

Port Arrivals Data. Automatic data collection for a large-scale comparative history of 19th century shipping: a Digital Humanities approach to maritime heritage. A project for the exchange of academic personnel funded by the Marie Skłodowska-Curie Actions program of the European Union's Executive Agency for Research.

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PortADa Summer School of Barcelona 2025: Advances and Collaborations

The PortADa project thus consolidates an international research network that combines digital humanities, maritime history, and computational analysis for the study of Atlantic ports. An important part of the research methodology is the Summer Schools, carried out in different countries throughout the project.

The Barcelona Summer School (SS BCN2025) marked a milestone in the project's international collaboration. The Cuban team of computer scientists and historians presented advances in image processing of historical newspapers using neural networks and particle swarm optimization, contributing directly to the development of the PAPICLI system. As a concrete result, the article "Threshold Estimation for CNNs in Multi-label Historical Press Classification via Metaheuristic Optimization" was accepted for the International Congress of Artificial Intelligence and Pattern Recognition 2025.

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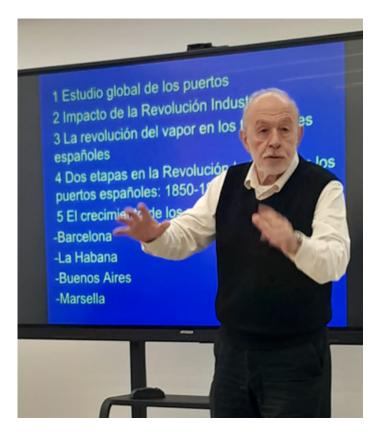
One of the working groups during the Barcelona Summer School

During the Summer School, several experts were invited to speak on topics related to PortADa's research—both in matters of history and in computer science and computing. Among the experts invited to present training workshops, the Summer School welcomed Dr. Joan Alemany, historian of the port of Barcelona and author of several books on its development and historical trajectory. He gave a presentation comparing the historical contexts of the infrastructural changes of the four ports studied in the project: Barcelona, Marseille, Buenos Aires, and Havana.



PortADa participants visiting the Barcelona Supercomputing Center

Meanwhile, the team worked on the identification and processing of blocks of ship entries in historical newspapers, implementing a two-phase verification system that validated both the number of entries and specific data on goods. These activities resulted in an organized digital archive of newspaper fragments about ship arrivals at the port. On the other hand, work was also done on term disambiguation in order to identify individuality among several things with the same name. For example, if there are 200 records of a Captain Pérez, or 500 of the ship "Nuestra Señora del Cármen," how many individual people or ships are being referred to?



Dr. Joan Alemany explains the comparative development of the ports studied

Among the various training activities, several participants visited the Barcelona Supercomputing Center, a leading and benchmark institution in computing at the European level. They were able to see the facilities and discuss computing topics with researchers from the Center.



Uno de los Seminarios Abiertos llevados a cabo durante el Summer School de Barcelona

and universities in Barcelona. These sessions also strengthened the visibility of the project within the academic sphere. The Summer School concluded with an International Seminar, in which presentations were given on the project's achievements in the previous two months.



Participation in the PortADa Open Seminars during the Summer School in Barcelona was significant, involving colleagues and doctoral students from several faculties

Agustín Nieto conducts a workshop on digital humanities methodologies

Taking advantage of his stay in Barcelona, Prof. Agustín Nieto (National University of Mar del Plata, Argentina) gave a workshop at the Autonomous University of Barcelona on digital humanities techniques. Students and faculty members from that educational institution participated.

Academic Mobility and International Training

Between May and July 2025, doctoral student Pau Márquez (University of Barcelona) carried out a research stay in Argentina that included specialized training in digital humanities at the National University of Mar del Plata and the National University of the Northeast. During his stay, he acquired skills in programming with R-Studio and in digital tools applied to historical research, participated in activities of the Maritime Social Studies Group at the "Cleto Ciocchini" Port Man Museum, and engaged in science outreach on Radio VORTERIX. In Buenos Aires, he held working meetings at UNSAM and the Social Welfare Organization of the Merchant Marine, strengthening the project's international academic cooperation.

