## Top Mitterrand Adviser Pressed for Time

## His book on the history of science and technology draws accusations of intellectual dishonesty

Paris. Only in France, one suspects, would the top personal adviser to the President get out of bed at 4 o'clock every morning to write a book on the history of science and technology.

And only in France would a political scandal break out around accusations of intellectual dishonesty when it is discovered that not all the material used in the book has been properly attributed to its original author, that the bibliography contains some omissions, and that several references have been wrongly numbered.

Such, however, is the nature of the storm raging in the French press around President François Mitterrand's top adviser and chief-of-staff, M. Jacques Attali. On 13 January, Attali was forced to place a full-page advertisement in *Le Monde* to deny charges of plagiarism in a best-selling book, *Histoires du Temps* (*Histories of Time*), published last November.

Attali is an owlish but brash 39-year-old economics lecturer who worked as a close adviser to Mitterrand during the 1981 election campaign and was appointed to his current position over the heads of several senior Socialist Party administrators last July. He has a powerful position in the Elysée Palace—arranging the President's schedule and occupying a room through which all visitors must pass.

He has also played a key role in molding Mitterrand's political strategy as President. It was Attali, for example, who masterminded last year's summit meeting of the heads of the world's industrialized nations at Versailles to discuss the challenges of the new global division of technological labor.

It was also said to have been Attali who suggested to Mitterrand that he not talk to President Ronald Reagan when Reagan telephoned last November inquiring about the French position on economic sanctions against the Soviet Union. Reagan was left hanging on the telephone for several minutes. Mitterrand later denied being a party to an international agreement on sanctions, undercutting a statement which Reagan had made at a press conference.

But Attali, a graduate of the elite École Nationale d'Administration, is an intellectual as well as a political phenomenon. Before entering the government he



Jacques Attali

Defended himself with an ad in Le Monde

had already published eight books on subjects ranging from cannibalism to music. His book on the history of time was well received on publication.

At one level, the book is a straightforward history of the ways in which man has created both conceptual and mechanical systems to capture the passing of time, with detailed technical descriptions of measuring devices that range from sundials to modern quartz watches.

At a deeper level, Attali uses the history of such measuring devices to develop ideas about the relation between scientific, technical, and political change. He divides the history of time into four stages—"the time of the gods," "the time of the body," "the time of machines," and "the time of codes"—suggesting that each represents a qualitative step in man's social evolution and that instruments for measuring time reflect the social order in which they appear.

His analysis has clear political implications. The measurement of time, suggests Attali, is a way of both capturing and—potentially—liberating human activity. A future based on the technology of electronic codes, he suggests, contains just such a combination of threats and promises; governments can, and should, intervene to help engineer the right balance.

Attali's book created a considerable impact when it was published, particularly because of the insights it provides into the philosophical basis of the French government's current attempts to stimu-

late its electronics and information industries. The way Attali sees it—and Mitterrand now describes it—electronic technology provides the "space" for a new, socialist description of liberty.

But the book has also provoked some hard textual analysis by the government's (and Attali's) critics. The first accusation of plagiarism was made in a new French literary magazine, *Tel*, at the beginning of December. The magazine pointed out that a dozen lines had been taken directly, but without attribution, from a book on the history of the hourglass by another historian, Ernst Jünger.

Acknowledging the error, the publishers, Fayard, rapidly produced a second edition. Quotation marks, which were claimed to have been lost during the many retypings of the book's original draft, were reinserted. Attali made several more corrections, identifying quotations from other authors as well.

At the same time, Attali replied to the critics by pointing out that all the books he had used in his research were listed in an extensive 274-item bibliography. Not every fact had been referenced, he said, because "an author is only obliged to make a specific citation when the reference is unique, and not when the fact is found in several technical books cited in the bibliography."

His critics, however, have kept up the attack. Even in the second edition, one French newspaper found a passage lifted almost verbatim-and again unattributed-from a book called For Another Middle Ages by historian Jacques Le Goff. Another long passage was reported in the press to have come directly from an essay by the German Renaissance historian Jacob Burckhardt. Attali is also said to have drawn—without identifying the source directly-on an unpublished seminar by Michel Foucault, and several quotations from authors such as Voltaire and Marx had been wrongly identified in the bibliography.

For a less exposed author, such errors would have been dismissed as the result of slipshod editing and excessive zeal on the part of the publisher to get an obvious money-spinner into print. Le Goff, for example, has publicly sympathized with Attali and blames his difficulties on bad editing; Foucault has pointed out that his seminars are open to the public.

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as France's new "philosopher king," however, has made him many enemies, some of whom have eagerly joined the literary attack. And the author of the original *Tel* article, is quoted as admitting a personal resentment against Attali.

