

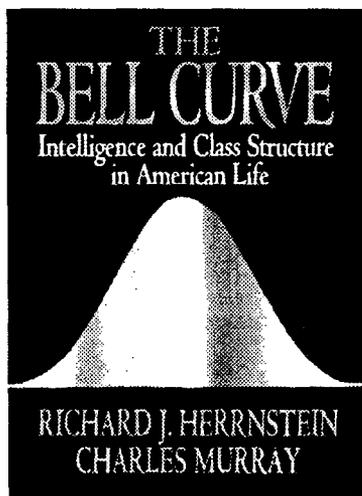
# IN PRINT

## Behind the curve

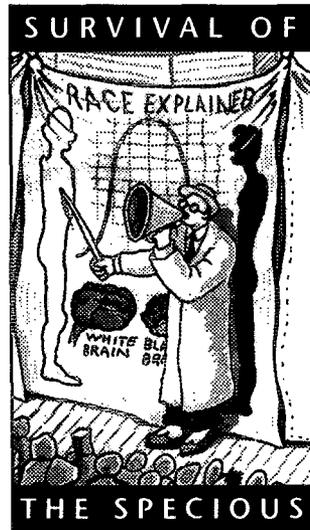
By **Beth Maschinot**

The Earth does look flat, and no matter how long you look at it from a certain vantage point, it will always look flat. But it is the job of the scientist to look beneath the sometimes deceptive appearance of things. In *The Bell Curve*, Charles Murray and Richard Herrnstein have established themselves as the Flat Earthers of the social sciences, cavalierly dismissing years of respected scholarship in an attempt to revive the discredited idea of inherited black inferiority in intelligence. If their work were only bad science, we would hear little of it; but their bad science has been used as the foundation for a mean-spirited revival of Social Darwinism.

As readers well know by now, the authors of *The Bell Curve* have made much of the 15-point gap between the average IQ scores of whites and African-Americans. The gap is not imaginary: it's been noted by other researchers, and remains in attenuated form even when class differences are taken into account. Murray has jokingly referred to this finding in interviews as "the 800-



**The Bell Curve: Intelligence and Class Structure in American Life**  
By Richard J. Herrnstein and Charles Murray  
The Free Press  
845 pp., \$30



