

recurrent themes, ideals, and myths that cut across the more ordinary historical and geographical lines of division. Armstrong marshalls a fifty-page bibliography in support of his arguments as well as thirty pages of notes, all of which clearly demonstrate the heroic amount of research he has put into this project. Ultimately, though, *Nations Before Nationalism* is disappointing.

The major problems are structure and scope. Armstrong attempts to cover too much historical, religious, and political territory in three hundred pages of text; as a result, the presentation and argumentation are often confusing, sometimes misleading, and almost always seem to lack focus. His methodology, which eschews historical chronology, reveals itself in the chapter headings: "Sedentary and Nomad: The Emergence of Territorial Identity," "*Polis* and *Patria*," "Imperial Politics: the *Mythomoteur*." There is, moreover, too much of the jargon of social science research. Although Armstrong draws upon such theorists as Levi-Strauss and Ernst Cassirer and on such historians as Marc Bloch and Fernand Braudel to establish his terminology, he fails to show clearly the connection between theory and fact. At the end of each chapter is a "summary and conclusion" that is often more straightforward than the freewheeling exposition of facts within the chapter itself—which only serves to emphasize the gulf between theoretical model and historical fact.

A cross-cultural approach to historical problem-solving is certainly useful and may yield imaginative insights, but a search for the cosmic glue of group identity is bound to disappoint. By jumping from culture to culture, epoch to epoch, East to West without any in-depth consideration of particulars, Armstrong makes the issues seem only more confused and clouded. To suggest, for example, as the author does, that Charles V chose the *Reichsapfel* as the symbol of the Holy Roman Empire because it may have contained unconscious resonances of ancient Mesopotamian political myth seems rather farfetched. His statement that "throughout antiquity, however...public buildings and the colonnaded thoroughfares remained more important symbols of urban life than did walls" ignores not only the evidence of archaeology but, more important, what authors from Homer to St. Augustine tell us about the nature of the city. While it is useful to talk about the Roman city as *patria*, to do so without also pointing out the deep Roman attachment to the land is to present only part of the picture. Perhaps more startling and disappointing is the fact that, despite his frequent examination of these

issues from the point of view of Christian, Jewish, and Muslim cultures, there is a disconcerting lack of discussion about the *nature* of religious belief within them.

Armstrong seems to have an uneven grasp of historical detail, which perhaps is due to his almost total reliance on secondary sources. Although some of his narrative is quite good, the statement that "the coincidence of the timing of the Protestant Reformation and the establishment of the Shia was very likely accidental" seems strange, since the Shiite movement had its origins in the argument over the successor to Mohammad, and it is not until several pages later that we discover he is discussing Persia in the sixteenth century. Overall, his account of Islamic political and theological issues is confusing. Elsewhere, his citation of F. E. Peters's *Harvest of Hellenism* in order to prove a relationship between Muslim and Jewish "men of law" distorts the context of Peters's argument, which deals only with the traditions of Rabbinic Judaism. There is also an error in the translation of a German proverb. Unfortunately, these examples could be multiplied, but the much more serious problem is the author's failure to use the vast number of facts he has gathered to reveal "the cement that has maintained group identity."

Certainly Professor Armstrong raises some vital questions about current political issues with antecedents in the ancient and medieval worlds, but he has failed to give this reader any significant answers.

**LEAST-COST ENERGY:
SOLVING THE CO₂ PROBLEM
by Amory B. Lovins, L. Hunter
Lovins, Florentin Krause, and
Wilfrid Bach**

(Brick House Publishing Co. [Andover, Mass.]; xi + 184 pp.; \$17.95)

Albert L. Huebner

Oil, gas, and coal currently supply most of the world's energy, and all but a few energy planners project increased use of these fossil fuels in the future to meet burgeoning worldwide requirements. Combustion of these fuels produces carbon dioxide (CO₂) that accumulates in the atmosphere, where it causes a warming usually referred to as the greenhouse effect. No one is quite sure what the consequences will be of a significant increase in atmospheric CO₂, but many scientists predict major changes in climate that will have a devastating effect on human activity and well-being.

Nuclear power and renewable energy sources avoid net increases of CO₂, but they have their own problems. The nuclear option generates other long-term environmental hazards, raises concern about more rapid nuclear proliferation, and requires greater capital than anyone wants to risk. And the conventional wisdom that predicts a vast increase in future energy demand also insists that renewable sources won't be able to satisfy more than a small fraction of it.

In *Least-Cost Energy*, Lovins et al. perform the remarkable feat of mapping out a simple solution to the CO₂ problem and, as part of the process, solving those nasty and more immediate energy problems that are arresting economic growth, feeding inflation, and threatening security throughout the world. By turning to an assortment of "technical fixes" to pull this off, they may also have restored some of the luster to technology's tarnished reputation.

