FROM METEOROLOGICAL STATIONS, SATELLITES AND OCEANIC BUOYS TO FARMING ACTIVITIES: PRODUCTION AND SPREAD NETWORKS OF CLIMATE INFORMATION FOR THE “PAMPEANA” REGION (ARGENTINA)

ALEJANDRA CELIS, PABLO FORNI

Abstract

During the last 15 years, technological innovations and advances in the research of the oceans and the atmosphere have aloud the development of seasonal climate forecasts. In Argentina, as a result of the decadence of the national meteorological information network due to the privatisation policies during the 90’s as well as the availability of measurement tools (satellites, weather stations) and new predictive tools (models) conform the scenario in which old and new organizations and experts try to find a place in the emergent climatic information network. The process’s dynamics, its lack of transparency and competence between organizations make it difficult to elucidate neither “who is who” in this network nor its dimensions. First, we should distinguish a group of organizations that generate climate information, based on the data, from those who transform and or disseminate the information in different formats and through a variety of channels. In between these organizations, we find competence, collaboration and legitimation relationships. The conceptual framing is based in the actor-network perspective and the methodological strategy is qualitative, based in interviews and documental analyses.

KEYWORDS: ACTOR-NETWORK – SEASONAL CLIMATE FORECASTS – WEATHER STATIONS – TRANSLATION
**Abstract**

The aim of this paper is to analyze the context and factors that lead chemistry to its institutionalization as a scientific field in Mexico between 1930 and 1970. From a social studies approach towards science, this paper analyzes through a historical perspective how the science of chemistry was forged with the interaction between academia, productive sectors and the state during 20th century. In this way the different factors, both internal and external, which contributed directly to the development of this discipline in Mexico, are being identified.

With this idea in mind, the following questions will be answered: Which has been the role of the state and its scientific policy in the institutionalization process? What role did the links between academic chemistry and the productive sectors play? To what extent did the autonomy of the chemical academy determinate the process?

In other words, it will be considered whether the institutionalization of chemistry was the product of a chemistry community in its forging, or of policies and measures implemented by the government in relation to education and economy.

**KEYWORDS:** CHEMISTRY — MEXICO — HISTORY — SCIENTIFIC FIELD

**Traveling Writing and Scientific Construction of the World: Alexander von Humboldt’s Notebook of Italy**

**Marie-Noëlle Bourguet**

**Abstract**

This paper analyzes the notebook that Humboldt had on his trip...
Abstract

This paper explores the notion of monument in the context of modern archaeology and its uses in the historiographical debates. In that sense, the paper analyzes the emergence of the modern scientific object as a result of the interaction of antiquary with topographical and engineering techniques. It displays how modern archaeology relies upon the medialization of objects.

KEYWORDS: MONUMENT – MILITARY ENGINEERS – FLINDERS PETRIE

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THE LAST UNIVERSAL MAN: THE LOCAL AND THE UNIVERSAL IN HUMBOLDT’S SCIENCE

MICHAEL DETTELBACH

Abstract

This paper wants to localize Humboldt’s universalism in two ways: a) by showing that his all-embracing approach to scientific knowledge was predicated on a particular relationship between the local and the universal, as fragment and whole, as ruin and living culture. Humboldt’s universalism was the product not of a capacious mind, but of a carefully constructed way of reading data and
understanding measurement of a whole range of different disciplines. The very lawfulness of Nature Humboldt set out to discover and reveal in the first half of the 19th century depended on the recognition of the essentially local character of measurement and observation; and b), by showing Humboldt’s universalism to have particular, local meanings, and to have served particular, local purposes. Both forms of universalism performed particular political functions between France and Prussia at the turn of the 19th century, and were part of a single culture.


ALEXANDER VON HUMBOLDT’S DATA PROCESSING

WOLFGANG SCHÄFFNER

Abstract

The paper examines the statistic depiction of Mexico that Humboldt provides in his “Essai politique sur le Royaume de la Nouvelle Espagne” as a specific form of processing and representing data obtained from different sources in order to create a new object. Towards the beginning of the 19th century, topographic diagram systems had replaced the statistic tables. This development made possible a new economy and operationality of data: it thus became possible to make visible, legible, transferable and storable the biggest amount of data with the less possible amount of signs, in a visual space in which formulas, writing and images overlap and the traditional limits between text and image disappear. The use of these techniques, applied to observe both nature and society, gave place to a second “scientific discovery” of the Americas.

keywords: diagrams – data processing – visual language
Abstract

This paper analyzes certain scientific imaginary, in which leading scientists promoted the graphic method of representing automatically recorded curves as “the language of the phenomena themselves,” or the “universal language of science”. Graphic recording devices appeared not merely as an effective laboratory method, they became the primary technique of universal communication. This essay delineates the movement from energy to information through the optic of the graphic method. It aims to contribute to the expanding revisionism of the computer and the “information age”, not in the form of a strictly linear or encompassing history, but by proposing elements of an alternative genealogy, sometimes drawn from unfamiliar sources, tracing lines of descent different from the standard accounts of either intellectual history or the history of engineering or business organization. The present account points to a different set of instruments and a different intellectual tradition, specifically that which came to be known in the 20th century as analog representation and calculation. This genealogy has been made necessary by the reigning moral history which underpins our assumptions about the emergence of the information age. This essay aims to sketch some of the lineaments of an alternative view, and to call attention to the work of those who have begun to make it conceivable.

KEYWORDS: RECORDING DEVICES — GRAPHIC METHOD — COMPUTER — ANALOG REPRESENTATION.
THE TIME OF KNOWLEDGE. TURNS OF THE CENTURY FROM 1800 ON
JOSEPH VOGL

Abstract

This paper examines the temporality of knowledge, the way how time became a fundamental component of knowledge. Its aim is to understand how the turns of the century get inscribed into the knowledge of each time as a turning point. By reading Buffon, Humboldt, and Charcot’s epistemological approaches, the article draws different perspectives on the problematic of the increasing involvement of time in sciences. The turns of the century around 1800, 1900 and 2000 are analyzed as dates in which a different knowledge of time was constituted and, therefore, a different time of knowledge.

KEYWORDS: TEMPORALITY – NATURAL HISTORY – THERMODYNAMICS – HISTORY OF SCIENCE.

THE UNIVERSITY IN THE AGE OF INFORMATION
FRIEDRICH KITTLER

Abstract

This article analyzes the institution of university as a particular technical configuration of knowledge. This perspective gives an account for the historical passage of medieval universities -organized around the copyist’s scriptoria, the postal system and the library- to modern universities that appeared after the invention of the printing press. This historical account addresses the challenges faced by contemporary universities in terms of an open source of knowledge in sight of the globalized information market.

KEYWORDS: TECHNICAL MEDIA – UNIVERSITY – DIGITALIZATION.
ABSTRACTS

BRAZIL AND THE SOUTH KOREAN EXPERIENCE: AN ALTERNATIVE WAY?

RAFAEL DIAS

Abstract

The set of public policies (economic, social, scientific and technological, etc.) applied in Brazil in the last two decades was strongly supported, explicitly or implicitly, by successful experiences of developed countries. However, these policies often find their source of inspiration in South Korea's experience, an Asian country that changed from a very similar state of development to that of the Latin American countries in the decade of 1940, reaching an enviable economic and social state in a period of only fifty years. The South Korean experience has also influenced the ideas regarding possible development strategies for Brazil. The present article intends to discuss some of these ideas, linking them to the Latin-American Thought on Science, Technology and Society (PLACTS).

KEYWORDS: BRAZIL — SOUTH KOREA — SCIENCE AND TECHNOLOGY POLICY — PLACTS.