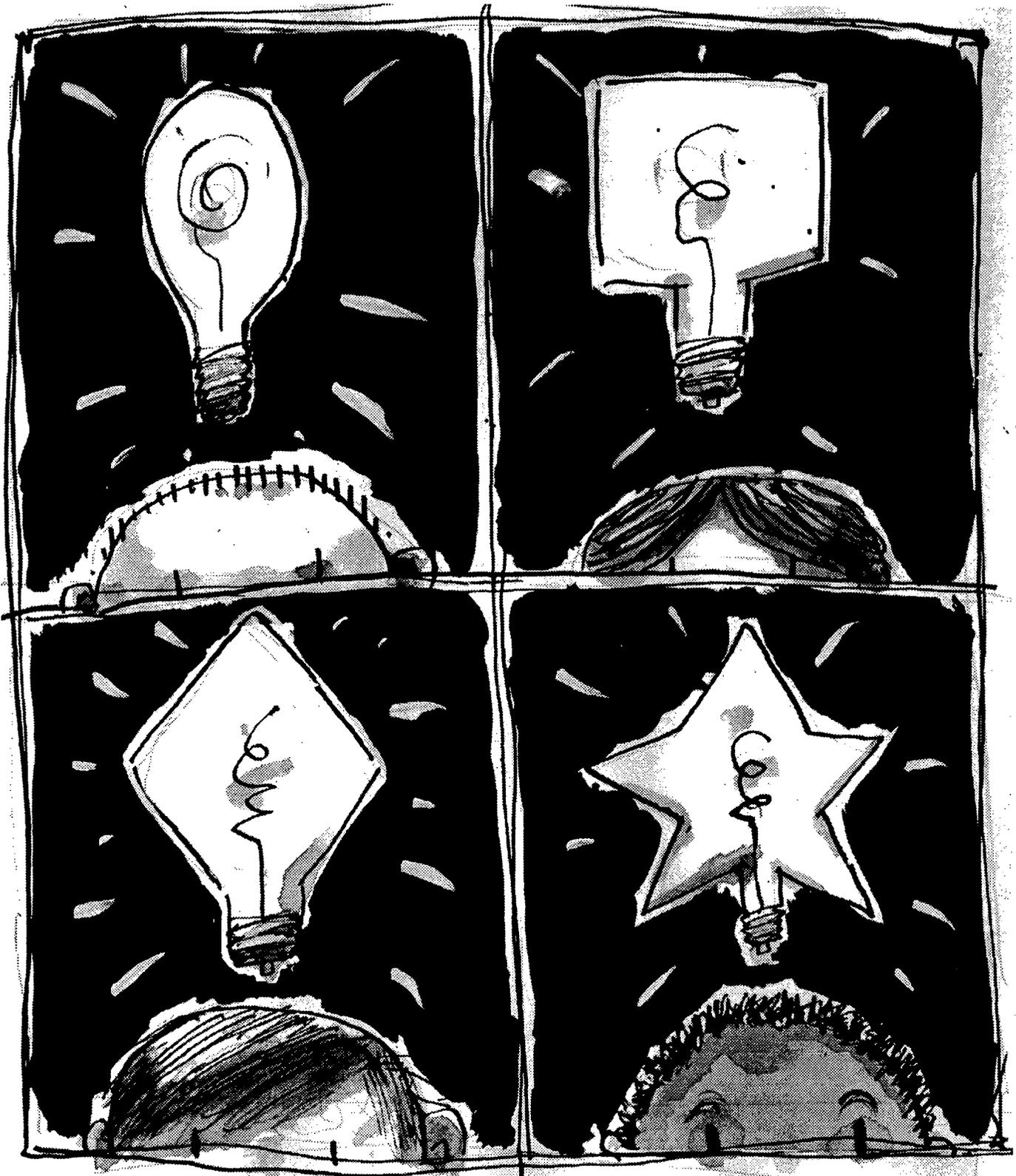
pound gorilla in the corner." His attempt to understand this phenomenon is just about as serious as the flippant remark implies. Most psychologists and neuroscientists working on issues of cognitive development agree that genes exert some influence on our intellectual capacities, with different researchers estimating that from 40 percent to 80 percent of differences in intellectual ability are determined by our heredity. (Murray and Herrnstein settle for a figure in the middle of these two extremes, suggesting that perhaps 60 percent of variation in IQ is due to heredity.) What all this means practically speaking is still being debated, but the mainstream of current thinking in both psychology and neurobiology holds that genes set the floor and the ceiling for many traits.

These studies say nothing about race. In fact, the common designations of different "races" make little sense to most geneticists: superficial differences in skin color between groups have often been the basis for social discrimination, but they often mask strong genetic affinities. Disregarding this altogether, and basing their argument on narrow sociological evidence and flimsy logic, Murray and Herrnstein leap to the conclusion that the gap in scores between African-Americans and whites is due to genetics. The two hide this bald assertion with much obfuscating argumentation—at one point saying they are "resolutely agnostic" on the question of the origin of blacks' lower IQ scores—but the implication is plain: "the evidence may become unequivocal that genes are a part of the story" of why blacks as a group don't succeed in U.S. society.

In their policy recommendations, Murray and Herrnstein are less equivocal, arguing that bad genes rule out the possibility of boosting cognitive development. Beyond a few points here or there, the two believe, intelligence is for all practical purposes immutable.

The left has tended to respond to *The Bell Curve* with simple dismissal. Some have been particularly scornful of the assumption that human intelligence can be accurately reflected in a single number, the IQ score. Expressing a particularly common view on the left, Alexander Cockburn and Ken Silverstein argue in *CounterPunch* that "what IQ measures is the ability of people to take IQ tests"—nothing more.

Such criticism is undoubtedly well-intentioned, but it misses the mark. True, IQ measures only one part of what is commonly called intelligence, the part that relates to a person's ability to think logically and spatially. But IQ scores—though hardly telling the whole story—do a reasonable job



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of measuring a certain facility for abstract thought, one that is increasingly useful in a high-tech world. Though it's not always popular to say that IQ scores represent anything meaningful, if we sidestep this issue, we have sidestepped one of the painful truths that is lurking beneath the simplis-

tic graphs and overblown appendices of *The Bell Curve*. After all, it is hardly surprising that there would be cognitive differences between groups that have had different life chances. And, indeed, recent research suggests strongly that impoverished experiences in early childhood can be the

cause of such differences.

Of course IQ is not, as Murray and Herrnstein would have it, the only way to think about intelligence. A few reviewers, Stephen Jay Gould among them, have turned to an increasingly well-regarded theory called "multiple intelligences," which argues that the capacities measured by IQ tests are not the only forms of intelligence. This broader view of the mind also suggests that "intelligence" is not, as Murray and Herrnstein would argue, a quality fixed in stone. On a fundamental level, where and how we live, particularly in our early years, affects the way we think.

