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That's where the United States has been slowly heading since the government began lifting price controls on the oil business. As long as OPEC sets the price of so much of the crude oil America uses—almost half, currently—we can't expect that decontrol will lower energy prices. But with the straitjacket beginning to come off, we can expect the market to work back toward what it does so well: allocating resources efficiently and thus making more supplies available—at the lowest possible cost.

With the burden of price control easing, business is encouraged to scramble for the best deal again. When the scramblers include the 10,000 firms, large and small, that risk their funds in exploration and production of petroleum in this country, their very competition assures that customers can often gain ground in their own battle for economic survival and prosperity.

Signs that decontrol has already begun to work for consumers are not hard to find. Natural gas production in the U.S. turned upward in 1979, reversing a decline that had persisted since 1973—and the president of the American Gas Association says the incentives provided by decontrol were important in achieving this turnaround. According to an energy official in Texas, the same thing happened there in 1979 when the gradual decontrol process began. He estimates that the Texas upswing in natural gas production has saved American consumers more than $1 billion in outlays for imported oil.

What happened to the price of butane is even more remarkable. Butane, besides its use in cigarette lighters, has a far more important application in improving the cold-weather starting capacity of motor fuel. Since butane is derived from crude oil and natural gas, its price was affected not only by oil industry costs but also by the controls program. The price of butane was decontrolled last winter, the very season when demand for butane is at its strongest. Many refiners and others thought there'd be a shortage, or a leap in the price. Instead, the industry started scrambling, and in a matter of months, the price of butane dropped by 25 cents a gallon.

We saw a similar result in the case of natural gasoline—a substance derived from natural gas that can be used to make motor fuel. Under controls, refiners had to wrestle with a complicated system for sharing and allocating the supply of natural gasoline. With decontrol, refiners started scrambling for the best deal. And the price soon fell by about 25 cents per gallon.

Satisfying the bureaucrats, as America did for so long with price controls on the oil business, can be an expensive indulgence. A recent study by two university economists concluded that price controls on oil have been costing the United States $3 billion each year by generating red tape, discouraging domestic production, and encouraging excessive demand.

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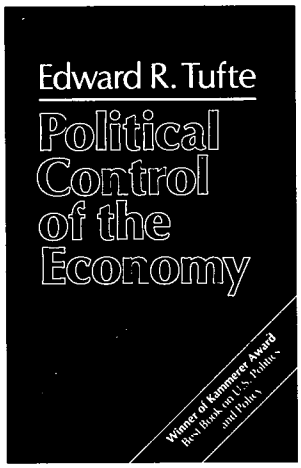

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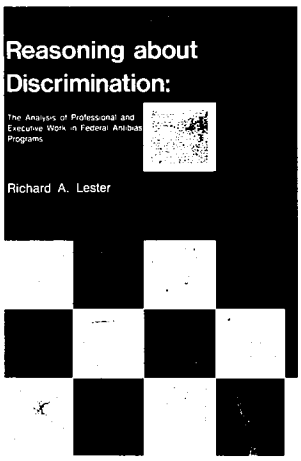

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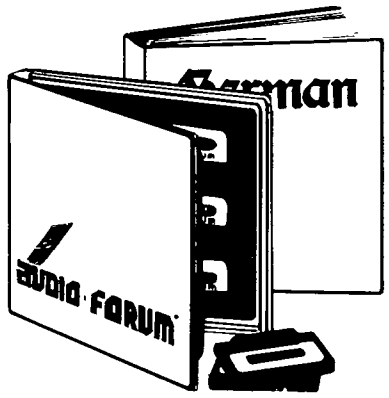

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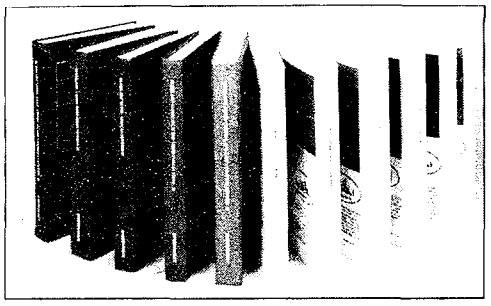

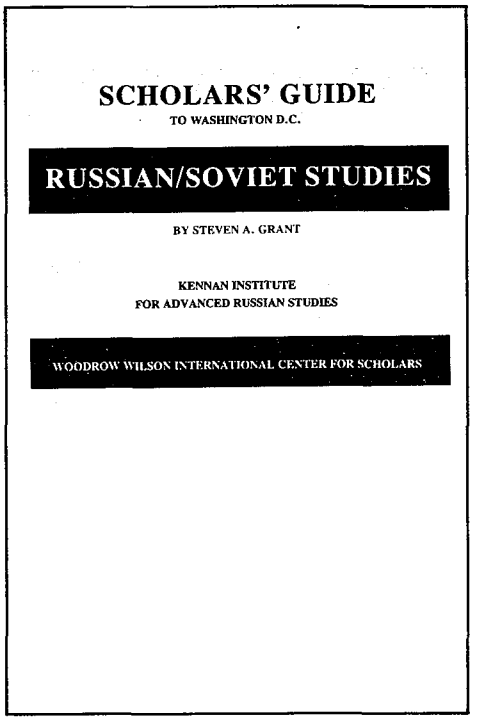

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THE
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AUTUMN
1980

ISSN-0363-3276 **VOLUME IV NUMBER 4**

Editor's Comment

When the Wilson Center launched this magazine four years ago, its editors had a well-defined mission: to provide a clear, authoritative overview of the latest output of scholars and specialists on significant matters. No less important, the intended audience was not the professoriat but an educated, alert nonacademic readership.

To find out, among other things, whether a profile of the *WQ*'s 100,000 readers matched the Wilson Center's hopes, we commissioned a survey of 1,500 subscribers last spring. The responses were enlightening. As we long suspected from individual reader comments, *WQ* subscribers constitute an impressive group of Americans. To wit:

They are well-schooled. More than 90 percent attended college. More than half (58 percent) acquired some postgraduate education, with the majority of these concentrated in business, economics, medicine, science, and law.

They get involved in community issues—44 percent have taken active roles on such matters as rezoning, pollution problems, or school difficulties during the past three years. In recent months, 51 percent have written to an elected or appointed official; one-third have written a "letter to an editor." More than half say they know their U.S. Senator, Representative, or local state legislator. Their median age is 43.6 years, with 27 percent in the 25-to-34 age group.

Their occupations cover a wide range, from writers, journalists, and artists to nurses and medical students. Roughly one-third are managers, administrators, or owners of businesses. Eight percent are doctors or dentists; 5 percent are lawyers; 14 percent are teachers or professors; almost 10 percent are scientists or engineers; 11 percent are in government or the armed services. They are great readers of books—and of the *WQ*. Indeed, almost 43 percent spend more than an hour and a half with each issue of the magazine.

In short, the *WQ* has reason to be proud of its readership. What these data also indicate is that *WQ* subscribers are the kind of people who deserve our best efforts.

Peter Braestrup

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Reviews of articles from periodicals and specialized journals here and abroad

POLITICS & GOVERNMENT

Helping the Aged

"The Graying of Civil Rights Law" by Peter H. Schuck, in *The Public Interest* (Summer 1980), Box 542, Old Chelsea, New York, N.Y. 10011.

Inspired by a decade of civil rights legislation and mindful of the votes of the elderly, Congress hastily passed the Age Discrimination Act (ADA) of 1975. But the act's ambiguities are bound to sow administrative confusion and create social conflict, writes Schuck, a Yale Law School professor.

The ADA explicitly bars discrimination against *any* age group (not just the elderly) in all federally assisted activities—just as its predecessors prohibit racial and sexual discrimination. Yet it goes on to exempt certain programs aimed at helping specific age groups (such as tax relief for the elderly). In addition, the ADA grants federal agencies great leeway in implementing and enforcing its provisions.

Schuck believes that, despite the rhetoric of the measure's supporters, "ageism" is not analagous to racism. Age is, statistically, a valid measure of intellectual, physical, and emotional maturity. It can reliably gauge readiness to assume civic responsibilities (e.g., voting), propensity toward illness, and future employability.

Much alleged government ageism results from "reasonable" discrimination. Comprehensive Employment Training Administration (CETA) job programs, for example, focus on youths because of their longer remaining work life. Community Health Centers concentrate on preventive care for children. If federal spending does not increase, predicts Schuck, a flurry of lawsuits will soon challenge these programs for age discrimination. Program effectiveness may decline as bureaucrats shuffle funds to meet broad entitlements, not high-priority needs.

POLITICS & GOVERNMENT

Schuck calls the ADA's passage an artful dodge by Congress. The legislators could have appropriated funds to upgrade inadequate programs for the elderly. Instead, they supported a broadly written law that they knew would redistribute government money covertly and therefore not antagonize other disadvantaged groups.

Herbert Hoover as Promoter

"The 'Great Engineer' as Administrator: Herbert Hoover and Modern Bureaucracy" by Peri E. Arnold, in *The Review of Politics* (July 1980), Box B, Notre Dame, Ind. 46556.

Most history books describe Herbert Hoover (1874–1964) as "The Great Engineer," a simple technocrat less interested in formulating policies than in perfecting the means to carry them out. But Arnold, a Notre Dame political scientist, contends that the seven-and-one-half years Hoover spent as Secretary of Commerce before he became the 31st President stamp him as a highly "political" bureaucrat.

Hoover, trained as an engineer, won fame as an administrator after World War I as head of U.S. relief efforts in Europe. When he became Secretary of Commerce in 1921, the Department was a sleepy Washington backwater. Created 18 years earlier to give business and labor groups Cabinet-level representation, the department was a hodgepodge of organizations—among them, the Lighthouse Board and the Census Bureau—pulled from other Cabinet agencies. The department's promotional responsibilities put it out of step with the trustbusting and regulatory policies of Presidents Theodore Roosevelt and Woodrow Wilson. Yet Hoover accepted President-elect Warren Harding's invita-

Cartoonist "Ding" Darling saw Herbert Hoover's 1928 presidential victory as a "Fine opportunity for a modern engineer if they'll let him work."

Courtesy of the J. N. Darling (Ding) Foundation, Inc.

tion to head Commerce because he felt the country's greatest challenge was to forge a cooperative relationship between business and government. Fearing that stringent federal regulation would ultimately threaten freedom throughout society, he hoped to offer a brand of "gentle guidance" acceptable to business.

To stabilize markets and assure efficient production, Hoover created commodity divisions that churned out statistics on current production, inventory, and equipment for 17 industries. He secured business cooperation by appointing industry representatives to run these divisions. By expanding his personal staff, Hoover gained control over the department's previously autonomous agencies.

Finally, Hoover put Commerce in the public spotlight by building a crackerjack public relations staff. He hired professional newsmen and courted the business press with frequent Washington conferences. And he regularly fed scoops to eminent journalists such as William Allen White and Mark Sullivan.

By the time Hoover became President, Commerce was an influential Cabinet agency. After the Great Depression began in 1929, historians quickly branded Hoover a stubborn advocate of laissez-faire economics. But his term at Commerce showed his firm belief in active—though benign—government regulation of business.

Public Power Over Public Schools

"The Government in the Classroom" by J. Myron Atkin, in *Daedalus* (Summer 1980), American Academy of Arts and Sciences, 165 Allandale St., Jamaica Plain Station, Boston, Mass. 02130.

Twenty-five years ago, federal and state governments generally left teaching to teachers. Now, Congress, various executive agencies, and state officials have gotten into the act—setting standards for math instruction, prescribing agendas for parent-teacher conferences, and defining requirements for high school graduation.

Atkin, dean of Stanford's School of Education, traces Big Government's educational role back to America's near-panic over the Sputnik satellite launched by the Soviets in 1957. Fearing a U.S.–Soviet "science gap," Congress passed the National Defense Education Act in 1958, which provided funds for upgrading science instruction. This made it easy for the federal government to expand its presence in the classroom during the early 1960s. The Elementary and Secondary Education Act of 1965, for example, established remedial programs for ghetto youngsters—with lesson plans developed by government and academic specialists. By the late 1960s, single-interest groups were pressing government to meet the special educational needs of racial minorities, the gifted, and others. [Thus, in 1975, Congress required all public schools to provide "a free and appropriate education" to all physically and emotionally handicapped children—many of whom

would previously have been committed to institutions or compelled to take private classes.]

Meanwhile, state officials have reacted to falling test scores by drawing up stiffer competency tests for students and teachers, and setting detailed curriculum requirements. Today, a proposed California law would force teachers to spend 200 minutes per week on the arts. Other states are variously mandating stronger programs in alcohol-abuse education, vocational training, and ethnic history.

Atkin argues that added state requirements could narrow the range of serious subjects that local schools can offer. The problem will be exacerbated if public schools—now heavily dependent on aid from Washington—have to spend scarce funds on more special programs for the handicapped, the poor, and other federally selected students.

Repeal the PAA?

"Pseudo-Opinions on Public Affairs" by George F. Bishop, Robert W. Oldendick, Alfred J. Tuchfarber, and Stephen E. Bennett, in *Public Opinion Quarterly* (Summer 1980), Subscription Dept., Elsevier North Holland, Inc., 52 Vanderbilt Ave., New York, N.Y. 10017.

Pollsters have long suspected that some respondents give opinions on subjects they know nothing about. An experiment by University of Cincinnati researchers Bishop, Oldendick, Tuchfarber, and Bennett indicates that these suspicions are well founded.

The authors polled more than 1,800 Cincinnati-area residents in the summer and fall of 1978. In addition to asking about genuine domestic and foreign policy issues, the researchers sought reactions to a bogus, undefined "1975 Public Affairs Act" (PAA) to see how readily individuals took stands on unfamiliar issues. Some respondents were asked point-blank if the "Act" should be repealed. Others were first asked "filter" questions (e.g., "Where do you stand on this issue or haven't you thought much about it?"). Nearly 16 percent of the "unfiltered" respondents claimed to support the nonexistent PAA; 17.6 percent expressed opposition. Even in the filtered groups, 4.5 to 7.4 percent had an opinion, with pro and con sentiments split roughly 50-50.

Respondents who took stands on the PAA were far more likely than persons who admitted their ignorance to express views on real issues, such as affirmative action programs for blacks or tax cuts. And both PAA advocates and opponents tended to hold liberal views on domestic issues—though no such connection existed on foreign policy questions. (The neutral title of the "act" may explain the even pro-con division.)

The authors conclude: Surveys that fail to factor out ignorant respondents overstate public support for *specific* domestic social programs. However, they clearly reflect the public's attitudes toward government's role, in general.

FOREIGN POLICY & DEFENSE

Nebraska's Foreign Policy

"The Foreign Policy of Nebraska" by Steven B. Sample and Eugene P. Trani, in *The Washington Quarterly* (Summer 1980), Dept. WQ, Transaction Periodicals Consortium, P.O. Box 1262, New Brunswick, N.J. 08903.

The quadrupling of U.S. exports during the 1970s (to $181.6 billion in 1979) and the current dependence of more than 4 million American jobs on foreign trade has given individual states a big stake in foreign affairs. Even lightly populated, once isolationist Nebraska has developed extensive foreign economic ties, as well as major overseas educational and cultural programs. So write Sample and Trani, officials of the University of Nebraska and the University of Missouri, respectively.

Covering 77,227 square miles, Nebraska (population: 1.5 million) is larger than 52 of the world's independent countries. The grain and feed the state produced in 1977 could feed 120 million people. In 1977, Nebraska's farm exports totaled $988 million—350 percent more than in 1972. These sales accounted for 63 percent of the growth of the state's total farm sales between 1972 and 1977. An estimated one-fourth (29,000) of Nebraska's farm workers owe their jobs to exports.

Nebraska's manufactured exports are modest (ranking 35th nationally in 1976) but grew by 130 percent after 1972, to $309 million. Two of the state's best customers are the Soviet Union and China; both regimes purchased irrigation systems from Valmont Industries, of suburban Omaha. The University of Nebraska has trained hundreds of teachers in Turkey and developed an agricultural research program for Colombia.

Such developments have not been lost on Nebraskans. Groups like the Omaha Committee on Foreign Relations are growing rapidly. So is overseas coverage by Nebraska's newspapers and broadcast stations. And where once the state was represented in Congress by William Jennings Bryan and other famed isolationists, Senators Edward Zorinsky and J. James Exon are currently active, outspoken members of the Foreign Relations and Armed Services Committees, respectively.

Carrots and Sticks

"Containment Without Confrontation" by Robert Legvold, in *Foreign Policy* (Fall 1980), P.O. Box 984, Farmingdale, N.Y. 11737.

By launching sustained arms control talks and expanding trade, President Nixon and Soviet President Leonid I. Brezhnev wrought major changes in superpower relations. But their failure to draw up rules for

FOREIGN POLICY & DEFENSE

U.S.–Soviet behavior in Third World trouble spots virtually ensured that détente would soon deteriorate, writes Legvold, a Sovietologist at the Council on Foreign Relations.

The Soviets, according to Legvold, hoped to regulate "central" bilateral issues (such as the nuclear arms race) and to obtain Western goods and credit while retaining a free hand to boost their influence in the developing world. The United States, however, hoped that the Soviets would reduce their adventurism in return for Western aid.

Not even after each side accused the other of helping spark the 1973 Arab-Israeli war did Washington or Moscow show great interest in a code of conduct for Third World crises. When Cuban troops carried a Soviet-backed faction to victory in Angola's 1975 civil war, détente's chief American advocate, Secretary of State Henry A. Kissinger, gave up hope that the two countries would end their "constant jockeying for marginal advantages" in remote regions. But hamstrung by a Democratic Congress unwilling to approve U.S. intervention in Third World conflicts and by divided public opinion, neither he nor Presidents Nixon and Ford found ways to parry Moscow's Third World thrusts. They bequeathed to President Carter "a Soviet policy in pieces."

Even before Soviet troops invaded Afghanistan last December, Soviet-Cuban intervention in the Horn of Africa and Vietnam's Soviet-backed occupation of Cambodia had angered Washington. The Soviets complained about U.S. delays in ratifying SALT II and Congress's tying of full trade relations to more liberal Soviet emigration policies.

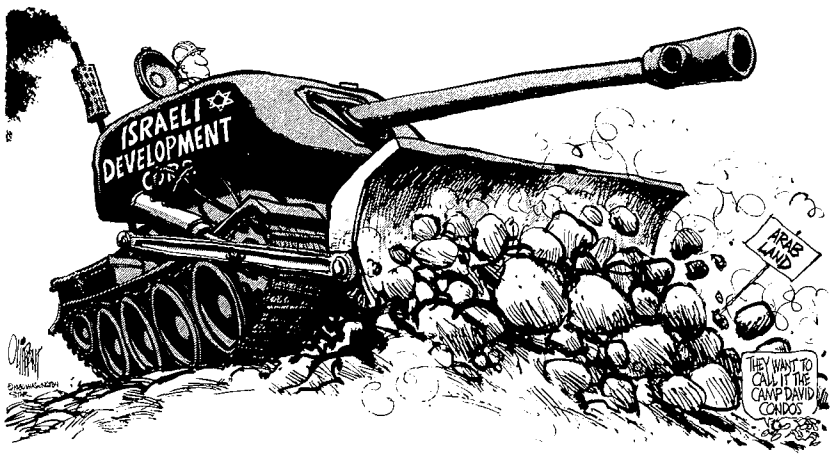
The United States, Legvold contends, must tell the Soviets exactly what kinds of interventions in the Third World are unacceptable. Military thrusts to save crumbling "revolutions" (as in Afghanistan) clearly qualify. Less easy to rule out would be Soviet support for black guerrillas in Zimbabwe or aid that protects national boundaries (such as helping Ethiopia ward off Somali conquest of the Ogaden region).

Legvold urges a dual strategy to revive détente and protect U.S. interests in the oil-rich Persian Gulf. He favors military steps such as reviving the draft, building up U.S. forces, openly aiding the Afghan rebels, and improving NATO strength. He also favors ending the grain embargo, forging closer economic ties, and pursuing arms control efforts. Most important, Washington and Moscow should put Third World clashes squarely on détente's agenda—where they belonged from the start.

The U.S. and Israel

"The United States and Israel: A Strategic Divide?" by Harvey Sicherman, in *Orbis* (Summer 1980), 3508 Market St., Ste. 350, Philadelphia, Pa. 19104.

American-Israeli relations have long been so close that even petty disputes become front-page news. But since 1973, the United States has viewed a quick Mideast peace as the key to solving its energy problems; Israel, on the other hand, has tried to slow the peace process, hoping that the United States will become self-sufficient in energy. So con-



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Patrick Oliphant's 1980 cartoon reflects growing U.S. criticism of Israeli policies such as permitting Jewish settlements on occupied Arab land.

tends Sicherman, associate director of the Foreign Policy Research Institute.

The brief Arab oil boycott of 1973–74 convinced the Nixon administration that Israeli security had to be reconciled with legitimate Arab grievances. The solution: "pay" Israel with aid for ceding Arab territory seized during the 1967 Mideast War. The ensuing Egyptian–Israeli disengagement pact sharply reduced the chances of war. But the United States envisioned eventual Israeli withdrawals from the Gaza Strip and the West Bank of the Jordan River; Israel simply hoped to play for time while the United States undertook to slash its oil imports.

Carter administration officials feared that the "step by step" diplomacy of former Secretary of State Henry Kissinger was too slow to avert a new Mideast conflict that would endanger the West's oil supplies. In late 1977, they sought peace talks at Geneva including the Palestinians, the Soviets, and moderate Arab states, in hopes of establishing a Palestinian homeland. But Israel refused to participate.

The United States dropped the "Geneva approach" and resumed close diplomatic cooperation with Israel. Putting more pressure on the Israelis was Egyptian President Anwar el-Sadat's main goal in making his dramatic visit to Jerusalem in November 1977. His strategy succeeded. By the time Sadat and Israel's Prime Minister Menachem Begin signed the Camp David accords (in September 1978), U.S.–Egyptian cooperation had flowered.

The Israelis still scoff at the U.S. notion of a Palestinian entity rendered "safe" by international guarantees. Concludes Sicherman: Israel must persuade the Americans that Mideast tensions can be safely

FOREIGN POLICY & DEFENSE

"managed" without further Israeli concessions. Or Washington must convince its ally that, given America's need for Arab oil, public support for an intransigent Israel will eventually fade.

Threat to the Joint Chiefs?

"The Executive and the Joint Chiefs" by Lawrence J. Korb, in *Society* (July-August 1980), Box A, Rutgers—The State University, New Brunswick, N.J. 08903.

The U.S. military's Joint Chiefs of Staff (JCS) have greater "potential power" than ever before, writes Korb, a professor of management at the Naval War College. But, he argues, the JCS faces increasing threats of White House political manipulation.

The five-man JCS was established by Congress in 1947 to serve as the top source of military advice to the President, the Defense Secretary, and the Congress. Four of its members are the uniformed chiefs of the Air Force, Army, Navy, and Marine Corps. Their chairman, also a general or admiral, has no specific service responsibilities; he sits on the White House National Security Council. All five are appointed by the President. All testify before Congress.

The Joint Chiefs have always felt strong White House pressures to "go along" on thorny issues ranging from Truman's low post–World War II defense budgets to Lyndon Johnson's "gradualism" policy in Vietnam. Rarely have they dissented in public.

But since Vietnam, writes Korb, the situation has changed. Owing to the loss of national consensus on U.S. foreign policy and the growing complexities of modern strategic planning, the Joint Chiefs' professional opinions have become much more sought after by Congress. In 1967, their terms of office were upped by Congress from two years to four, giving them greater immunity from White House retaliation should they publicly disagree with the President.

Thus, the civilian leadership must reckon with JCS attitudes. One example: President Carter badly needed the Chiefs' endorsement of the 1978 Panama Canal treaty; he reluctantly gave in to their demands that the treaty reserve to Washington the right to retake the Canal Zone by force. But the White House has sought ways to keep the JCS in line. In 1978, for example, Carter picked Air Force General David Jones as the new JCS chairman (instead of Army General Bernard Rogers) because of Jones's willingness to "change his mind publicly" on the B-1 bomber and other key defense issues. In the future, worries Korb, Presidents may appoint only "team players" to the JCS.

A highly "politicized" relationship between the nation's civilian leadership and the JCS may bar many talented officers from rising to the top or undermine the professionalism of those who do. Moreover, if Congress and the public come to perceive the Joint Chiefs simply as puppets of the White House, they may reject the JCS's views, even when the advice is sound, given freely, and urgently needed.

ECONOMICS, LABOR & BUSINESS

How to Succeed in Business

"Survival Strategies in a Hostile Environment" by William K. Hall, in *Harvard Business Review* (Sept.-Oct. 1980), Subscription Service Dept., P.O. Box 9730, Greenwich, Conn. 06835.

The U.S. tire industry is losing out to foreign competition, but Goodyear has rolled up respectable annual revenue gains of 10 percent since 1975. Though the American cigarette market has stagnated since 1950, Philip-Morris's 20 percent annual revenue growth since 1975 has eclipsed IBM's by nearly 8 percentage points.

These success stories show that the right management strategies can yield profits in even the most troubled industries, says Hall, professor of business administration at the University of Michigan.

Hall surveyed 64 companies in eight U.S. industries struggling with rising labor and materials costs, foreign producers, and sluggish growth prospects: steel, tires and rubber, heavy-duty trucks, construction equipment, autos, major appliances, beer, and cigarettes. In each industry, the leader (including Goodyear, Inland Steel, and General Motors) averaged a healthy 20.2 percent return on equity from 1975 to 1979. A group of corporate superstars (e.g., Texas Instruments and Phillips Petroleum) in boom industries averaged only 18 percent.

Each of the prospering firms in slumping industries chose one of two courses: lowering production costs while maintaining quality, or stressing exceptional products and services. Philip-Morris, for example, built the world's lowest cost (per unit), most fully automated cigarette manufacturing operation. Caterpillar, the construction equipment maker, combined efficient manufacturing with expensive but outstanding distribution networks and maintenance service to distinguish its line and become the 39th most profitable U.S. company.

Contrary to the prevailing view, diversifying products or markets is no panacea, especially if done hesitantly. Tappan turned out a greater variety of kitchen ranges at the expense of product improvements. Now it has lost the gas range market to Caloric, the electronic range market to Jenn-Air, and the microwave range market to Raytheon. General Tire, on the other hand, focused on making one kind of tire—low-cost models for commercial vehicles—while moving into select, high growth fields such as communications and aerospace.

These corporate success stories have violated some long-standing business maxims. Rather than turn their earnings into high profits and dividends and easy acquisitions, some firms reinvested heavily in equipment. Some proved that costs in saturated markets can be reduced even before one dominates those markets. And others showed that concentrating on making a few components well can be more profitable than seeking control over all phases of manufacturing and assembly.

ECONOMICS, LABOR & BUSINESS

A Failure of Feminism

"The Political Economy of Women's Work, 1900–1920" by John Sharpless and John Rury, in *Social Science History* (Autumn 1980), Sage Publications, Inc., 275 South Beverly Dr., Beverly Hills,Calif. 90212.

In the small, dirty garment lofts, cigar factories, and other sweatshops of early 20th-century America, women frequently worked 12-hour days for as little as 10 cents an hour. But few factory women—most of whom were first- and second-generation European immigrants—were promising candidates for union membership, relate Sharpless and Rury, historians at the University of Wisconsin.

Most immigrant women regarded employment as a "middle passage" between adolescence and adulthood, to be left behind after marriage. (In large American cities by the year 1900, more than 52 percent of female workers were under age 20.) Moreover, the highly seasonal nature of much women's work heightened competition for jobs.

Women from southern European families were the most resistant to organizing. Italian parents, for example, forbade their daughters to attend evening union meetings—for fear their "reputations" would be compromised by being seen on the street at night. Unions had better luck with Russian Jewish women, who were accustomed to leaving home to live on their own.

More than 60,000 women joined unions in New York after a spontaneous shirtwaist-makers' strike in 1909. But men rarely let women

The Research Libraries, the New York Public Library. From American Labor: A Pictorial Social History, *Public Affairs Press, 1972.*

Male-run labor unions and upper-class feminists ignored the needs of the women who toiled in turn-of-the-century New York City garment lofts.

speak out at union meetings. Even the International Ladies Garment Workers' Union (90 percent female), with 129,000 members in 1918, had only one woman on its board of directors between 1900 and 1920. Activist women workers dropped out in frustration. Meanwhile, middle- and upper-class feminist organizers alienated tradition-minded immigrants by preaching assertiveness. Their meetings resembled tea parties and made lower-class women feel out of place.

Eventually, the feminists gave up and turned their attention almost exclusively to suffrage. As historian Alice Kessler-Harris notes, immigrant women laborers were left "between a trade union movement hostile to women . . . and a women's movement whose participants did not work for wages."

Raising Gas Taxes

"Gasoline Taxation in Selected OECD Countries, 1970–79" by Alan A. Tait and David R. Morgan, in *IMF Staff Papers* (June 1980), Publications Section, IMF Bldg., Washington, D.C. 20431.

Fearing that high prices at the gas station would heat up inflation, stall economic growth, and victimize the poor, the industrial democracies of Western Europe, North America, and Japan have actually reduced their gasoline taxes since OPEC raised its prices dramatically in 1973–74. As a result, assert Tait and Morgan, economists at the International Monetary Fund, real prices at the pump have risen only slightly—and oil conservation has fallen short of potential.

The real price of crude oil, adjusted for inflation, quintupled from 1970 to 1979. But gasoline tax rates dropped from 44.2 percent (the tax per gallon divided by the before tax price) to 18.2 percent in the United States; from 263.5 percent to 125.7 percent in West Germany; and from 141.8 percent to 72 percent in Japan, between 1970 and 1979. (The real price of retail gasoline actually *fell* in Japan through 1978.) Gas tax revenues as a share of the total tax pie declined in all Western industrialized countries except Italy.

Throughout most of the West, the authors argue, the burden of an increased gasoline tax would fall mainly on the affluent, who own most of the automobiles. But even in the United States, where rich and poor alike own cars, low-income motorists would not be penalized excessively. They currently spend only 6.5 percent of their earnings on fuel.

Initiating steep gasoline taxes is not likely to send inflation out of control, since gas purchases represent less than 5 percent of private consumption in the West. Indeed, it would give governments greater opportunities to foster both conservation and growth. A recent study conducted in the United States suggests that a 10 percent increase in gasoline prices would reduce individuals' purchases of gasoline between 7 and 14 percent. Assuming that citizens continued to spend at the pumps as before, a higher percentage of their cash would be kept in

ECONOMICS, LABOR & BUSINESS

the country, funneled back to the government to shore up the trade balance or pay for programs such as highway maintenance.

Stiff gasoline taxes—especially levies designed to catch up to the sharp July 1979 OPEC oil price hikes—would surely inconvenience some drivers, particularly in North America. But, say the authors, the oil cartel's latest 1980 price hikes are reminders that heretofore low gasoline taxes helped make such increases bearable and possible.

