

Lino Camprubí, *Engineers and the Making of the Francoist Regime*, Cambridge MA: MIT Press, 2014. 320 pp. ISBN: 978-026-20271-7-5.

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Engineers and the Making of the Francoist Regime is a clear-cut contribution to the recent literature focusing on “the fascist construction of science” as well as the scientific construction of the European fascist regimes. In a special issue of *Historical Studies in the Natural Sciences* published in 2010, Tiago Saraiva and Norton Wise pointed out the need to address the complex co-evolution between fascism and science, and definitively challenge “the alleged special connection between science and democracy” (p. 420). Despite the fact that previous works on Nazi totalitarianism like the ones by Peter Weingart, Mark Walker and Szöllösi-Janze have already questioned this idea, the cases of Italy, France and Greece are comparatively understudied (see, for example, the special issues in *HoST*, vol.3, and *History and Technology*, 23:3), and little attention has been paid to the fascist or “fascistized” regimes in countries such as Hungary, Romania and Austria.

However, since most of these regimes lived and fell down before 1945–46, dealing with the long lasting Portuguese and Spanish dictatorships is all the more a more pressing task. In the same Europe which had defeated the Axis Powers, both Iberian fascist regimes survived for over forty years leaving to the current democracies a disturbing and huge scientific and technological legacy, in the form of technological objects, landscapes, institutions and people. The symposium “History of Physics in Spain in the 20th century” (Barcelona, December 1-2, 2011) was an attempt to look at the agency of scientists and engineers *in*, rather than “under” or “of”, the Francoist dictatorship (1939-1977). Alongside other participants of this event, such as Xavier Roqué, Néstor Herran and Albert Presas, Camprubí contested the master narrative that understands the role of science and engineering in Francoism as “subdued to” or “in spite of” a political regime categorized as irrational, anti-modern, backward and unscientific. Backed by the Cold War ideology as well as by the Mertonian understanding of science, this enduring view roughly stated that the dark-age of politics led to a decadent period for science and technology after having completely broken with the scientific “Silver Age” during the II Spanish Republic. In fact, the image of a Republican science and technology based on

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internationalist and democratic practices has been also confronted in recent literature. My own PhD dissertation has been an attempt to deal with the autarkic, techno-nationalistic and technocratic ideals prior to 1939.

Engineers and the Making of the Francoist Regime is organized in five independent but complementary chapters, in addition to a comprehensive introduction and a conclusion. The introduction (chapter 1) relates the fascist notion of “redemption” with technology and national construction. This is particularly novel, as historiography has mainly highlighted the destructive dimension of this ideological construct. In the other chapters, Camprubí follows thick things and laboratory objects throughout the national landscape (in line with the approaches by Ken Alder and Tiago Saraiva) in order to analyze engineering and agronomic institutions that shaped the Francoist political economy. For example, by looking through a concrete dodecahedron (a coal silo), chapter 2 analyzes the role of the Technical Institute for Construction and Cement in the new nationalist programme of industrialization; chapter 3 focuses on the symbiotic relationship between science and National Catholicism by examining churches in laboratories as well as the geographies of the inner colonization; chapter 4 deals with the politics of agronomy and with the “rice of victory” as the minimum unit to maximize production and control; chapter 5 deals with the Noguera Ribagorçana River as a fluid battleground in which two autarkic and totalitarian projects fostered different commodities and experts. Finally, chapter 6 shows how scientific standards were used in Spain in the process of turning a managerial-state into a regulatory-state in the “hidden integration” of Europe.

Camprubí absolutely reaches his historiographical goal: science and engineering were at the core of the cruel and “holly” Spanish dictatorship. However, other issues could be reconsidered or further developed in order to obtain a deeper understanding of the technological construction of the regime: for example, the role of non-state engineers and low-rank engineers, the technocratic politics of the engineers, the professional training in economics beyond the engineering schools, the masculine construction of technology, the “imperial” colonization in Morocco, Western Sahara and Guinea, the destruction of “truly autarkic” rural communities and the making of the forest and the city, and social resistances.

In the conclusion, Camprubí suggests that the study of fascist science and technology might throw light “on the meanings and limitations of contemporary democracies.” His book is a big step forward to understand more comprehensively the early Francoist regime, as well as the post-Francoist standard views on science and technology. Beyond providing relevant local case-studies to the international historiography of science and technology, *Engineers and the*

Making of the Francoist Regime shows how international perspectives on history of technology can turn around national histories entangled in (or in the service of) current economic and political regimes.