Harvard professor Howard Gardner defines intelligence as "a set of skills that enable the individual to resolve genuine problems that he or she encounters." Distinct problems call for distinct cognitive solutions, and rely on capabilities that originate in different areas of the brain. These include spheres traditionally thought of as part of cognitive capacity, such as logical-mathematical and linguistic abilities, both of which are measured on IQ tests.

But societies require other skills as well in order to function and flourish: musical talents, interpersonal skills and so on. Scientists have become increasingly aware that such different problem-solving capacities are tied into very specific areas in the brain: a lesion to one section of the brain will damage the person's ability only in one circumscribed sphere.

Gardner does believe that there is *some* genetic component to all these different intelligences. But genes aren't everything: well-timed learning is essential in order to develop these capabilities. For Gardner, as well as for most neuroscientists who delve seriously into brain development, the first several years of life are crucial in this process.

In an effort to appear to be objective, Herrnstein and Murray mention multiple intelligences theory in *The Bell Curve*, as they do many other views contrary to their own. But they dismiss the theory without fully engaging it. Herrnstein, the psychometrician of the two, throws his political coinage behind the almighty *g*, the great God of psychometricians that has reigned since Charles Spearman invented it in 1904. *G*, or general factor of intelligence, was "discovered" by Spearman using a newly developed statistical technique (early-factor analysis) to evaluate intelligence data. In brief, Spearman took several different tests attempting to measure intelligence, and analyzed them in order to identify the common factor that might account for correlations among the tests. As Murray and Herrnstein admit, "the evidence for a general factor in intelligence was pervasive, but circumstantial, based on statistical analysis rather than observation. Its reality therefore was, and remains, arguable."

What they don't mention (as Gould has pointed out in his *New Yorker* review) is that 30 years later, psychologist L.L. Thurstone rotated the factors in Spearman's factor analysis—a process commonly done in the social sciences in order to look at competing hypotheses—and a different profile of cognitive capabilities appeared, one more in

keeping with the multiple intelligences theory. Yet Murray and Herrnstein stand by *g*, even though developments in brain research in the past 10 years strongly support the multiple intelligences theory.

Murray and Herrnstein remain convinced that IQ scores, and the type of intelligence they measure, can't be improved by environmental manipulations. Yet the evidence they produce in support of this claim is weak and often contradictory.

In a chapter titled "Raising Cognitive Ability," for example, the two take aim at some of the better-known research on the ways in which environment can affect IQ and school achievement. The classic case, of course, is the Head Start program, which has been shown in a number of studies to raise IQ points among poor children by as much as 10 points. *The Bell Curve* presents the usual conservative complaints against the program—that its effects on IQ are only temporary, and fade out entirely by the sixth grade. Yet Murray and Herrnstein ignore the obvious fact that once they leave Head Start, poor students typically attend substandard schools from the first grade onward. The fact that IQ scores drop again after this experience should lead one logically to conclude that intelligence as defined by IQ tests is highly responsive to environmental manipulations, not the reverse, as Murray and Herrnstein would have it.

*The Bell Curve* also mentions a program that is more intensive than Head Start (and more rigorously researched), the Abecedarian Project that began under the supervision of psychologist Craig Ramey at the University of North Carolina in the '70s. This program is a benchmark for all other intensive preschool programs. Twelve years ago, Ramey took a group of 111 black children judged at-risk for below-average IQs by well-established criteria: parental IQs averaged 85; most of the mothers had not graduated from high school; the majority of the families were on welfare. From four months onward, half of the group was placed in a preschool where the staff focused on talking to the child in a manner that was, according to Ramey, "modeled on what a middle-class mother establishes with her child." The children were also exposed to an "enriched" environment: given healthy food and interesting toys and surrounded by many playmates. By age 3, the "treated" group averaged 17 points higher than the control group on the Stanford-Binet IQ tests (101 vs. 84).

Even more impressive is the fact that these differences in IQ persisted more than a decade later, when the children were attending neighborhood public schools. The children in the Abecedarian Project, unlike those in Head Start, were assigned a "Home-School Resource Teacher," a person who met with the family bi-weekly and taught the parents how to participate in school-assigned learning activities with their kids. The children were recently tested again, after they finished sixth grade, and the results showed an average 10-point IQ gain for those in Ramey's program.