SOCIETY

The Chinese in America

"Chinese in the United States: A Century of Occupational Transition" by Haitung King and Frances B. Locke, in *International Migration Review* (Spring 1980), Center for Migration Studies, 209 Flagg Pl., Staten Island, N.Y. 10304.

During America's frontier boom from 1850 to 1880, the sight of pigtailed Chinese men panning northern California's streams for gold became common. Yet, beginning in the 1870s, opportunities for immigrant Chinese in the New World narrowed, and their descendants are still underrepresented in some white-collar occupations.

The Oakland Museum

During recessions, anti-Chinese feeling in America grew. California magazines such as The Wasp *urged immigration bans during the 1880s.*

SOCIETY

Nearly 50,000 Chinese laborers landed in California during the Gold Rush of the 1850s. According to Locke and King, of the National Cancer Institute, many quickly found work laying railroad track or serving as cooks in mining camps. But in 1870, as California's white and Chinese populations grew, the U.S. economy nosedived. Competition from white jobseekers drove the more affluent Chinese into businesses with minimal overhead and labor costs (e.g., grocery stores). Others took less sought after jobs as houseboys, waiters, and laundrymen. Through 1920, the proportion of American Chinese employed in these "personal services" rose from 40.9 to 58 percent.

White racism and the boom-and-bust course of the U.S. economy in the late 19th century prompted Congress to bar Chinese immigration in 1882, 1892, and 1902 (a ban that continued until 1943). But beginning in the 1930s, reports of Japan's brutal invasion of China softened American prejudice. Moreover, growing numbers of U.S.-born Chinese had adopted American ways. As a result, career opportunities widened. Finally, highly-educated Chinese refugees streamed to the United States following the Communist takeover in 1949. By 1970, the proportion of Chinese working in personal services had plummeted to 7.1 percent (still higher than the 2.3 percent figure for whites). Chinese employed in manufacturing more than doubled, from 7.6 to 17.3 percent. And the proportion of professionals jumped from 2.2 to 21.2 percent, surpassing the figure of 17 percent for working whites. Today, higher percentages of Chinese men hold college degrees than do white or black males.

Chinese are still overrepresented in some fields. In 1970, 83 percent of Chinese men in personal services worked in food services—chiefly in restaurants—compared with 24 percent of white males. Relatively few Chinese are salaried managers and administrators. And most Chinese professionals work in technical areas such as science and engineering—which the authors suggest stems from the language obstacles facing many educated immigrants who might otherwise have become lawyers or teachers.

The Public and Abortion

"Shifts in Abortion Attitudes: 1972–1978" by Helen Rose Fuchs Ebaugh and C. Allen Haney, in *Journal of Marriage and the Family* (Aug. 1980), National Council on Family Relations, 1219 University Ave. S.E., Minneapolis, Minn. 55414.

After rising steadily during the 1960s, pro-abortion sentiment declined during the 1970s, report University of Houston sociologists Ebaugh and Haney.

Polls measuring approval of various justifications for abortion show that public support peaked shortly after the Supreme Court's 1973 *Roe* v. *Wade* and *Doe* v. *Bolton* decisions legalized the operation. That year, between 81 and 91 percent of respondents supported abortion for "hard" reasons—protecting a mother's health, ending a pregnancy caused by rape, and guarding against children with serious birth de-

SOCIETY

fects. Roughly 50 percent also favored abortion for "soft" justifications—low income, pregnancy out of wedlock, and a married couple's wish not to have more children.

After 1975, as the Pro-Life movement gathered strength and garnered publicity, support waned for "soft" reasons. For instance, in 1975, 51 percent of respondents had agreed that low income justified abortion, a 6 percent increase over 1972. But this figure dropped to 45 percent in 1978. Support for abortion on demand for married women rose from 38 to 44 percent from 1972 to 1975, but fell back to 39 percent by 1978.

From 1972 to 1978, Jews held the most "liberal" views on abortion, Catholics the most "conservative." Whereas 90 percent of Jews consistently approved abortion under any circumstances, between 13 and 20 percent of Catholics thought abortion was never justified. Protestant attitudes fell in between. Respondents under 30 years old consistently supported abortion on demand between 1972 and 1978.

College-educated persons held more liberal attitudes than individuals with only high-school educations. But, surprisingly, a person's sex was not a reliable predictor. Men proved *slightly* more liberal on abortion every year except 1974, when an average of 64 percent of both men and women approved "hard" and "soft" reasons for abortion.

Black Revisionism

"The New Black Intellectuals" by Murray Friedman, in *Commentary* (June 1980), American Jewish Committee, 165 East 56th St., New York, N.Y. 10022.

"Racist" and "white apologist" are labels pinned on scholars such as Daniel P. Moynihan and Nathan Glazer, who have questioned government plans designed to uplift poor blacks—even as these efforts have largely failed.

Such attacks have intimidated other white scholars from taking issue with conventional liberal strategies, claims Friedman, a LaSalle College sociologist. But, he reports, a handful of black social scientists are now taking the lead in disputing the view that massive federal programs will eliminate black poverty; these black scholars are also raising doubts about the benefits of forced busing and affirmative action programs. Though they differ on specifics, they share a common refusal to blame black poverty today solely on racism.

University of Chicago sociologist William Julius Wilson, for instance, has argued that the end of state-sanctioned segregation during the 1950s and '60s and the rise of service "industries," such as information processing and government, have diminished race as a barrier to black economic progress. Entry into these expanding industries, he contends, depends on schooling. The black underclass is impoverished less by discrimination than by lack of training.

Thomas Sowell, a widely published economist at UCLA, holds that varying "attitudes of self-reliance" affect the different success rates

among ethnic groups. The routes to economic progress—education, work skills, and business experience—are frustratingly long. Many blacks and liberal whites have tried to rush the process, favoring quick fixes such as job quotas and subsidies, which "undermine self-reliance and pride of achievement in the long run," he writes.

According to economist Walter Williams of Temple University, some government programs have actually aggravated black poverty. The ever-increasing minimum wage, for example, discourages many employers from apprenticing young, unskilled black workers. Harvard Law School professor Derrick A. Bell, Jr., who once argued school desegregation cases in court for the NAACP, now asserts that government's primary focus, at least in cities, should be on upgrading—not integrating—largely black schools.

These four scholars have been sharply criticized by the black establishment (notably the National Urban League). They respond that today's black leaders, largely from middle-class backgrounds, have misgauged the real needs of the lower-class black majority.

PRESS & TELEVISION

Watching the Primaries

"The Media at Mid-Year: A Bad Year for McLuhanites" by Michael Robinson, in *Public Opinion* (June–July 1980), Circulation Dept., c/o AEI, 1150 17th St. N.W., Washington, D.C. 20036.

If you relied solely on CBS-TV for news of the 1980 presidential primaries, chances are that you would have become an expert on the New Hampshire and Iowa contests, been apprised of each week's winners and losers, and grown to like President Carter, Ronald Reagan, and John B. Anderson. You would, however, have learned very little about the candidates' competence, consistency, or positions on issues such as defense and the economy, according to a study conducted by Robinson, a George Washington University political scientist.

Between January 1 and June 4 (the day after California, New Jersey, Ohio, and six other states held the final primaries of the season), the weekday CBS network news programs ran 345 stories directly related to the campaign and 385 stories strongly linked to the race or dealing with the candidates in their "official capacities" (most of these concerned President Carter). Primary coverage accounted for fully one-third of the network's entire weekday news reporting. Two-thirds of the stories dealt mainly with the campaign's "horse race" aspect—a focus that matched CBS's earlier coverage of the 1972 and 1976 campaigns.

PRESS & TELEVISION

CBS News treated 1980 frontrunners Carter and Reagan favorably—and gave each the lion's share of attention in their party's primaries. Thirty-five percent of the stories on the President *as a candidate* and 36 percent of the Reagan items were judged "good press" (versus neutral or "bad") by Robinson. Anderson came in third with 28 percent. Carter, however, received 13 more *personality* knocks than plaudits, and Reagan 3 more. Senator Edward M. Kennedy's personality plaudits balanced out the gibes, as was the case with GOP contenders John Connally, Philip Crane, and Robert Dole, and Democrat Jerry Brown. Republican Senator Howard Baker came out slightly behind. Only Anderson consistently came out ahead.

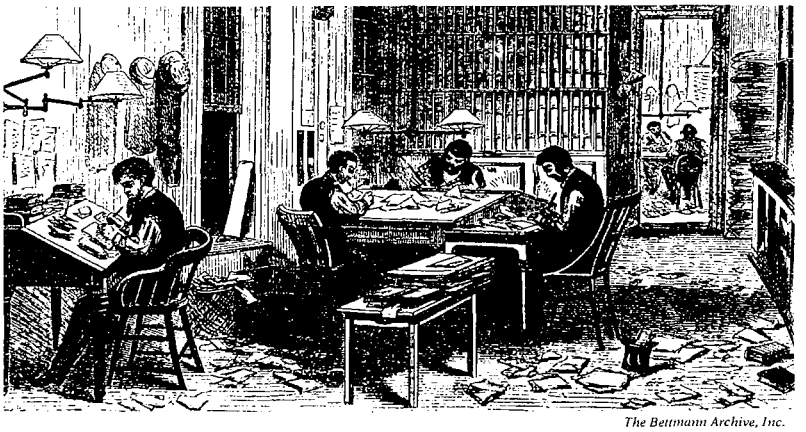
Robinson speculates that liberal, articulate reporters instinctively warmed to the liberal, articulate Illinois Congressman. And Anderson's remote chances of winning the GOP nomination saved him from the tougher scrutiny imposed on front-runners.

The Good Old Days

"The Reporter, 1880–1900" by Ted Curtis Smythe, in *Journalism History* (Spring 1980), Journalism Dept., Darby Annex 103, California State University at Northridge, Northridge, Calif. 91330.

The sensationalistic "Yellow Journalism" of the late 19th century arose not only from fierce competition among rival newspapers. It stemmed, too, from a payment system that rewarded reporters for the longest, most lurid stories they could concoct, writes Smythe, professor of communications at California State University, Fullerton.

Most reporters worked 10- to 14-hour days. In New York and other big cities during the late 1880s, the few beginners lucky enough to be on



The Bettmann Archive, Inc.

Late 19th-century editors demanded scoops and scandals from poorly paid reporters. Some of the most memorable stories were newsroom creations.

salary received $15 to $25 per week—about what the average plumber in New York State earned. Many more journalists were paid by the story—$6 to $8 per news column in New York, where rates were highest, $16 for exclusives, and 50 cents an hour when assigned stories fell through. Reporters were rarely reimbursed for their expenses.

Since cost-conscious editors cut stories to the bone, and since column inches meant money, a reporter always handed in reams of copy. Moreover, he quickly learned that "the plain 'fire' is worth a dollar and the 'conflagration' will make him a possible ten," as one editor observed in 1884. Though most tried to stay *near* the truth, some journalists created events and paid "witnesses" to "confirm" them. Others got their scoops by flouting the law, such as the St. Louis reporter who found a corpse in the street, hid it, and tantalized readers with a gripping "missing person" story before clearing up the mystery by "discovering" the body. Moonlighting and writing for rival publications were common practices. In fact, two salaried New York journalists simultaneously held down full-time $2,500 per year jobs as city court stenographers. And some journalists picked up cash by discreetly plugging certain politicians or products in their stories.

Typically covering 14 or 15 assignments per day—ranging from weddings to political conventions—many reporters split their news gathering duties with journalists from other papers. The "pool" then shared the information, agreed on the specifics of the story (whether correct or not), and, as H. L. Mencken recalled from his reporting days in Baltimore, "synthesized"' the final product. Few editors protested; these practices, after all, extended news coverage but not news budgets.

The Black Press and 'Bakke'

"The Black Press and the Bakke Case" by Paula M. Poindexter and Carolyn A. Stroman, in *Journalism Quarterly* (Summer 1980), 431 Murphy Hall, University of Minnesota, Minneapolis, Minn. 55455.

A major threat to minority progress was what black leaders called the *Bakke* "reverse discrimination" decision of 1978—in which the Supreme Court ruled, in part, that a rigid racial quota system had unconstitutionally denied a white man admission to medical school. How did the nation's black press cover the story?

The coverage was thin, "event oriented," and surprisingly low-key, say Poindexter, a researcher in journalism at the University of Georgia, and Stroman, an Afro-American studies specialist at the University of North Carolina. They surveyed four of America's oldest black papers—New York's *Amsterdam News*, Los Angeles's *Sentinel* (both weeklies), the *Atlanta Daily World*, and the *Chicago Daily Defender*. Of the 99 items dealing with Bakke before the presentation of oral arguments to the Court in October 1977, 48 percent were hard-news reports on the hearing, anti-Bakke demonstrations, and statements by black

PRESS & TELEVISION

organizations; 35 percent were opinion columns or editorials. The remainder were illustrations and feature pieces. Yet only 6 percent of all stories reviewed the history of affirmative action. A mere 4 percent described the workings and results of special admissions programs. And only 5 percent portrayed the background of plaintiff Allan Bakke. All the papers except the *World* editorialized strongly against Bakke's position, but news headlines were generally neutral. Fewer than one-third of the Bakke stories appeared on page one.

Immediately after the Court decision, the four papers ran 35 Bakke-related items. Only one headline—in the *Amsterdam News*—betrayed editorial bias: "Bakke: We Lose!!" Seventeen items appeared in the *Amsterdam News* alone. The *Defender*, the *Sentinel*, and the *World* ran just 9, 4, and 5 Bakke stories, respectively. In contrast to prehearing coverage, the papers ran only 5 hard-news stories but 18 background articles on the political and philosophical issues surrounding the case.

The black papers ran a significant amount of Bakke-related commentary, the authors note. But they suggest that the greater focus on facts and events indicates that the black press is moving away from its old "protest" role to a more "neutral, objective" stance.

RELIGION & PHILOSOPHY

John Paul II: One View

"The Political Theology of John Paul II" by Harvey Cox, in *Michigan Quarterly Review* (Spring 1980), 3032 Rackham Bldg., University of Michigan, Ann Arbor, Mich. 48109.

A relatively young man, John Paul II (age 60) may well guide the world's 563 million Catholics into the 21st century. His travels, his "spiritual charisma," and his inclination to speak out on poverty, consumerism, and the latest SALT treaty could make him an influential global figure. But first, warns Cox, a Baptist theologian at the Harvard Divinity School, the pontiff will have to drop his insistence on conservative rules and absolute doctrinal conformity within his own church.

John Paul's political interests stem from the belief that mankind was rendered potentially divine and deserving of dignity when "the Son of God became the Son of Man." In his only encyclical to date, *Redemptor Hominus*, he held that the Church's responsibility was not to convert the rest of humanity but to fight forces that degrade the individual. He numbers among these forces not only totalitarianism but Western consumerism—"the hunger for status symbols that divide both the world and the hearts of men."

Yet, Cox contends, the pope has not been equally sensitive to indignities inflicted within the Church. Relegating women to the status of

"permanent second-class citizens" (by excluding them from the priesthood), requiring celibacy of all priests [except for married Anglican clergymen who join the Catholic Church], and his ban on contraception run counter to the contention that each individual is unique, says Cox. And, he adds, the pope seemingly contradicted his own human rights stance by refusing to allow dissident Swiss theologian Hans Küng "to select his own counsel and have full access to his dossier" if and when Küng answers the Vatican's summons to defend his teachings.

The pontiff's penchant for stifling Church controversy can be traced to his days as bishop of Krakow during the late 1960s, when the Polish church was calling for the end of political and cultural repression. "The last thing Wojtyla [John Paul] wanted to be then," notes Cox, was "a general without troops." But with Catholics firmly in line, he was able to help build a coalition with idealistic Marxists that won concessions from the government in 1968.

The battle lines are less clear-cut on the global front. To achieve his goal of a more humane world, John Paul II will need allies among the world's diverse leaders and electorates. But until he eliminates the "archaic rules and oppressive practices" of his own Church, Cox argues, few beyond its doors will consider him serious about rooting out foes of human dignity.

Herzl's Dream

"Theodore Herzl: A Reevaluation" by Jacques Kornberg, in *The Journal of Modern History* (June 1980), Univ. of Chicago Press, 5801 Ellis Ave., Chicago, Ill. 60637.

Theodore Herzl (1860–1904), the father of modern Zionism, dedicated his life to securing a Jewish homeland. Yet the Budapest-born journalist and political activist wanted to "make Jews over into Gentiles, to normalize what he saw as a deformed people," says Kornberg, a University of Toronto historian.

Herzl's writings are filled with the anti-Semitic prejudices of late 19th-century Europe. Once, after attending synagogue in Paris (Herzl lived mostly in Vienna) in 1894, he confided in his diary that he was sickened at the sight of the worshippers, with their "bold, misshapen noses; furtive and cunning eyes." He published a handful of plays and novels—each marked by vicious, obsequious, ugly Jewish villains and virtuous, blonde, blue-eyed gentile maidens.

To Herzl, the Jews were a people shaped by oppression. They were skilled at surviving, but—perhaps as a consequence—were strangers to the "joy of sacrifice . . . for an idea." (Like many assimilationist German and Austro-Hungarian Jews, he was ignorant of Talmudic scholarship, kabbalistic mysticism, and other vital elements of Jewish culture.) Only by creating a state of their own, he argued, could Jews regain the dignity of their Biblical forebears. Herzl envisioned a homeland empty of Jewish culture; he even opposed reviving the Hebrew language.

RELIGION & PHILOSOPHY

Theodore Herzl, champion of a modern Jewish state, thought Jews had been "deformed" by persecution.

Courtesy of Musterschmidt Publishers, West Germany.

A compelling speaker and writer, Herzl electrified the Jewish masses and helped transform Zionism from a longing into a political movement. Further, his organizing skills resulted in a parliament, a chief executive, and a state bank, all "in exile." But his post-1898 willingness to consider alternative sites for a Jewish colony (such as Uganda) enraged "cultural Zionists" who insisted that history made Palestine the only acceptable choice. The dispute split Zionism.

Herzl's vision of Israel was too uninspiring—even insulting—to Jews to sustain Zionism during 15 years of discouragement preceding the 1917 Balfour Declaration, in which Britain recognized Palestine as a Jewish homeland. By the time of his death, writes Kornberg, Herzl had become a liability to the movement he helped create.

The McGlynn Affair

"The McGlynn Affair and the Shaping of the New Conservatism in American Catholicism, 1886–1894" by Robert Emmet Curran, S.J., in *The Catholic Historical Review* (Apr. 1980), American Catholic Historical Association, Catholic University of America, Washington, D.C. 20064.

Until the late 19th century, American Catholic church leaders wielded tight control over the U.S. priesthood and appointed their own bishops without Vatican intervention. Then a brouhaha involving a rabble-rousing New York parish priest destroyed much of their independence, writes Curran, a Georgetown University historian.

An ardent socialist and champion of New York's Irish poor, Father Edward McGlynn headed St. Stephen's Church in Manhattan, one of the largest and wealthiest parishes in the city. In 1886, he angered New York archbishop Michael Corrigan by endorsing the unsuccessful mayoral campaign of reform economist Henry George.

George railed against the evils of private property. The archbishop opposed priestly involvement in political and social issues, but he had also inherited considerable wealth from his father and identified himself with the propertied class. Moreover, he fretted over the threat that George's campaign posed to the city's Tammany Hall Democratic machine, which ran on Irish votes and which supported state aid for Catholic charities. When McGlynn defied Corrigan's orders and addressed a pro-George rally, the bishop suspended him from his priestly duties for two weeks. After George's defeat in November, Corrigan again suspended McGlynn for his continued support of George's views. He also publicly accused the rebellious priest of insulting Pope Leo XIII by preaching that the Church derives its power from the laity. The pontiff stepped in and excommunicated McGlynn in July 1887.

By 1891, George's reform movement had lost steam, and McGlynn was out of the news. Pope Leo restored McGlynn to the priesthood in 1892—without consulting Corrigan. Dumfounded, the archbishop at first refused to receive McGlynn back into the diocese but subsequently decided to curry favor with the pope. He became a fervent defender of papal infallibility, then being questioned by many liberal European and American Catholics. In December 1894, Corrigan felt confident enough to exile the priest to a church in remote upstate New York.

Most American cardinals and bishops cheered Corrigan's victory over McGlynn. But Leo became disturbed at the turmoil in the New World and in 1893 sent to the United States a Vatican official with veto power over the appointment of bishops. By seeking Rome's aid in disciplining McGlynn, Corrigan and his supporters forfeited much of the American church's autonomy and never got it back.

SCIENCE & TECHNOLOGY

The Death of the Dinosaurs

"Extraterrestrial Cause for the Cretaceous-Tertiary Extinction" by Luis W. Alvarez et al., in *Science* (June 6, 1980), 1515 Massachusetts Ave., N.W., Washington, D.C. 20005.

What killed off the dinosaurs? Scientists at the University of California, Berkeley, hypothesize that a giant meteor struck the Earth at the end of the Cretaceous period, 65 million years ago, sending enough dust into the atmosphere to blot out the sun, suppress plant photosynthesis, and destroy prehistoric food chains.

As evidence, the authors cite dramatic increases in levels of iridium (a platinum-like metal) found in layers of the Earth's crust dated near the end of the Cretaceous period. Platinum family elements are rare in

the Earth's crust and upper mantle but common in meteors, indicating an extraterrestrial source, the authors argue. Finds at sites as distant as Italy and New Zealand confirm that the phenomenon was worldwide. Moreover, the concentration of iridium in a narrow stratum suggests that the substance was deposited suddenly, not gradually by the countless meteors and meteorites that regularly bombard the earth.

The authors estimate that the meteor was roughly 6.2 miles in diameter and created roughly 1,000 times more atmospheric dust than the Indonesian volcano Krakatoa, which spewed about 11 cubic miles of material into the air in 1883. Krakatoa caused brilliant sunsets worldwide for two years; the meteor may have turned day into night for several years.

The fossil record supports theories of a killing global dust cover. Microscopic plants on which the ocean food chain is based were virtually wiped out at the end of the Cretaceous period, dooming higher life forms such as marine reptiles. Land plants stopped growing but later regenerated from seeds and spores. The large animals that lived on them, however, starved. Smaller animals, including early mammals, survived by eating insects and decaying vegetation.

If a meteor caused the Cretaceous extinction, where did it strike? Only three craters large enough (60 miles or more in diameter) to have been created by such an object are known—in Siberia, Ontario, and South Africa. But the first is too young and the others too old to qualify. There is a two-thirds probability that the meteor fell into the sea. The meteor's estimated diameter was twice the typical ocean depth; its impact could well have scattered pulverized rock into the atmosphere.

The Age of Anemia

"Female Longevity and Diet in the Middle Ages" by Vern Bullough and Cameron Campbell, in *Speculum* (Spring 1980), Medieval Academy, 1430 Massachusetts Ave., Cambridge, Mass. 02138.

Up until the 12th century, European men lived longer than women. Indeed, local censuses taken in 8th- and 9th-century France and Italy show that men outnumbered women by as much as 12 percent, even though at least 6 percent more female babies were born.

Many at the time accepted Aristotle's explanation—that the male is a "warmer creature than the female." The authors, historians at California State University, Northridge, blame the iron-poor diet of the early Middle Ages.

Early medieval peasants ate mainly rye, wheat, or barley bread, and a kind of "pot luck" broth. Their light protein and iron intakes were only occasionally supplemented by cheese, wine, meat, greens, and beans. Because of menstruation, women and girls past puberty require between 1 and 2 milligrams of iron per day in their diet—twice as much as men. During pregnancy, iron needs rise to between 3 and 7.5 milligrams per day—much more than the 0.25 to 0.75 milligrams per day

Blood loss from childbirth brought severe anemia and, often, death to women in medieval times.

Staatliche Kunstsammlungen, Dresden.

that the early medieval diet provided.

Bullough and Campbell contend that most early medieval women were anemic by age 23. Though anemia rarely causes death, it cuts the blood's oxygen carrying capacity, increasing the chances of fatality from pneumonia, bronchitis, and heart problems. It also heightens the impact of even moderate blood loss during childbirth, which the authors rate as the leading cause of anemia-related death among early medieval women.

Iron intake for men and women increased by the 10th century throughout Europe. Development of the three-field crop rotation system, an advance over the earlier two-field method, enabled peasants to plant protein-rich legumes in the spring. Food animals such as the rabbit spread north from Spain, while fish and pork became staples; more meat meant more iron.

Women benefitted most from these changes. Fifteenth-century surveys show women outnumbering men by 9 to 20 percent. Aristotle's theory needed a new twist. Thinkers such as Albertus Magnus (c. 1200–80) concluded that women overcame men's natural advantage in longevity thanks to the "purifying effects" of menstruation, women's lighter work load, and the smaller amounts of physical energy they expended during sexual intercourse.

Superbubble in the Sky

"Stalking the Cygnus Superbubble" by Webster Cash and Philip Charles, in *Sky and Telescope* (June 1980), Sky Publishing Co., 49 Bay State Rd., Cambridge, Mass. 02238.

Ten years ago, the gases between the stars were thought to be relatively cool—with dense clouds at −300°F floating in a bath of more dilute gases warmed to 18,000°F by cosmic rays. But astronomers have

SCIENCE & TECHNOLOGY

learned that space contains huge gas fields heated above 1.8 million°F by shock waves from supernovae, exploded stars that emit vast amounts of energy.

Last year, using telescopes aboard an orbiting satellite, scientists discovered one such field—the largest known object in the galaxy—measuring 1,000 light years across in the constellation Cygnus. This "superbubble," located near the center of the Milky Way (Earth is on the outer edge), and others like it, may be prime engines of star formation, report Cash and Charles, astronomers at the University of Colorado and the University of California, Berkeley.

What process could have created such an object? The gas clouds from supernovae typically measure only 100 light years across. And there are not enough young, massive stars in Cygnus to create such energy, either through collisions with stellar winds or through the emission of ultraviolet radiation.

The authors theorize that, over eons, a series of supernovae near the heart of the galaxy, where stars are thickly clustered, produced the bubble. The shock waves from early explosions struck the Great Rift of Cygnus, a dark cloud of dust 600 by 1,200 light years, containing enough matter (mainly hydrogen) to make millions of stars. The shock waves pushed the material on the cloud's edge into enormous lumps that eventually became stars. Some of the new stars were unstable giants that ultimately went supernova themselves. The expanding remnants of these supernovae together formed the super bubble, which continues both to grow and to "manufacture" new stars.

Previous theories depicted star formation as a much less violent process, resulting from the slow gravitational attraction of cosmic dust. Noting that huge gas fields have recently been discovered relatively near Earth, Charles and Cash believe that superbubbles are sprinkled throughout the galaxy and may contain half the energy in interstellar space. In fact, they say, the sun and Earth were probably created at the edge of a superbubble 4.5 billion years ago.

RESOURCES & ENVIRONMENT

A Nuclear Recession?

"Nuclear Power and Nuclear Bombs" by Amory B. Lovins, L. Hunter Lovins, and Leonard Ross, in *Foreign Affairs* (Summer 1980), 428 East Preston St., Baltimore, Md. 21202.

Nuclear power proponents view the atom as the world's best bet for a cheap, abundant oil substitute. But atomic energy is miscast in this role, and the growing cost of reactors has brought many nuclear pro-

grams around the world to a standstill. So write Lovins, British representative of Friends of the Earth; his wife, a lawyer; and Ross, a former California energy official.

Electricity is the only practical form of energy that nuclear power will yield in the foreseeable future, the authors argue. But only 10 percent of the world's oil is so used. The rest goes to make petrochemicals, fuel vehicles, and heat homes and factories. Replacing the West's oil-fired electric plants with nuclear reactors in 1975 would have cut oil use only 12 percent, claim the authors. And the annual growth of electricity demand is slowing (down to 2.9 percent in the United States since 1974); overcapacity will probably hit 43 percent this year. In 1979, the United States reduced by 16 percent the amount of oil burned to make electricity, even as nuclear output fell 8 percent.

The authors contend that nuclear power is also pricing itself out of the energy market. From 1971 to 1978, capital costs per kilowatt rose more than twice as fast for nuclear as for coal plants. Nuclear-generated electricity is already 50 percent more expensive than coal-generated electricity. Managing waste, decommissioning plants, and cleaning up radioactive spills from uranium mining have added billions to nuclear energy's price tag.

As a result, the world is already "denuclearizing." Utility companies in the United States, West Germany, Italy, and Sweden have informally stopped ordering new reactors. And interest has slackened noticeably in once pronuclear Britain, Japan, and Canada, the authors report. Since 1973, worldwide projections of nuclear power output for the year 2000 have fallen five-fold. Third World countries such as Iran and Brazil have sharply cut back ambitious nuclear programs. Even the USSR, which has given plant construction high priority, achieved only one-third of its nuclear power generation goals for the 1970s.

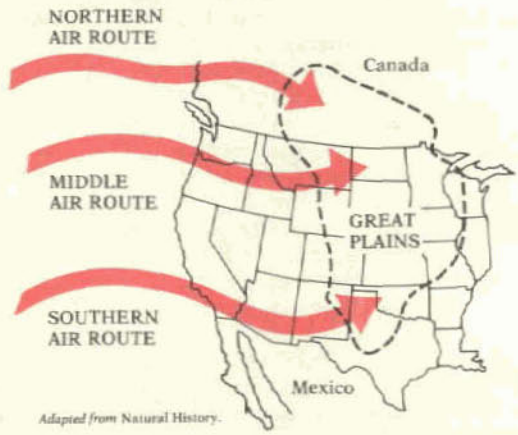
Drought on the Prairie

"Ancient Climes on the Great Plains" by Reid A. Bryson, in *Natural History* (June 1980), American Museum of Natural History, Central Park West at 79th St., New York, N.Y. 10024.

The pioneers who reached the Great Plains in the 19th century marvelled at the sea of "stirrup-high" grass that fed millions of buffalo. But what they saw was only a "snapshot" from North America's volatile climatic history, writes Bryson, a University of Wisconsin climatologist.

Eight hundred years ago, the prairies were dotted with woodlands. The Plains Indians lived in permanent villages, grew corn, and chased deer as well as bison. Then, a 200-year-long drought set in during the 13th century. Wind-blown dust covered the northern plains, and the farmers abandoned their settlements. They were gradually replaced by nomadic hunters of Athabascan stock who moved down from Canada. Drought struck again on a smaller scale during the 1850s, reducing

RESOURCES & ENVIRONMENT



Changing winds have brought periodic droughts to the Great Plains.

Adapted from Natural History.

rainfall 20 to 30 percent through the end of the century. According to Bryson, the weather would have wiped out three-fourths of the bison had white settlers and sportsmen not slaughtered them first.

Changes in air-stream patterns probably caused both dry spells. Westerly winds from the Pacific Ocean lose their moisture as they travel through three passages of the Cordilleras (the range that includes all the mountains from the Rockies to the Pacific) on their way to the Great Plains. During the summer, they mix with moist tropical air from the south to produce showers and raise humidity. During the winter, dry arctic air prevents this tropical air from reaching the Plains. In the 13th century, writes Bryson, the arctic air mass expanded and dramatically reduced summer rainfall throughout the Great Plains and the Southwest.

