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## *Preface*

Earlier versions of many of the papers in this volume were first presented at a workshop in The Netherlands in 1987. The object of that workshop was to explore the intriguing place where history meets sociology in the social analysis of technology. Specifically, the concern was to consider the extent to which case studies can be used to build or test theory about the way in which the “seamless web” of the social and the technical is structured and shaped. Most of the papers in this volume (like others presented at the workshop) wrestle with the interaction between theory and data by exemplifying ways in which the two might be brought together.

We are grateful for the help we received from colleagues who acted as referees to the individual papers. Robert Frost made extremely valuable comments on each paper and on the volume as a whole. We are most grateful to him.



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# ***General Introduction***

*Wiebe E. Bijker and John Law*

## ***What Catastrophe Tells Us about Technology and Society***

On Monday, October 16, 1989, two of the contributors to this volume were driving along Interstate 880 through Oakland, California. The highway was a road, just another road, scarcely worthy of attention. Insofar as they thought about it at all, they wrestled with traffic conditions and route-finding. For instance, there was a tense moment when they changed lanes—they really didn't want to be forced onto the Bay Bridge and end up in San Francisco. But once the problem of route-finding was solved, they scarcely noticed as they drove onto the Nimitz Highway section of the road. Carried along at rooftop level like the other motorists, they continued their conversation; the history of the freeway and its mode of construction were not issues that concerned them at all.

The next day, at 5:04 p.m., deep beneath the Santa Cruz mountains, the strains caused by the grinding of two tectonic plates reached breaking point. The earth shook, and sixty miles to the north the shock waves reached the Bay area. Buildings swayed, gas mains ruptured, landfill rocked, and the Cypress Structure section of the Nimitz Highway collapsed. Those who were lucky were driving on the top deck, or they found an exit waiting for them and drove down a ramp. Or like our two contributors and millions of others, they had passed along the highway before the shock struck. Those who were unlucky found themselves trapped between the two decks. Some were rescued. Tragically many, as we know, were killed.

Most of the time, most of us take our technologies for granted. These work more or less adequately, so we don't inquire about why or how it is they work. We don't inquire about the design decisions that shape our artifacts. We don't think very much about the ways in which professional, political, or economic factors may have given form to those designs—or the way in which they were implemented