

Engineer or engineers? Between expansion and fragmentation **New insights and comparative perspectives**

Thirty years ago was held the now well-known conference “L'ingénieur dans la société française” in the Ecomusée at Le Creusot, France. The publication of its proceedings allowed at that time, through a first gathering of scattered studies, creating the conditions of a genuine scientific debate. This event was well in line with the manifold stakes faced by the professional group, particularly its dissolution into the administrative category of “cadres”. Ironically, this very category seems to have been the most chosen empirical object of enquiry, which could partly explain the subsequent disengagement of social sciences in the study of engineering. However, the researches conducted since then clearly show that a number of vivid questions remain unsolved.

More contemporary events further interrogate researchers: the transformation of the professional group has reached a point where its unity is put into question, especially given the heterogeneity of practices, labour markets, functions, social categories and even training programmes. Is this fragmentation as salient as it appears? And is it really new? Does it engender consequences on the position occupied by the group in the system of professions? Should one regard this ongoing ramification as a colonisation of new territories in the division of labour, or as a balkanisation of the profession? Can one instead imagine that it actually maintains its unity while at the same time undergoing a process of segmentation? Which approaches should be mobilised to seize these apparently contradictory phenomena?

Articulating four main panels, the conference will gather new contributions to the study of engineers, in the past or in the present, with the purpose of repositioning the focal point on this professional group. The selection committee will give special attention to propositions that extend the field of enquiry with international cases, particularly non-occidental societies that have been understudied and to studies conducted by young scholars that are likely to bring up new perspectives. It will also consider with high interest approaches shedding light on new dimensions of the history of the group, through the study of particular periods, movements or biographies that have left imprints on the profession, or through reflections on engineering historiography.

Panel 1: Forms of organisation of the profession

Across different countries, engineers have progressively constituted what could be considered as a profession, through the development of a specialised training, professional associations or institutions geared to gain recognition of their specificity both vis-à-vis public authorities and the public in general. Even though this evolution has been extensively studied and is now increasingly placed in a transnational perspective, many blind spots still remain and entire historical periods need to be covered, such as the after-war decades.

This panel also offers the opportunity to critically revisit the structuration of the engineering profession through the lens of its evolution, looking at institutional logics as well as international developments. For example, the questioning of the unity of the group occurs when the profession reaches its highest level of institutionalisation, which seems to contradict the very idea of “professionalisation”. Hence, drawing on results yielded by research on different national contexts, this panel will stimulate critical reflections on the relevance of a universalistic idea of a profession as a coherent body unified by techno-scientific practices.

Panel 2: Engineering knowledge and practices overtime

The development of the professional group has occurred concomitantly with the constitution and the takeover of bodies of specific knowledge. Too often considered as a mere ensemble of techno-scientific know-how, engineering knowledge also relies on other material, commonly labelled as “non-technical”, which has gained substantial legitimacy since the 1990s. However, the presence of such “non-technical” training – whatever the label used to name it and the forms it can take – tracks back to the origins of engineering education. This raises important questions related to the commonly agreed idea of an “introduction” of this component in a historical base of techno-scientific knowledge. It also raises issues concerning the relevance of the dichotomy between “hard” and “soft” sciences, since the structuring role of knowledge in engineering practice has mostly operated through the entanglement of these bodies.

Therefore, this panel will centre on processes of codification, normalisation and questioning of engineering knowledge and practices in different contexts (training programmes, professional associations, etc.). In this respect, it will be conceivable to explore these phenomena in terms of creation, importation or hybridisation of specific bodies of knowledge. Particular attention will be given to the circulation of approaches such as Scientific Management and more recent trends of management and business sciences, economics and social sciences, in order to assess their effects on the dynamics of the group and their role in the perpetuation of its unity. It seems important, however, to equally consider the breadth of activities relating to fields commonly considered as “traditional”. Taking these into account allows tempering declinist or prophesying interpretations of the dynamics of the professional group.

Panel 3: The relationship between engineers and production systems

The title of Veblen's famous book synthesised in a few words what is often regarded as a natural, given fact: the relationship between engineers and capitalism. However, the importance of engineers in the last centuries in non-capitalist economies invites researchers to reconsider the scope of this idea, while keeping alive the question of the relationship between engineers and the production systems. Indeed, the engineer, at the same time production agent and production manager, is subject to complex and heterogeneous relations with the economic sphere.

This theme is also geared to gather works on the relations that individuals have with labour markets throughout their career and on their integration to larger economic organisations (firms, corps d'Etat, etc.). In this respect, comparative or monographic approaches on the professional situation of engineers in given production systems allows uncovering the consequences of salarisation or job casualisation, as well as studying the evolution of the specific segment of the profession which has settled on managing or administrative functions. What is at stake is an attempt to go beyond the professional literature on the domination of the “managerial” or the “entrepreneurial” model, and to concentrate on the forms of intervention of engineers who hold administrative positions. In the vein of these reflections, contributions can also focus on interest or economic groups, such as the *patronat* or labour unions, and on their impact on the profession.

Panel 4: Engineers and society

The topic of the role of the engineer in its society tracks back to the emergence of the group. The various movements that have contributed to the settlement of the profession have, almost systematically, seized this question. This panel will pursue the objective of bringing into light the different stances on the engineer-society relationship, and elucidating their links with the great ideologies that have impinged the professional group throughout its history. It is hoped that a critical reassessment of movements such as Saint-Simonianism, Leplaysianism, Fayolism or social catholic doctrines could help understand the recent diffusion of social responsibility, sustainable development and ethics, in both engineering education and engineering practice. The panel will also encompass the issue of commitment of engineers in the public sphere, whether it relates to activism, association or NGO voluntarism, labour union or ethics.

Selection procedure and deadlines

Abstracts shall not exceed 4000 characters and will include an author presentation (name, surname,

status, institutional affiliation and contact details) as well as a preliminary title. Abstracts must be submitted before May, 2nd 2011 to the following address: colloque.ingenieur2011@ehess.fr. Communications can be performed in French or in English and shall not exceed 20 minutes. A collective publication of selected papers is envisaged. The outcome of the call will be communicated to authors in May 2011. Accepted papers shall be submitted for the 1st of September 2011.

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