These shifts occur periodically, producing droughts of varying duration. During the last 3,600 years, the northern edge of Canada's forests has crept north and south four times within a 200-mile zone as arctic air masses expanded and contracted. Bryson reports that recent rainfall patterns on the Plains closely resemble those of the bone-dry 13th century. His troubling analysis: The American grain belt is either coming out of a very short dry spell or entering a very long one.

Energy: The Population Factor

"The Demographics of Energy" by Reid T. Reynolds, in *American Demographics* (June 1980), Circulation Dept., American Demographics, Inc., P.O. Box 68, Ithaca, N.Y. 14850.

The post–World War II Baby Boom, the shrinking family, the growth of the Sunbelt—all are likely to affect America's demand for energy through the end of the century, reports Reynolds, former senior editor

of *American Demographics.*

From 1960 to 1970, per capita energy consumption in America jumped 2.9 percent annually. But during the 1970s, total energy demand grew only 10 percent—a mere 1 percent per capita annual gain. If this trend continues, the projected 1995 U.S. population of 253 million will need only 37 percent more energy than it does today, not the 88 percent more that scholars once predicted based on 1960s growth rates.

Yet aggregate figures are only part of the story. Different age groups consume energy at different rates. Children up to the age of 19 and senior citizens over 65 use little energy. The elderly, for example, tend to live in small homes, seldom travel, and frequently reside in mild climates. The young and old will account for roughly 31 and 12 percent of the population, respectively, from now until 1995. America's biggest energy users are working age adults, aged 20 to 64. Their numbers, swollen by the Baby Boom, will continue to account for 57 percent of the population.

Moreover, recent changes in conventional family structure will probably boost per capita energy consumption. More working wives create higher household incomes; and in 1975, households with $30,000 to $35,000 incomes spent 52 percent more on energy for heating and transportation than those living on $10,000 to $15,000. The growing ranks of singles tend to inhabit condominiums and apartments—which use 38 percent less energy than one family homes. But singles also create *more* households to heat, cool, and furnish with appliances.

The effect of migration to the Sunbelt states on energy consumption is unclear. Most homes in the South and West, which burn natural gas, have lower heating and cooling bills than older homes in the North and East heated by imported oil. The average Boston home, for example, cost $1,052 in 1979 to heat versus only $420 for its counterpart in Houston. But the average Houston resident fills up with 671 gallons of gas annually for private transportation compared with 426 gallons purchased by the average Bostonian.

Reynolds suggests that a larger, more geographically dispersed population and a continuing push for higher living standards will reverse the energy use trends of the 1970s and boost American demand by the end of this century.

Europe's Nuclear Fast Track

"How Prometheus Came to be Bound: Nuclear Regulation in America" by Michael W. Golay, in *Technology Review* (June–July 1980), Room 10-140, Massachusetts Institute of Technology, Cambridge, Mass. 02139.

Western European nations regulate nuclear-plant construction in a manner that Americans would do well to heed. So asserts Golay, a nuclear-engineering professor at MIT.

The U.S. Congress has repeatedly declined to set health and safety standards for nuclear plants. This politically touchy task has fallen to

RESOURCES & ENVIRONMENT

the technically oriented Nuclear Regulatory Commission. The result: Foes of nuclear power, finding Capitol Hill unresponsive to their concerns, now take their cause to N.R.C. licensing hearings and to the federal courts. They frequently thwart or delay construction by showering the N.R.C. with objections to design details, or to a utility's environmental impact estimates—and then persuading judges that the commission gave them short shrift. Between 1966 and 1970, the typical reactor-construction schedule increased in the United States from just under five years to just over seven years.

By contrast, the political parties of France, West Germany, Sweden, and Britain stake out firm positions on atomic issues. Once in power, they claim a popular mandate on nuclear policy. Feeling no qualms about setting standards, they close most licensing hearings to the public, which permits regulators and utility representatives to focus on what they are best qualified for—technical design. In France, for example, where President Giscard d'Estaing's government strongly backs nuclear power, reports on nuclear safety systems and the names of licensing officials are not available to the public. In Britain, licensing negotiations between utilities and the Nuclear Installations Inspectorate are shielded by the Official Secrets Act. Throughout Western Europe, nuclear opponents' chief recourse is voting a party out of power—which happened in Sweden in 1976.

According to Golay, the absence of pressure groups at European hearings produces a regulatory climate of "cooperation, trust, and reasonable compromise" between government and nuclear industry technicians. If the United States wants nuclear investment to continue, he argues, Congress must define acceptable levels of nuclear pollution, and then permit N.R.C. and industry officials to work out the technical details without political interference.

Reviving a Rubber Source

"Guayule—Rubber Crop of the Future?" by Edward W. Lawless and Ralph R. Wilkinson, in *MRI Quarterly* (Spring 1980), Midwest Research Institute, 425 Volker Blvd., Kansas City, Mo. 64110.

A two-foot-high desert shrub native to the American Southwest could cushion the impact in the United States of a widely predicted world rubber shortage, according to Lawless and Wilkinson, scientists at the Midwest Research Institute.

Demand for natural rubber [current world production: 9 million tons] is rapidly outstripping supply. And future manufacture of synthetic rubber [current world production: 3.8 million tons] will be crimped by the steadily rising price of petroleum-based ingredients, say the authors. Aside from the hevea tree, which now produces most of the world's natural rubber on plantations in Southeast Asia, North American guayule is the only plant that has ever been grown commercially for rubber.

In 1910, guayule from Mexico and northern California provided 10

percent of the world's then tiny rubber output. During World War II, when Japanese forces cut off the West from Southeast Asian rubber, U.S. scientists planted 32,000 acres of the shrub in Texas, Arizona, and California. By 1945, 15 tons of guayule rubber could be processed daily. But after the war, breakthroughs in synthetic rubber production ended the need. The plants were burned off to make way for orange groves.

Guayule latex comes from the shrub's branches and roots. The plants contain up to 20 percent rubber. Guayule needs no irrigation or pesticides. Unlike hevea, the shrub can be mechanically cultivated and harvested.

The National Science Foundation and the U.S. Agriculture and Commerce Departments have launched modest efforts to promote guayule — chiefly by funding both seed collections and breeding research at the University of Arizona and the Los Angeles County Arboretum. And the Bureau of Indian Affairs is pushing it as a cash crop for American Indians. So far, the main problem seems to be yield. Though some guayule fields produced 1,400 pounds of rubber per acre per growth cycle (3–5 years) during World War II, hevea consistently yields more than 2,000 pounds per acre annually.

ARTS & LETTERS

The Trial Behind 'The Trial'

"Kafka and the Beiliss Affair" by Arnold J. Band, in *Comparative Literature* (Spring 1980), 223 Friendly Hall, University of Oregon, Eugene, Ore. 97403.

A court inquest in Prague was probably the inspiration for Franz Kafka's classic novel *The Trial* (written in 1914), suggests Band, a professor of comparative literature at UCLA.

The year 1912 marked a turning point for Kafka (1883–1924), then working as a young clerk in a Prague insurance company. In the fall, he wrote the short stories "The Judgement" and "Metamorphosis" and the first chapters of the novel *Amerika*. [Kafka refused to publish his writings during his lifetime.] Moreover, during that year, the attention of Kafka's fellow Eastern European Jews was riveted on the trial of Mendel Beiliss, an obscure Kiev Jew accused of killing a Christian child before Passover and of saving his blood to prepare unleavened bread. Such accusations—and they were not uncommon—led to recurrent anti-Semitic rioting throughout Eastern Europe. Tsar Nicholas II used the Beiliss affair to whip up anti-Jewish feeling in Russia and shore up his regime.

Kafka never mentioned the Beiliss episode in his known literary works or in his diaries. But Max Brod, a friend and biographer who

preserved Kafka's writings for posterity against the author's wishes, recalled that Kafka's last love, Dora Dymant, burned at the writer's request several manuscripts, including a story on Beiliss. Though Kafka often belittled his Jewish heritage, he lived in the Jewish ghetto, attended synagogue occasionally, and regularly read *Selbtswehr,* a weekly for Bohemian Jews that reported on Beiliss's ordeal and its violent fallout obsessively.

Selbtswehr's coverage of the hearing harped on several themes Kafka would later incorporate into *The Trial, The Castle,* and other works—the perversion of truth by a truth-seeking process; and the threat to society posed by an official vendetta against an individual. Missing, however, is the gradual acceptance of guilt by Kafka's protagonists.

Kafka both resented and accepted authority. Biographers have traced his "self-corrosive guilt" to a threatening, domineering father. In Beiliss's undeserved plight, Band suggests, Kafka glimpsed a vehicle for expressing his own feelings.

Not Nostalgia But Populism

"Andrew Wyeth: Popular Painting and Populism" by Andrew Brighton, in *Art Monthly* (June 1980), 37 Museum St., London, WC1A 1LP, United Kingdom.

Most viewers look at Andrew Wyeth's widely reproduced painting, *Christina's World* (1948), and see a touching picture of a young woman in contemplation, overcome by longing in a benign rustic setting. But liberal critics dismiss it as just one more example of Wyeth's exaggerated, even reactionary, nostalgia.

Brighton, a lecturer at the Oxford Polytechnic in England, reminds Wyeth's detractors that the real Christina Olsen (Wyeth's neighbor in Maine) was crippled. Wyeth, he argues, has caught her pulling herself up a hill, useless legs dragging behind her. This "harsh vision" reflects one of Wyeth's prime themes—existence after the departure of God—and shows him to be a major 20th-century painter.

Wyeth's best work evinces a Protestant New England brand of populism, argues Brighton: Art is valid only if based on "real" values, not "vacuous pleasures" or aristocratic pretension, a view instilled in Wyeth by his father, a noted illustrator. "Artists are not living hard enough," N. C. Wyeth wrote in 1921. Inspiration, he believed, must come from toil—"lifting . . . sweating . . . squinting into the sun and enjoying it."

After his father died in 1945, Wyeth's work dealt increasingly with death and loss. He retained the painter-illustrator Norman Rockwell technique taught him by his father. Yet he refined it by adding the "infinity of detail" found in photography. Wyeth uses this detail to make the familiar unfamiliar. His painstaking rendering of countless blades of grass in *Winter 1946*, or of wood grains in *Weatherside* (1965), recall a child's reaction when the "enclosed, warm, familiar world [is] suddenly seen as a mere speck in an indifferent and cold universe," writes Brighton.

The Puritans believed that work gave each man his identity. Wyeth laments, above all, the passing of this belief. His paintings frequently show lone, self-absorbed country folk, apparently oblivious to the signs of their labor that surround them. To many critics, these canvases represent a blind yearning for America's rural past. But Brighton argues that they are a protest against dehumanizing industrialism that even Wyeth's critics on the Left should appreciate.

Robert Frost As Critic

"Robert Frost: On the Dialectics of Poetry" by Sheldon Liebman, in *American Literature* (May 1980), Duke University Press Bldg., East Campus, Duke University, Durham, N.C. 27706.

Robert Frost (1874–1963) adamantly refused to publicize his theories about poetry. He nevertheless established himself as a major critic of verse in letters to friends and in interviews, writes Liebman, professor of English at the University of Illinois, Chicago Circle.

Frost believed that the creative process begins with a descent into "chaos." In one sense, he saw chaos as reverie. "All of a sudden something becomes prominent [and] I can pick the poem off it," he said in 1960. But Frost's chaos was also an objective fact, the reality lying beneath the manmade order of everyday life. To appreciate it, the poet abandoned conventional, rational ways of perceiving and cultivated the "hearing imagination," listening for his own "tone of voice" as well as the sounds and phrases of others.

Frost denied that poets bring raw material to life through an act of will. The poem makes itself, he argued, explaining, "Like a piece of ice on a hot stove, the poem must ride on its own melting." Poetry, he stressed, "must be a revelation . . . as much for the poet as for the reader."

Yet Frost denounced modern poets who wrote as if "wildness" and "sound" were all they needed. "Emotions must be dammed back and harnessed by discipline to the wit mill, not just turned loose in exclamations," he maintained. The whole function of poetry is the "renewal of words"—the recovery of lost original meanings, and, through metaphor, the reaffirmation of a word in a new context. Ultimately, poetry was to Frost a "voyage of discovery" beginning in chaos and ending in clarity and insight.

The Beleaguered Acropolis

"Truth at a Loss" by John Appleton, in *Museum Magazine* (July–August 1980), Museum Circulation Service, P. O. Box 1200, Bergenfield, N.J. 07621.

Revered as a great monument of Western culture, Athens's Acropolis has suffered extraordinary indignities.

The site was sanctified by the ancient Greeks in the 5th century B.C.,

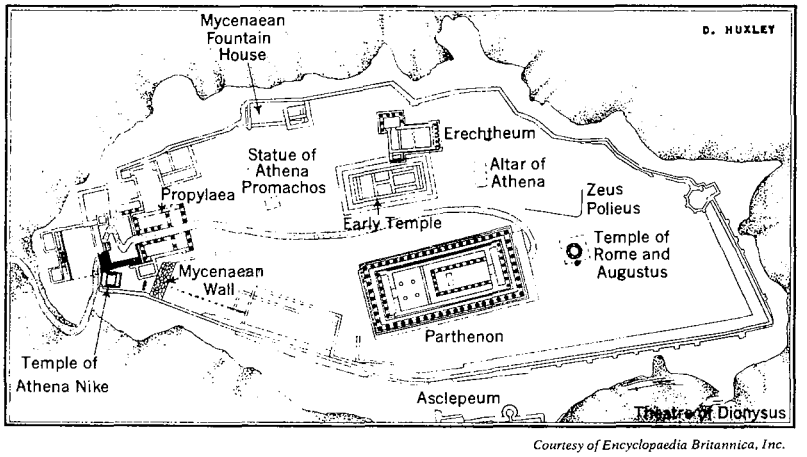
when the Parthenon was built atop the Acropolis as a temple to the goddess Athena. But by 304 B.C., a Macedonian ruler of Athens was using the Parthenon's *cella* (main courtyard) to house his concubines, writes Appleton, former book editor at *Harper's*.

General Marc Antony regularly staged orgies on the Acropolis after Athens's conquest by the Romans in 86 B.C. Three and one-half centuries later, the Goths set fire to the hilltop. During the early Middle Ages, Christians turned the Temple of Athena into the Church of the Virgin Mary—and defaced many of the pagan sculptures.

When the Ottoman Turks stormed the citadel in 1458, the Parthenon became a mosque. The Turks did little deliberate damage but decided the Parthenon and neighboring temples were ideal for storing gunpowder. In 1670, an accidental explosion gutted the north wing of one of them, the Propylaea. The British administered the final insults. In 1800, the Earl of Elgin, England's envoy to the Turkish sultan, began "one of the greatest depredations of works of art ever committed." He was determined to outdo Napoleon, who captivated Europe with ancient Egyptian treasures brought back from his 1798 expedition to the Nile. Elgin later sold his hoard to the British Museum.

Since 1950, Athens has been transformed into a traffic-jammed metropolis where half of Greece's cars discharge pollutants, including sulfur fumes. This turns the Parthenon's marble into soft, crumbly gypsum. Moreover, an old effort to preserve the temple has soured. Iron supports installed in 1894 after a mild earth tremor have rusted, swelled, and cracked the marble.

A new Committee for the Preservation of Acropolis Antiquities, with a $1.25 million annual budget, has made progress toward ending the



Courtesy of Encyclopaedia Britannica, Inc.

Industrial pollution is damaging the Parthenon and nearby temples, which have stood on Athens's hilltop Acropolis for 2,300 years.

pollution threat. Buses and cars are no longer permitted in the immediate vicinity, and fuels with a sulfur content greater than 1 percent are banned near the site. Scientists have converted gypsum back into marble in the laboratory. But an estimated 100 tons of industrial soot falls back on each square mile of Athens every month, posing a greater threat to the Parthenon and its neighbors atop the Acropolis than did all the barbarians of the past.

OTHER NATIONS

Syria's Troubles

"Syria: Fin de Regime?" by Stanley Reed, in *Foreign Policy* (Summer 1980) P.O. Box 984, Farmingdale, N.Y. 11737.

Before Syria's President Hafez al-Assad seized power in November 1970, the nation had suffered through 20 military coups in 24 years. Since then, Syria's once stagnant economy has grown by nearly 8 percent annually (though per capita national output is only $800), in a decade of unprecedented political stability. But growing resentment against Assad at home and Syria's failures abroad may doom the regime, reports Reed, a Cairo-based journalist.

Most of the 7.8 million Syrians are Sunnis, the majority sect in the Muslim world. They view their creed as the purest form of Islam. However, Assad, his powerful brother Rifaat, and much of the armed forces are Alawites, who revere the Prophet Muhammed's cousin Ali, and who are considered heretics by the Sunnis.

Sunnis historically dominated Syrian society. But during the 1940s and '50s, lower-class rural Alawites like Assad flocked to the Army and to the avowedly socialist Ba'ath party, the only open avenues of self-advancement. Today, they control the military and the burgeoning intelligence agencies. Sunnis, who still run socialist Syria's remaining private businesses, bitterly resent the Alawites' power.

Foreign policy setbacks have further eroded Assad's popularity. Twenty-four thousand Syrian troops have been bogged down in a "peace-keeping" mission in Lebanon for four years. The 1978 Camp David accords destroyed Assad's post-1973 rapprochement with the United States. Accusing Egyptian President Anwar el-Sadat of signing a separate peace with Israel, Assad has, for the moment, ended any willingness to consider a negotiated Middle East settlement.

Political dissent is not tolerated in Syria and corruption is rampant. The sporadic terrorism conducted by the mysterious anti-Assad forces known as the Muslim Brotherhood (who seem to draw support from all classes in Syria) escalated into full-fledged guerrilla war in June 1979. Political killings by the Brotherhood may have reached 400 in the past year. In April 1980, Assad sent elite troops and tanks into the cities of

OTHER NATIONS

Aleppo and Hamah to hunt terrorists. Reed contends that Assad's indiscriminate repression will only strengthen the opposition in the long-run. And if Syria returns to its pre-Assad chaos, he warns, the chances of a negotiated Middle East peace will decline even further.

The First World Series

"Baseball and the Quest for National Dignity in Meiji Japan" by Donald Roden, in *American Historical Review* (Summer 1980), 400 A St. S.E., Washington, D.C. 20003.

With an intimidating show of force, Commodore Matthew C. Perry opened Japan to trade with the West in 1853. The jolt he dealt to Japanese national pride did not wear off until the 1890s. Helping to ease the loss of face, writes Roden, a Rutgers historian, was Japan's military victory over China (in 1895), the development of a strong Western-style constitutional government, the growth of an internationally competitive textile industry—and baseball.

Since the 1850s, athletic-minded Western businessmen and soldiers had been conspicuous inhabitants of port cities in Japan. These men viewed the "feebleness" of Japanese males "who carried fans, and manifested other effeminate customs" as proof of Western superiority. Japanese schools contributed to the stereotype. Hell-bent on spreading the West's technical and scientific know-how to their students, Japanese teachers ignored physical education.

American educators hired as advisers in Japanese schools were the first to recommend exercise in Japanese curricula, hoping to infuse young Japanese with "fire, energy, and manly independence." By 1889, Minister of Education Mori Arinori was promoting "military calisthenics" as a way of drilling the virtues of patriotism into grade schoolers. Meanwhile, Japanese university students searched for a "national game" that would emphasize teamwork and cultivate the nation's fighting spirit. Baseball—touted by American teachers eager to see the sport "follow the flag"—seemed to reflect traditional Japanese values of harmony, loyalty, and finesse over brute strength. Some Japanese compared the skilled batter to a samurai swordsman.

In 1891, Japan's best schoolboy team challenged the American businessmen and soldiers at the Yokohama Athletic Club to a game. The Westerners' refusal to take the proposal of the "little Japanese" seriously turned the contest into a struggle for national honor. They finally met on the diamond on May 23, 1896. The jeers and howls from the American crowd that greeted the arriving Tokyo Higher School team turned to stunned silence as the visitors pasted the home team 29 to 4. The Japanese won most of the rematches—hastily requested by the Americans—between 1896 and 1904, outscoring their rivals 230 to 64.

These victories, reported widely in the press, filled Japanese with pride. Crowed one student writer: "The aggressive character of our national spirit is a well-established fact, demonstrated first in the Sino-Japanese War, and now by our great victories in baseball."

'Finlandization' in Finland

"Substance and Appearance: Finland" by Max Jakobson, in *Foreign Affairs* (Summer 1980), 438 East Preston St., Baltimore, Md. 21202.

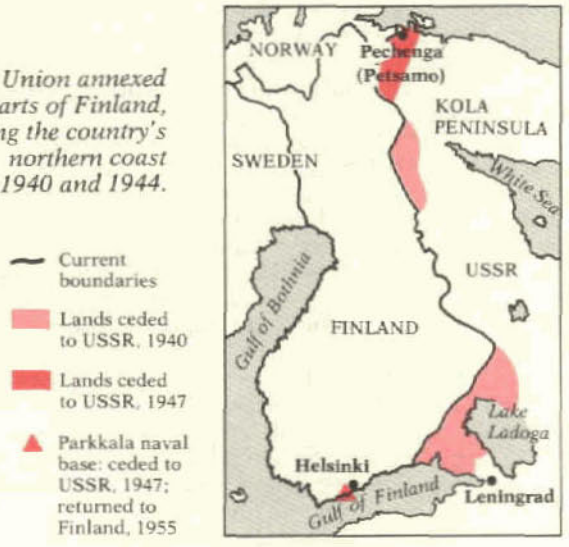
To many Westerners, Finland's foreign policy seems a vain effort to postpone Soviet conquest by cravenly following Moscow's lead in international affairs. Finland's reluctance to serve as a conduit for escaping Soviet dissidents, its silence concerning the invasions of Czechoslovakia and Afghanistan, and its 1948 agreement to repel any attack on the Soviets through its own territory are seen as proof that the country's "independence" is already a sham.

Jakobson, former Finnish Ambassador to the UN, argues that Finland [population: 4.7 million] has followed the only realistic course open to a small nation bordering a superpower.

In 1939, when Stalin's Red Army invaded Finland, Britain and France offered what the Finns considered only token assistance. Finland ceded territory to the Soviets in 1940 but put up enough resistance during the "Winter War" to avoid outright conquest. To this day, Jakobson notes, Finns are suspicious of the West's commitment to protect them. When World War II ended, they developed a policy of neutrality designed to assure Moscow a secure border.

In the process, says Jakobson, Finland has given up no vital interests but simply denied itself "the luxury of making emotionally satisfying gestures" that could only antagonize the Soviets. (Many Finns agree with the late Marshall Gustav Mannerheim, who declared at the end of

The Soviet Union annexed parts of Finland, including the country's northern coast in 1940 and 1944.



OTHER NATIONS

the Winter War, "We have paid our debt to the West, to the last drop of blood.") Finland's parliamentary democracy is flourishing, and Helsinki's associate membership in the European Free Trade Community ties it closely to the Western economic system. (Only 15 percent of Finland's trade is with the Soviet Union.)

Jakobson contends that the Soviets have no desire to swallow up Finland; Moscow's prime goal in Europe since 1945 has been freezing the boundaries drawn up at the Yalta Conference and formally ratified by the West in 1975 (at an East-West conference in Helsinki). Finland's independence, he reasons, is part of a comfortable status quo. A greater threat to Finland's future are "the bright lights of the open society in the West," notably Sweden, which has drawn 200,000 Finnish emigrants since 1945.

A Woman's Place in Israel

"Ideology, Myth, and Reality: Sex Equality in Israel" by Selma Koss Brandow, in *Sex Roles: A Journal of Research* (vol. 6, no. 3, 1980), Plenum Publishing Corp., 227 West 17th St., New York, N.Y. 10011.

Israel, the land of proud women conscripts and the indomitable former Prime Minister, Golda Meir, fosters a peculiar blend of sexual equalities and inequalities, according to Brandow, a sociologist at Trenton State College.

Unmarried women between 18 and 26 years of age are required to serve in the Israel Defense Forces, as are all Israeli men. But half are rejected for military service because they lack an eighth grade education (men are given remedial instruction), because they have children, or because of religious or conscientious objections (an exemption not available to males). After finishing basic training, female "soldiers" are stationed at typewriters or assigned to civilian jobs. Some serve as support troops, but none enter combat units.

Israeli statutes that require equal pay for equal work contain no enforcement clauses. As a result, women receive an average of 47 percent less in wages than Israeli men for comparable duties. Three-fourths of employed women hold traditionally female jobs (e.g., teachers, nurses, clerical workers). Most Israeli women believe that pushing for greater equality could threaten national unity. "Jobs belong to the men," many told Brandow in interviews, and "women should be at home."

Brandow traces Israeli attitudes to a "cult of masculinity" springing from the Jewish state's frontier beginnings. Though Zionists officially favored sexual equality (indeed, affirmed it in the Israeli Declaration of Independence), they had for decades lionized such manly traits as strength, aggression, and stoicism. Jewish law, which defines a woman as her husband's possession, further confuses the situation by serving as the basis for many domestic statutes. Large influxes of Orthodox Jews from Europe and uneducated Jews from the Arab world have increased Israel's population of male chauvinists.

Israel's wars have buttressed the emphasis on "macho" men and supportive women. The story of Golda Meir may remain a fluke, unrepresentative of most Israeli women's possibilities, says Brandow, until permanent peace comes.

Australia's Big Myth

"Towards Demythologizing the 'Australian Legend': Turner's Frontier Thesis and the Australian Experience" by Ronald Lawson, in *Journal of Social History* (Summer 1980), Carnegie-Mellon University, Pittsburgh, Pa. 15213.

In 1893, historian Frederick Jackson Turner told Americans to look to the newly closed frontier for the origins of their national character. More recently, many Australian scholars have viewed the rugged "bushworkers" who manned the vast farms and sheep ranches of the arid Outback during the 19th century as the source of their country's own indigenous ethos—egalitarian, collectivist, and fiercely patriotic.

Yet Lawson, a Queens College, New York, historian, argues that almost from the outset, city folk had the greater influence on Australia's outlook. By the 1890s, he notes, Australia boasted a larger percentage of city-dwellers among its population than any other continent. Unlike the American West—where settlement began before the advent of modern communications—Australia's hinterland was speedily connected during the 1880s and '90s to Sydney, Melbourne, Brisbane, and other cities via telegraph, railway, and telephone.

City culture displayed little bushworker influence. Between 1881 and 1891, the population of Brisbane, for example, shot up 174 percent (to 101,554). Immigrants (mainly from the British Isles) accounted for most of the increase and encountered little discrimination from the native born. In fact, the city's civic leaders were mainly foreign born; *Who's Who*–like directories for the decade show that the proportion of native Australian entries increased from only 21 to 30 percent. Brisbane's theaters presented foreign productions. School children studied British texts.

Rigby Publishers Ltd.

Outback bushworker—the quintessential Aussie?

Colonial Australia was far more than a scattering of ranches and field hands, Lawson writes. Like U.S. historians, Australian scholars are now shifting their attention from the frontier. If Australia has a strong egalitarian tradition, he suggests, it came as much from the fluid social structures of its cities as from the camaraderie of the bush.

RESEARCH REPORTS

Reviews of new research by public agencies and private institutions

"The Most Significant Minority: One-Parent Children in the Schools."

National Association of Elementary School Principals, 1810 North Monroe St., Arlington, Va. 22209. 26 pp.

At current rates, 1 million more American children each year end up living in one-parent families, usually with the mother. This is a trend whose effects sociologists and feminists have long debated. [See "The American Family," *WQ*, Summer 1980.]

In this survey, the National Association of Elementary School Principals (NAESP) reports that these "children of divorce" are far more likely to run into academic and disciplinary trouble than are their classmates who live with two parents.

The NAESP and the Charles F. Kettering Foundation gathered data on an unusually large sampling of more than 18,000 elementary and secondary school students in 14 states, including California, Nebraska, and New Jersey, during the 1979–80 school year. Their findings paint a gloomy picture of the nation's 12 million one-parent children—who represent 19 percent of all Americans under the age of 18 and more than half of all black children. (The survey itself contained no statistical breakdown by race or family income.)

In elementary schools, 40 percent of one-parent children, but only 24 percent of two-parent children, were classified as low achievers (having "D" or "F" averages). Only 17 percent of single-parent grade schoolers and 21 percent of secondary students earned "A" or "B" averages. But 30 percent of two-parent students in elementary school and 33 percent enrolled in junior high and high school qualified as "high achievers."

One-parent students were three times as likely as two-parent students to be suspended from elementary school. In junior high and high school, they were three times as likely to be expelled. Only 1.4 percent of two-parent secondary students "dropped out"; the figure for one-parent classmates was 3.5 percent. The association attributes these problems to the emotional stress that parents' separation imposes on children and to inadequate supervision at home. (Most single parents work.)

In junior high and high school, one-parent students also had more health problems than other students. They averaged 12.17 days of excused absences (not including suspensions or expulsions), while two-parent students missed 8.15 days. One-parent secondary students also made slightly more visits to their school's health clinic.

As expected, one-parent students were, disproportionately, recipients of government aid. Fifty percent of one-parent elementary students received subsidized school lunches, for example, compared to 17 percent of their counterparts with two parents. The figures for secondary students were 26 and 9 percent, respectively.

The U.S. Census Bureau predicts that 45 percent of children born in the United States today will spend at least one year living with only one parent. Accordingly, the NAESP recommends that schools — a potential source of

needed stability—offer special help to one-parent children. Records should be regularly updated to keep track of each student's family status. Teachers should watch for such signs of stress as sudden weight gain or loss, fatigue, and lack of concentration. Special counseling should be available for one-parent students, and parent-teacher conferences may be needed.

"Myths and Realities: A Study of Attitudes Toward Vietnam Era Veterans."

The Veterans Administration, 810 Vermont Ave. N.W., Washington, D.C. 20420. 489 pp.

Most American veterans of the Vietnam War look back on their military service with pride. Though many are unhappy over the reception they got when they returned home, especially from their peers, most would join the armed forces again if asked to do so.

Between November 1979 and March 1980, Louis Harris and Associates surveyed 2,464 Vietnam Era Veterans (VEVs), including 1,176 men and women who actually served in Indochina.

Ninety-one percent of the VEVs who went to Vietnam said they were glad they served their country, and 74 percent enjoyed their time in the armed forces. By contrast, only 24 percent expressed much agreement with the statement, "the United States took unfair advantage of me." Only 30 percent said they would "refuse" to rejoin the military if "asked to serve again."

Fifty-nine percent of VEVs and 65 percent of the 2,563 members of the general public also polled by Harris agreed that Vietnam was a war "we could never win." But, more significantly, 89 percent of VEVs and 73 percent of the public also thought that "our political leaders in Washington would not let [American troops] win." Fifty-seven percent of the public and 49 percent of the VEVs felt the U.S. should never have entered the war.