Attali's advertisement in *Le Monde* appears to have been a last-ditch attempt to stem the rising tide of charges of

intellectual dishonesty—not far from a capital offense in France. In it, Attali admits that the original version of his book contains significant omissions in quoting and giving credit to his sources but denies any deliberate impropriety, claiming that it was the result of pressures of work. His publisher has said that some of the mistakes were made

because Attali was on an aircraft on the other side of the world when the final page proofs came through, and there was no way he could check them. The academic world is watching the political storm with wry bemusement, no doubt already preparing a safety net for Attali if he should decide to bail out from the corridors of power.—DAVID DICKSON

## Mexican Agriculture: Crisis Within Crisis

## Poor corn harvest shows need to improve rainfed farming by applying right technology, altering rural policies

Drought has added to Mexico's economic woes by causing a sharp drop in the country's corn production. The U.S. Department of Agriculture estimates that the recent harvest is 40 percent below the previous year's for the crop that provides the major staple in the Mexican diet.

As a result, Mexico's grain imports from the United States are expected to rise from 2.6 million tonnes last year to over 9 million this year, two thirds of it corn. At current prices the cost would be well over \$1 billion.

The shortfall in corn underlines problems in Mexican agriculture that pose serious long-term difficulties for Mexican economic development. In basic terms, the demand for food created by rapid population growth is outpacing increases in agricultural production. This requires higher expenditures of scarce foreign exchange for food at a time when inflation, the leveling off of oil revenues, and devaluation of the peso are hampering the country's ability to service its heavy foreign debt and finance development

Failure of the corn crop exposes the major weak spot in Mexican agriculture, which in many ways made remarkable advances in efficiency and productivity over the past four decades. Corn, known in Mexico as maiz, is grown throughout the country and, in the form of tortillas, is the basic constituent of the Mexican diet. An estimated half of the arable land in the country is devoted to the growing of corn and beans, but for the most part, corn is grown by the poorest farmers on the least productive land. Most corn is also raised under rainfed conditions and is therefore vulnerable to the extreme vagaries of the Mexican climate.

In effect, two clearly defined agriculture sectors have emerged in Mexico. One is comprised of commercial farms producing for an internal, urban market and for export; these farms are centered, primarily, in the irrigated lands in the Northwest, particularly in the states of Sinaloa and Sonora.

The other sector is dominated by subsistence farmers concentrating on growing basic foods, notably corn and beans. Peasant farmers operate in an almost infinite variety of conditions from semi-arid to tropical. Many, for example, farm in mountainous terrain where soil erosion and early frost are chronic hazards.

A common view is that these peasant farmers were largely bypassed by the government programs supporting the expansion of agriculture. Attention was centered on those areas where application of modern technology and farming techniques would produce high yields. By the standards of developing nations, Mexico has a well-established agricultural education, research, and extension system and farm credit and marketing apparatus. And the government supports agriculture through a system of price guarantees for basic crops. But these programs primarily benefit the private farmers and members of cooperative ejidos who engage in commercial farming for the urban market and export trade.

Government concern about the underdeveloped sector increased during the 1970's as the unfavorable trends in agriculture at large became clear. Under President Lopez Portillo, whose 6-year term ended last year, a comprehensive program to attain self-sufficiency in food (sistema alimentario mexicano, dubbed SAM) was launched with loud fanfare. SAM gave unprecedented attention to development of rainfed farming and set 1982 as a target year for self-sufficiency in corn and beans. Drought, of course, intervened. If the capital-intensive, market-oriented commercial agricultural sector is bumping against limits to growth, can the rainfed farming sector be made to close the food gap? The challenge is formidable.

Many rainfed farming areas are inaccessible and share handicaps common in developing nations. Transportation and marketing services are inadequate and storage facilities are lacking so that losses after harvest are often heavy. Credit is unavailable and many corn farmers cannot afford the supplies of hybrid seed which must be bought each year. They therefore use indigenous open-pollinated varieties that produce low yields.

Government researchers and plant breeders are criticized for failing to provide plant varieties adapted specifically to the great variety of growing conditions in Mexico. Corn, however, is not a particularly adaptable plant. Experts here say that efforts to breed drought tolerance into corn, for example, are unpromising because the plant is so highly sensitive to moisture and soil fertility. The International Center for the Improvement of Maize and Wheat (CIMMYT) near Mexico City, which developed the "Green Revolution" dwarf wheat strains widely used in Mexico and other developing nations, is working on corn varieties suitable for rainfed farming. The major effort for conditions like those prevailing in much of Mexico is to develop corn requiring a shorter growth period, perhaps 3 to 4 months rather than the 6 to 9 months now required.

Nevertheless, experiments aimed at improving the performance of small-scale farms offer encouragement. Bruce Johnston of Stanford University's Food Research Institute says that informed people hold "a reasonably optimistic