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There also has been considerable variation in the importance of venture capital and the strength of linkages between universities and IT firms.

One of the most contentious issues in accounting for the success of the Asian IT industry has been the role of government. Here, again, there has been considerable variation. The simplest and safest generalization is that none of these countries has taken a *laissez-faire* approach. The only East Asian country whose government has remained largely passive has been Hong Kong, and not coincidentally Hong Kong has been an insignificant player in the IT industry. At the same time, however, governments have nurtured the development of their IT industries in their own way. To cite two examples, the Korean government provided a host of financial incentives so that well-established large firms (*chaebol*) could plunge headfirst into IT; in contrast, the development of Taiwan's IT industry has for the most part been the work of small and medium-sized firms, but many of them have benefited greatly from being located in the government-sponsored Hsinchu Science-based Industrial Park.

Whatever its sources, the overall success of the Asian IT industry is indisputable. Still, the question must be asked: Will Asian countries be able to take a leading role in the *creation* of IT in addition to developing and adapting technologies that originated elsewhere? This issue is most evident in Asia's most mature industrial economy, Japan, where entrenched large-scale firms have effectively developed and marketed incremental innovations, but have a mediocre record in regard to cutting-edge technologies. Other countries that have come later to the IT industry may not have the same structural impediments to innovation exhibited by Japan, and they may eventually become world leaders in the future development of IT. At this point, the future of IT in Asian lands can only be a topic for speculation, but readers of *Making IT* will at least have a better sense of how these countries got to where they are today.

RUDI VOLTI

Dr. Volti is emeritus professor of sociology at Pitzer College in Claremont, California, and the author of *Technology Transfer and East Asian Economic Transformation*, a publication in the series cosponsored by SHOT and the American Historical Association, *Historical Perspectives on Technology, Society, and Culture*.

Plastik und politische Kultur in Westdeutschland.

By Andrea Westermann. Zurich: Chronos, 2007. Pp. 387. €38.

The German chemical industry is an intensely studied field, particularly in the context of National Socialism and postwar reorientation. But the history of its end products, at the interface between production and consumption, has been neglected. Hence Andrea Westermann's *Plastik und politische Kultur in Westdeutschland* is in some respects a pioneering study. Wester-

mann considers one particular synthetic material, polyvinyl chloride (PVC), and follows it through West German history. Although she cites Jeffrey Meikle's 1995 book on plastics as a model, Meikle investigates plastic objects as concrete artifacts in a changing economic and technological framework, whereas Westermann is more interested in PVC as the elusive and highly variable object of cultural meaning, social perception, and political debate. In four chapters, she looks at the "medial qualities" of PVC as a changing means of political communication, and she attempts to establish its political effect and sociopolitical impact (*Vergesellschaftungsleistung*) on West German society.

The first chapter focuses on the development of PVC in the context of the National Socialist policy of self-sufficiency and the economy of World War II. The actors in the chemical industry as well as the material itself emerged from the war as politically incriminated. For consumers, the material bore the negative meaning of an *Ersatz*. Westermann shows that the main project of chemists and entrepreneurs during the 1950s was to take the meaning of plastics and purge all the connotations of war profiteering and to cut all semantic ties to the Nazi past. Instead, they constructed an image of pure functionality by linking synthetic materials to a positive, modern future—and here Westermann takes her argument one step further in claiming that this had a depoliticizing impact on public discourse in general.

After the decartelization of IG Farben by the Allies, the various chemical companies found new means of cooperative trade. This is the subject of the second chapter. Associations were founded, public exhibitions were staged, and standardization committees resumed their activities. Within the plastics industry, Westermann looks not so much at large corporations commanding capital-intensive technologies as at the manufacturers processing PVC as a material for consumer durables. These manufacturers were mostly smaller family-owned firms. From her research in the business archives of two producers of synthetic leather substitutes, she finds that they established closer relationships with consumers by developing new ways of examining and communicating the actual and desired properties of synthetics.

The third chapter covers the same period from a sociopolitical point of view. During the 1950s, Westermann contends, West Germany became a "consumer democracy," arguing (along the same lines as Paul Betts) on behalf of a new form of socialization through consumption. Although she attributes "medial qualities" to PVC, she leaves it to the imagination of the reader how this mediation actually worked. Plastics consumption grew tenfold in one decade. As such, plastics were the target of conservative as well as left-wing agitation against mere passive consumerism in the late 1960s.

In the fourth chapter, Westermann turns to the first cases of disease reported in 1974 among workers in the PVC production plant of Dynamite Nobel, which stirred a conflict about the carcinogenic effects of vinyl monomer. The conflict spread rapidly, and PVC was soon being perceived

as a threat to processors and users alike. At the same time, it was becoming recognized as a long-term waste problem, nondegradable in garbage dumps and releasing toxic gases when incinerated. This most powerful chapter shows how PVC became the epitome of occupational disease and environmental risk.

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All through her study Westermann looks at the emergence of new forms of knowledge and scientific inquiry in the process of constructing PVC. In the 1950s, for example, the physical subdiscipline of rheology sought to quantify haptic qualities of PVC sheeting in order to grasp consumers' perceptions of the material. In the 1970s the plastics discourse was closely linked to the rise of medical epidemiology that until then had hardly been established in West Germany. Regrettably, however, Westermann does not take the consumers of plastics products into serious consideration. Although she mentions that consumers, when given the choice, often objected to PVC in preference to other materials, the actual encounter with and use of plastic products is not part of her investigation. Her story remains a top-down narration. This is not a negative in itself. It becomes a problem of method, however, when she writes of the implementation of a "consumer democracy" through plastics in the 1950s without studying it empirically. She draws conclusions about the wider sociopolitical impact of plastics but often fails to address social and economic processes and power relations. This remains the weakest aspect of a study that is otherwise thought-provoking, conceptually original, and empirically sometimes surprising.

ANNE SUDROW

Anne Sudrow recently completed her Ph.D. thesis at the University of Technology in Munich on the introduction of synthetic materials into footwear in Nazi Germany, Britain, and the United States as part of a larger, comparative history of the shoe in the first half of the twentieth century.

The Mental Aftermath: The Mentality of German Physicists, 1945–1949.

By Klaus Hentschel. New York: Oxford University Press, 2007.

Pp. vi+205. £25; \$49.50.

Postwar Germany has become a hot topic among historians of science and technology. This compact volume—a fine translation of the German original published in 2005—simultaneously offers the reader a synopsis of the recent historiography of postwar German science and a forceful statement of Klaus Hentschel's own perspectives. Its carefully delimited scope leaves open a number of important questions, and Hentschel's theoretical framework requires further exploration. But these provisos are no criticism of his mastery of the material. The book's very conciseness recommends it highly to anyone seeking a clear overview of this important and rapidly changing