Aggregate figures conceal major variations, however. Forty percent of white veterans thought that the United States was right in going into Vietnam, compared with 23 percent of black vets. One-third of the soldiers who saw heavy combat said that America owed them "a great deal more" for their service than they had received; 21 percent of veterans with only light combat experience agreed.

VEVs and the public overwhelmingly believed (by 63 and 78 percent majorities, respectively) that soldiers who returned home from Vietnam received a poorer reception than did veterans of previous wars. Seventy-three percent of veterans of World War II and Korea thought that civilians their own age gave them a "very friendly" welcome, compared with only 47 percent of VEVs. Fifty-six percent thought that while they were in the military, their peers were "getting ahead" of them.

The public—and the veterans—perceived important character differences between Vietnam era soldiers and their civilian peers. Veterans were thought more likely to have drinking problems, to have attempted suicide, or to have used drugs. Nonveterans between 25 and 34 years old were regarded as spoiled, unpatriotic, and morally "loose." More positively, as the public saw it, young nonveterans had clearer goals for their lives, while veterans enjoyed a reputation for discipline and a willingness to "work to

get ahead" — especially among employers.

Ninety-three percent of non-VEVs surveyed favored greater educational benefits for veterans, and 72 percent supported giving veterans preference in federal hiring. One surprise: Eighty-one percent of former antiwar activists polled thought that Washington should do more to aid VEVs, compared with 66 percent of the overall public.

The Harris pollsters conclude: "While it is clear that the American people believe our involvement in Southeast Asia to have been a mistake, they have not rejected the men who fought that war in their name."

"U.S. Banks' Loss of Global Standing."

Administrator of National Banks, Comptroller of the Currency, U.S. Treasury Department, 15th and Pennsylvania Ave. N.W., Washington, D.C. 20220. 52 pp. Authors: C. Stewart Goddin and Steven J. Weiss.

Are U.S. banks losing their competitive edge in world money markets? Enough U.S. Congressmen think so to have approved a moratorium last March on foreign acquisitions of domestic banks.

Indeed, the number of U.S. banks ranked among the world's top 100 in assets has fallen from 44 in 1956 to 15 in 1978. Similarly, the world's top 10 banks included 5 American banks in 1956 but only 3 in 1978. [They were Bank of America, with $86 billion in assets, the largest bank in the world; Citibank; and Chase Manhattan. In 1979, Chase fell to 14th place.] Three British and 2 Canadian banks fell out of the top 10 between 1956 and 1978.

By contrast, neither Japan, West Germany, nor France boasted a single bank in the top 10 in 1956; in 1978, they were represented by 7 banks—4 of them French. Japanese banks in the top 100 rose from 9 to 24 during this period, and German banks from 3 to 15.

The authors note that the decline in U.S. bank rankings has simply paralleled the relative decline in America's economic strength from a position of unprecedented worldwide dominance following World War II. In 1962, for example, the United States accounted for more than half the goods and services produced by the industrialized democracies. By 1977, this figure had dropped to 38 percent. Between 1956 and 1977, America's real gross national product virtually doubled, but this increase lagged behind the 481 percent leap recorded by Japan and the 143 percent rise achieved by West Germany.

Changes in bank rankings also reflect different national savings habits. Household savings in the United States, for example, fell from 7.6 to 4.9 percent of national output between 1962 and 1977. Japanese and West German savings rates dipped, too, but still stood at 18 and 11.4 percent, respectively, in 1977.

Moreover, U.S. law tends to thwart bank consolidation. The Glass-Steagall Act (1932) prevents commercial banks from conducting investment banking operations. The McFadden Act of 1927 and the Bank Holding Company Act of 1956 ban nationwide banks. Most statewide banking is prohibited by state law. Consequently, the three largest banks in the United States hold only 18 percent of the country's total commercial banking assets. Few such laws inhibit foreign bank mergers, and nationwide banking is common throughout Western Europe and Japan. Countries such as

France *encourage* consolidation—the 3 largest French banks hold 55 percent of the nation's commercial banking assets.

The authors see no cause for alarm. No strong U.S. bank will see its access to interbank financing curbed, or suffer any other ill effects, due to changes in its relative world position. In fact, they note, from 1956 to 1978, the total deposits of the top 10 U.S. banks rose from $40 billion to more than $345 billion, while total assets of American banks' overseas branches have mushroomed from $2 billion to more than $305 billion.

As the Federal Reserve Board assured Congress in 1979, "so long as U.S. banks are soundly managed and adequately capitalized they will be able to compete effectively, domestically and internationally."

"Entering the Twenty-First Century."

The Global 2000 Report to the President, U.S. Department of State and the White House Council on Environmental Quality, Government Printing Office, Washington, D.C. 20402. Vol. 1 (Summary Report): 45 pp. $3.50. Vol. 2 (Teehnical Report): 766 pp. $13.00

"If present trends continue, the world in 2000 will be more crowded, more polluted, less stable ecologically, and more vulnerable to disruption than the world we live in now."

So concludes this study by the White House Council on Environmental Quality and the Department of State, the first U.S. government report to analyze in detail the interaction between world population growth, resource availability, and environmental quality.

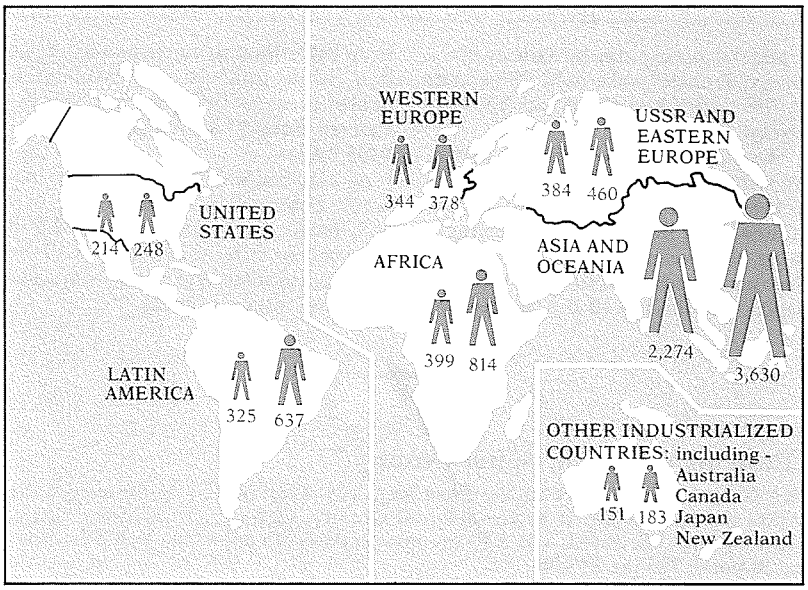
The key factor is the number of human beings on this planet. It will increase by 50 percent, from 4.1 billion in 1975 to around 6.35 billion in the year 2000, according to the study.

The rate of population growth will slow down, as recent UN reports predict. But the *Global 2000* study emphasizes that the rate of increase will still be a dangerously high 2 percent in the Third World (particularly in South Asia, black Africa, and Latin America). By the end of the century, four-fifths of mankind will live in these nations.

Rural folk will continue to flock to Third World cities and to the squalid shantytowns expanding around them, generating severe public health and administrative problems. By 2000, Mexico City's population will reach 30 million, and at least 10 cities in the developing nations will pass the 10 million mark.

The gap between the world's wealthiest and poorest nations will widen. For every $1 increase in per capita gross national product in the Third World, the wealthier nations of the industrialized West and the Soviet bloc will raise their per capita GNP by $20.

Food output in the poor countries is expected to expand by only 10.8 percent (to 197 kilograms per capita) from 1970 to 2000, compared with a 184 percent rise projected in the industrialized world (to 769.8 kilograms per capita). Though this rise will keep pace with *overall* Third World population growth, per capita food consumption in black Africa will actually decline. Throughout South Asia, North Africa, the Mideast, and Central Africa, food supplies will often be too low to permit children to reach normal body weight and intelligence levels.



World populations, in millions: 1975 (left) and the year 2000 (right).

By 2020, virtually all of the accessible forests in the developing nations will have been cut down, mostly for fuel. This will allow rainfall to leach nutrients from the soil and cut agricultural production. Deforestation will also threaten water supplies, even as population growth doubles the demand for water in half the world's countries by the end of the century.

For developed countries, the scenario will be different. The one-fifth of mankind living in the industrialized world will, for instance, continue to use three-fourths of the planet's mineral output.

Yet, environmental deterioration will not spare the richer nations. Acid rains from the increased burning of fossil fuels (mainly coal) will threaten lakes, soils, and crops. Higher concentrations of atmospheric carbon dioxide could significantly warm the world's climate.

"Soviet Perceptions of the U.S.: Results of a Surrogate Interview Project."

Office of Research, International Communication Agency, 1776 Pennsylvania Ave. N.W., Washington, D.C. 20547.
Author: Gregory Guroff

Familiarity with the United States has bred confusion among Soviet officials, according to this pioneering study of Soviet elite perceptions of America.

Since superpower relations began a 10-year thaw during the mid-1960s, Soviet professionals and middle-level bureaucrats have enjoyed growing ac-

cess to their American counterparts, and to information about the United States. Moreover, the Kremlin has created major academic "American studies" programs in the USSR.

But interviews with 70 American officials, businessmen, academics, and journalists who deal frequently with the Soviets indicate that the more facts many Soviets learn about the United States, the more trouble they have comprehending "how it works." There is an extraordinary culture gap.

Living in a closed society where political and economic life is tightly controlled by the Communist Party, mid-level Soviets—many of whom advise the Kremlin's most powerful figures—cannot appreciate how many diverse centers of political and economic power exist in the United States. Focusing on Washington and Wall Street, they deride the notion that voters have power over their legislators. And neither academic "Americanists" nor Politburo members understand why Presidents cannot simply force congressional approval of measures such as the SALT treaty.

Soviets find the American economy even more baffling. They realize that living standards in the United States exceed their own and assume the average American to be wealthy. (They blame the Soviet economic lag on the devastation suffered during World War II.) At the same time, they believe that high unemployment, roaring inflation, and ruthless exploitation are characteristic of the U.S. market economy.

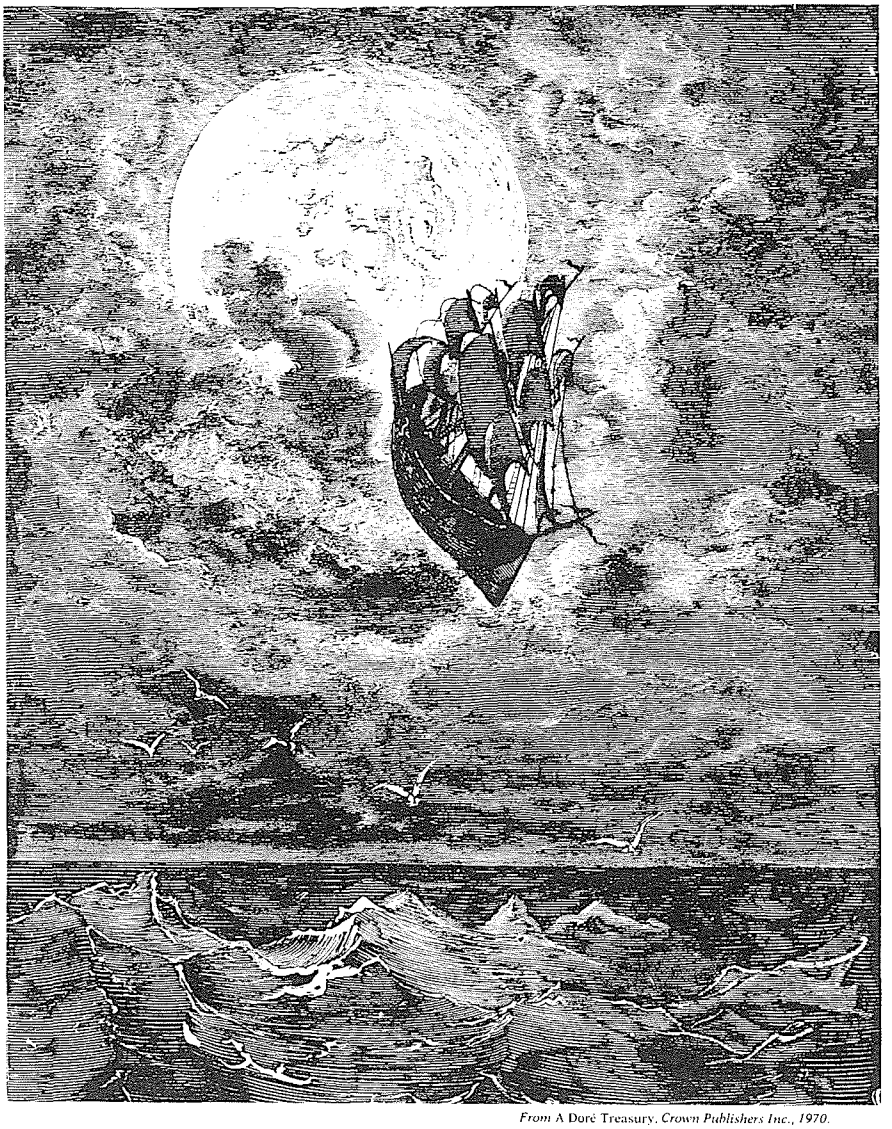
Prominent Soviets also maintain that communism provides economic security unknown to Americans. Many are unaware that unemployment compensation, medical insurance, and Social Security pensions have been grafted onto American capitalism.

Nor can the Soviets fathom the existence of a private economic sector governed largely by market forces. Even specialists on American industry have long searched for the central planning mechanism responsible for U.S. economic success—which is thought to be a top state secret. Learning that industrial quota systems and price-fixing are illegal in America dumbfounds Soviet economists. They were taught that an economy lacking such controls should "collapse of its own weight or fly apart."

Most Soviets respect U.S. military strength and marvel at American technology. They fear that a new arms race triggered by the United States could wipe out hard-earned Soviet economic gains of recent years. On the other hand, Soviets question American resolve and willingness to sacrifice. Their prime fear is that the United States will react to its perceived decline as a world power with a resurgence of militarism.

The Americans interviewed believe that after collecting mountains of data on the United States during the mid-1960s, Soviet "Americanists" constructed a fairly realistic portrait of the United States that repudiated their Marxist models. Unable to revise the official orthodoxy, they prudently retreated to the stereotypes and clichés of earlier years. The recent frosting of Soviet-American relations has re-enforced this trend.

Yet today's Soviet "experts" believe that greater factual knowledge of the United States makes their stereotyped analyses more accurate than their predecessors'. This fundamental misconception, Guroff concludes, invites dangerous Soviet miscalculations of U.S. behavior and interests in the years ahead.



From A Doré Treasury. *Crown Publishers Inc., 1970.*

When two U.S. astronauts stepped on the lunar surface on July 20, 1969, they were, in a sense, the spiritual heirs of Joseph Atterley, an early American science-fiction writer, who imaginatively described A Voyage to the Moon *in 1827. "After various trials," Atterley wrote, "and many successive improvements, in which our desires increased with our successes, we determined to penetrate the aerial void as far as we could." The romantic depiction of a "spacecraft" returning from the moon (above) is by French illustrator Gustave Doré (1833–83).*

The Space Effort

News of U.S. space exploration gradually faded from Page One after Neil Armstrong's "one small step" to the lunar surface 11 years ago, even as other nations began taking small steps of their own. Some, like France and Japan, have made giant leaps. The Soviets, unfazed by defeat in the symbolic moon race, have built up a broad-based program that, in terms of size, is second to none. What of the United States? NASA is a shadow of its former ebullient self—and is taking a back seat to the Pentagon. U.S. hopes center on the troubled space shuttle. Here, journalist John Noble Wilford reviews the history of the space effort; historian Walter McDougall looks at developments abroad; NASA historian Alex Roland weighs the practical "payoffs" of space exploration against the disappointments; and historian Bruce Mazlish ponders the disparity between our achievements in space and the tepid public response.

RIDING HIGH

by John Noble Wilford

On July 20, 1969, two American astronauts planted human bootprints on the gray regolith of the moon. It was one of the most impressive achievements in the history of Man, and it was recognized as such at the time. Yet, almost immediately, Congress and the White House took an ax to the budget of the National Aeronautics and Space Administration (NASA). There was no public outcry. While NASA, during the 1970s, sponsored a series of unmanned missions to Mercury, Venus, Mars, Jupiter, and Saturn, all of these explorations were fruits of initiatives begun during the '60s. Future space spectaculars, conceived during the '70s for implementation during the '80s and beyond, have, by and large, remained on the drawing boards.

The American space effort is not *entirely* dormant. Sometime in 1981, if no more technical problems intrude, a revolutionary flying machine, part spacecraft, part airplane, will blast off from the Kennedy Space Center in Florida. This vehicle, the space shuttle Columbia, will carry American astronauts into earth orbit for the first time in six years. More importantly, it should usher in a new era in the space age, an era of routine orbital comings and goings.

But even the space shuttle illustrates how times have changed. Its purpose—hauling freight into orbit—is more mundane than shooting for the moon. It has been built on a shoestring budget, not with the lavish transfusions of cash that sustained Apollo. And the American Republic is not waiting breathlessly for the shuttle's success.

Sputnik vs. "Stayputnik"

By contrast, at the beginning of the space age almost a quarter century ago, nothing seemed more important to many Americans than getting something—anything—up into the sky. Do it, then count the cost and consider the possible substantive benefits. That was the attitude soon after the Soviet Union launched the satellite Sputnik 1 on October 4, 1957.

At the time of Sputnik, the United States had already embarked on a modest space program. In July 1955, President Dwight D. Eisenhower launched the Vanguard project, under the auspices of the Navy, as part of U.S. participation in the 1957–58 International Geophysical Year. (Vanguard's mission was to put small, unmanned satellites into earth orbit.) Soon thereafter, the Soviets made a similar public commitment. Initially, neither program received much public attention.

Sputnik caught the Eisenhower administration by surprise. Its spokesmen sought at first to dismiss Sputnik as a "neat technical trick" and "silly bauble." But Soviet Premier Nikita Khrushchev, more full of himself than ever, boasted that Sputnik demonstrated the superiority of communism over capitalism. In a Cold War atmosphere, such a bald challenge

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"Fill 'er up—I'm in a race" was the caption of this 1961 Herblock cartoon. The impetus for U.S. space exploration was linked not to any compelling scientific rationale but to the political exigencies of the Cold War.

© *1961 by Herblock in the* Washington Post.

had a riveting effect. Dr. James R. Killian, Jr., the MIT president who became White House science adviser in 1957, later recalled that Sputnik "created a crisis of confidence that swept the country like a windblown forest fire." The fire was only fanned when, in December 1957, the Navy's first Vanguard rocket blew up on the launching pad. Headline writers around the world dubbed Vanguard the "Stayputnik."

Increasingly, Congress and the public demanded reassurance—and action.

After the Vanguard embarrassment, Eisenhower unleashed the Army rocket crew in Huntsville, Alabama, led by Dr. Wernher von Braun, developer of the Third Reich's lethal V-2. Von Braun had been ready to launch a satellite for two years, but his proposals were repeatedly rejected out of deference to Vanguard. On January 31, 1958, Von Braun's Jupiter-C rocket fired the 14-kg. Explorer 1 satellite into orbit.* Encouraged by success, Washington now made plans for an even more ambitious program. The space race was on.

But what team would the United States field? The Army, Navy, and Air Force all vied for the assignment. So did the Pentagon's Advanced Research Projects Agency. So did the Atomic Energy Commission.

And then there was the National Advisory Committee for Aeronautics (NACA), an obscure group of part-time scientific

*1 kilogram is approximately 2.2 pounds.

consultants who oversaw the operation of a handful of federal flight-technology laboratories. Science adviser James Killian was impressed by the "special charm" of the sleepy little agency. It had some of the best engineering talent in the country, was under civilian control (which Eisenhower preferred), was too little known to have been caught up in partisan politics, and was a stranger to the red tape of government bureaucracy. NACA got the job.

Reconstituted as the National Aeronautics and Space Administration in October 1958, the agency drew under its umbrella NACA's five labs and 8,000 technicians; the California Institute of Technology's Jet Propulsion Laboratory; the Navy's Vanguard project; and the Army's 4,000-man Von Braun rocket team. At the insistence of Congress, however, the Pentagon was allowed to maintain a separate space effort.

NASA started out with a budget of $330 million. It was simply assumed that America's expanded space program, like the USSR's, would include a *manned* space effort, and NASA acted on that assumption. With a sheaf of engineering designs from the old NACA files, the agency immediately called for bids to build a manned spacecraft. By December, 1958, NASA announced that it would begin recruiting astronauts from the ranks of test pilots. (Seven were eventually chosen.) Within a year after Sputnik, Project Mercury was under way.

Not everyone was comfortable with this swift turn of events. In a 1960 speech, shortly after he left the White House, Killian reflected the concerns of many scientists:

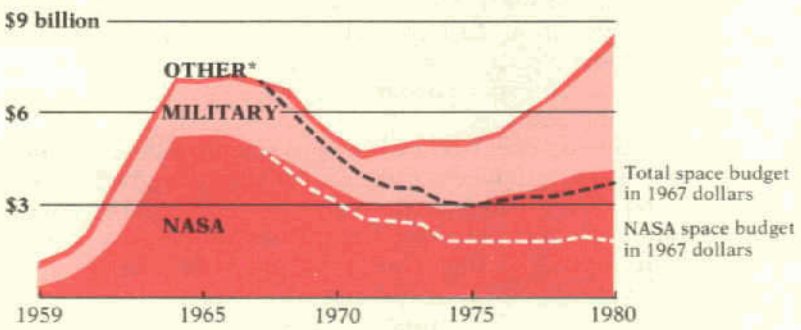
> It may be argued that our man-in-space program is trying to proceed too fast and that it is on the way to becoming excessively extravagant and will be justified only as a competitor for world prestige with the Soviet man-in-space program. Many thoughtful citizens are convinced that the really exciting discoveries in space can be realized better by instruments than by man.

But competition for world prestige was not a trivial matter during the Cold War — if it ever is for a world power — and the manned flight planners were not to be denied.

Emerging from these formative months of the space program were several trends and conflicts that persist. They were:

¶ Two national space efforts. One is open, highly visible, and civilian-controlled — the NASA program of manned flight, scientific and commercial "applications" satellites, and the unmanned exploration of the planets. The other is military and conducted mostly in secret — the Pentagon program of picture-

THE U.S. SPACE BUDGET, 1959–80



*Includes the U.S. Departments of Energy, Commerce, Interior, and Agriculture, and the National Science Foundation.

Source: Office of Management and Budget.

The U.S. *civilian* space budget, represented almost entirely by NASA, began declining in 1966; during the 1970s, high inflation further eroded NASA's buying power. Yet, the total U.S. space budget has actually picked up in recent years following a decade-long slump. The reason: a new emphasis on the military uses of outer space.

Details of the military program are unpublicized. The Pentagon launches about a dozen satellites every year, their purpose invariably described as "development of spaceflight techniques and technology." All branches of the armed services use satellites—for navigation of missiles, ships, aircraft, and submarines; early warning of nuclear attack; weather forecasting; arms-control verification; photographic and electronic reconnaissance; and communications.

Early-warning satellites can detect exhaust emissions from missiles as soon as they are launched. The multipurpose satellites of the "Big Bird" series can photograph items as small as one foot in diameter from an altitude of 100 miles; the film is processed on board, scanned by a laser, and converted into electronic signals that are transmitted back to Earth and "enhanced" by computers. Electronic intelligence (or "Elint") satellites, also known as "ferrets," can intercept satellite and ground communications. The U.S. Air Force is proceeding with its 24-satellite NavStar system, which should be operational by the mid-1980s, and which will be capable of handling almost all of the military's navigation needs.

In the nuclear age, a military establishment is only as good as its electronic "eyes." For that reason, the United States, like the Soviet Union, has been developing satellite-borne laser and particle-beam weapons to "blind" hostile spacecraft. The Pentagon will spend nearly $280 million on laser and particle-beam R&D next year.

taking "spy" satellites and of orbital vehicles for military communications and navigation.

¶ A split between the advocates of manned and unmanned space exploration. Eisenhower and Killian had favored the latter, but post-Sputnik momentum gave more life to the former. The manned space program in NASA eventually became the tail wagging the dog.

¶ An uneasy coexistence between scientists and engineers within NASA. The engineers built the rockets, designed the electronics, and developed all the other systems without which there could have been no space flight. Inevitably, they assumed operational control of the space program. The engineers generally pushed manned flight because it represented the greatest engineering challenge. Scientists chafed at their secondary role. They feared, too, that the expense of manned space flight would drain money away from non-space research.

Promising the Moon

On a pledge to "get this country moving again," John F. Kennedy was elected President in 1960. The economy was sluggish, there was concern about a "missile gap," and, for all its efforts, the United States still lagged behind the Soviet Union in space. On April 12, 1961, less than four months after Kennedy's inauguration, the Russians jumped further ahead by putting the first man into orbit, Yuri A. Gagarin.

Kennedy called a meeting two nights later with James E. Webb, a North Carolina lawyer-businessman and the new head of NASA. "Can we go around the moon before them? Can we put a man on the moon before them?" Kennedy asked, according to Hugh Sidey, a *Time* correspondent who happened to be at the White House that night. Kennedy listened to a recitation of problems and costs. "If somebody can just tell me how to catch up," he said finally, "there's nothing more important."

The Bay of Pigs fiasco came three days later. Kennedy was now more concerned than ever that something be done to enhance the American image abroad—and, not incidentally, his own political prospects at home. He asked Vice President Lyndon Johnson, a space enthusiast, to explore in detail the possibility of a moon landing to "leapfrog" the Soviets. As the nation cheered Alan B. Shepard's first Mercury flight (a 15-minute suborbital hop on May 5, 1961, hardly in the Gagarin orbital class), NASA and Pentagon officials hammered out the final version of the moon-landing plan for Johnson. On May 25, President Kennedy announced his decision to the world:

> This nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to Earth. No single space project in this period will be more exciting, or more impressive to mankind, or more important for the long-range exploration of space.

It was a typically American response, optimistic and expansive. Congress went along, after little debate, and mobilization for the Apollo Project got under way. The building of the necessary rockets, spacecraft, and ground-support facilities would require the concerted efforts of scores of university laboratories, some 20,000 industrial contractors, and more than 400,000 technicians and skilled workers—at a total cost of about $24 billion. It was a massive enterprise.

It was also well managed. One of the agency's first decisions was to reject the "arsenal" model: creating manufacturing facilities owned and operated by the government. While this was the Army's approach, NASA instead followed the Air Force's lead and farmed out most of its work to private companies like McDonnell and Rockwell International. It thus could draw on the full range of American know-how—and remain unencumbered by a large, permanent bureaucracy. (At the peak of the Apollo program, NASA had only 36,000 employees.)

The concept also had the political advantage of spreading the Apollo wealth to every state of the Union. When Washington Congressman Thomas Pelly, a sometime critic of the Apollo program, toured Cape Canaveral in 1963, a NASA official was there to make sure he saw the manufacturer's name on a huge crane: Colby Crane Corp., a Seattle company. The roots of Apollo spread deep into the U.S. economy. It was pork-barrel politics, but it ensured that NASA would not be a victim of neglect.

NASA also adopted something called PERT—for Program Evaluation and Review Technique—which had been developed by the Navy for the Polaris missile project. Under PERT, each project manager sorted out all the tasks that had to be done, established when they had to be done and in what sequence, and determined how long each should take. The result was a row of parallel paths charted from the beginning of the project, running past critical points, and converging toward the end in a finished product. Without PERT, there might have been chaos.

But the Apollo program did not go uncriticized, even at the outset. Former President Eisenhower, during a 1963 breakfast with Republican Congressmen, called the venture "nuts," and Philip Abelson, editor of the influential journal *Science*, told

Congress that same year that an informal straw poll of "scientists not connected by self-interest to NASA" had resulted in a 110 to 3 vote against the manned lunar program.

Opinion polls conducted during the 1960s are revealing. Public approval of the U.S. space program generally jumped after a successful Russian effort; the approval rating was almost unaffected by American achievements. Further, when respondents were given a list of certain government activities and asked which ought first to be cut out of the budget in the event of a financial crisis, the space program usually appeared on top. Even after the Vietnamese communists' 1968 Tet offensive demoralized Washington, people were *most* willing to cut off funding for Apollo, *least* willing to trim spending for the Vietnam War.*

Tragedy and Triumph

But support for the space effort remained strong in Congress, where it mattered. No NASA administrator before or since knew how to play Washington's political game better than James Webb, who skillfully cultivated his benefactors on Capitol Hill. He was particularly fortunate to have as an ally Olin Teague, the abrasive but powerful Texas Democrat who headed the House subcommittee on manned space flight. "Tiger" Teague was known as a fiscal conservative, not one to back foolish schemes. When he stressed the military potential of space, the danger of yielding mastery of the high frontier to the Soviets, and the "whole spectrum of scientific and technological accomplishment" that would flow from Apollo to every congressional district, his Hill colleagues listened.

By the time of John F. Kennedy's assassination on November 22, 1963, the six manned Mercury flights were over, and the interim two-man Gemini Project was under way. The Gemini flights in 1965–66 clearly advanced the United States beyond known Soviet capabilities. The lunar-landing goal now seemed within easy reach.

Then tragedy struck. On the afternoon of January 27, 1967, fire erupted in the first Apollo spacecraft during a launch-pad test, killing astronauts Virgil "Gus" Grissom, Edward White, and Roger Chaffee. When NASA and congressional investigators uncovered evidence of poor workmanship and lax quality control, the Apollo spacecraft had to be redesigned, causing an 18-month delay — and a new round of embarrassing questions

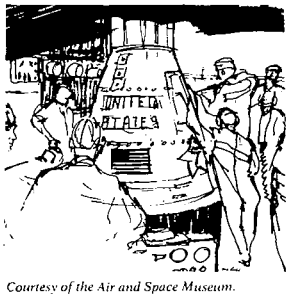
* See John V. Moeser, *The Space Program and the Urban Problem*, Washington: George Washington University, 1969.

