

SCIENCE, TECHNOLOGY AND EUROPEANIZATION:
AN INTRODUCTORY NOTE

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With the following two articles, the *Annals of the Fondazione Luigi Einaudi* inaugurate a space for discussion of the relationship among science, technology, and Europeanisation. Science and technology still have to find a fully coherent space in the history of the Cold War (Kraft, Nehring, and Sachse 2018) – even more so do they need to find one in the History of European Integration. Concepts concerning the role of science and scientists in nation-building have been quite well developed, with a strong focus on research on engineers and scientists who advised the US, British, and Soviet governments on matters relating to nuclear strategy and technology. Studies on the scientists who worked in other sectors, although promising, are still in their infancy.

The history of how the United States has shaped European construction through science, including the sharing of scientific knowledge and specifically of nuclear technology with West European partners, is a topic that has attracted a great deal of historical attention. It has been viewed as a way to interpret the projection of American hegemony on post-war continental Europe. (Krige 2006). However, less attention has hitherto been paid to the building of European networks aside from the logic of transatlantic, Cold War-related transmission of knowledge and know-how. Only recently has a specific European focus finally taken root.

According to Kiran Klaus Patel and Ulrike von Hirschhausen, Europeanisation has to be conceived as “a variety of political, social, economic and cultural processes that promote (or modify) a sustainable strengthening of intra-European connections and similarities through acts of emulation, exchange and entanglement and that have been experienced and labelled as

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‘European’ in the course of history”. Europeanisation is, therefore, not a uniform, unidirectional and teleological process; rather, it is “a category of practice which has been projected and performed, experienced and exported, labelled and legitimised, appropriated and emulated in a range of contexts” (Hirschhausen and Patel 2010).

Johan Schot and Thomas Misa have adopted a similar approach. They focus on how “actors design and use technology to constitute and enact European integration (or fragmentation)”. They view technology as a set of Europe-building practices “in which specific concepts and visions of Europe became embedded in particular designs for artefacts and systems” (Misa and Schot 2005). Technology, as famously stated by anthropologist Louis Dupree, is the product of a culture, and the choice of technology implies a selection of social organization, labour relations, and structures of production: it is a political choice. Technology in this context therefore serves as a grid to interpret Europe in action. More than that: it tells, in fact, a new, different story of how Europeans plan their future as a political entity. Two international research projects by Schot and others have validated not only the importance of this approach but also the potential for its extension to neighbouring fields: one on *Inventing Europe* and another on the *Tensions of Europe. Technology and the Making of the Twentieth Century Europe* (<http://www.tensionsofeurope.eu/>).

This open section of the *Annals* intends to deal with a set of issues connected with the relations between science networks and the European project. It recognises the need to bridge the gap between the history of science and social constructivist perspectives in the history of European integration. Besides the classic studies on European institutions such as Euratom, mentioned above, other works have moved on to consider successful examples of integration through science, including transport and energy infrastructures, or large-scale technological projects like Airbus. The creation of a European scientific space involved many other fields, ranging from biology to medicine, from cybernetics to environmental sciences. These fields are still rather unexplored (Cassata 2015; Strasser 2003). Their networks of scientists, fellowships, laboratories, practices, and technologies require attention. In this perspective, scientists and their networks should emerge as the crucial agents of change in the process of creating a unified European scientific and cultural space. Within this framework, it is essential to explore the construction of a common European research policy, bridging the turning point of the 1980s with earlier efforts to establish a more comprehensive European approach to science policy (general accounts are in Krige 2003; Krige and Guzzetti 1997; Bouneau, Burigana and Varsori 2010). By provincialising the European Communities (Patel 2013), it becomes possible to reconstruct a vast array of international structures

which characterised the European scientific cooperation beyond the EC/EU during the three or four decades after the end of the Second World War. Such structures mainly represented a different way to deal with Europe, and they form not just a mere institutional history but rather a transnational history of scientific cooperation, involving both governmental structures and scientific networks (Turchetti, Herran, and Boudia 2012).

Space technology and chemistry are the main topics of this first issue: Sara Venditti analyses the project of an independent launcher – the first Ariane 1 – as a crucial tool for the Europeanisation of space, in the 1960s and 1970s. Marianne Noel explores the emergence of supramolecular chemistry at the University of Strasbourg, in the late 1990s, through the development of a “publication infrastructure” which solidified around the notion of “European chemistry”. We believe that both papers furnish important and fresh perspectives on constructing Europe as a shared research environment.

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