Dr. Ricard García has developed an intensive academic agenda during his research stay in Argentina. On October 23, 2025, he presented at the National University of Mar del Plata the lecture "Application of handwritten text recognition to registry documentation (Catalonia, 1768–1805). Research and citizen science with the Arxiversa platform," within the framework of the session "From paper to data: tools for working with OCR in historical archives."



Ricard García (U. Barcelona) during his stay in Mar del Plata, collaborating with the Buenos Aires port node

Nadia Pineda and Mirian Galante from the Autonomous University of Madrid each carried out a one-month research stay at the University of Computer Sciences in Cuba. In addition to the daily activities related to the analysis of ship arrivals at the port of Havana, they carried out a series of training and outreach activities, including their participation in conferences and seminars.





Participation of PortADa researchers from the University of Computer Sciences in Cuba

AM and UCI sign a Bilateral Cooperation Agreement

Representatives took advantage of the academic stay to hold an official ceremony for the signing of a Bilateral Cooperation Agreement between the respective universities. This Agreement is the result of the ties formed through the project and allows continued collaboration even after the project has concluded.



Signing of the Cooperation Agreement between representatives of the Autonomous University of Madrid and the University of Computer Sciences of Cuba.

Professors Yosvany Márquez and Manuel Ricardo from the University of Computer Sciences in Cuba arrived at the University of Barcelona to carry out a one-month research stay in September. During their stay, they made progress in designing the databases to be used for managing the data acquired through automated processing, including the incorporation of NoSQL databases to handle complex data. Nearly ten years of images from the newspaper Diario de la processed, improving readability segmenting columns to optimize OCR. These blocks were then extracted, and the quality of the results was evaluated. Finally, in coordination with their Barcelona counterparts, they optimized the server by implementing monitoring, cleaning data, and improving trace management to reduce risks and enhance performance.

Congresses, Workshops, and Seminars

Laura Caruso participated in the III Workshop on Gender, Work, and Social Policies at UNGS, where she presented her research on coal workers at the Port of Buenos Aires. Subsequently, in collaboration with Cristiana Schettini, she presented the paper "Tensions on Board: Mobility, Work, and Morality in the Atlantic" at the South Atlantic Connections Workshop at UNLP. More recently, at the First Conference of the Center for the Study of Digital Society (CESDi) at UNSAM, Caruso shared the project's progress in developing digital logbooks, demonstrating the application of computational tools for the historical analysis of Atlantic navigation, "The Future of the Past: Digital Humanities for a History of Atlantic Navigation."



Laura Caruso shares a presentation on PortADa at the CyT Conference of the National University of San Martín (Argentina).



Romina Caldera explains her research at the CyT Conference

Projects and Publications

Participants from the University of San Martín (UNSAM, the Buenos Aires node) will carry out the project "Puertos conectados: una historia social y cultural del Atlántico sudamericano," which has been approved by UNSAM Investiga 2025, supporting its institutional continuity and future research.

There are two publications and three additional works in press (PortADa participants in **bold**):

Nikos Kontonasios, Yannis Tzitzikas, and **Pavlos Fafalios**, "Al-driven Extraction of Structured Data from a Large Newspaper Archive", ERCIM-News, Issue 141, (January 2025);

Nicolás Quiroga, "Datos y Contextos. La Lucha por la significación histórica después del 'Giro Digital'", *Debates Universitarios*, No. 1 (March 2025);

María Marta Aversa, **Romina Caldera**, **Laura Caruso**, and Lady Heindereiche, "Los caminos del Puerto: una historia de la Boca al ras del suelo, fines del siglo XIX y comienzos del XX", [in press];

Romina Caldera, "A trama sem fios: comunicação atlántica, trabalho e politicas na Revista Telegráfica, Argentina, 1914", in Fidel Rodríguez Velásquez (ed.) *Américas em Fragmentos: Trabalho, Memórias e Lutas Sociais*, Editorial Pontifícia Universidade Católica do Rio de Janeiro - PUC-Rio [in press].

Romina Caldera, "Los lugares de la comunicación: el telégrafo en el Puerto de Buenos Aires y los sentidos de la modernización técnico-urbana, (1874-1914)", *Drassana*, 33 (2025) [in press].

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