"NOTHING NEW"

On May 5, 1961, astronaut Alan B. Shepard, Jr. became the first American to be launched into space. For all the excitement on the ground, Shepard himself simply sat in his capsule, like the chimpanzee that had made a similar flight three months before. As Tom Wolfe observes in The Right Stuff, *Shepard found the experience to be anticlimactic:*

The gauges told him he was weightless. After reaching this point so many times on the procedures trainer, he knew he must be weightless. But he felt nothing. He was so tightly strapped and stuffed into this little human holster there was no way he could float as he had in the cargo bays of the big C-131s [Samaritans]. He didn't even experience the tumbling sensation he felt when riding backseat in the F-100s [Supersabres] at Edwards. *It was all milder!—easier!* No doubt he should say something to the ground about the sensation of weightlessness. It was the great unknown in space flight. *But he didn't feel anything at all!* He noticed a washer floating in front of his eye. . . . It was just floating there in front of his left eye. That was the only evidence his five senses had to show that he was weightless. . . . He had no sensation of speed at all, even though he knew he was going Mach 7, or about 5,180 miles an hour. There was nothing to judge speed by. There were no vibrations at all in the capsule. . . . It was as if he were standing still, parked in the sky. The sounds of the interior of the capsule, the rising and falling and whirring and moaning of the inverters and the gyros . . . the cameras, the fans . . . the busy little kitchen—they were exactly the same sounds he had heard over and over in the simulations inside the capsule on the ground at the Cape. . . . There was nothing new going on! . . . He knew he was in space, but there was no way to tell it! . . . He looked out the periscope, the only way he had of looking at the Earth. *The goddamned gray filter!* He couldn't see any colors at all! He had never changed the filter! The first American to ever fly this high above the Earth—and it was a black-and-white movie. Nevertheless, they'll want to know about it—"What a beautiful view!" he said.

From The Right Stuff *by Tom Wolfe. Copyright © 1979 by Tom Wolfe. Reprinted by permission of Farrar, Straus and Giroux, Inc.*



"Securing the Hatch" by Robert McCall.

Courtesy of the Air and Space Museum.

MANAGING INFINITY

How much freedom should nations have to explore space? What kinds of military activities should be barred? How much "space law" do we need?

As the space age began in 1958, an enthusiastic United Nations deemed space law to be within its purview and set up the Committee on the Peaceful Uses of Outer Space (COPUOS). COPUOS has since midwived most of what little space law there is, including the 1967 Outer Space Treaty (which prohibited claims of national sovereignty in space and extended the UN charter to the heavens) and several "conventions" governing astronaut rescue (1968), damage liability (1973), and spacecraft registration (1976). Other agreements, including the controversial Draft Treaty on the Moon, are pending.

"Space for peace" advocates criticize the vagueness of space law and the lack of strict international controls. Where "air space" leaves off and "outer space" begins, for example, has never been defined. Nor has the distinction between "aggressive" and "military" use of space. There is no legal formula to ensure that space exploration is actually carried out "for the benefit of all mankind."

In the early years, many critics felt that subsuming all national space programs under some new UN agency was the only answer. That approach still has obvious drawbacks. First, the United States and Soviet Union will not accept it. Second, historically, technology has developed most efficiently in the hands of an integrated *national* team. Third, too much international regulation would stifle competition. It is significant that nations advocating detailed regulation are those without space programs.

Some observers, like Herbert Reis, counsel to the U.S. Mission to the United Nations, defend the current reliance on "vague principles" as the only practical means of guiding man's future in space. Technology moves too fast—and legal committees move too slowly—for close regulation. Better, then, to rely on the "spirit" of the law. The spirit may be unenforceable, but so is all international law, no matter how carefully crafted.

As for the militarization of space, the issue is not clear-cut. Certain prospects—orbiting A-bombs and testing nuclear weapons in outer space—are, of course, horrifying, but both have been outlawed. (Space-based atomic weapons proved to be impractical anyway, as both Washington and Moscow discovered.) Other military uses of space are, perhaps, laudable. Spy satellites, for example, deter surprise attacks and help verify arms control agreements. Futuristic space weapons such as lasers—designed to neutralize satellites and missiles—could one day render obsolete the megaton monsters of the current "primitive" nuclear missile age.

—Walter A. McDougall

about the whole effort. By this time, NASA was relying more on sheer momentum than popular good will to see Apollo through.

Finally, on July 16, 1969, Apollo 11 was launched into the history books. Four days later, astronaut Neil A. Armstrong made his "giant leap for mankind" as he stepped down to the dead lunar surface. President Kennedy's goal had been achieved, within the decade, even as manned Soviet spacecraft were still confined to low earth orbit.

Now the question became: What next?

Banished from Eden

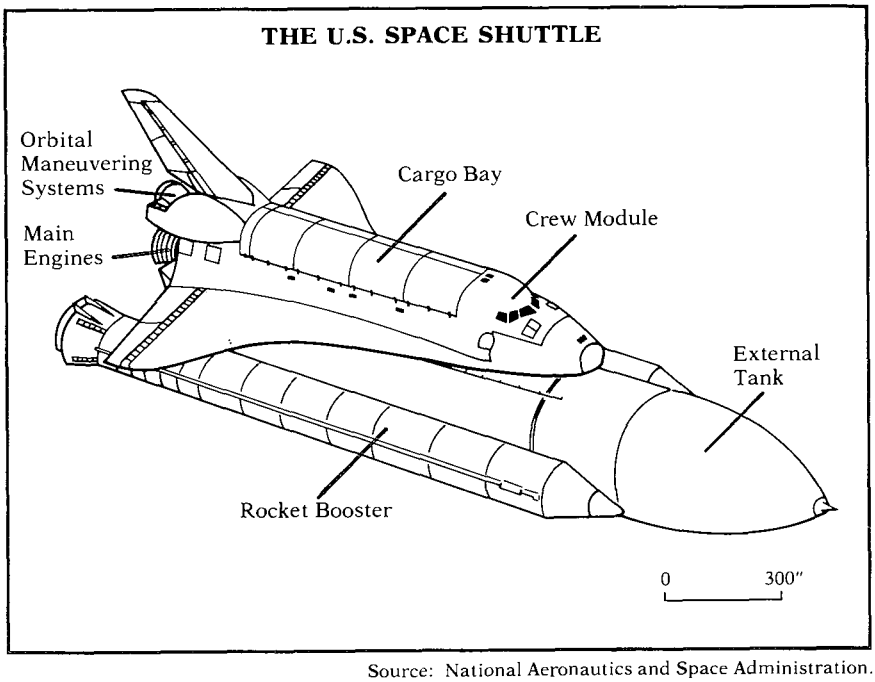
With the end of the "beat-the-Russians" era came a long, troubled period of adjustment for NASA that has not yet ended. NASA should not have been surprised. From a peak budget of nearly $6 billion in 1965, at the height of Apollo development, NASA's fortunes had been declining every year. Several "follow-on" proposals had either been rejected, postponed, or scaled down. NASA, nonetheless, counted on a tide of Apollo 11 enthusiasm to float its bold plans for the future. To a presidential panel reviewing space policy for the post-Apollo period, NASA's Thomas O. Paine proposed as "the next natural step" permanent space stations in earth orbit, bases on the moon, manned flights to Mars by the mid-1980s (or at least by the end of the century), and a fleet of reusable "spaceplanes" for shuttling to and from space.

But NASA had misread the national mood. While President Richard M. Nixon declared Apollo 11 to be the greatest event since the Creation, his administration now seemed to feel that expulsion from the Garden of Eden was the next logical step. Political support for space had never been weaker. The racial and campus turmoil of the late 1960s had prompted much of the press and some politicians to view the space effort as the paramount symbol of "misplaced national priorities." With detente, the Soviet threat no longer seemed so ominous. New antitechnology tremors were felt throughout the land—against nuclear power, atomic weapons, even automobiles.

NASA was told to scrap its plans for large space stations and manned missions to Mars. Three lunar landings were cancelled. A "grand tour" of the outer planets by robot spacecraft was abandoned. Prepare to make do with budgets well below $4 billion, NASA was informed, and inflation be damned. The only major proposal to survive was the spaceplane—the shuttle.

As originally conceived, the space shuttle featured two components, both reusable. One would be a big rocket booster

THE U.S. SPACE SHUTTLE



Source: National Aeronautics and Space Administration.

the size of a Boeing 747 airliner that would provide the initial thrust, then be piloted back to runway landings and used again. The second stage would be an "orbiter" the size of a Boeing 707 airliner, which would ride atop the booster and, after separation, propel itself into orbit. When its mission was accomplished, it too would be flown back for a runway landing, and likewise reused. By eliminating throwaway rockets and one-flight spacecraft, NASA believed that a fleet of shuttles would, in time, dramatically reduce the cost of space flight.

Staggered by the $10 billion price tag, President Nixon's Office of Management and Budget sent the proposal back to the drawing board. NASA designed a less expensive ($6 billion), partly reusable shuttle. The orbiter (smaller, about the size of a DC-9) would still be piloted and capable of return and reuse. But its fuel tank would be jettisoned and destroyed, and its unmanned rocket boosters would drop by parachute into the ocean and have to be recovered and extensively refurbished before reuse. Dr. James C. Fletcher, the NASA Administrator at the time, persuaded President Nixon to buy a fleet of five low-budget shuttles. The project was officially announced in Janaury 1972.

Seven years later, when the planned 1979 launching date

came and went and the shuttle Columbia was still on the ground, plagued by engine failures and a suspect heat-protection coating, the administration of Jimmy Carter grew concerned. Its appointed "blue-ribbon" consultants discovered that, while the shuttle's basic technology was sound, the program had suffered from years of economic malnutrition. Rather than asking for more money—and risking possible cancellation—NASA had taken engineering shortcuts and stretched out procurements, a practice that deferred (but increased) costs. A "routine" fire in 1979 caused a four-month hiatus in the engine test program; in Apollo, there would have been spares enough to allow testing to resume in days. "We tried to poorboy it and got caught," one NASA official remarked.

Once such problems were understood, the Carter administration agreed to back substantial increases in shuttle expenditures for 1980 and 1981, and Congress reluctantly went along. Yet the forces influencing the positive decision had changed since Project Mercury days.

A New Beginning?

The most important factor now was the Pentagon. Since 1958, the United States has spent some $120 billion on space, of which about $50 billion has gone to military-related activities. While the civilian program used to get the heftier share by far, the Defense Department now takes one-half of the annual space pie. Concern over Soviet "killer" satellites and laser and particle-beam weapons virtually guarantees that the Pentagon's stake in space will continue to increase. The Defense Department has been counting on the shuttle (which will have at least two vehicles in service at all times) to deliver its communications and reconnaissance satellites. Without military backing, in my opinion, the space shuttle would now be dead.

A secondary pressure was commercial. After 4 test flights, according to NASA, 2 shuttle flights booked by paying customers—for communications satellites, primarily—are planned for 1982, 9 for 1983, 17 for 1984, 20 for 1985, and 22 for the first half of 1986. As the shuttle's prospects lapsed into uncertainty, these customers were nervously pressing Washington for reassurance, even threatening to take some of their business to the European Space Agency's Ariane rocket, which is now being tested.

A third factor was scientific. Only a few major scientific missions are planned for the 1980s, but all of them—Galileo to orbit Jupiter and probe its atmosphere; an American-European mission to orbit the poles of the sun; the Space Telescope for

viewing distant reaches of the universe—depend on the shuttle.

As the focus of interest has shifted, so has the locus of bureaucratic power. Aware of its leverage, the Defense Department is pushing for an independent manned space program. The National Oceanic and Atmospheric Administration has assumed ad hoc responsibility for earth-resources satellites, prior to establishment of some new agency to take over the burden. Communications satellites are now within the domain of Comsat, of private corporations, and of the military.

Where will that leave NASA once the shuttle is operational?

There have been several proposals. One is to merge the NASA and Pentagon space programs. To my mind, that would put an end to one of the most appealing aspects of the American venture into space: its openness, in failure and success. Another idea is to reduce the agency to a "service" organization responsible for supervising orbital traffic (as a kind of Federal Aviation Administration) and for conducting R & D in the basic technologies of space flight (à la NACA). That would be a comedown from the glory days, but these are still important functions.

The real issue facing the U.S. space program is not that of institutional rivalries but that of rationale. There are good arguments for going into space—for national defense, for the benefits that communications and applications satellites will continue to provide, for solar energy, for manufacturing, even for sheer curiosity. These are solid reasons. They were, in my view, undersold from the start.

Instead, Washington played on America's emotions, producing a one-shot burst of adrenalin that has by now all but petered out. In effect we tricked ourselves into doing what could have been justified with calm logic. The result today is lack of public interest, lack of will, and lack of purpose.

Man is going to make himself at home in space, just as he will come to rely on the sun and the atom for energy. I find it inconceivable that, 100 years from now, we will not be plying the heavens with skill—and at a profit. Will we try to postpone the inevitable? Or will we draw up a comprehensive new blueprint for space exploration, spell out the rationale, and then stick to it?

EDITOR'S NOTE: *Next February, NASA will sponsor a two-day scholarly conference at Yale University on the history of the global space effort, the first major gathering of its kind. The participants will include WQ contributors John Noble Wilford, Walter McDougall, and Bruce Mazlish.*

THE SCRAMBLE FOR SPACE

by Walter A. McDougall

A thumbnail definition of a great power between the two world wars might have been: "A nation that builds its own airplanes." The updated version would be: "A nation that launches its own spacecraft." While the United States and the Soviet Union are still the Big Two, and remain the only nations capable of orbiting satellites at will, the diffusion of space technology has already begun.

Leaving aside the United States and the Soviet Union, five nations (France, Britain, China, Japan, and India) have developed rockets to launch payloads into orbit. Six other states (West Germany, Italy, the Netherlands, Spain, Canada, and Australia) have constructed entire spacecraft for launch by others. Through participation in such international organizations as Intelsat and the World Meteorological Organization, or by contributing hardware and experiments to joint satellite ventures, almost any regime can now have a "space agency."

Two jolts, one military, the other commercial, prompted third countries to stake out their claims on the high frontier.

The first was the Soviet launching of Sputnik 1, atop an intercontinental ballistic missile, on October 4, 1957. The real significance of Sputnik lay less in the satellite (whose radio transmitter merely went "beep beep" to permit tracking) than in the rocket that put it into orbit. Soviet development of an ICBM poked holes in the Free World's U.S. "nuclear umbrella" and obliged every nation in the world to reappraise the balance of power, the "trend of history," and its own defense posture.

The second jolt was the vigorous American *reaction* to Sputnik. Anxious to leapfrog the Russians and reassure allies and nervous neutrals, Washington helped to underwrite an R&D revolution that, by the mid-1960s, threatened the rest of the industrialized world with a widening "technology gap." The implications were sobering. "History clearly shows," warned France's science minister, Gaston Palewski, in 1963, "that the independence of nations and their ability to survive are intimately bound up with their scientific efforts."

France led Europe into the space age. When Sputnik flew in 1957, France was smarting from the bitter memory of Dien Bien

Phu and the Suez crisis, and the pains of civil war in Algeria. Politically, the country was in turmoil. In 1958, Charles de Gaulle was called out of a restless retirement at Colombey-les-deux-Églises to lead the Fifth Republic.

De Gaulle's *certaine idée* of the future of France encompassed more than *la gloire* and distrust of "the Anglo-Saxons." It depended above all on technological self-sufficiency, both military and economic. Between 1959 and 1963, France's R&D spending quadrupled, with much of the new money going to two new aerospace agencies—the Centre National d'Études Spatiales (CNES) and the Office National d'Études et de Recherches Aerospatiales (ONERA)—and to the Société pour l'Étude et la Réalisation d'Engins Ballistiques (SEREB), which would be responsible for the initial development of both military and civilian rockets.

Dix, Neuf, Huit . . .

The emphasis at first was decidedly military. Declaring the U.S. deterrent unreliable (would Washington really risk New York to save Paris?), de Gaulle pushed ahead on a nuclear missile program of his own—the celebrated *force de frappe* (or "strike force"). The French had begun their rocket program by experimenting with the old German V-2s that had been divided among the allies after the war. Development of homemade launchers under the direction of SEREB came after 1959. By 1972, France was installing nuclear warheads in its atomic-powered submarines, and in silos buried deep in the Massif Central.

By the time France emerged from the Algerian debacle in 1962, national defense had been married to sheer economic survival as the Gaullist rationale for a national leap into aerospace. President Kennedy had embarked upon the Apollo program, and the Americans, as one French economist noted, had discovered the "keys to power": state-supported R&D in "point sectors" to aid in spreading revolutionary new techniques throughout the economy. The technology gap between Europe and America seemed as vast as the Atlantic.

The French set out to replicate American "space age management" and, through SEREB, stepped up development of

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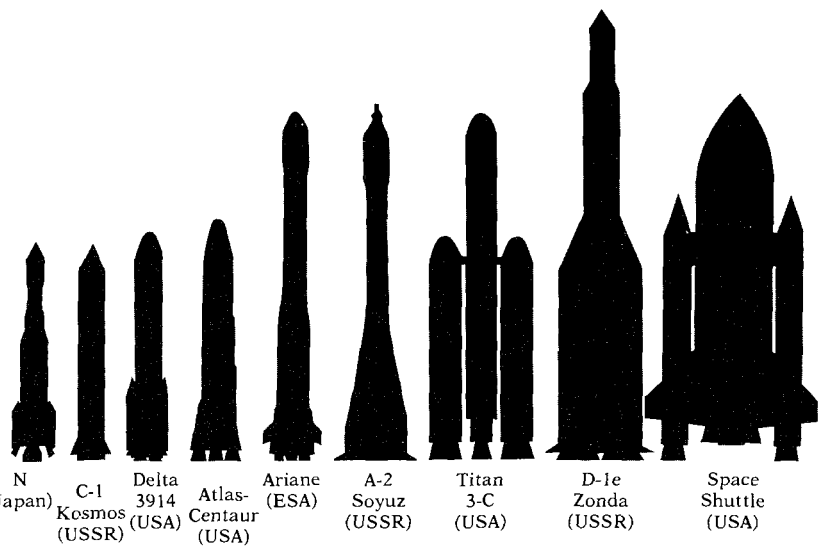
THE WORLD'S ROCKETS COMPARED



Source: European Space Agency.

their "precious stones" series of boosters (Agate, Topaze, Rubis, etc.). France became the world's third space power in 1965 when a Diamant rocket, launched from Hammaguir in the Algerian Sahara, put the satellite Asterix into orbit. The French national effort has continued apace, as have various cooperative ventures. Two French pilots began training last July for a joint space flight with Soviet cosmonauts in 1982.

The goal of a vigorous French space program was not to match the United States or the Soviet Union. As the French saw it, Europe as a whole was destined to evolve away from its economic and technological dependence on the United States, and Gaullist France must be first among European equals. French missile chief General Robert Aubinière promised in 1967 that "the space program will put our industry in a favorable position in relation to the competition that will develop *in Europe*."

That France has largely succeeded in this aim is due in part to the ambivalence of Great Britain. Space research in Britain has suffered, since the late 1950s, from a dizzy bureaucratic roundelay in which responsibility for space programs has been assigned to no less than nine ministries. The incoherence of the U.K.'s space effort reflects a larger confusion over the role of Britain in a postcolonial world, and over the role of R&D in a

postindustrial society. Where the French have sought economic independence in the long term, regardless of the immediate costs, the British have resisted duplication of technology, such as rocket launch service, available from the United States. The foot dragging of the Queen's representatives in joint European space efforts has earned them the sobriquet, "the delegates from the United States."

Britannia Steps Aside

The British, who clung to their status as a nuclear power during the 1950s with their V-bomber force, reacted to Sputnik by throwing in the towel. Britain decided, in effect, no longer to pretend being a great power. Although the British at the time had a headstart among the Europeans in missile development —prototypes of its Blue Streak and Black Knight missiles were nearing completion—the U.K. cancelled its military missile program and chose henceforward to rely on the United States. Instead of using its booster technology to launch a civilian space program, Whitehall offered its unfinished Blue Streak rocket as the first stage of a proposed pan-European space booster. The reasons were predominantly fiscal, partly strategic, and to no small degree political. "The critical lead which Britain should have taken at that moment," Sir Bernard Lovell observed in 1972, "evaporated almost entirely as politicians sought to ingratiate themselves with the European community."*

Admittedly, the idea of a joint space venture seemed to make sense. European politicians were already groping toward some sort of fragile unity through the nascent European Economic Community; surely a cooperative space effort would strengthen the bond. Moreover, financing a go-it-alone space program would be an unbearable burden for most governments on the continent; together, the feat was manageable. Such at least was the thinking behind two agencies established during the early 1960s: the European Launch Development Organization (ELDO) and the European Space Research Organization (ESRO). The two agencies soon became textbook examples of how *not* to run a space program.

ESRO was designed to secure a share of the world's space exploration for European scientists and businessmen. Its 10

*London had a tentative change of heart in 1964 and began development, on a shoe-string budget, of the Black Arrow booster. The program prospered, and in 1971, a Black Arrow rocket successfully launched the satellite Prospero into orbit from Woomera, in South Australia. The Black Arrow project was then cancelled. It has been said, with some justice, that the British notion of R&D is to forget the D.

PUTTING FIRE INTO HEAVEN

The spring of 1978 was not kind to General Mobutu Sese Seko, President of the Republic of Zaire, formerly the Belgian Congo. On May 11, Katangan rebels had invaded his nation's Shaba province. Then, on June 5, flanked by guards, Mobutu watched as a small rocket built by a West German firm called Orbital Transport-und-Raketen-Aktiengesellschaft (OTRAG) rose a few feet off the Split Behind plateau only to plunge 4,000 feet into a river valley below. It was OTRAG's last hurrah and Zaire's last venture into the space race.

OTRAG had been founded in 1975 by engineer Lutz Kayser with (ultimately) $60 million from 1,100 German investors seeking a tax shelter. The rationale behind the world's first private space enterprise was simple: With a low-cost "toy mouse" rocket, Kayser hoped to siphon off Third World demand for satellite launchings from Europe's sleek Ariane and the sophisticated U.S. space shuttle. Using the shuttle to put satellites in orbit, Kayser was fond of saying, "is like transporting bags of cement in a Rolls Royce."

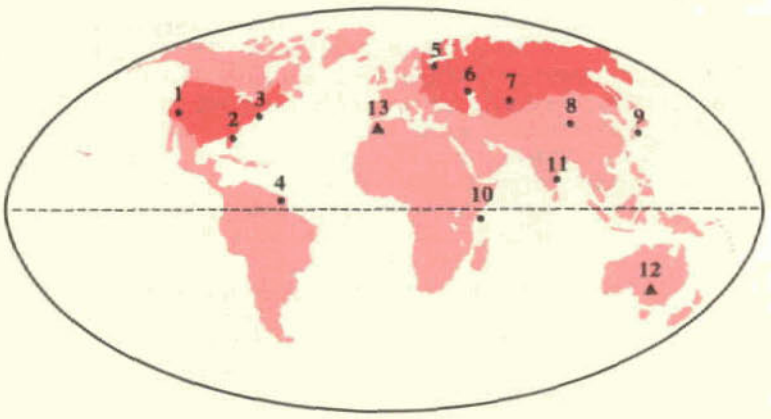
What came to be dubbed the "Volksrocket" resembled a bunch of asparagus, with the number of "spears," or rockets, varying according to the size of the payload. Whenever possible, OTRAG used mass-produced, commercially available components. The motors for opening the rocket fuel valves, for example, were ordinary $20 Bosch automobile windshield wiper motors.

All OTRAG needed was a spacious launch site—and a sponsoring government to circumvent the United Nations' 1967 ban on "freelance" space travel. Zaire's Mobutu, eager to make his country the "Cape Canaveral of Africa," stepped forward in 1976 with an offer of 39,000 square miles of undulating plateaus and lush river valleys—a territory one-half the size of West Germany, within which OTRAG would exercise virtual sovereignty. In return, Zaire was to receive a $50 million annual rental (beginning in 1980), 5 percent of eventual revenues, and one free launch. By 1977, some 240 OTRAG personnel were settled in northern Shaba province. Whenever a launch was imminent, the natives were evacuated to a "big festival." The first two tests were successful, and Lutz Kayser became known locally as "the white friend who puts fire into heaven."

Neighboring Tanzania, Zambia, and Angola, however, were not pleased. There were rumors, never confirmed, that OTRAG was in fact testing Western military cruise missiles. Soviet propagandists warned of "the German spear in the heart of Africa." West Germany's Chancellor Helmut Schmidt regarded the whole affair as "embarrassing." Facing diplomatic pressure from all sides, and stung by the inglorious failure of OTRAG's third launch, in 1979 Mobutu ordered the company to cease all rocket tests. The white friend went home, his "Volksrocket" destined for immortality as a write-off on 1,100 tax returns.

MAJOR EARTH LAUNCHING SITES

Most of the world's spaceports have been located as close to the equator as possible. There are several reasons. Geosynchronous communications satellites must be parked over the equator, and an equatorial launch site eliminates the need to "dog-leg," or correct, a satellite's orbit during flight, which requires substituting additional fuel for payload weight. The Earth's rate of rotation is also greatest at the equator—about 1,000 miles per hour—giving rockets an extra boost. To take advantage of that boost, rockets must be launched eastward. That is why most spaceports are located on an east coast, ensuring that any failures occurring during the first critical minutes after liftoff will happen over the open seas. Military "spy" satellites are not placed in equatorial orbit but rather utilize the "pare the apple" principle: They orbit the poles, their cameras clicking along a broad swatch as the Earth spins beneath them. Thus, military spaceports like Vandenberg in California and Plesetsk in Arkhangelsk have a clear shot to the North. (The Chinese, however, prudently avoid Soviet airspace and launch to the Southeast.)



Orbital Launch Sites:

1 Vandenberg AFB (USA)
2 Kennedy Space Center (USA)
3 Wallops Island (USA)
4 Kourou, French Guiana (ESA)
5 Plesetsk (USSR)
6 Kasputin Yar (USSR)
7 Baikonur Cosmodrome (USSR)
8 Shuangchenzgi (China)
9 Tanegashima (Japan)
10 San Marco Platform, Kenya (Italy)
11 Sriharikota Island (India)

Former Launch Sites:

12 Woomera, Australia (ELDO)
13 Hammaguir, Algeria (France)

member governments proposed to design payloads for sounding rockets and satellites, and to share and analyze data from European experiments aboard NASA (and, eventually, ESRO) satellites.* But getting the birds into the air proved to be unexpectedly difficult. Launches of satellites, all aboard American boosters, did not begin until 1967, had mixed success, and were all of a purely scientific, as opposed to commercial, nature. Bitter wrangling persisted among ESRO governments over the disproportionate distribution of contracts. Between 1965 and 1967, for example, France contributed only 19 percent of ESRO's budget but received 37 percent of all ESRO outlays, a none too subtle tribute to Gaullist technology policy.

The purpose of ELDO was to develop a European rocket, the Europa-1, that would free the continent from dependence on the United States. The plan looked good on paper. Britain would supply the Blue Streak first stage, France the Coralie second stage, Germany the Astris third stage, and Italy the test satellite. But by 1969, eight years after the initial agreement, ELDO had put nothing into orbit and was 350 percent over budget.

ELDO was plagued by the usual bugaboos: poor management, political squabbling, underfunding. Perhaps the most serious problem faced by the European space effort was that of purpose: *"L'espace pour quoi faire?"* For all the boilerplate at ministerial meetings about cooperation, the fact remained that the Europeans were hard pressed to agree on just why it was so important to have a space program.

Even as ESRO and ELDO stumbled through the 1960s, "American hegemony," particularly within Intelsat, the international consortium for communications satellites, gave the Europeans reason to press on. Although a nucleus of 19 nations had formed Intelsat in 1964, the United States, through the federally chartered Comsat Corporation, controlled 61 percent of the voting authority and almost 100 percent of the satellite technology. Comsat, which managed Intelsat under contract, was in turn composed of giant American firms like AT&T, which had little interest in expanding satellite services that might compete with its own oceanic cables. This situation infuriated the Europeans, but there was no way they could compete, since U.S. export licensing rules blocked the sale of American launch technology to Europe, while NASA was under instructions not to launch foreign satellites that might compete with Intelsat. This was precisely the sort of "dependency" the French had warned of. It gal-

*The 10 member countries were Belgium, Denmark, France, West Germany, Italy, the Netherlands, Spain, Sweden, Switzerland, and the United Kingdom.

vanized the European space community.

In 1972, the European Space Council merged ELDO and ESRO into a new European Space Agency (ESA). ESA has made a fresh start on a heavy launch vehicle, and, for payloads, has put more emphasis on profitable "applications" satellites rather than on purely scientific ones. Financial participation in ESA is largely on an à la carte basis, meaning that member countries may buy into only those programs that interest them. Major programs, moreover, are now under the direction of a single country. France's giant Aerospatiale, the semi-public corporation that absorbed SEREB, is the prime contractor for the Ariane booster, which should be in operation by 1982, and which should enable ESA to launch whatever it likes, regardless of what Washington thinks.* West Germany has led in constructing the sophisticated Spacelab, which is ready and waiting to be hoisted aloft by the U.S. space shuttle. Britain is designing the new Marots marine navigation satellite. Meanwhile, a revised "permanent agreement" on Intelsat has broken U.S. control, allowing Europe to compete for all contracts.†

Italian Styling, German Skill

Despite its growing pains, European space cooperation now appears to be a going concern. Not the least of its achievements is that it has tapped the ingenuity of countries that, for reasons of size or constitution, could never have supported a full-fledged space program on their own. Italian space research, for example, has been limited to cooperative scientific programs, but Italy has made a unique contribution to space history with its San Marco launch platform in the Indian Ocean, three miles off the coast of Kenya. West Germany's space program is also largely subsumed under ESA. Germany was forbidden after World War II to continue its pioneering rocketry experiments, whose military application during 1944 and 1945 destroyed parts of London. But Bonn has been an active partner in various European and American projects, and, having mastered satellite electronics, is seeking to satisfy some of the demand for sophisticated spacecraft from such places as Brazil and Egypt.

*The Ariane successfully boosted a test satellite into orbit on Christmas Eve, 1979—15 years after the formation of ELDO—but a second test last May was a failure. There is a certain competition between the Ariane and the U.S. shuttle: Third parties have booked space aboard one or the other depending on price, politics, and which they believe will first be operational.

†CNES officials hope to capture 20 to 25 percent of the global booster satellite market, including Intelsat 5 launches after 1982, ESA missions, and third party launches, such as the Arabsat communications satellite.

During the first decade of the space age, references to "third powers" in space generally meant France and Europe. During the second decade, the more ambitious nations of Asia began building space programs with quiet determination.

The Japanese, like the Germans, have shunned military rocket research during the postwar era. Until 1969, the Japanese space program rested solely in the hands of professors at the University of Tokyo's Institute for Space and Aeronautical Sciences (ISAS). After the Allied ban on all rocket work was lifted in 1954, ISAS slowly developed its relatively inexpensive "Greek letter" series (Kappa, Lambda, Mu) of rockets. After many disappointments, in 1970 the professors finally boosted a tiny 24-kg. satellite into orbit on a thin, four-stage Lambda rocket. Japan became the world's fourth space power, proud to have beaten out the neighboring Chinese.

A Great Leap Upward

Pressure from Japanese industries such as Mitsubishi and Ishikawajima-Harima, eager to penetrate the aerospace market, soon brought a shift in emphasis. Even as the Apollo 11 crew explored the moon in July 1969, American and Japanese negotiators were concluding an unprecedented agreement for the sale of U.S. technology enabling the Japanese to build a space booster comparable to the American Thor-Delta. The pact prohibited transfer to third parties or competition with Intelsat, but it nevertheless represented a degree of American largesse the Europeans could only envy.