What do Murray and Herrnstein make of this finding?

They say that “the major stumbling block to deciding what the Abecedarian Project has accomplished is that the experimental children had already outscored the controls by at least as large a margin by the age of 1 or 2 years, as they had after nearly five intensive years of day care.” And they go on to assert that there are only two explanations for this result: “[P]erhaps the intervention had achieved all of its effects in the first year of the project (which, if true, would have important policy implications). Or perhaps the experimental and control groups were different to begin with,” i.e., there was no random selection and therefore the experiment is invalid.

There are, of course, other explanations, including one supported by the last decade of research on brain development: that the brain is highly responsive to its surroundings and that it goes through critical periods in which the connections between brain cells must have certain kinds of sensory stimulation in order to develop. Some of these critical periods are in the first few years of life. It is then that the brain is strengthening dendritic connections between cells, ensuring that the capacity to think logically (as well as spatially, musically and so on) is being developed. This does not mean, as Murray simplistically suggests, that a year or two of intensive day care would be enough for these children to maintain their gains. Current research by neurobiologists indicates that the brain continues to need the ongoing stimulation of an enriched environment, filled with diverse and interesting sensory experiences, in order for the dendritic connections to keep from withering.

Research on this subject is being conducted by several scientists around the country, including neuroscientists Bruce Perry from the University of Chicago, Robert Jacobs from UCLA and William Greenough from the University of Illinois, and Yale biologist Martha Constantine-Paton. Such research has flourished during the last decade thanks to new understandings in molecular biology and the recent development of brain-imaging techniques. Now that scientists have a way of viewing how the brain develops, they no longer see it as a static organ untouched by the environment, as Murray and Herrnstein suggest it is. Instead, the world provides a kind of “food” for the brain, which “digests” sensory stimulation and reassembles the experience in the form of trillions of connections between brain cells that are either growing or dying. And so the environment produces actual physical changes in the shape of the brain.

There is a gloomy side to this picture: if you fail to have the proper stimulation at an early age, it is exceedingly difficult to learn what might be presented to you later, because your brain hasn’t laid down the basic “wiring” that it needs. This is why neuroscientists are fast becoming the loudest proponents for programs like Head Start and the Abecedarian Project.

The brain, in short, is the “ultimate use it or lose it machine,” as Greenough has suggested. And while neuroscientists generally agree that there are genetic variations that contribute to brain development, they’re skeptical of

Murray and Herrnstein’s conception of the brain as an unchanging edifice of general intelligence. Rather, they suggest, different brains have different blueprints for growth; the pattern of brain functioning for, say, Charlie Parker would be different than the pattern for Virginia Woolf.

Most scientists in the field agree with Dr. Frederick Goodwin, director of the National Institute of Mental Health, that IQ scores can vary as much as 15 or 20 points, depending on the early environment. This, of course, is the average increase that the children in the Abecedarian Project sustained. It also coincides with the range that now separates African-Americans and whites in this country.

This newer brain research has not been buried—in fact, a series of articles by Ronald Kotulak in the *Chicago Tribune* describing it won the Pulitzer Prize for science reporting last year—and the authors of *The Bell Curve* were certainly aware of it when they wrote their book. But the evidence of brain localization and brain plasticity directly contradicts their most basic assumptions: that a general type of intelligence exists, and that you can’t do much to change it.

In the conclusion of their chapter on the putative impossibility of raising cognitive abilities, Murray and Herrnstein hint at the real problem: “[T]he nation cannot conceivably implement an Abecedarian Project for all disadvantaged children. It is not just the dollar amounts that put such ambitions out of reach (though they do) but the impossibility of staffing them.” Such programs, they claim, would require teacher-to-child ratios of one-to-three. While such ratios clearly are far from the standard in American preschools today, they are the norm for countries that take day care seriously (such as Sweden), and not unheard of in the advantaged sectors of our society. The problem is that we just don’t want to pay for the chance for all of our citizens to develop to the best of their abilities. *The Bell Curve* gives a pseudo-scientific rationale for the pervasive mood of indifference.

It’s true, as most critics of *The Bell Curve* have stated or implied, that a society is one-dimensional indeed if it utilizes or rewards only one type of brainpower. Those who look upon IQ as a sole measure of cognitive capacity do have a narrow understanding that devalues many of the experiences and people that enrich our world.

