

TECHNOLOGY, POWER, AND RAILWAY INFRASTRUCTURE IN THE URBAN CONFORMATION OF MEXICO CITY, ca. 1870-1960

Guillermo Guajardo Soto

This article analyzes the urban changes introduced by the railroad in Mexico City between the 1870s and the early 1960s. It argues that the history of the railroad terminals is the history of urban morphology shaped by a diversity of projects aimed at satisfying the consumption and industrialization of the nation's capital. It is also the history of the deployment of political power over territory in order to facilitate the relocation of technology and railway infrastructure and its specialization in freight transport. This decision reduced the possibilities of employing the railroad for mass passenger transportation and defined a new pattern of mobility and urban expansion through the use of automobiles and cargo trucks.

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THE ELECTRIFICATION OF PUIGCERDÀ: ORGANISATIONAL CHALLENGE AND SOCIAL IMPACT

Erola Simon Lleixà

This work analyses the electrification process in the town of Puigcerdà, capital of the county of la Cerdanya, in the Catalan Pyrenees. This process began in 1895 with the creation of the Electric Lighting Syndicate of Puigcerdà, a public entity linked to the town hall and the local politicians. The paper focuses on the previous lighting systems, the social context of the electric lighting installation, the construction of an imaginary of progress and modernity through local press, the functional aspects of the system, and how the local society reacts to the new technology. In short, we pretend to explain the first moments of electrification as a complex system.

THE UNKNOWN WORK OF ART AND THE CONSOLIDATION OF A RESEARCH GROUP: THE DEPARTMENT OF MACROMOLECULAR CHEMISTRY, ACCORDING TO JORDI MARAGALL I MIRA

Xavier Calvó-Monreal

Portraiture is an important medium of building identities. It is not just the artist or the models. The institutions with which they are related must be considered. That is why, when examining the people portrayed, we must do so by considering the type of activity they carry out, because human actions take place in specific social contexts. When people or groups are interested in their public image, portraits can be used as a tool in order to forge personal or collective identities, revealing the status and value of these people or groups, not only in terms of composition, format and place, but also by its use. The goal of this paper is to focus on these aspects studying an example of the image of science and the consolidation of a research group, the Department of Macromolecular Chemistry of Barcelona, through the painting of the same name by Catalan artist Jordi Maragall i Mira. This research group showed its cohesion, not only through their research program in Structural Molecular Biology, but also through a set of images that reflect this reality. I will mainly use Maragall's painting, but special mention will be made of a set of photographs by unknown authors who complement it and show this cohesion with realistic images in other situations than the research itself.

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SOLAR FRONTIERS OF CHILE. GOVERNANCE OF SOLAR TECHNOLOGIES IN EXTREME ZONES: DESERT, ANTARCTICA, POLYNESIA, AND OUTER SPACE (1976-2011)

Nelson Arellano-Escudero

Between 2018 and 2021 it has been possible to study several exemplary

cases of Research and Development of Solar Energy Technologies that between 1976 and the first decade of the 21st century had been designed or implemented in the Atacama Desert, Antarctica, Rapa Nui as part of Polynesia, and Outer Space.

The technological histories of both thermal and photovoltaic solar devices to which we have had access allow us to reflect on 10 years of research. It began with the investigation of the case of Las Salinas as the first solar desalination industry and that was built in 1872.

The expansion of antecedents, cases, geographies, human and non-human actors and artefacts involved portrays the Governance of the Techno-Institutional Complex of Energy and encourages the formulation of a prospective about the history of technology and sustainability with the scope that it implies in the era of the Anthropocene.