Japan's new National Space Development Agency and its modern launch site on an island south of Kyushu, the Tanegashima Space Center, now support the fastest growing space program in the world. (Since 1970, Tokyo's annual space budget has grown by 600 percent, to about $469 million in 1979.) American businessmen anticipate heavy competition from the Japanese in the world market for communications satellites. Crowded, economically aggressive, militarily passive, Japan has opted, in a sense, for "vertical expansion."*

China is also in the second rank of space powers, alongside France and Japan, but little firm information on the PRC's space program is available. During the past year, U.S. scientific delegations have visited Chinese research and launch facilities. Chinese teams, anxious to tap American space technology, have in

*Scientific missions will also increase. The Japanese plan to launch their first interplanetary probe in 1985, in time to catch Halley's comet before heading on to Venus.

THE SOVIETS: FROM SPUTNIK TO SALYUT

The Russian space program began in 1902, the seventh year of the reign of Tsar Nicholas II, when a penurious and half-deaf young mathematician named Konstantin Tsiolkovsky recorded his thoughts ("Consider a cask filled with a highly compressed gas. . . .") on the possibilities of rocket propulsion. Tsiolkovsky's ideas received little attention at first, but after the 1917 October Revolution, the Bolsheviks seized on space travel as a symbol of socialist uplift. Rocket research flourished in the Soviet Union during the 1920s and '30s. After World War II, when Josef Stalin became intrigued with the possibilities of an intercontinental missile to help offset America's long-range bombers, Sputnik became only a matter of time.

The global furor attending the initial successes of the Soviet space program emboldened the Kremlin as much as it surprised the White House. Yet, while the new Soviet Sapwood (SS-6) booster was considerably larger than any U.S. rocket prior to the successful test of the Saturn C-1 in 1961, this was in fact the *only* area of space technology in which the Russians were superior. (One reason for the size of the SS-6: It was designed before the Russians had developed advanced "light" hydrogen bomb warheads.)

During this first phase of the Soviet program, which corresponded roughly with the reign of Premier Nikita Khrushchev and his spacecraft designer, the brilliant Sergei Korolyov, the Russians concentrated on achieving prestigious "space firsts" of marginal scientific use but considerable propaganda value: e.g., the first man in space (1961), the first woman in space (1963), the first "space walk" (1965).

The accession of the Brezhnev regime in 1964 and the death of Korolyov one year later ushered in Phase Two. While feasibility studies for a lunar landing probably continued, the Soviets, in effect, conceded the moon race to the United States and shifted their attention to practical "applications" satellites in earth orbit (for military reconnaissance, mapping, communications, and so on) as well as unmanned exploration of the moon and planets.

The U.S.–Soviet "space race" since 1957 has become something of a tortoise and hare proposition. Since they leaped ahead during the

turn toured NASA sites; China's vice-premier Deng Xiaoping in 1979 spent several happy minutes at the controls of a space shuttle simulator in Houston. Yet the origins, goals, and funding levels of the Chinese space program are unknown.

Chinese satellites have probably been launched on military IRBMs and limited range ICBMs (a real ICBM, the CSS-X4, comparable to the U.S. Titan 2 and Soviet SS-9, was successfully tested last May) fired from their desert base near Shuangehenzgi in the Kansu region. Modern Chinese missile expertise

mid-1960s, the Americans have been napping while the Soviets have gradually developed sophisticated manned and unmanned space techniques. Thus, their 36 manned Soyuz flights (as of August 1980) have centered on long-term supply and occupancy of six Salyut space stations and have permitted intensive research in manned reconnaissance, biomedicine, and agriculture and manufacturing in space. Moscow's space program continues to absorb 1.5 to 2.0 percent of Soviet GNP (the U.S. figure is 0.3 percent) and provides employment for an estimated 600,000 workers.

The Kremlin has also exploited showpiece "cooperative" launches featuring token East European cosmonauts. The only Soviet venture undertaken in cooperation with the United States was the 1975 Apollo-Soyuz "handshake in space," which, though it seeemed a good idea during that moment of detente, amounted to a U.S. giveaway of some technology and mission control techniques.

In the unmanned categories, veiled by the cryptic "Kosmos" label that has been applied to more than 1,200 Soviet spacecraft to date, the Soviets have experimented with several generations of spy satellites, possibly a reusable shuttle-type vehicle (the Kosmolojot or Raketoplan), killer-satellites, and fractional orbital bombardment systems. The Soviets put something up in the sky, on average, every other day, in part because some Soviet spacecraft lack the longevity and versatility of their American counterparts.

Nevertheless, in the 1980s, the United States faces a steady, competent, and broad-based Soviet space effort that America, with its space shuttle, *may* be able to match. If not, the Soviets could lead the "third industrial revolution" in space manufacturing; build the first permanently occupied "space colony"; and, ultimately, stun the world, Sputnik-style, with an operational laser weapons system capable of "neutralizing" American military spy satellites.

How can the USSR afford it all with a GNP half that of the United States? "There will always be funds set aside to resolve the problems of the universe," Premier Aleksei Kosygin has explained. "We don't have any contradictions in the Soviet Union between appropriations for space research and the needs of the population."

—W. A. McD.

apparently stems from technology shared with the People's Republic by the USSR in the 1950s, and from the knowledge carried to China in the head of Dr. Qian Xueshen, a top scientist at Cal Tech's Jet Propulsion Laboratory, who was deported by the United States in 1955 as a security risk. The Chinese missile program achieved maturity of sorts in 1970 with the launching of an earth satellite that broadcast the melody of "The East is Red" to the world at large.

By the mid-1970s, a larger Chinese rocket was boosting pay-

loads in the 4,000-kg. range, possibly including recoverable capsules. This led to speculation, apparently in error, that China was moving directly to a manned space program. It is more likely that the Chinese are pursuing a vigorous spy satellite program—using detachable film packs that can be dropped to Earth—to augment their fledgling ICBM deterrent force.

Since President Nixon's visit to Beijing (Peking) in 1972, the United States and the PRC have inched toward a formula for future space cooperation. China has tentatively reserved space on the U.S. space shuttle for 1982, and is cautiously exploring offers of American and Japanese aid in developing earth resources and communications satellites. Unlike the Japanese effort, China's great leap upward is not coherently integrated into the national economy. "You come away from a fairly modern facility with good looking computers," noted a recent American visitor, "then run into a water buffalo dragging a wooden plow."

The same might be said of India, likewise a miserably poor country investing in "precocious" technology. Harish Agrawal, a leading Indian scientist, explained New Delhi's rationale: India, he observed, "must master the latest achievements of space science and nuclear technology so that it can leap from its backwardness and resolve its problems of poverty and development." Off the record, Indian officials seem to be more taken with the political and military implications. India has cooperated extensively with the Soviet Union and last July launched the satellite Rohini into orbit on a homemade booster.

Space during the 1980s is something like Africa during the 1880s—dark, vast, only partly mapped. Like Africa then, space has only just begun to be explored, even as exploitation, for some countries, has become almost a matter of routine. Greater and lesser powers, meanwhile, scramble for a foothold, their motives a mix of military, economic, scientific, and prestige considerations. While international agreements bar national appropriation of orbital space or heavenly bodies (i.e., "colonialism"), space law is by and large limited to vague principles defining an essentially laissez-faire regime. That, coupled with the limitless promise of space and continued national rivalries on Earth, virtually ensures a growing club of spacefaring nations, disunited in purposes and loyalties.

It has always been thus on Earth. Why should space be any different? As Robert McNamara was fond of pointing out, space is not a mission, not a technology, not a cause. It is just a place.

RETURNS TO EARTH

by Alex Roland

The dreamers who first launched man into space were not much concerned about what he would do when he got there. When the question was put, many of them simply referred to Columbus's discovery of the New World, as if the analogy were exact and the implications self-evident. Others dusted off the apocryphal story about Ben Franklin at the first balloon flight in Paris in 1783. "But what good is it?," someone asked the American minister. "What good is a newborn baby?," Franklin replied.

The space age began, with Sputnik 1, in 1957. One is tempted to ask, "What good is a 23-year-old?" What return have the American people realized on the $73 billion they have spent on the civilian space program since 1957? In space, man has flown 12 times faster than he ever did before, has walked on the moon, and has landed expensive instruments on Mars. The space program has led to dramatic advances in virtually every branch of science and technology; it has spurred several new industries and created, in the process, hundreds of thousands of jobs. But it has not, so far, revolutionized our lives. As of this moment, in terms of its effects on the mass of mankind, the exploration of space lags somewhat behind the development of crop rotation, or the discovery of vaccination.

Let's look at some specifics.

Space science, which is simply traditional science conducted in a new laboratory, has produced results that may one day prove to be the most far-reaching harvest of our space activity. But that time has not yet come. When Homer Newell, formerly associate administrator of the National Aeronautics and Space Administation (NASA), and for many years director of the agency's space science program, recently surveyed the first 20 years of space research, he found it had produced "no change in fundamental physical concepts and laws."* Some old notions, such as that of a cold and static moon, had been discarded. Some new ones, such as the existence of a neutron star, had been

*Homer E. Newell, *Beyond the Atmosphere: Early Years of Space Science* (NASA SP 4211), Washington, 1980.

proposed. But all either flowed from, or might have been predicted by, earthbound science.

The first big space discovery had led many scientists to expect something more. With data from the first American satellite, the 14-kg. Explorer 1, launched in 1958, University of Iowa physicist James Van Allen discovered a radiation belt enveloping the Earth. From this quick discovery flowed an intense campaign of research that not only confirmed the existence of the Van Allen belt but even charted its shape and dimensions.

Poking through the Atmosphere

The Earth's magnetic belt, we have learned, extends out to 10 Earth radii in the direction of the sun, and much farther than that away from the sun. (The drag of the solar wind pulls the "magnetosphere" in the antisolar direction, much as water in a moving stream trails a wake behind obstacles in its path.) This magnetosphere captures or deflects protons and helium nuclei from the sun with consequences we are just beginning to understand: the creation of auroras and magnetic storms, for example. Research in this field has now churned out more information than our theories can absorb.

Virtually every scientific field can boast some comparable eye-opener as a product of space research. In astronomy, the discovery of x-ray emissions from celestial bodies, denied to man until he could poke his instruments through the atmosphere, has led to the tentative identification of "black holes"—the cores of collapsed stars so dense that not even light can escape their gravitational pulls.

Satellite geodesy has provided the most accurate picture yet of a slightly pear-shaped Earth and its ellipsoidal (not round) equator, and has allowed geologists to measure continental drift to an accuracy of inches per year. Comparative planetology has emerged as a distinct field allowing scientists, for the first time, to test hypotheses about the Earth against the evidence from a larger sample of planets. The study of Venus's atmosphere, for example, led to concern over the increasing Freon levels in our own atmosphere.

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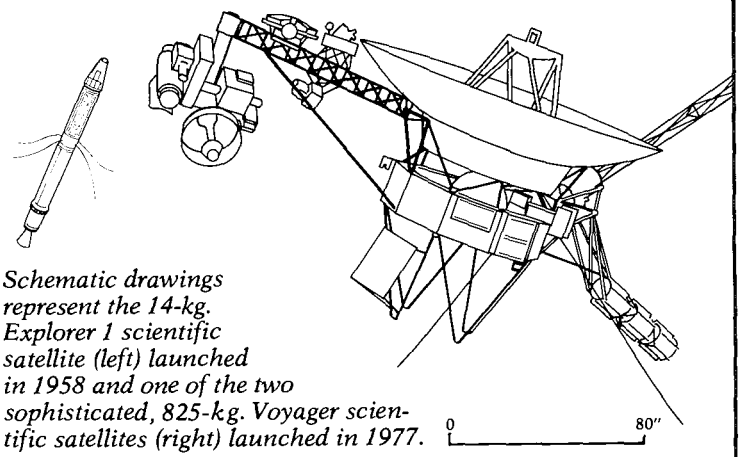
FLYING LABORATORIES



Schematic drawings represent the 14-kg. Explorer 1 scientific satellite (left) launched in 1958 and one of the two sophisticated, 825-kg. Voyager scientific satellites (right) launched in 1977.

Source: National Aeronautics and Space Administration.

What all of this adds up to, however, is not entirely clear. Certainly there has been a vast enrichment of our knowledge; we have added, incrementally, to what we already knew. Some of those new increments have been sizeable. Yet, as Homer Newell pointed out, the basic theoretical framework of modern science has not been altered dramatically. So far, the space program has produced no Copernicus, no Newton, no Einstein.

Few, of course, ever claimed that it would. The United States went into space, initially, for political reasons, not purely scientific ones. At the same time, implicit in the statements of NASA administrators before Congress, and of Congressmen before their constituents, has been the expectation that the technological payoff from space exploration would be enormous; in return for a hefty NASA appropriation, the country as whole would receive, to put it bluntly, a sizeable kickback. Instead of a handful of Einsteins, we would produce Edisons aplenty.

That expectation, I believe, has been more or less fulfilled, even if, in many cases, the new technology has simply enabled us to do better (or faster, or cheaper) something we were already doing pretty well.

Communications satellites, which primarily handle telephone traffic, are a case in point. Their advantages over traditional means of communication are obvious. Overland and undersea cables, known as landlines, must follow the contours of the Earth; they suffer severe restrictions on the volume of traffic

they may carry. Station-to-station radio and television transmissions are limited to line of sight and are at the mercy of atmospheric conditions. But three communications satellites in "stationary" orbit 22,300 miles above the equator—actually, they revolve around the Earth at the same rate the Earth rotates—can blanket the entire planet, except for the most remote polar regions, with virtually instantaneous communications of every kind.

Finding Tuna

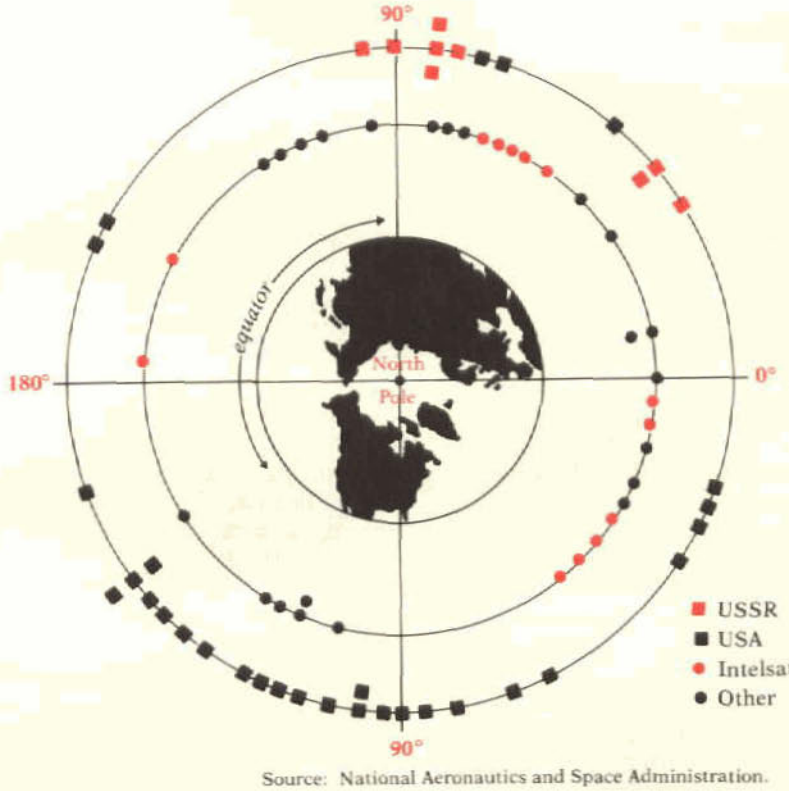
Of all the promises of the early space era, the communications satellite is the most fully realized because it is the most fully commercialized. The Communications Satellite Act of 1962 opened the door to private exploitation of a technology developed largely at public expense. In 1963, private stockholders and companies like AT&T, ITT, and GTE banded together to form Comsat, the Communications Satellite Corporation. Next year followed Intelsat, the International Telecommunications Satellite Organization, in which Comsat is a major partner and the management services contractor. Intelsat has grown from 19 to 104 members, with some 300 antennae at more than 200 ground stations around the world. Apart from such cooperative ventures, private firms and foreign governments have commissioned satellite launches by NASA. Between 1975 and 1979, the United States launched 39 communications satellites.

Intelsat's fourth generation satellites are now on station over the Atlantic, Pacific, and Indian Oceans. Each has a capacity of 12,000 telephone circuits at a cost of $800 per circuit per year, compared with Intelsat 1's 240 circuits at $32,500 each per year. Ground stations with five-meter antennae now cost less than $100,000. The prospects of satellite communication are now so alluring that overcrowding in geosynchronous orbit is becoming a real problem.

No other commercial exploitation of space flight can compare with communications satellites. Weather satellites, for example, have had a comparable if less dramatic public impact, but they remain in the hands of government. The United States launched 13 weather satellites between 1975 and 1979. Those equipped with automatic picture transmission send their images routinely to more than 800 users in every country in the world. Anyone can receive the pictures simply by investing the $15,000 or so needed for ground equipment, be it Eastern Airlines or station WFLA-TV, Tampa.

Weather respects neither geography nor political bounda-

SATELLITES IN GEOSYNCHRONOUS ORBIT



Source: National Aeronautics and Space Administration.

This chart shows communications satellites that were in operation as of November 1979. Geosynchronous orbit is nearly saturated because most communications satellites need a 2° arc to themselves (to avoid interference) and all of them must be "parked" at a height of 22,300 miles—the altitude at which an object in orbit revolves at the same rate as the Earth.

ries. It moves in the closed vessel of our atmosphere and changes on a global scale. Only by studying it on the same scale can we hope to raise weather prediction from a game of chance to a precise science. Weather satellites hold out that promise—although it remains mostly unfulfilled. While the accuracy of short-range (one-to-two-day) forecasting has improved by 20 to 30 percentage points since the introduction of weather satellites, long-range forecasting has progressed more slowly.

More tangible, if more disparate, results have been achieved

with earth-resources satellites. A whole array of "remote-sensing" techniques, from visual and near-infrared photography to radar, heat detectors, and magnetometers, have been applied to studying the Earth from space. Some of these techniques have been borrowed and adapted from the military, some from exploration of the moon and planets, some developed especially for this purpose. Together they amount to a remarkably flexible and adaptive tool, limited more by the questions it is not asked than by the answers it cannot give.

The earth-resources satellites now in orbit have applications that range from forecasting wheat crops in the USSR to measuring pollution in the Chesapeake Bay. Landsat can identify faults and fractures in the Earth's crust that are often associated with mineral and oil deposits. The Geostationary Orbiting Environment Satellite, among other capabilities, helps West Coast fishermen pinpoint concentrations of tuna and salmon. Stereosat, which will be in orbit by the mid-1980s if funding disputes are resolved, is designed to transmit 3-D pictures of objects as small as 10 meters in diameter, a degree of resolution surpassed only by military reconnaissance satellites.

Perhaps the greatest limitation on earth-resources satellites is a bureaucratic one: No single agency is responsible for collecting and disseminating remote-sensing data. There is currently talk in Congress about setting up a semipublic entity, much like Comsat, to handle the millions of satellite pictures relayed to Earth every year. That probably won't happen for at least a decade. Until then, the National Oceanic and Atmospheric Administration, which was set up for an entirely different purpose, will fill the gap as best it can.

Mylar and Medimax

Another dimension of space activity that has altered our lives in ways too disparate to comprehend is its technological legacy. To be sure, historically, most high-tech enterprises, from the transatlantic cable to the wartime Manhattan Project, have yielded "spin-offs"—advances applicable to completely different endeavors. But NASA seems to have produced more than its share. In part, this is because space flight was so unprecedented a venture, one that involved everything from testing for life on Mars to learning how to stop and restart engines in a vacuum.

Spinning off technology was also a matter of deliberate policy. Under the National Aeronautics and Space Act of 1958, NASA was ordered to "provide for the widest practicable and appropriate dissemination of information concerning its activi-

ties and the results thereof." NASA took the mandate seriously, setting up a Technology Transfer Program to bring businesses and arcane technologies together.

Teflon, a solid, chemically inert polymer that became famous during the 1960s as a nonstick coating for cookware, is not a product of space research, but the popular notion that it is reflects a willingness on the part of the public to believe that almost everything new *in* the space age is *of* the space age. Yet, for countless products and techniques, the belief is no myth.

The solar panels that now provide auxiliary power and heating for many homes and businesses reached their present stage of efficiency largely because they were needed to power spacecraft. Weight limitations on spacecraft also helped spur the electronics industry into the microminiaturization that led to digital watches and pocket calculators. The estimated 30 million Americans with hypertension can now have their blood pressure tested on the Medimax-30, a coin-operated machine produced by Advanced Life Sciences, Inc., and derived from the equipment developed to monitor astronauts in space. Thanks to the space program, we now have Mylar "tanning mats" and, just in time, new machines for detecting skin cancer.

Thus, the legacy of the first two decades of space flight has been both substantial and diffuse, even if it has not transformed our lives. To date, the space age has had a less profound impact than the atomic age that preceded it. If tomorrow a green elephant steps in front of the Viking lander on Mars, or if orbiting solar installations take up some of the energy burden of the 21st century, then perhaps the present era may one day be viewed as "revolutionary."

So far, however, the space program's *chief* legacy has been an intangible and symbolic one. The effect is subtle, perhaps imperceptible to those first touched by it. Arthur Schlesinger, Jr., has written that "the landing on the moon is the most exciting event of our age, [one that] will be remembered long after everything else about the 20th century is forgotten." More important than the fact of the landing itself was the opportunity to look—like a painter stepping away from his canvas—at our fragile, blue "Spaceship Earth," suspended alone and beautiful in a dark and indifferent universe. It was—and is—a sight worth thinking about.

FOLLOWING THE SUN

by Bruce Mazlish

During the late 1950s, man ventured into space; by the late 1960s, he had walked on the moon. A proud Wernher von Braun, NASA's claimant to the mantle of Daedalus, compared the achievement to that moment in evolution "when aquatic life came crawling onto land."

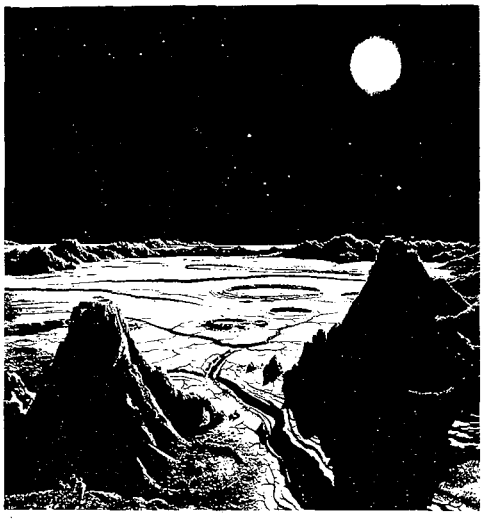
Now we seem to be crawling back. The moon landing, for all the impact it had during that sultry July night in 1969, has scattered into small effects upon us. Our expectations fulfilled, we now seem to have lost interest. I am puzzled by the disparity between the greatness of the deed and the meanness of the result. How to explain it?

It was President John F. Kennedy, as the United States embarked in 1961 upon the Apollo program, who first aroused the American public to place the imminent adventure of space alongside the historic endeavors of Columbus, Hudson, Cabot. Space, he proclaimed, is the "new ocean" upon which "we must sail." It was a facile metaphor, and, for a while, a valid one. Compare the web of motives underlying both the Age of Apollo and the Age of Discovery. One is struck by the similarities: a desire for national prestige; a hope of gain, both economic and military; an impulse to adventure; sheer curiosity. There was, in the 15th century, also a religious factor. Even that finds a 20th-century expression in our notion of scientific "mission."

Historical analogy gives flesh to a perception of vague resemblance. It is not a rigorous form of reasoning, but it is one of the more attractive. It is, too, a fashioner of myths — durable ones that survive, like a locust's brittle armor, even after life itself has departed. Analogy, finally, has but one eye, and it sees only similarities.

As the space age has evolved, the *dissimilarities* have become more pronounced. Reality has overtaken the rationale. We have inaugurated an age of discovery, but it is not *the* Age of Discovery, and it lacks the props and resonance we were conditioned to expect.

The major difference, I believe, is that in space there are no flora and fauna. There are no people on the moon to be conquered or converted. There are no new animals to grace the parks of a Spanish king, no exotic plants to nurture in the royal



"Surface of Mercury" (1949) by Chesley Bonestell, a popular science-fiction illustrator since the 1930s.

Courtesy of Chesley Bonestell.

gardens at Kew. Columbus returned with naked savages. Lewis and Clark identified 24 Indian tribes, 178 plants, and 122 animals, all of them previously unknown. Even the voyagers of the *Beagle* sailed into port with exotic, if ugly, Fuegians that titillated the English public. Space, by contrast, is "empty," and our chief harvest thus far has been in the form of rocks. Scientists profess delight. But there is not much to nourish the *public's* imagination.

If the realm of space offers so little of "human" interest, what of the explorers?

They were test pilots and fighter pilots turned astronauts. As individuals, perhaps, they were as much the salty adventurer as was Sir Francis Drake, but they never quite captured the American imagination. The first class of astronauts published an antiseptic group biography titled *We Seven,* suggestive of Charles Lindbergh's autobiography, *We*. Yet the astronauts, unlike Lindbergh, never sat in lone splendor at the controls of their craft. Backed up by an indispensable team of thousands, they were themselves utterly interchangeable, like ball bearings, or members of the Rockettes. In space, moreover, the astronauts somehow seemed dehumanized, their language at once bland and arcane, their humor forced, their behavior programmed. Lewis Mumford put his finger on it: An astronaut's life, he noted, seemed to have been reduced to "the physiological functions of breathing, eating, and excretion. By comparison, the Egyptian cult of the dead was overflowing with vitality."

There was no drama. Norman Mailer, in one of the few attempts to respond humanistically to the space venture—one thinks of such earlier analogues as Camoën's *Lusiads* and Shakespeare's *Tempest* — tries brilliantly, in *Of A Fire on the Moon,* to kindle a few sparks of imagination. He speaks of dreams that border on ecstasy (or madness); of Hemingway-esque courage (or mania); of the dread of death. But always he runs up against the dulling, cautious cult of *routine* deliberately built into the space program. He yearns for, but can find:

> no curse, omen, oath, scar, or smell . . . no revel, no voice, no unnecessary chancing of human life. It was not that anybody wanted the blood of astronauts any more than they desired the death of bullfighters, auto racers, or boxers, it was that NASA had come to believe that if Apollo 11 resulted in death, all space investigation was gone, whereas in fact the irony was that the world, first sacrifices in outer space paid, would have begun to watch future flights with pain and concern.

There was, in the end, a soporific quality about the landing at Tranquility Base—an all too apt name—as if Magellan, instead of being murdered by natives in the Philippines, had uneventfully returned home and gone to work for *National Geographic.*

The cause of national prestige has fared no better. The initial impetus for the American space program was rivalry with the Soviet Union; as author-physicist Carl Sagan has observed, the cost of Apollo "should have been part of the budget of the Secretary of State." Competition is a crude, if expedient, motive for any sort of exploration. During the Age of Discovery, it led frequently to armed conflict—and public excitement. Macabre as is the thought, even a small-scale war in space would rivet American attention on the space program. Hollywood science fiction is filled with such wars—and hence, human interest. But what has happened? We have found military uses aplenty for outer space, but no call for derring-do. Nor is there any longer much sense of competition. We have already beaten the Russians to the moon. The game is over.

As for the putative economic windfall from space flight, this

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was gilding on the gold. Back in the early 1960s, NASA's Robert Jastrow and Homer Newell asserted that "the science which we do in space provides the equivalent of the gold and spices recovered from earlier voyages of exploration." Perhaps, from the point of view of the scientists, this has been the case. Among the general public, I believe the judgment is different. Certainly there have been thousands of technological spin-offs, most of them useful. But they have been indirect and haphazard, and most, had they been considered essential, could probably have been developed, far more cheaply, long ago.

How, then, are we to justify future space exploration?

I don't think we can, at least not in a way guaranteed to win majorities on Capitol Hill, or among the people. Space *exploration* has become an entirely "discretionary" activity; no longer is it deemed vital to our national security, or to our national pride. Now it is weighed against other discretionary activities—cancer research, urban renewal—and often found wanting or wasteful by comparison. These days, the space program's chief ally seems to be leftover momentum: the fact that certain programs, planned long ago, happen to be under way.

Yet, to my mind, there is an argument that suffices to justify a leap into space, one as unprovable as it is irrefutable: that it is man's destiny continually to test himself against the unknown, to know himself by his exertions. And to my defense I call upon an earlier traveler in unknown spaces, Ulysses, encountered by Dante in the *Inferno:*

> "O brothers," I said, "you who
> through a thousand perils have come to the West,
> to the brief vigil of our senses
>
> which is left, do not deny
> experience of the unpeopled world
> to be discovered by following the sun.
>
> Consider what origin you had;
> you were not created to live like brutes,
> but to seek virtue and knowledge."

BACKGROUND BOOKS

THE SPACE EFFORT

The early birds of space exploration were inspired, in part, by science fiction. Konstantin Tsiolkovsky (1857–1935), for example, credited Jules Verne with planting the "first seeds" of the idea of interplanetary flight.

During the 1890s, Tsiolkovsky built the first wind tunnel to test aerodynamic designs. By 1903—the year the Wright brothers first flew their plane at Kitty Hawk — Tsiolkovsky was tackling the theoretical problems of rocket engines (heat transfer, navigation mechanisms, and fuel-supply maintenance). His research feats are described in Nicholas Daniloff's **The Kremlin and the Cosmos** (Knopf, 1972).

Tsiolkovsky did not construct or test rockets, but an American soon did. In 1898, Robert H. Goddard (1882–1945) read H. G. Wells's *War of the Worlds* and dreamed of building a spacecraft. Thirty-eight years later — at his Aunt Effie's farm in Auburn, Mass.—he launched the world's first liquid-fueled rocket, which rose to a height of 41 feet.

"In a field so complex that it would call for teams of scientists and technicians," writes biographer Milton Lehman, Goddard "remained a solitary, mustering a few mechanics to help him." In **This High Man: The Life of Robert H. Goddard** (Farrar, 1963), Lehman explains Goddard's reticence. Much of his early work ran into official apathy, public indifference, and ridicule in the press. Yet, Goddard persisted.

If not many Americans were paying attention to Goddard, several Germans were. For years, said Wernher von Braun, "Goddard was ahead of all of us." Von Braun (1912–77) was technical director of the group of Germans who, during World War II, developed the V-2, a long-range ballistic missile used against London. A detailed account of the evolution of the V-2 — forerunner of the rockets that would carry men into space — is found in **The Rocket Team** (Crowell, 1979) by science writers Frederick I. Ordway III and Mitchell R. Sharpe.