But there is a more crucial question at stake in *The Bell Curve* debate: when will we take responsibility for the inequality that continues to plague our poorer children? Murray and Herrnstein’s proposals would only widen the gap between those lucky enough to be born into an enriched world and those who are not. But our critiques will do nothing to close this gap unless we’re willing to look more closely at its causes. ◀

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# The age of insurgency

By Van Gosse

The dirty wars in Central America played the role of Banquo's Ghost throughout the '80s, stalking periodically into view to mock the pretensions of Reagan's America with bloody hands. Now, halfway through the '90s, these conflicts already seem like quaint anachronisms to most Americans. The downed mercenary Eugene Hasenfus, the four U.S. churchwomen killed in El Salvador, Archbishop Oscar Romero, the Kissinger Commission, Contadora, William Casey, Daniel Ortega—outside of a few remaining partisans, who remembers any of it very clearly? With remarkable speed, the most notorious, long-running political debate of the last decade has been shredded and dumped, along with all the other white papers and tape transcripts of the Cold War. Only Oliver North remains, grinning like a bandit.

As with so much that went on in the Reagan era, explaining the fuss in Central America to future generations is going to be very difficult. The tinny rhetoric of "Soviet-Cuban sponsored terrorism" and an imminent flood of "feet people" sweeping north through Mexico with Red tanks on their heels now sounds like dialogue from an unfiled screenplay. Unfortunately, so do all those lusty chants of "Si Nicaragua Vencio, El Salvador Vencera!" that dominated radical politics in the '80s. Is it possible that the U.S. obsession with revolution and counterrevolution in the isthmus between Colombia and Mexico was simply a mirage for both right and left, an implicit restaging of Vietnam?

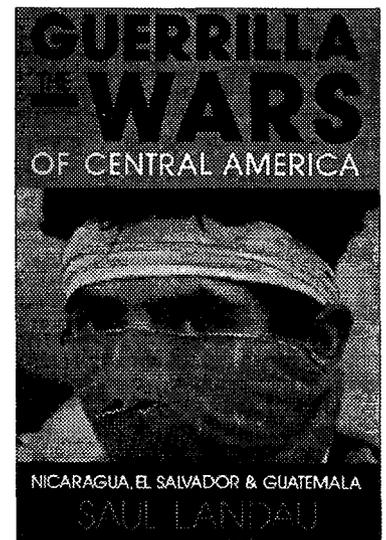
Saul Landau's recent book, *The Guerrilla Wars of Central America: Nicaragua, El Salvador and Guatemala*, provides a grim answer to that question, but one that cannot be easily dismissed, no matter how much "optimism of the will" is invoked. In brief, he suggests that not only the gringos but the Central Americans themselves were trapped by ideological

obsolescence. With even a little hindsight, says Landau, "the 1980s' wars in Central America emerge as a series of bizarre undertakings that occurred in one of those rare transition periods in which history moves from one identifiable era to another." For Landau, the illusion common to all sides was that the late 20th century was a new revolutionary epoch in which the independent socialist nations of the Third World would be in a position to face down the United States. Following victories in Cuba, Vietnam, Angola, Zimbabwe and other "national liberation" struggles of the '60s and '70s, it certainly seemed that way, and nowhere more so than in Central America after the Sandinista triumph of July 19, 1979.

Events have run in a very different direction, of course, and to Landau this is powerful evidence of how fragile the "nineteenth-century ideal" of revolutionary nationalism was. Describing how "the age of revolution had waned" by 1990, he concludes that "the uprisings of the 1970s and 1980s may well have symbolized the end of an historic era that had endured more than a century, one in which peoples aspired to nationhood, meaningful concepts of sovereignty and independence."

In place of national liberation, Landau sees a future dominated by the indirect but pervasive rule of public and private finance capital in the Northern metropolises, exerted most directly through the International Monetary Fund and the World Bank. In this scenario, global "neoliberalism" has made the sovereign nation-state now a fiction in most of the Third World, since the Soviet Union no longer exists as an insurance agency for revolution. If he's right, the wars in Nicaragua, El Salvador and Guatemala in retrospect take on a strictly residual character, as two antagonists trapped in their own histories fought past the point of reason—the United States to preserve a century-old habit of direct hegemony that was already out of date, the guerrilla fighters for a socialism that had become a chimera.

Thankfully, Landau is not a dispassionate observer, and *The Guerrilla Wars of Central America* is not another somber treatise on the failure of revolution and the passing of an epoch. For the most part, it is popular histo-



**The Guerrilla Wars of  
Central America: Nicaragua,  
El Salvador and Guatemala**  
By Saul Landau  
St. Martin's Press  
222 pp., \$21.95