The authors, each with impressive credentials, begin by investigating how much energy productivity can be increased in an already highly industrialized country. Choosing West Germany for the case study, because it is a particularly conservative candidate, they show that its energy efficiency can be improved by a factor of more than 3 over the next few decades, using already available and completely cost-effective technology. This is no austerity program; the model assumes a high rate of growth and no change in life-style. Furthermore, the efficiency gains "are so economically advantageous that they would reduce the fraction of future GNP used to buy energy services—so that, far from driving inflation, the energy sector would become a net exporter of capital to the rest of the economy!"

The analysis is then extended to larger regions and, eventually, to a global scale. Although it seems surprising at first glance, developing countries can achieve high efficiency faster and at lower cost than industrial nations. By building their energy infrastructure efficiently the first time, they can avoid the industrial world's problem of slow and relatively more costly retrofitting of a vast, energy-inefficient capital stock with a long turnover.

Incorporating the assumption of rapid development in Third World countries, the least-cost model projects that an affluent, energy-efficient future world of 8 billion people would use less primary energy than is used today. Even if all this energy were supplied by fossil fuels, the likelihood of significant CO₂ warming would be pushed centuries into the future. But once energy consumption is brought under control by

efficiency measures, a remarkably wide range of cost-effective renewable sources will be capable of supplying all the energy that is needed. This eliminates the CO₂ problem and confers other impressive benefits as well: elimination of oil-import dependence, less inflation, more jobs, possible reduction in nuclear weapons proliferation, and less environmental damage of other sorts—the virtual elimination of acid rain, for example.

The energy picture sketched in *Least-Cost Energy* is enormously attractive, but there are problems to be overcome. To confer benefits, cost-effective technology requires a reasonably free market and policies that, if not exactly favorable, at least are not hostile to it. But, say the authors, consider what has happened to date: Although efficiency improvements are by far the best energy investment, followed by appropriate renewable resources, synthetic fuels, and—costliest and slowest of all—central power stations, the principal nations of the world, by “never making that ranking or allowing a free market to do so... have taken those choices in reverse order, worst buys first.”

These backward practices do more than threaten the effort of the industrialized nations to bring their energy problems under control. The example they set profoundly influences the course of the Third World. The rich nations can provide valuable leadership toward a secure, benign energy future, but the authors observe that their counsel “to developing countries would be politically and morally more palatable if they first got their own houses in order.”

Despite frequently counterproductive governmental and institutional policies, the activity of millions of consumers, seeking to save energy so that they can save money, is having an enormous impact. Since the mid-1970s, efficiency improvement has provided by far the fastest-growing part of world energy supplies. This activity holds out the exciting possibility that the energy problem, and the many other problems that attend it, can be ended. *Least-Cost Energy* is a powerful stimulus toward that goal.

PRISMS

by Theodor W. Adorno

(MIT Press; 272 pp.; \$15.00)

Nikolaj-Klaus von Kreitor

Theodor Adorno (1909-65) was one of Europe's more interesting intellectuals—a cultural philosopher, sociologist, literary critic, and historian of music. Along with Max

Horkheimer, Herbert Marcuse, and Erich Fromm he founded the Frankfurt School.

In contrast to Hegel, Dilthey, and his contemporary Georg Lukacs, Adorno was not a constructor of philosophical systems. Quite the opposite: He considered philosophy fragmentary and antisystematic and regarded the essay as the form best suited to it.

Prisms, the fourth volume in the MIT Press series “Studies in Contemporary German Social Thought,” contains eleven cultural-critical essays by Adorno excellently translated by Samuel and Shierry Weber. The essays deal with various subjects: Huxley's anti-utopia, Spengler's gloomy visions of the fall of Europe, Veblen's critique of culture, jazz, Bach, and Kafka and center around a critique of culture and

civilization.

The works of Adorno are by no means easy to read if one lacks some knowledge of the German intellectual tradition, its terminology and its use of language. The essays treat the difference between culture and nature and between civilization and culture. The essence of culture, as well as of history, is freedom, while the essence of nature is “lawboundness.” The basis of culture is memory, which defines man's place in history and society. Where there is a consciousness of existence, action and the realization of human goals are found. Two important theoretical elements of Adorno's thinking are Georg Lukacs's theory of reification and the fetishism of commodities and Max Weber's analysis of the dissimilarity between material rationality (related

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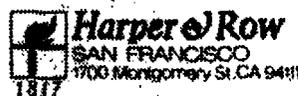
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