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Patrick Kupper. Atomenergie und Gespaltene Gesellschaft: Die Geschichte des Gescheiterten Projektes Kernkraftwerk Kaiseraugst. Interferenzen. Studien zur Kulturgeschichte der Technik. Zürich: Chronos Verlag, 2003. 321 pp. Index. No price listed (cloth), ISBN 3-0340-0595-4.

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In his doctoral thesis, Patrick Kupper portrays the history of the failed nuclear power station Kaiseraugst (Switzerland). Until the project was finally abandoned in 1989, Kaiseraugst for almost twenty years formed the focus of Swiss disputes on nuclear energy. It not only shaped contemporary discussions on its chances and risks, but also general attitudes on modern large-scale technologies, democracy and the rule of law. In his case study, the author pursues the question how an electro-technical infrastructure project could become the focal point of discourses about common basic values of Swiss society. He also analyzes the context of these debates, the constellations of actors and their social efficacy. Based on micro-level interpretation, Kupper puts his work into context of a "triad of societal structures, actor-specific operational spaces and discursively generated and circulated interpretation levels" (p. 17). He seeks to combine technology, environmental, business, social, and cultural history in order to write "a part of the cultural history of nuclear technology" (p. 18)--an ambitious attempt the author masters throughout most of the book. In contrast to most research dealing with the history of nuclear power, Kupper does not focus on the anti-nuclear-movement. Instead, he chooses the perspective of the company "Kernkraftwerk Kaiseraugst AG" (KWK) and its predecessors, whose company archives could be drawn on for the first time. This approach allows for more comprehensive insights into the causes of failure of a technological large-scale project than the usual concentration on civil-societal opposition or the energy policy of the respective government and administration. The volume is structured chronologically. The author first describes the background of the paradigm shift in the power industry and then portrays the problems the project encountered during different phases of its history. Furthermore, systematic chapters on the opposition against nuclear energy and the role of the federal

state are included.

In the early 1960s, the possibility to further satisfy Swiss energy demand with hydroelectric power reached its limits as the most productive rivers had already been equipped with power stations. In addition, conservationists' requests had to be taken into account more and more resulting in higher costs. The state and the power companies therefore turned to nuclear power as a solution, since thermal power stations met with strong local resistance. Nuclear power, on the other hand, appeared to be progressively more economical and enjoyed broad acceptance in the framework of an evolutionary world view orientated towards technology. Still, the project Kaiseraugst, which in 1966 had been made public, encountered difficulties right from the very start. Kupper attributes these problems to the company's erroneous notions about nuclear technology, to home-made troubles (heterogeneous partnerships projecting parties, between the national competition of energy companies for a leading role in nuclear power production), and to reasons the actors could not influence (rapid technological innovations, rise in prices on the international market for nuclear technology, and societal changes). Because of this, the project came to a standstill in 1970. Apart from the question of the cooling system, the planned power station at first did not appear to be very controversial. Only right-"Lebensschutz" (protection of life) organizations such as the "Weltbund zum Schutze des Lebens" without much influence on society voiced fundamental concerns. On the contrary, conservationists had demanded nuclear power stations for years to protect the last free-flowing alpine rivers from utilization for power production. Yet, by connecting the question of nuclear power stations with existing discussions on nuclear water pollution protection, weapons, federalism, attention had been drawn to the

problems of nuclear energy as early as 1970. The decisive change in the debate on nuclear power, however, was its transfer into the discourse on the environment and into the alternative culture, which was based on a redefinition of the relationship between humans and the environment, and was triggered by three fundamental innovations: thinking in complex holistic systems, a global perspective and a changed perception of time. For this phenomenon. Kupper coins the term "1970s diagnosis" (pp. 131-137). In the wake of a social orientation crisis. economic growth technological progress were regarded more critically. As an outstanding symbol of these paradigms, nuclear energy became a focus of the argument. It therefore changed from being a mere an ecological, technological problem to economical, political, and social problem. With the sit-in at the building site in Kaiseraugst in 1975 at the latest, discourses and constellations of actors had been established and split Swiss society over the question of nuclear power in two equally strong camps.

The opposition against nuclear technology concentrated especially on the planned nuclear power station Kaiseraugst as the most developed project in the early 1970s. Apart from declining acceptance, the venture also had to struggle against growing costs and delays in approval procedures due to increasing and continually changing security requirements, since the authorities used Kaiseraugst as a "wave-breaker" for other projects (p. 259). Kupper demonstrates that Kaiseraugst basically was doomed to failure in 1977 and was only kept alive by KWK because of a mixture of calculated optimism and the lack of alternative courses of action. The new activation of antinuclear forces, resulting from the reactor accident in Chernobyl in 1986, finally destroyed all hope for its realization and caused its liquidation in 1988-1989.

In his work, Kupper is continually looking for the experiences and expectations of the actors in order to explain their actions. Central to his interpretation is the concept of path dependency. He defines events as path-dependent "if earlier incidents decisively and lastingly shaped resource allocations" (p. 63). This approach is promising as it calls attention to long-range developments, learning processes and institutional consolidation. Still, it can also lead to historical determinism. Therefore, to put Kupper's results into context,

more elaborate comparisons with other Swiss nuclear power stations successfully realized at the same time would have been beneficial for a clearer understanding of the factors contributing to Kaiseraugst's failure. However, a systematic analysis of additional nuclear power projects would probably have gone beyond the scope of a doctoral thesis. Hopefully, Kupper's informative study will inspire further research as his work demonstrates how important it is for an adequate assessment of success or failure of technological large-scale projects to not only analyze societal opposition or political determining factors, but also the perspective of the companies involved. Moreover, his "1970s diagnosis" constitutes another step towards a comprehensive explanation of society's re-evaluation of the relationship between humans and the environment around 1970--one of the most central questions of environmental history. With his book, Patrick Kupper provides a case study both well-written and inspiring. By analyzing sources which had not been taken into account until now, he sheds new light on an ostensibly well-known subject while--with just under three hundred pages of text--remaining commendably brief and focused.

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