In the most complete biography of von Braun, **Reaching for the Stars** (Doubleday, 1960), Erik Bergaust recounts the scientist's run-in with the Gestapo. As von Braun's rockets were nearing operational status in 1942, he was briefly held by the Gestapo and charged with making "statements to the effect that the V-2 was not intended as a weapon of war, that [he] had space travel in mind when it was developed."

After the war, von Braun and 100 coworkers surrendered to the Americans and were transferred to White Sands, N.M., to continue their rocket tests. Early in 1958, four months after the Russians launched Sputnik 1 in 1957, von Braun put the first U.S. satellite in orbit. The stage was set for NASA and the "space travel" that von Braun had in mind when he worked on the V-2.

A vivid portrait of the first U.S. astronauts—Alan Shepard, John Glenn, Gus Grissom, Scott Carpenter, Gordon Cooper, Wally Schirra, and Deke Slayton — is **The Right Stuff** (Farrar, 1979) by journalist Tom Wolfe. These former test pilots, says Wolfe, shared "an ineffable quality . . . not bravery in the simple sense of being willing to risk your life [but] the ability to go up in a

hurtling piece of machinery . . . and then go up again *the next day,* and the next day, and every next day."

Opposing the astronauts' view of themselves (shared by the press and the public) as test pilots was NASA's conception of their role in the space mission. The scientists and engineers saw the Mercury capsule as fully automated; "the astronaut [was] added to the system as a redundant component." But the astronauts wanted to *fly* their spaceships. Eventually, Wolfe notes, they were successful in their design demands — first a window instead of a planned porthole, then an exploding escape hatch that they could detonate, then an "override system" by which an astronaut could take over and guide the spacecraft.

These man-oriented changes paid off later. In 1970, 200,000 miles from Earth, Apollo 13 suffered a loss of power due to an explosion in an oxygen tank. The dramatic story is related by *New Yorker* writer Henry S. F. Cooper, Jr. in **Thirteen: The Flight That Failed** (Dial, 1973). The astronauts — Jim Lovell, Fred Haise, and John Swigert — had to use the lunar landing module as a "lifeboat" for power and oxygen. They landed safely, doing "a lot better by themselves than their elaborate paraphernalia had done by them."

Novelist Norman Mailer also comments trenchantly on our spacemen. In his quirky **Of a Fire on the Moon** (Little, Brown, 1970, cloth; New American Library, 1971, paper), he calls them "the core of some magnetic human force called Americanism." They are "men of much personal strength, moral and physical, . . . the depths of their character are kept hidden by the impenetrable qualities of their personal surface, and they shine in appearance."

At least one astronaut has exposed his "hidden character." Michael Collins is the Apollo 11 astronaut who did not get to walk on the moon; he piloted the command module. His long, often funny **Carrying the Fire** (Farrar, 1974) provides a colorful personal account of traveling in space: "I have seen the earth eclipsed by the moon, and enjoyed it. I have seen the sun's true light, unfiltered by any planet's atmosphere. I have seen the ultimate black of infinity in a stillness undisturbed by any living thing."

The tranquility of space, however, may be shattered by human settlement, according to Princeton physicist Gerard K. O'Neill. In **The High Frontier: Human Colonies in Space** (Morrow, 1977, cloth; Bantam, 1978, paper), O'Neill sees orbiting space colonies as feasible by the end of this century.

In this new world, man will mine natural resources from the moon and asteroids, relay solar energy back to Earth, and live in an artificially created earth-like environment. O'Neill's "Island Three" would have a land area of 500 square miles and support a population of several million people. O'Neill is no mystic; all of his designs are based on existing technology.

EDITOR'S NOTE: *Most of the titles mentioned in this essay were suggested by Bruce Mazlish and Richard P. Hallion, associate professor of history and administration, University of Maryland.*

History:

MANKIND'S BETTER MOMENTS

In her prize-winning *A Distant Mirror: The Calamitous Fourteenth Century* (1978), historian Barbara Tuchman focused on a "violent, bewildered, suffering, and disintegrating age." She went on to see a few parallels with our own troubled times. But we should not be blinded by our present predicaments; every age has its ups and downs, as she explains in this essay adapted from the National Endowment for the Humanities' Jefferson Lecture, which she delivered in Washington, D.C., last spring.

by Barbara W. Tuchman

For a change from prevailing pessimism, I should like to recall for you some of the positive and even admirable capacities of the human race. We hear very little of them lately. Ours is not a time of self-esteem or self-confidence as was, for instance, the 19th century, whose self-esteem may be seen oozing from its portraits. Victorians, especially the men, pictured themselves as erect, noble, and splendidly handsome. Our self-image looks more like Woody Allen or a character from Samuel Beckett. Amid a mass of world-wide troubles and a poor record for the 20th century, we see our species—with cause—as functioning very badly, as blunderers when not knaves, as violent, ignoble, corrupt, inept, incapable of mastering the forces that threaten us, weakly subject to our worst instincts; in short, decadent.

The catalogue is familiar and valid, but it is growing tiresome. A study of history reminds one that mankind has its ups and downs and during the ups has accomplished many brave and beautiful things, exerted stupendous endeavors, explored and conquered oceans and wilderness, achieved marvels of beauty in the creative arts and marvels of science and social progress, loved liberty with a passion that throughout history led men to fight and die for it over and over again, pursued knowledge, exercised reason, enjoyed laughter and pleasures,

played games with zest, shown courage, heroism, altruism, honor, and decency, experienced love, known comfort, contentment, and occasionally happiness. All these qualities have been part of human experience, and if they have not had as important notice as the negatives nor exerted as wide and persistent an influence as the evils we do, they nevertheless deserve attention, for they are currently all but forgotten.

Great Endeavors

Among the great endeavors, we have in our own time carried men to the moon and brought them back safely—surely one of the most remarkable achievements in history. Some may disapprove of the effort as unproductive, as too costly, and a wrong choice of priorities in relation to greater needs, all of which may be true but does not, as I see it, diminish the achievement.

If you look carefully, all positives have a negative underside, sometimes more, sometimes less, and not all admirable endeavors have admirable motives. Some have sad consequences. Although most signs presently point from bad to worse, human capacities are probably what they have always been. If primitive man could discover how to transform grain into bread, and reeds growing by the river bank into baskets, if his successors could invent the wheel, harness the insubstantial air to turn a two-ton millstone, transform sheep's wool, flax, and worm's cocoons into fabric, we, I imagine, will find a way to manage the energy problem.

Consider how the Dutch accomplished the miracle of making land out of the sea. By progressive enclosure of the Zuyder Zee over the last 60 years, they have added half a million acres to their country, enlarging its area by 8 percent and providing homes, farms, and towns for close to a quarter of a million people. The will to do the impossible, the spirit of Can-Do that overtakes our species now and then was never more manifest than in this earth-altering act by the smallest of the major European nations. . . .

Great endeavor requires vision and some kind of compelling impulse, not necessarily practical as in the case of the Dutch,

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This detail from a 15th-century painting depicts the rebuilding of the west front of St. Denis Church, near Paris.

Bibliotheque Nationale, Paris.

but something less definable, more exalted, as in the case of the Gothic cathedrals of the Middle Ages. The architectural explosion that produced this multitude of soaring vaults—arched, ribbed, pierced with jeweled light, studded with thousands of figures of the stone-carvers' art—represents in size, splendor, and numbers one of the great, permanent artistic achievements of human hands. What accounts for it? Not religious fervor alone. . . .

Explanations of the extraordinary burst that produced the cathedrals are several. Art historians will tell you that it was the invention of the ribbed vault, permitting subdivision, independence of parts, replacement of solid walls by columns, multiplication of windows, and all the extrapolations that followed. But this does not explain the energies that took hold of and developed the rib. Religious historians say these were the product of an age of faith that believed that with God's favor anything was possible. In fact, it was not a period of untroubled faith but of heresies and Inquisition. Rather, one can only say that conditions were right. Social order under monarchy and the towns was replacing the anarchy of the barons, so that existence was no longer merely a struggle to stay alive but allowed a surplus of goods and energies and greater opportunity for mutual effort. Banking and commerce were producing capital, roads making possible wheeled transport, universities nourishing ideas and communication. It was one of history's high tides, an age of vigor, confidence, and forces converging to quicken the blood.

Even when the general tide was low, a particular group of doers could emerge in exploits that still inspire awe. Shrouded in the mists of the 8th century, long before the cathedrals, Viking seamanship was a wonder of daring, stamina, and skill. Pushing relentlessly outward in open boats, they sailed southward around Spain to North Africa and Arabia, north to the top of the world, west across uncharted seas to American coasts. They hauled their boats overland from the Baltic to make their way down Russian rivers to the Black Sea. Why? We do not know what engine drove them, only that it was part of the human endowment.

Man at Play

What of the founding of our own country? We take the Mayflower for granted, yet think of the boldness, the enterprise, the determined independence, the sheer grit it took to leave the known and set out across the sea for the unknown where no houses or food, no stores, no cleared land, no crops or livestock, none of the equipment of settlement or organized living awaited. . . .

Happily, man has a capacity for pleasure too, and, in contriving ways to entertain and amuse himself, has created brilliance and delight. Pageants, carnivals, festivals, fireworks, music, dancing and drama, parties and picnics, sports and games, the comic spirit and its gift of laughter, all the range of enjoyment from grand ceremonial to the quiet solitude of a day's fishing, has helped to balance the world's infelicity. *Homo ludens,* man at play, is surely as significant a figure as man at war or at work. In human activity, the invention of the ball may be said to rank with the invention of the wheel. Imagine America without baseball, Europe without soccer, England without cricket, the Italians without boccie, China without ping-pong, and tennis for no one. Even stern John Calvin, the exemplar of Puritan denial, was once discovered playing bowls on Sunday, and in 1611 an English supply ship arriving at Jamestown found the starving colonists suppressing their misery in the same game. Cornhuskings, log-rollings, barn-raisings, horse races, wrestling and boxing matches have engaged America as, somewhat more passively, the armchair watching of football and basketball does today.

Play was invented for diversion, exertion, and escape from routine cares. In colonial New York, sleighing parties preceded by fiddlers on horseback drove out to country inns, where, according to a participant, "we danced, sang, romped, ate and

drank and kicked away care from morning to night." John Audubon, present at a barbecue and dance on the Kentucky frontier, wrote, "Every countenance beamed with joy, every heart leaped with gladness . . . care and sorrow were flung to the winds. . . ."

It was a case of men and women engaged in the art of enjoyment, a function common to all times, although one would hardly know it from today's image of ourselves as wretched creatures forever agonizing over petty squalors of sex and alcohol as if we had no other recourse or destiny.

The greatest recourse and mankind's most enduring achievement is art. At its best, it reveals the nobility that coexists in human nature along with flaws and evils, and the beauty and truth it can perceive. Whether in music or architecture, literature, painting, or sculpture, art opens our eyes and ears and feelings to something beyond ourselves, something we cannot experience without the artist's vision and the genius of his craft.

Art and Progress

The placing of Greek temples like the Temple of Poseidon on the promontory at Sunium, outlined against the piercing blue of the Aegean Sea, Poseidon's home; the majesty of Michaelangelo's sculptured figures in stone; Shakespeare's command of language and knowledge of the human soul; the intricate order of Bach, the enchantment of Mozart; the purity of Chinese monochrome pottery, with the lovely names—celadon, oxblood, peach blossom, clair de lune; the exuberance of Tiepolo's ceilings where, without the picture frames to limit movement, a whole world in exquisitely beautiful colors lives and moves in the sky; the prose and poetry of all the writers from Homer to Cervantes to Jane Austen, and John Keats to Dostoyevsky and Chekhov—who made all these things? We—our species—did. The range is too vast and various to do justice to it in this space, but the random samples I have mentioned, and all the rest they suggest, are sufficient reason to honor mankind.

If we have, as I think, lost beauty and elegance in the modern world, we have gained much, through science and technology and democratic pressures, in the material well-being of the masses. The change in the lives of, and society's attitude toward, the working class marks the great divide between the modern world and the old regime.

From the French Revolution through the brutal labor wars of the 19th and 20th centuries, the change was earned mainly by

force against fierce and often vicious opposition. While this was a harsh process, it developed and activated a social conscience hardly operative before. Slavery, beggary, unaided misery and want have, on the whole, been eliminated in the developed nations of the West. That much is a credit in the human record even if the world is uglier as a result of adapting to mass values. History generally arranges these things so that gain is balanced by loss, perhaps in order to make the gods jealous. . . .

Although the Enlightenment may have overestimated the power of reason to guide human conduct, it nevertheless opened to men and women a more humane view of their fellow passengers. Slowly the harshest habits gave way to reform—in treatment of the insane, reduction of death penalties, mitigation of the fierce laws against debtors and poachers, and in the passionately fought cause for abolition of the slave trade.

The humanitarian movement was not charity, which always carries an overtone of being done in the donor's interest, but a more disinterested benevolence-altruism, that is to say, motivated by conscience. It was personified in William Wilberforce who, in the later 18th century, stirred the great rebellion of the English conscience against the trade in human beings. His eloquence, charm of character, and influence over devoted followers could have carried him to the Prime Minister's seat if personal power had been his goal, but he channeled his life

Fotomas, England.

British and American abolitionists cut down the tree of slavery—from a pamphlet of the Anti-Slavery Society, founded in America in 1775.

instead toward a goal for mankind. He instigated, energized, inspired a movement whose members held meetings, organized petitions, collected information on the horrors of the middle passage, showered pamphlets on the public, gathered Nonconformist middle-class sentiment into a swelling tide that "melted," in Trevelyan's phrase, "the hard prudence of statesmen."

Summoning Courage

Abolition of the slave trade under the British flag was won in 1807, against, it must be said, American resistance. The British Navy was used to enforce the ban by searches on the high seas and regular patrols of the African coast. When Portugal and Spain were persuaded to join in the prohibition, they were paid a compensation of £300,000 and £400,000, respectively, by the British taxpayer. Violations and smuggling continued, convincing the abolitionists that in order to stop the trade, slavery itself had to be abolished. Agitation resumed. By degrees over the next quarter century, compensation reduced the opposition of the West Indian slave-owners and their allies in England until emancipation of all slaves in the British Empire was enacted in 1833. The total cost to the British taxpayer was reckoned at £20 million.

Through recent unpleasant experiences, we have learned to expect ambition, greed, or corruption to reveal itself behind every public act, but, as we have just seen, it is not invariably so. Human beings do possess better impulses, and occasionally act upon them, even in the 20th century. Occupied Denmark, during World War II, outraged by Nazi orders for deportation of its Jewish fellow-citizens, summoned the courage of defiance and transformed itself into a united underground railway to smuggle virtually all 8,000 Danish Jews out to Sweden. Far away and unconnected, a village in southern France, Le Chambon-sur-Lignon, devoted itself to rescuing Jews and other victims of the Nazis at the risk of the inhabitants' own lives and freedom. "Saving lives became a hobby of the people of Le Chambon," said one of them. The larger record of the time was admittedly collaboration, passive or active. We cannot reckon on the better impulses predominating in the world; only that they will always appear.

The strongest of these in history, summoner of the best in men, has been zeal for liberty. Time after time, in some spot somewhere in the globe, people have risen in what Swinburne called the "divine right of insurrection"—to overthrow despots,

"O, Sir, doubt not but that angling is an art"—from The Compleat Angler *(1653).*

repel alien conquerors, achieve independence, and so it will be until the day power ceases to corrupt—not a near expectation.

The ancient Jews rose three times against alien rulers, beginning with the revolt of the Maccabees against the effort of Antiochus to outlaw observance of the Jewish faith. . . . In the next century, the uprising of zealots against Roman rule was fanatically and hopelessly pursued through famine, sieges, the fall of Jerusalem, and destruction of the Temple, until a last stand of less than a thousand on the rock of Masada ended in a group suicide in preference to surrender. After 60 years as an occupied province, Judea rose again under Simeon Bar Koziba, who regained Jerusalem for a brief moment of Jewish control but could not withstand the arms of Hadrian. The rebellion was crushed, but the zeal of self-hood, smoldering in exile through 18 centuries, was to revive and regain its home in our time.

The phenomenon continues today in various forms, by Algerians, Irish, Vietnamese, and peoples of Africa and the Middle East. Seen at close quarters and more often than not manipulated by outsiders, these contemporary movements seem less pure and heroic than those polished by history's gloss—for instance, the Scots of the Middle Ages against the English, the

Swiss against the Hapsburgs, or the American colonists against the mother country.

I have always cherished the spirited rejoinder of one of the great colonial landowners of New York who, on being advised not to risk his property by signing the Declaration of Independence, replied "Damn the property; give me the pen!" On seeking confirmation for the purpose of this essay, I am deeply chagrined to report that the saying appears to be apocryphal. Yet not its spirit, for the signers well knew they were risking their property, not to mention their heads, by putting their names to the Declaration. . . .

History's Lessons

So far I have considered qualities of the group rather than of the individual, except for art, which is always a product of the single spirit. Happiness, too, is a matter of individual capacity. It springs up here or there, haphazard, random, without origin or explanation. It resists study, laughs at sociology, flourishes, vanishes, reappears somewhere else. Take Izaac Walton, author of *The Compleat Angler,* that guide to contentment as well as fishing of which Charles Lamb said, "It would sweeten any man's temper at any time to read it." Although Walton lived in distracted times of Revolution and regicide, though he adhered to the losing side of the Civil War, though he lost in their infancy all seven children by his first wife and the eldest son of his second marriage, though he was twice a widower, his misfortunes could not sour an essentially buoyant nature. "He passed through turmoil," in the words of a biographer, "ever accompanied by content. . . ."

The Compleat Angler, published when the author was 60, glows in the sunshine of his character. In it are humor and piety, grave advice on the idiosyncracies of fish and the niceties of landing them, delight in nature and in music. Walton saw five editions reprinted in his lifetime, while innumerable later editions secured him immortality. He wrote his last work, a life of his friend Robert Sanderson, at 85, and died at 90 after being celebrated in verse by one of his circle as a "happy old man" whose life "showed how to compass true felicity." Let us think of him when we grumble.

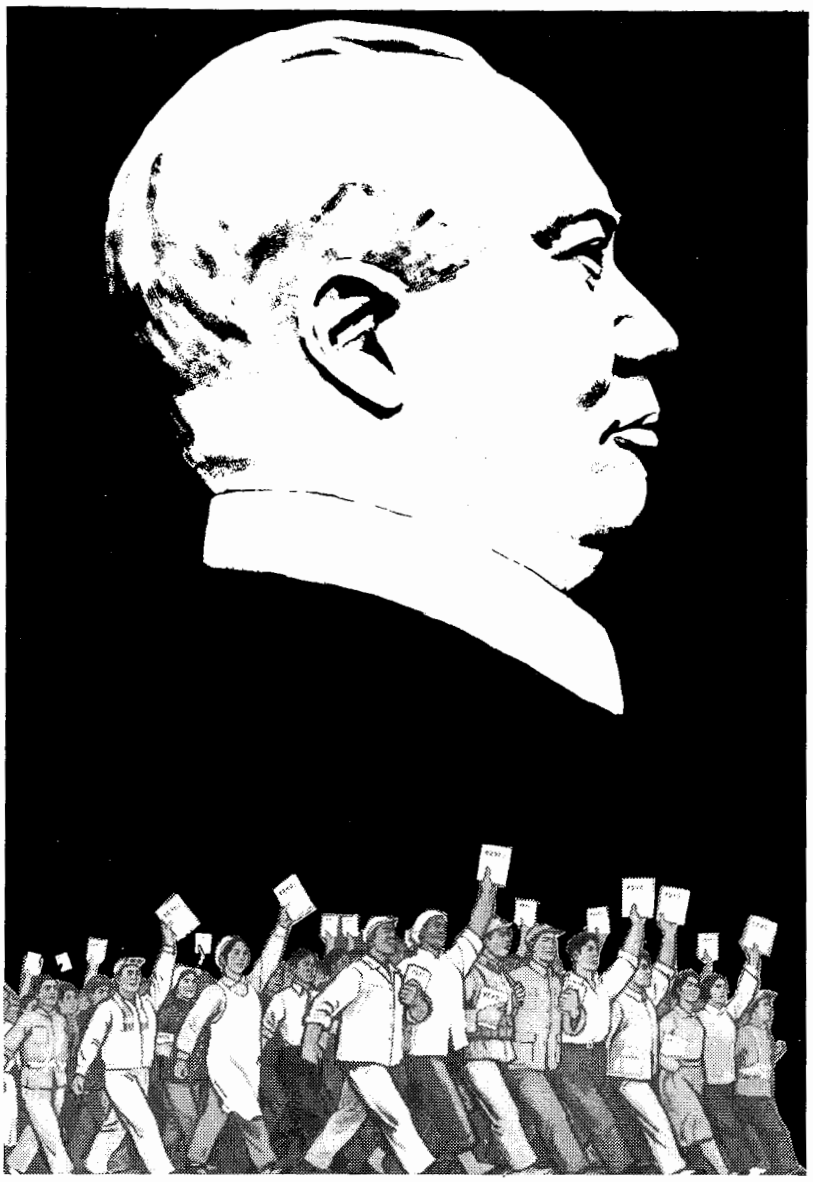
Is anything to be learned from my survey? I raise the question only because most people *want* history to teach them lessons, which I believe it can do, although I am less sure we can use them when needed. I gathered these examples not to teach but merely to remind people in a despondent era that the good

in mankind operates even if the bad gets more attention. I am aware that selecting out the better moments does not result in a realistic picture. Turn them over and there is likely to be a darker side, as when Project Apollo, our journey to the moon, was authorized because its glamor could obtain subsidies for rocket and missile development that otherwise might not have been forthcoming. That is the way things are.

Whole philosophies have evolved over the question whether the human species is predominantly good or evil. I only know that it is mixed, that you cannot separate good from bad, that wisdom, courage, benevolence exist alongside knavery, greed, and stupidity; heroism and fortitude alongside vainglory, cruelty, and corruption.

It is a paradox of our time that never have so many people been so relatively well off and never has society been more troubled. Yet I suspect that humanity's virtues have not vanished, although the experiences of our century seem to suggest they are in abeyance. A century that took shape in the disillusion that followed the enormous effect and hopes of World War I, that saw revolution in Russia congeal into the same tyranny it overthrew, saw a supposedly civilized nation revert under the Nazis into organized and unparalleled savagery, saw the craven appeasement by the democracies, is understandably suspicious of human nature. A literary historian, Van Wyck Brooks, discussing the 1920s and '30s, spoke of "an eschatalogical despair of the world." Whereas Whitman and Emerson, he wrote, "had been impressed by the worth and good sense of the people, writers of the new time" were struck by their lusts, cupidity, and violence, and had come to dislike their fellow men. The same theme reappeared in a recent play in which a mother struggled against her two "pitilessly contemptuous" children. Her problem was that she wanted them to be happy and they did not want to be. They preferred to watch horrors on television. In essence, this is our epoch. It insists upon the flaws and corruptions, without belief in valor or virtue or the possibility of happiness. It keeps turning to look back on Sodom and Gomorrah; it has no view of the Delectable Mountains.

We must keep a balance, and I know of no better prescription than a phrase from Condorcet's eulogy on the death of Benjamin Franklin: "He pardoned the present for the sake of the future."

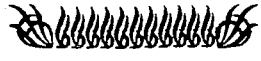


La Cina dei Cinesi *by Gino Nebiolo, Priuli & Verlucca, publishers.*

"Everybody reads the works of Mao" is the title of this 1967 poster. Times change. The once ubiquitous portraits of Mao Zedong (Mao Tse-tung) have been removed from most of China's public places — including the Great Hall of the People, or parliament building, in Beijing (Peking).

Mao's China

Mao Zedong died in 1976 after leading the Chinese Communists to victory and ruling the People's Republic for 27 years. His "New China" has long fascinated Western scholars. Now Mao's record is being scrutinized anew, notably by his successors in Beijing. Was Mao, in fact, a brilliant social architect? Did he actually forge an egalitarian society? Is the "Chinese model" really an example to other poor Third World nations? In academe, the answers used to be yes. Here, journalist Dick Wilson takes a fresh look at Mao's character and political style; demographer Nick Eberstadt reconsiders Mao's economic performance; political scientist Harry Harding re-examines American Sinologists' benign interpretations of the chaotic Cultural Revolution; and six Chinese refugees, interviewed by scholar-diplomat Michael Frolic, describe the world Mao made.



THE GREAT HELMSMAN

by Dick Wilson

As every Chinese schoolboy knows, Mao Zedong (Mao Tse-tung) was born into a poor peasant family and grew up amid the hunger and degradation of daily existence in late imperial China. Though he never went to a university, he became headmaster of an elementary school in provincial Changsha in 1920, and a major political force in his native Hunan province. From there, he went on to become the supreme ruler of a quarter of mankind for a quarter of a century, an unprecedented feat in human history.

Mao brought to this role extraordinary talents. A dynamic

and charismatic leader, he developed a political creed for China during the 1940s that seemed Marxist and yet not "extreme"; imported, but somehow Chinese. Later, during the '50s and '60s, Mao basked in the applause of foreign scholars, politicians, and journalists for his apparent success in finding indigenous solutions to the problems of revitalizing an exhausted society, solutions based on self-reliance, hard work, and an imaginative interpretation of communist doctrine.

"To Fight Is Pleasure"

Yet Mao's 27-year reign, from his triumph over Chiang Kai-shek in 1949 to his death in 1976, ultimately left China in a state of confusion, doubt, alienation, and economic disarray. Millions of his countrymen had been killed for political reasons; millions had starved to death; millions more had had their liberties disproportionately curtailed. And for what? For a rate of economic growth that has been only modest, on average, and remains highly erratic from year-to-year; an educational system damaged almost beyond repair; a bitterly divided ruling party; and a citizenry suspicious and withdrawn.

Mao, his former colleagues now declare, was a brilliant guerrilla leader during the early days of the revolution, when the outnumbered Communists took on, first, the better-organized forces of Chiang's Kuomintang (Nationalist) Party, and, later, the better-equipped Japanese invaders. He, above all, led his comrades to victory in the 1946–49 civil war. He was also, they concede, a valuable helmsman in the initial attempt during the early 1950s to steer the Chinese revolution along conventional Soviet lines.

During the final two decades of his life, however, he seemed to go wild, launching nationwide campaigns without consultation or preparation. The Hundred Flowers campaign (1957) offered intellectuals freedom of speech but then punished them for their heresies. This was followed by the backyard iron smelters of the Great Leap Forward (1958–59), which brought economic

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Since 1949, for various reasons, China has fought with many of its neighbors—and, in 1950–53, with the United States in Korea. Note: In 1979, the Chinese dropped the Wade-Giles method of alphabetizing the Chinese language in favor of the pinyin *system. Thus, for example, Chungking, in Szechwan, became Chongqing, in Sichuan. This map uses Chinese, not Western, place names: Xizang (Tibet); Guangzhou (Canton); and China's two great rivers, the Huang (Yellow) and the Chang (Yangtze). Shanghai is still Shanghai.*

disaster, and then by the Cultural Revolution (1966–76), when Mao waged open war against his own party and kindled an upsurge of anarchism whose effects are still being felt.

Why was Mao unable to work with his colleagues in the party leadership? What facets of his personality led to this tragedy? It is important to recall Mao's early experiences. At school in his native Hunan province, he was clearly a determined lad. In 1911, he was one of two student protesters who cut off their queues as a gesture of defiance against the effete Imperial Manchu rule—and forcibly sheared off the pigtails of 10

others who had promised to do so but then got cold feet. He told his boyhood friend Siao Yu in 1921: "In order to reform a country one must be hard with oneself, and it is necessary to victimize a part of the people." Mao knew from very early days these harsh truths about politics and revolution.

He was a dogged fighter. His earliest known poem reads:

> To fight with Heaven is infinite pleasure!
> To fight with earth is infinite pleasure!
> To fight with men is infinite pleasure!

In 1919, when a girl in his town committed suicide rather than consent to an arranged marriage, Mao condemned the society that had driven her to desperation but did not condone her act itself. "We should struggle against society in order to regain the hope that we have lost," he wrote in the local newspaper. "We should die fighting." He was never wounded, but he did spend his life in battle—fighting the Kuomintang in the 1930s, fighting the Japanese in the '40s, fighting the earth for its grain in the '50s, and fighting human nature to make it more collective and less selfish in the '60s.

At school, he insisted that his beloved *Romance of the Three Kingdoms,* the 14th-century Chinese classic, was literally true. When a teacher explained that it was a fictionalized version of history, thus contradicting Mao in front of his school friends, Mao complained to the headmaster. When the headmaster took the teacher's side, Mao petitioned the mayor. After that, Mao left the school.

Mao was enormously proud. He never tired of boasting to his school friends of the essay on which he had been given the very rare and distinguished mark of 105 out of 100. Chen Yi, Mao's foreign minister from 1958 to 1972, once recalled how, in 1949, the other Chinese Communist Party leaders wanted to make amends to Mao for their inadequate, sometimes wavering, faith in his (successful) strategy during the Revolution. Mao would not allow them to apologize. Chen Yi advanced this as an example of Mao's modesty, but it is actually a parable of pride: Mao would never again leave himself vulnerable to colleagues whose lack of trust had wounded him in the past.

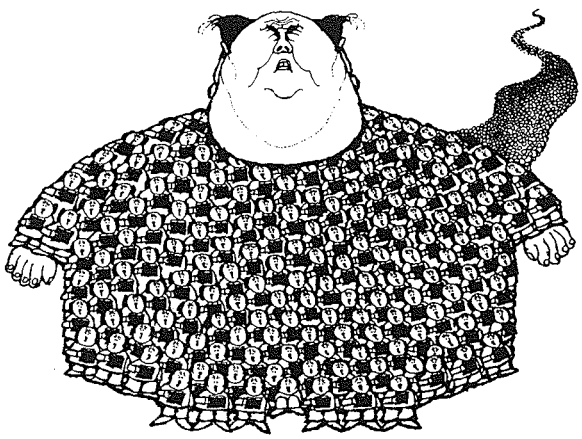
His ambition equaled his pride. Mao was always fascinated by power. During classroom debates over the famous characters of Chinese history, for example, young Mao defended as expedient the tyranny of Emperor Liu Pang (reign: 202–195 B.C.), who, to strengthen his hold on the throne, executed all of his generals and old friends, and their families.

In 1921, Mao spent an evening drinking with a fellow dele-

gate at the first Chinese Communist Party Congress. They discussed who in Chinese history had become great by his own efforts, to which the answer came, only two: the first Han emperor and Sun Yat-sen, the father of the new Republic of China. Mao banged his fist on the table and cried excitedly: "I will be the third." Twenty-eight years later, just before entering the capital to proclaim the People's Republic, Mao jocularly remarked, "As soon as we enter Beijing [Peking], I'll be an emperor." (Indeed, he soon thereafter took up residence in Beijing's Forbidden City, site of the imperial palaces.)

