## THE LABORATORY, MATERIALITIES AND THE HISTORY OF SCIENCE

This book is presented in the form of a scientific object for the development of research practices in the history of science. Quintino Lopes has rescued from oblivion the memory of Armando de Lacerda, a major figure in the field of European laboratory Phonetics, whose role encompasses laboratory science in circulation, exchanges involving people, and the exchange of ideas and knowledge in the Atlantic sphere. In his epilogue, the author tells us he used as source material: "private correspondence, photographs, business cards, letters of application, consultative papers, official documents, invoices, receipts, passports, articles in the press, certificates, reports, publications, scientific instruments, drawings, diaries and memories". This is a work of scientific production, encompassing aesthetics and science, that offers new sources, new methodologies, and new approaches to the History of Science.

At a time when historiographers are calling into question the hagiographic form of the biography of the great and good, this type of scientist's biography focuses on the search for a one-dimensional view of man (Herbert Marcuse, One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society, 1964 – *O homem unidimensional: estudos da ideologia da sociedade industrial avançada*, Edipro, 2015) who through the prism of science sees the world of the laboratory as a multifaceted tableau of the human condition. Armando de Lacerda was a scientist who placed great value on the seemingly insignificant gestures of everyday life: a smile, the arrangement of one's tie in preparation for field recording or speaking into the laboratory microphone, the posture of the congress lecturer in full flight or that of the scientist when socialising while taking part in a science programme abroad, or when simply he was showing something of Portugal to scientists visiting the University of Coimbra Faculty of Letters Phonetics Laboratory. From the material and works collected – the nuts and bolts of this narrative of 20<sup>th</sup>-century science history – we understand how invisible aspects outside the realm of big science provide the Midas touch for enabling an understanding of scientific practice at a laboratory, beyond the physical laboratory space. The array of photographs taken in the field portraying the collection of local dialects – against the backdrop of the rural Alentejo of the mid-20<sup>th</sup> century – present to the historian at their desk, particularly the science historian, the smiles or perplexity on the faces of those taking part, who become part of the world of practical science, including children – naughty boys, barefoot waifs or formal groups – posing for posterity. On viewing some of the images in this book one feels the urge to reread the opuscules of Bento de Jesus Caraça (1901-1948) – the socially committed intellectual scientist – collected in *A Cultura Integral do Indivíduo. Conferências e Outros Escritos* (Lisbon, Gradiva, 2008).

Entitled *The Global Periphery: Armando de Lacerda and the Coimbra Experimental Phonetics Laboratory (1936-1979)*, Quintino Lopes' book poses new challenges for the history of science, for the practice of producing history (not just collecting scraps of memory without context) in a comparative, transnational, living approach with international reach is a mark of the true scientist – focusing in this case on a laboratory equipped with scientific instruments and populated by scientists in white coats! We know that Armando de Lacerda, at his workbench at the University of Coimbra Faculty of Letters, repeatedly expressed the idea that **"You can only achieve a measure of simplicity through great complexity"** (p. 135). And this complexity is the essence of the history of the laboratory as a place where science is produced – the subject for an examination of the complexities superimposed by the fabric of 20<sup>th</sup>-century science.

There are many novel aspects to this approach. Firstly, constructing the science history of an institution designated a **laboratory**, the biography of a scientific space moulded by gradual changes in science policy and science ideology that permeated the Faculty of Letters, at the heart of the Estado Novo. This story involves a cast of protagonists – in both real and virtual terms

– phoneticians responsible for the circulation of knowledge, and supporting actors, evidencing the importance of the role of invisible technicians, without whom there would be no advances in science, such as the driver of the laboratory vehicle used by Armando de Lacerda and his wife to criss-cross the Alentejo, challenging the unidimensional image of a picturesque region promoted by the Estado Novo as part of its policy of exalting the Portuguese spirit. The tape-recorders portrayed in the images are a sign of the challenge posed by modernity to the old guard at the Coimbra Faculty of Letters – a daring move by white-coated intellectuals whose daily bread was books, recording machines, ethnographic records, patents, and the registration of the human voice!

The result of exhaustive research work, this book has other singular features. Researchers were privileged to receive the enthusiastic collaboration of the Lacerda Family. With a view to preserving the memory of Armando de Lacerda and the Coimbra laboratory and portraying science in the making as part of their story, his grandson, Paulo de Lacerda, has transformed his grandfather's house in the Rua do Almada in Porto into a laboratory for science memory, preserving the material and immaterial heritage for the weaving of new epistemological threads of the history of science in the 21<sup>st</sup> century. The other special feature of this project lies in the solid connection established with Professor Francisco de Lacerda, not a blood relative, but an enthusiastic admirer of the work of Armando de Lacerda.

You may like to begin by randomly leafing through this volume. You will soon be engrossed in exploring the links provided in the index and discovering the work of Quintino Lopes, an unusual researcher indeed.

18th March 2021, locked down in Lisbon due to the Covid 19 pandemic!

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