated a total of 15 scientific contributions that have been published or are in publication in different scientific journals. Additionally, she has been involved in different dissemination activities such as workshops, lectures or cientific monologues related to her project. She has also participated as a mentor in the Stem Talent Girl programme to promote science among teenage girls. She is currently interested to explore how the techniques and research performed in ERC Synergy Grant XSCAPE, whose objective is to investigate the way in which material culture is part of the cognitive process, using electroencephalography and eye tracking, technical skills in which she is trained in the operation of equipment and analysis software, could be applied to prehistoric lithic material. Specifically, her research will focus on the visual perception of prehistoric artefacts to cover the transition from hunter-gatherer populations to post-Palaeolithic societies, based on consistent empirical data and robust methodologies to avoid speculative and conjectural approaches.

Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

C.1. Publicaciones más importantes en libros y revistas con "peer review" y conferencias

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Artículo científico**. Fedato, Annapaola; Silva-Gago, María; Terradillos-Bernal, Marcos; Alonso-Alcalde, Rodrigo; Bruner, Emiliano. 2024. The Influence of Hand Dimensions on Finger Flexion during Lower Paleolithic Stone Tool Use in a Comfortable Grip. Quaternary. 7-3. ISSN 2571-550X.

2 **Artículo científico**. Silva-Gago; Terradillos-Bernal; Hodgson; Bruner. 2022. The role of vision during Lower Palaeolithic tool-making. Journal of Paleolithic Archaeology. Springer. 5-19.

3 **Artículo científico**. Silva-Gago; Fedato; Terradillos-Bernal; Alonso-Alcalde; Hodgson; Bruner. 2022. Does knowledge influence visual attention? A comparative analysis between archaeologists and naïve subjects during the exploration of Lower Palaeolithic tools. Archaeological and Anthropological Sciences. Springer. 14-114, pp.1-10.

4 **Artículo científico**. Silva-Gago; Fedato; Hodgson; Terradillos-Bernal; Alonso-Alcalde; Bruner. 2022. The Influence of Tool Morphology on Visual Attention During the Interaction with Lower Palaeolithic Stone Tools. Lithic Technology. Taylor&Francis.

5 **Artículo científico**. Rios-Garaizar, Joseba; Iriarte, Eneko; Arnold, Lee J.; et al; Ortega, Illuminada. 2022. The intrusive nature of the Chatelperronian in the Iberian Peninsula. PLOS ONE. PUBLIC LIBRARY SCIENCE. 17-3. ISSN 1932-6203.

6 **Artículo científico**. Silva-Gago; Ioannidou; Fedato; Hodgson; Bruner. 2021. Visual Attention and Cognitive Archaeology: An Eye-Tracking Study of Palaeolithic Stone Tools. Perception. SAGE. 51-1, pp.3-24.

7 **Artículo científico**. Silva-Gago; Fedato; Hodgson; Terradillos-Bernal; Alonso-Alcalde; Bruner. 2021. Visual attention reveals affordances during Lower Palaeolithic stone tool exploration. Archaeological and Anthropological Sciences. Springer. 13-145.

8 **Artículo científico**. Silva-Gago; Fedato; Terradillos-Bernal; Alonso-Alcalde; Bruner. 2021. Not a matter of shape: The influence of tool characteristics on electrodermal activity in response to haptic exploration of Lower Palaeolithic tools. American Journal of Human Biology. 34-2.

9 **Artículo científico**. Fedato; Silva-Gago; Terradillos-Bernal; Alonso-Alcalde; Bruner. 2020. Hand grasping and finger flexion during Lower Paleolithic stone tool ergonomic exploration. Archaeological and Anthropological Sciences. Springer. 12-254.

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C.2. Congresos

1 Silva-Gago; Valiño-Perez; Lima-Olivera; Fernandez-Pestonit; Martinez; Criado-Boado. Rethinking human behaviour. An experimental study on the visual exploration of ceramics. 30th Annual Meeting of the European Association of Archaeologists. European Association of Archaeologists. 2024.

2 Zaghi-Lara; Santos-Estevez; Silva-Gago. Ways of seeing, ways of walking. Rock art sites as a social device. 30th Annual Meeting of the European Association of Archaeologists. European Association of Archaeologists. 2024.

3 Lima-Olivera; Silva-Gago; Fernandez-Pestonit; Zaghi-Lara; Blanco Rial. New approaches in experimental and cognitive archaeology. 29th Annual Meeting of the European Association of Archaeologists. European Association of Archaeologists. 2023. Reino Unido.

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5 Silva-Gago. Atención visual y tecnología paleolítica. XVI Encontro Arqueolóxico do Barbanza. Concello de Boiro. 2023. España.

6 Silva-Gago; Fedato; Hodgson; Terradillos-Bernal; Alonso-Alcalde; Bruner. No sex differences during visual exploration of Lower Paleolithic tools. 11th Annual Meeting of the European Society for the study of Human Evolution (ESHE). European Society for the study of Human Evolution. 2021. Participativo - Póster. Congreso.

7 Fedato; Silva-Gago; Terradillos-Bernal; Alonso-Alcalde; Bruner. The influence of hand dimensions on the pattern of fingers flexion during Lower Paleolithic stone tool manipulation. 11th Annual Meeting of the European Society for the study of Human Evolution (ESHE). European Society for the study of Human Evolution (ESHE). 2021. Participativo - Póster. Congreso.

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