An early and persistent trait in Mao's character was a stubborn refusal to bow to authority. He argued endlessly with his father, and once cursed him in front of guests. Mao was forced to kowtow in apology, both publicly and privately, but he would bend only one knee. In 1936, he flatly told American journalist Edgar Snow that "I learned to hate my father," a remarkable statement, especially for a Chinese. Time and again, Mao was rejected by his intimates and peers and nursed resentment against them as a result. MIT political scientist Lucian Pye suggests that the first instance of this could have been at the tender age of three, when Mao's younger brother arrived to compete with him for their mother's affections.

Even more important was the fact that his schooling was delayed because of his poor circumstances in a remote village. By the time he began attending a real public school, he was a good five years older than most of his classmates, bigger, better developed, and obviously out of place. Inevitably, he was laughed at by his classmates, by the teachers, and by the students of his own age in upper classes. He endured this humilia-



This Swedish cartoon from the 1960s portrays Mao as a dragon made up of millions of Chinese, each chanting a quotation from "the little red book."

Courtesy of Ewert Karlsson, Sweden.

tion in order to get an education.

Again, when Mao first moved to Beijing and tried to audit university lectures on political philosophy, he was rudely snubbed. The professor who stopped speaking in mid-sentence when he learned of Mao's status, had, as Mao later put it, "no time to listen to an assistant librarian speaking southern dialect."

Mao was handicapped by his Hunanese speech, which was almost unintelligible to the Chinese of Beijing. He shunned radio broadcasts. During French President Georges Pompidou's 1973 visit to China, Mao observed that the French Ambassador, who was with them throughout their discussions, spoke French like Napoleon. To this Pompidou noted rather severely that Napoleon had spoken with an Italian accent. "Yes," Mao replied, "and people laughed at him."*

"Just a Monkey"

In spite of these rebuffs, and perhaps as a response to them, Mao in a kind of reverse snobbery retained to the end his frugal peasant habits, eating the simplest of food, wearing patched and frayed clothes, and sleeping on a hard wooden bed.

Mao did on occasion betray feelings of diffidence and self-doubt. After the collapse of the Great Leap Forward in 1959, he lamented that he was "a complete outsider when it comes to economic construction." At the height of the Cultural Revolution in 1966, he wrote to his wife that he felt like the monkey in the Chinese legend who called himself king when the tigers were away. "I have become a king in this way," he told her, "although I am just a monkey."

But he was more likely to confess errors with bravado and petulance, and without a shred of intellectual sincerity. "Even Confucius made mistakes" was one of his most revealing lines. On another occasion he asserted: "I do not care about being alone. The truth is always on the side of the minority. Even if the entire Politburo and Central Committee are against me, the Earth will go on rotating."

He was unsure of the loyalty of his comrades. In 1941, he complained that only three leaders were loved by the Communist Party cadres: his lieutenant Zhou Enlai (Chou En-lai), Wang Ming (the Kremlin-backed rival for the party chairmanship), and Peng Dehuai (the brilliant general who, years later,

*It is interesting that the experience of coming up from "the sticks" with a "southern dialect" and being laughed at (always a powerful incentive to achieve and command) in the metropolitan capital was not confined to Napoleon and Mao. The Georgian Stalin went through the same experience, and even Hitler spoke German with a soft Austrian accent. Could there be here the germ of a new theory on the origins of modern dictatorship?

MAO AND THE RUSSIANS

Adhering to orthodox Marxist theory, the Russians long underestimated Mao and the Chinese Communists, believing Chiang Kai-shek's bourgeois Kuomintang (Nationalist) Party to be the inevitable, if transient, heir to postfeudal China. Indeed, just after World War II, even as China edged toward renewed civil conflict, Joseph Stalin signed a treaty of friendship with the Kuomintang. (He was not so neighborly a year later, when Soviet armies occupying Manchuria stripped the region's factories of industrial equipment valued at $1 billion.)

Past differences were put aside after Mao's unexpectedly swift victory over Chiang in 1949. Stalin granted diplomatic recognition to the People's Republic within 48 hours of its birth in 1949; a few months later, he played host to Mao in Moscow. He was not impressed with the Chairman. He told aides that Mao "doesn't understand the most elementary Marxist truths." Even so, a 30-year Treaty of Friendship and Alliance resulted. The Chinese got a surprisingly modest amount of aid — some $1.5 billion between 1949 and 1960 — in exchange for (temporary) Soviet control of Manchuria's ports and railways and forfeiture of the Chinese claim on Outer Mongolia. The bear's embrace was tight: From 1952 through 1955, the Soviet Union accounted for more than half of China's minuscule foreign business.

But to Mao, aid and trade were never as important as ideology. After Nikita Khrushchev denounced Stalin's personality cult in 1956, Mao decided the new Russian leader was a "turnip communist" (that is, red only on the outside). Nevertheless, the charges against Stalin may have led Mao to his own reassessment; in 1958, to the astonishment of "the Soviet elder brothers," Mao downgraded the Kremlin's "heavy" model of industrial development in favor of the Great Leap Forward.

In 1960 came the split: China launched an open propaganda attack on Soviet-style communism. In response, Khrushchev angrily withdrew all Soviet technical advisers, who, to the lasting bitterness of the Chinese, simply abandoned semicompleted projects and took their blueprints home. By the end of the decade, the schism turned violent, with a series of bloody clashes along the Sino-Soviet border. To the Russians, Mao became nothing less than "a traitor to the sacred cause of communism," as the Soviet military newspaper *Red Star* put it.

Mindful perhaps of the Chinese proverb that advises the wise leader to "use the far barbarian to defeat the near barbarian," Mao turned to his old foes, the Americans, for protection from his erstwhile allies. Telling his colleagues that "the ghost of John Foster Dulles has now taken up residence in the Kremlin," in 1971 the Chairman invited Henry Kissinger to visit Beijing.

during the Great Leap Forward broke ranks with Mao and wound up on a farm near the Russian border).

His intimates found him remote. The personal losses he suffered—most of his family and friends were killed by his enemies—might account for some of his coldness, but even Mao's childhood friend Emi Siao commented: "None of us have really understood him. I have known him longer than anyone else, but I have never got to the root of him." And his last wife, Jiang Qing (Chiang Ching), who after Mao's death was denounced as ringleader of the "Gang of Four," confessed to the American sinologist Roxane Witke that she did not really know her husband.

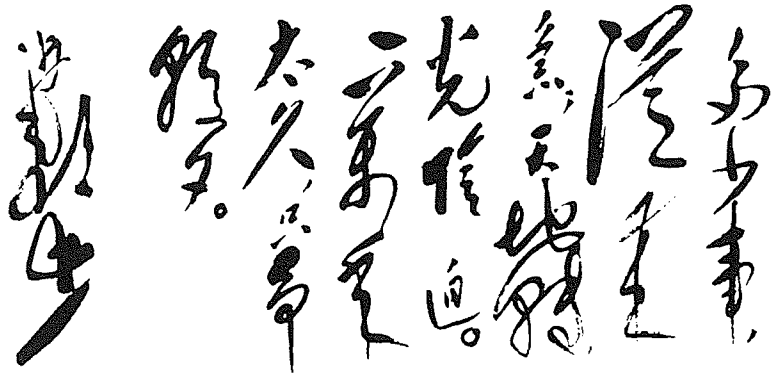
Obviously a career of such length and dazzling originality has its share of mistakes as well as successes. But Mao could learn from his mistakes, and one of the many wise opinions he used to deliver was about preferring men who had tried and erred over those who had never tried at all.

Making a Cat Eat Pepper

His subtly altering policy toward the thorny question of land reform during the 1920s and '30s was a test case of how discretion may be nurtured by experience. The problem: weighing the political advantages of wholesale land redistribution against the disadvantages of so alienating the landed classes as to jeopardize the entire local economy. On this issue, which was central to the early Chinese revolution—Mao once told the American reporter Anna Louise Strong that "A people's war . . . is not decided by taking or losing a city, but by solving the agrarian problem"—Mao did display on the whole good judgment, rarely pushing landowners too hard.

Mao's post-1949 balance sheet is worse, with a string of horrendous mistakes on a huge scale: the Hundred Flowers, the Great Leap Forward, the Cultural Revolution.

Until those campaigns, Mao's strong points as a leader outweighed his weaknesses. His outstanding quality was ingenuity and resourcefulness. The joke that the surviving Shanghai capitalists used to retail at their dinner tables in the 1950s, possibly a Chinese version of a Soviet joke, put this expressively. China's "big three" at the time—Mao, his deputy Liu Shaoqi, and Premier Zhou Enlai—were having an argument on how best to administer pepper to a cat (that is, how to engineer voluntary but distasteful social change). Zhou suggested that they wrap the pepper in meat so that the cat would eat it unknowingly, but Mao vetoed this as deceitful. Liu then proposed stuffing the pep-



Mao's 1963 poem, "Reply to Kuo Mo-jo," rendered in his own hand. This excerpt, written top-to-bottom, right-to-left, reads: "So many deeds cry out to be done/and always urgently;/The world rolls on,/Time presses./Ten thousand years are too long./Seize the day, seize the hour!" (The three characters on the extreme left form Mao's signature.) During his 1972 visit to China, President Richard M. Nixon quoted these lines in a speech.

per down the cat's throat with chopsticks. No, said Mao reproachfully, that would be violent. The two lieutenants turned to Mao: How would he do it? Simple, he said, we'll rub pepper on the cat's arse, then he'll lick it off and swallow it, and be happy that he is permitted to do so.

Mao was, in fact, a past master of getting things done with the minimum of violence. He was also adept at isolating his opponents and critics and disarming them through his favorite tactic of siding with one opponent against another, or playing the end against the middle. The classic example of this strategy is his alliance in 1937 with the class enemy (Kuomintang) against the national enemy (Japan).

It is in this light that his dealings with his own immediate colleagues—especially with Zhou and Liu—are best understood. Neither Liu nor Zhou was a serious threat to Mao's leadership. Liu Shaoqi (1898–1969) had been the urban organizer (Mao was active in the countryside) during the earliest days of Communist revolt; during the 1940s they pooled their resources to ensure a Communist government. If Liu had any doubts about Mao's position as supreme leader, Mao disarmed them with flattery and the offer of a formal post as deputy.

Zhou Enlai (1898–1976) never laid claim to the number one position. He was the only Chinese Communist leader who came from the upper classes; even his very gracefulness and good

manners were held by some to be contemptible. He was also saddled with remorse over mistakes he had made while running the party in 1934–35, when his rather conventional military campaign against the Kuomintang proved unsuccessful. After voluntarily handing over the baton during the Long March, he supported Mao faithfully for the rest of his life, always taking the second, or sometimes third, position. Yet Mao always withheld his trust from Zhou, even when his deputy lay dying in 1975–76, and he did not appear at Zhou's funeral.

Small wonder that Lin Biao, the defense minister, who attempted a coup against Mao in 1971, when he was Mao's deputy and chosen successor, once said of his master: "Do you see anyone whom he supported initially who has not finally been handed a political death sentence?" The same thought was feelingly voiced by General Xu Shiyou soon after Mao's death, when he reportedly observed that Mao had "libeled as class enemies all those in the party who had dared make suggestions to him."

In the final two or three decades of his life, Mao's theory of governing rested on his own presumed infallibility. There was reasoned discussion with associates, certainly, but if the consensus came out against him, Mao—always a bad loser—usually refused to accept the verdict and sought allies elsewhere. In his last years, Mao became obsessed with the so-called Ten Line Struggles, a sordid and often unnecessary series of internal party fights to promote his own dictatorial leadership.

Too Much, Too Soon

He was not, however, a good implementer. Indeed, after 1949, when the fighting was over and the building began, he may have become jealous of the better skills of Zhou and Liu in this regard. Time and time again, the actual organization of social change had to be left to these two, while Mao either traveled around the country interfering at the lower end, or else remained at the shoulder of his colleagues in Beijing, urging, criticizing, and complaining.

In drawing up a balance sheet, one has to consider the cost of Maoism. Millions of Chinese died in the various campaigns that Mao pursued after 1949, and millions more suffered injury or persecution. One of Mao's sympathetic streaks, of course, was his insistence on the essential corrigibility of class enemies. Endless memorandums went out from his office to the field on how much better it was to argue an opponent or a class enemy, such as a landlord, round to your own way of thinking. That way you would acquire an ally.

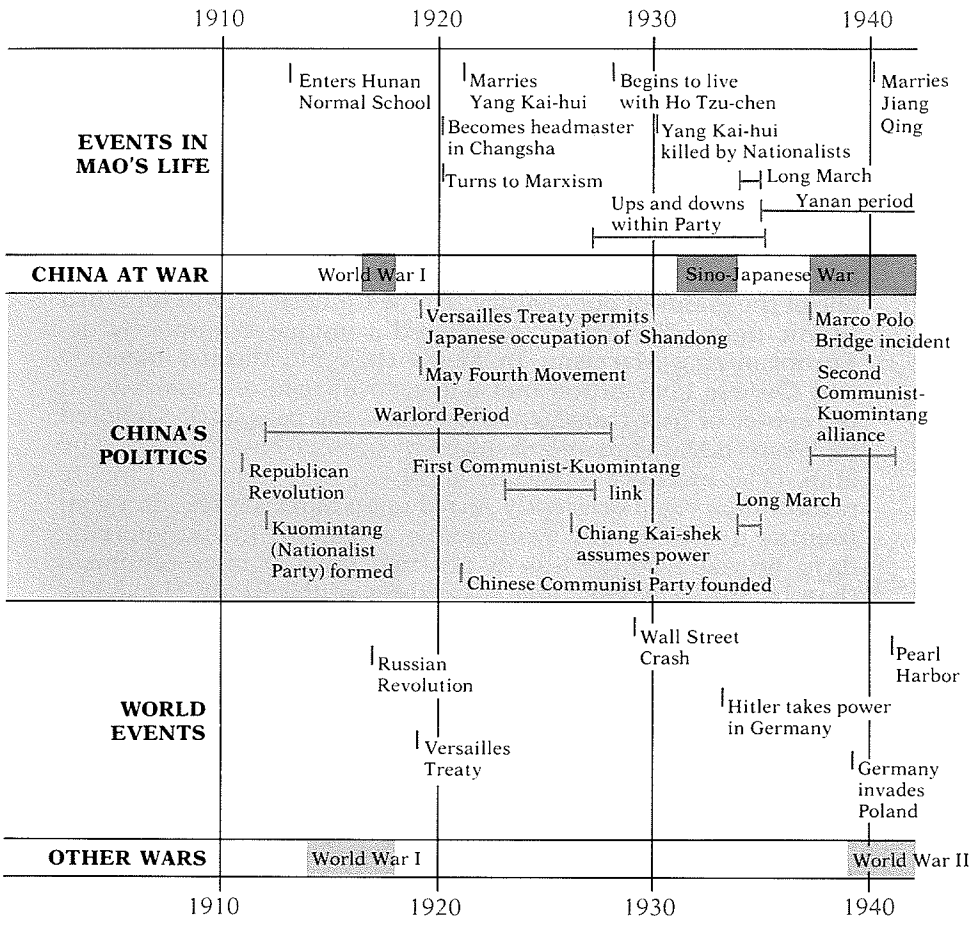
But few others in the Communist Party were as persuasive as Mao on this point. (A riveting orator, Mao enlivened his speeches with earthy proverbs and poetic images, few of which survived the bureaucratic editors of Mao's *Selected Works.*) And Mao was a realist. He knew the intensity of the political forces he was unleashing in Chinese society. He knew the grim logic of the kind of revolution he was engaged in and recognized that blood would be shed. The question we might now ask is: Were the results really worthwhile? This is something that the Chinese will come to a conclusion about in their own way.

Mao Zedong was a great force. In spite of his grim errors, and to some extent because of them, he will be remembered as one of the giants of our century. To the Chinese, he will remain a titanic figure. For others, he offered a unique example by de-Europeanizing Marxism: In Mao's thought, Marxist ideology and Chinese civilization met and transformed one another. At the center of that transformation stood the peasantry—ignored by Western Marxism and despised by urban China, but loved by Mao. (The evidence suggests, however, that Mao the Chinese revolutionary had originally seized upon Marxism less as a goal than as a useful—and fashionable—weapon. In his guerrilla days, he was inspired less by abstract theories of communism than by the swashbuckling adventures of the Robin Hood–like heroes of old Chinese sagas such as *Romance of the Three Kingdoms;* in the *Selected Works,* only 4 percent of literary references are to Marx and Engels, against 22 percent to Confucian sources.)

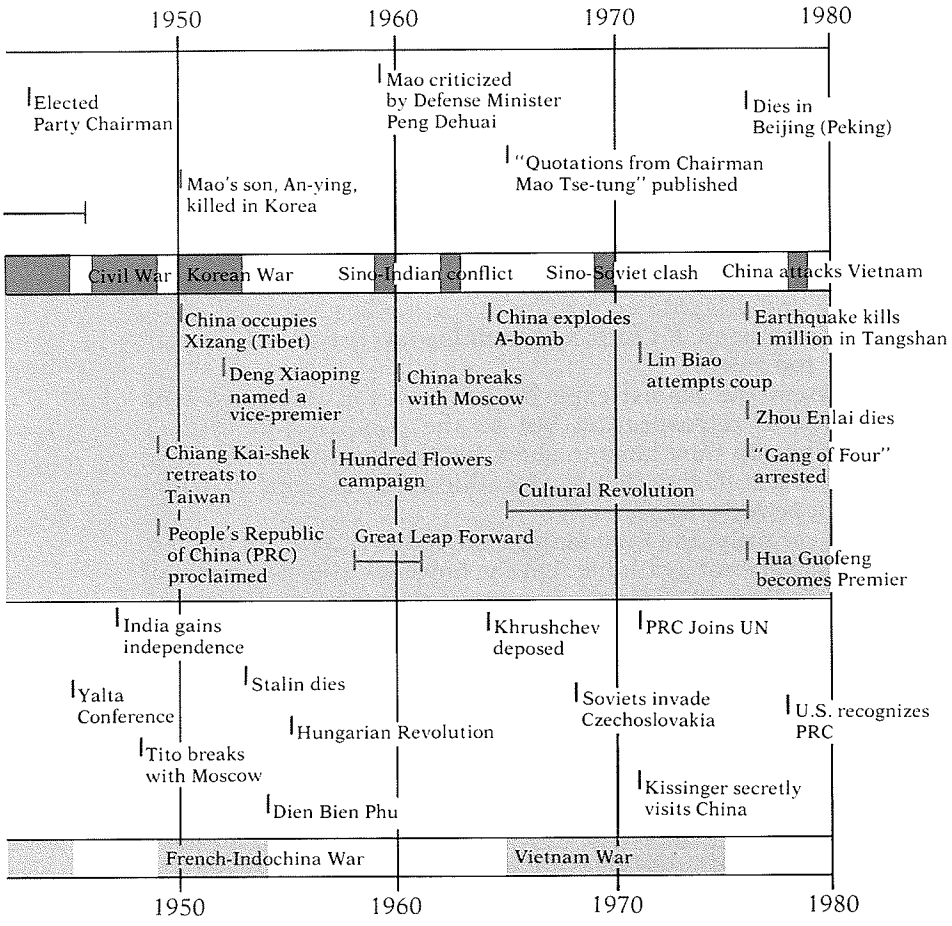
Mao began by offering his party a brilliant leadership that finally overcame all its foes and brought him to the throne of China's imperial dynasties. Then, for a few years, he presided over a regime that pursued a broadly Soviet model of communism with only minor modifications. Finally, during the last two decades, he broke out of the Soviet harness and endeavored to pull China up by its bootstraps using revolutionary techniques of unparalled scope and scale.

But he tried to do too much, too soon, and with too little preparation and consultation. The early promise foundered on the shoals of personal insecurity and mistrust, and Mao's final two decades of leadership were tragic. If only he had known when to retire!

MAO, CHINA, AND THE WORLD, 1910–80



NOTES: Mao Zedong was born on December 26, 1893 . . . 1919: The Versailles peace conference allows the Japanese to occupy former German "concessions" in Shandong province. On May 4, a Beijing student protest sparks the anti-imperialist "May Fourth Movement," which the Communists now view as the true start of the 20th-century Chinese revolution . . . 1923–27: Communists are allowed to join the Kuomintang, in which Soviet advisers are temporarily influential. The collaboration ends when Chiang Kai-shek occupies Shanghai and massacres local Communists. In 1937, the two parties again put aside their differences, this time to form a "united front" against the Japanese invaders . . . 1930: Mao's first wife, Yang Kai-hui, is tortured and killed by the Nationalists. Mao soon legitimizes his union with Ho Tzu-chen, with whom he has been living



since 1928. But within a few years—in 1937 or 1938—Mao divorces Ho and takes Jiang Qing as his mistress, marrying her in the late 1930s or early 1940s . . . 1934–35: Denounced by senior Communist Party authorities in 1927, 1930, 1932, and 1933, Mao finally wrests control of the party from its pro-Moscow leadership during the Long March . . . 1935–47: During the "Yanan period," Mao tightens his hold on the party as its influence spreads across north China . . . 1937: A clash outside Beijing between Japanese and Chinese troops on July 7 ("the Marco Polo Bridge incident") leads to a full-scale Japanese war against China . . . 1971: Though formally designated Mao's successor in 1969, Defense Minister Lin Biao allegedly leads a coup attempt in September 1971. Unsuccessful, he dies in a plane crash in Mongolia while fleeing to the Soviet Union.

DID MAO FAIL?

by Nick Eberstadt

From the Liberation in 1949 until his death in 1976, Mao Zedong (Mao Tse-tung) directed one of the most ambitious, wide-ranging, and, some would say, inspiring programs of social engineering ever undertaken. Mao's goal was to transform a sprawling and dilapidated empire into a modern socialist state. The price was steep. If China's current leaders are to be believed, it was far too steep.

To assess the Maoist experiment, however, one must look not to official retrospection but to the condition of China's people: What do they have to show for the sacrifices they have made and the suffering they have endured in the name of bringing forth a poverty-free society?

Until recently, the information needed to answer that question was simply not available. Lately, however, the new rulers of the People's Republic, for their own reasons, and perhaps only temporarily, have lifted the statistical "curfew" clamped down after the collapse of the Great Leap Forward in 1960. Even so, one must be wary.

As late as the mid-1970s, as many as one out of three Chinese communes could not be reached by road[1]—an unfavorable situation for gathering up-to-date statistics. Moreover, despite the recent "liberalization," China is still governed by a regime that does not hesitate to execute citizens for opinions expressed in private conversation; in such a society, information does not move freely or emigrate without official sanction. Finally, Deng Xiaoping and his ascendant technocrats no doubt find it expedient to exaggerate Mao's shortcomings, thereby making their own work shine more brightly. Official data always risk losing their virtue in the hands of men who may gain by molesting them.

Bearing in mind, then, the limits of the available information, the best gauge of Mao's economic performance is, I believe, his record in the areas of health, hunger, and material equality. The question of psychological poverty—that is, the effect of totalitarianism on the human spirit—is another issue, but one which nevertheless should be remembered when judging Mao's long reign.

Before Liberation, few places on Earth had health levels as low as China's. During the 1930s, even before the Japanese invasion, life expectancy was not appreciably higher than it had been during the Stone Age. One child in three died of hunger or disease before his first birthday.[2]

How much better are things today?

While the American press has lavished its attention on acupuncture and the rural "barefoot doctor" system, the most reliable measure of a nation's health is average life expectancy. Before 1949, the average Chinese could not expect to reach the age of 40. Today, Beijing (Peking) officially estimates life expectancy to be about 68. That is an implausibly high figure, inconsistent even with the regime's own statistics on birth and death rates. Until the results of the 1981 Chinese census are in, the best estimates are those calculated separately by the U.S. Census Bureau's John Aird and the Library of Congress's Leo Orleans. Both reckon China's life expectancy at the time of Mao's death to have been somewhere in the low 60s—say, 60 to 64. That is still a considerable improvement over pre-Communist years.

Sri Lanka Does Better

China has outpaced Africa (where life expectancy is now only in the mid-40s) and Latin America (which 30 years ago was far ahead of China in life expectancy yet today is roughly equal).[3] But Mao's achievements do not seem such triumphs when set against the record of some of his Asian neighbors. True, the average life span in China is about a decade longer than it is in any of the other large poor countries of Asia. (See chart on page 127.) Yet East Asia's smaller developing nations—Sri Lanka, South Korea, and, ironically, Taiwan—all show significantly greater average life spans. The modernizing efforts of the colonizers of Taiwan and Sri Lanka may have given those countries something of a head start. Yet Sri Lanka is probably *still* poorer economically than the People's Republic.

Why have these nations done better than China?

It could be that their respective development strategies are inherently superior. A better answer is that their populations, and so their health problems, were much smaller. The problems of administering a nation of close to 1 billion citizens dwarf those facing any other government; and in health, as in other matters, this fact must be remembered in any fair judgment of China's performance.

In a poor country, health and hunger are almost the same problem: Well-fed bodies can fend off illnesses that would finish

off undernourished ones. If health is improving, it is a sure bet that malnutrition is subsiding. China's apparent leap forward in life expectancy over the past generation almost certainly means that a larger proportion of the population is eating regular (if modest) meals. This gain may be credited in large measure to Mao. Throughout its pre-1949 history, China was a land of recurrent regional famine, brought on by a steady cycle of droughts and floods that played havoc with the countryside, now striking Anhui, now Fujian, now Guangdong. Death from starvation visited thousands, even millions, every year.

Nevertheless, we must dismiss as nonsense the claim, made during the early 1970s by many of Mao's admirers in the West, that hunger and famine are afflictions of the past.

Counting Calories

Recent studies by more dispassionate scholars—relying in part on unpublished but widely circulated Chinese data—suggest that starvation is still very much present in China. Conditions in 1961 were as bad as at any time in China's entire history, according to Princeton economist Gregory Chow. Chinese officials now concede that Sichuan (Szechwan), the southwestern "rice bowl" with a population of some 100 million, was wracked by famine in 1976. The situation was so desperate that even a hardened veteran like Deng Xiaoping (at that time an exile in Sichuan, his native province) is reported to have burst into tears while discussing the problem before a Party gathering.[4] Sichuan was reportedly stricken again in 1977 and 1978, along with Hubei and Nei Monggol (Inner Mongolia). And last year, the government of Yunnan, the mountainous province bordering on Vietnam, Laos, and Burma, warned local officials to prepare to deal with mass starvation.[5]

One might wonder why this still happens. In many poor nations, Mao's strategy—land reform, rationing, stockpiling of grains, and expansion of rural employment—might reasonably have been expected to eliminate food shortages. In fact, there is no mystery. Despite Mao's reforms—or possibly because of them—China has failed to increase its *per capita* production of food.

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Li Hua's "Refugees," portraying the ravages of World War II in China.

If one compares the figures for food availability in 1949 and in the late 1970s, as some analysts have done, it is easy to massage the numbers and come up with a happy story. But to use the year of Liberation as a benchmark is misleading. In 1949, China was prostrate, its economy battered by nearly 20 years of war and political chaos. If, instead, one employs as a base for comparison a post-Liberation period of relative tranquility, a very different picture emerges. Matched against the 1957 figures, for example, the China of 1977 is rather disappointing. (See chart on page 128.) Although the *total* annual grain harvest increased by about one-third, *per capita* production has remained at about 290 kilograms. Fish, fruit, oils, and, possibly, vegetables actually became scarcer.[6] Thus, during these 20 years, the Chinese diet declined in quality, and quite conceivably in quantity as well.

This means that at the end of Mao's reign there was slightly less food for each citizen than there was back in the 1930s, when per capita grain availability was in excess of 300 kilograms.[7]

While Mao was Chairman, China crept along with the *slowest* rate of increase in total food production of any region in the world.[8] In recent years, the daily calories available per person have been probably about 2,000—a figure lower than the averages for India, for Pakistan, and for Bangladesh, presumed

to be the world's "basket case." (It is, in fact, about what the late Dr. Herman Tarnower's quick weight-loss "Scarsdale Medical Diet" allows the American male.)*

China's food problem is not due to circumstances beyond its control; it has not run up against some "Malthusian limit." With much the same soil and climate, Taiwan's privately owned farms produce a "caloric availability" about 50 percent greater than China's. The problem in the People's Republic is sheer inefficiency. China, alone among the nations of the world, seems to be getting less of a return on its expenditure on agriculture today than it did during the 1950s.[9]

This waste—for that is what it is—is largely the result of the socialist organization of its farms. (China's collectivized agricultural system is plagued by problems of centralization and worker motivation, as is Russia's—which explains why the 5 percent of China's farmland in private hands produces some 20 percent of the nation's food.) Hence, Beijing's panicky push (since the early 1970s) for population control: If supply does not increase, demand must be reduced. Aiming for zero population growth by the turn of the century, the Chinese government now distributes free contraceptives, encourages postponement of marriage to at least age 26, and severely restricts the food rations of couples producing more than two children. Cutting back on births no doubt strikes Chinese policymakers as preferable to the alternative—abandoning socialism.

How Equal?

Some would argue that so-so health and meager harvests are as much the result of fate as of man's doings. Not so equality of income, which is entirely a social artifact and as such a good test of Mao's economic doctrine and performance.

China is poor. It is widely believed outside China, however, that the burden of poverty is borne more or less equally by all of its citizens. That at least has been the image of the Communist regime. Under Mao, there was *some* change in the distribution of wealth. During the Nationalist era, the richest fifth of Chinese society probably had incomes more than 1,000 percent greater than those earned by the poorest fifth.[10] Those days are over.

But China is far from total egalitarianism. As under other totalitarian regimes, the ruling elite, of course, only allots to the

*China's situation is all the more disturbing because its per capita caloric needs are rising. This is because the proportion of children in the PRC is falling. China is becoming more "adult," and adults need more food.

CHINA'S POPULATION DISTRIBUTION

Source: Central Intelligence Agency.

Most of the PRC's nearly 1 billion people live in the east. Arid western China contains only 5 percent of the country's population. In the vast rural triangle bounded by Xi'an, Shanghai, and Beijing, population density is 520 or more persons per square mile, about 10 times the U.S. average.

masses those freedoms and opportunities that suit its purposes. The most obvious *material* inequality is the disparity between the privileged life of city folk (one-sixth of the population) and the harsh, often miserable, existence led by everyone else. The amenities of Beijing, such as they are, might seem austere, even grim, to Americans, but they so entice the Chinese that officials do not even bother to control the movement of the capital's citizens: It is simply inconceivable that anyone fortunate enough to dwell in Beijing would choose to return to a rural commune.

Housing, education, health care, and even food rations are, in the cities, both more abundant and of better quality. Urban residents work at less backbreaking jobs. They live longer. Their

incomes are, on average, three times higher than those of their rural counterparts.[11] The differential is even greater for specific sectors of the urban economy: In 1978, skilled industrial workers, on the average, pocketed earnings nearly nine times greater than those of peasants.

The urban-rural gap is not so wide in China as it is in most African or Latin American nations, but it is wider than what one finds in a number of societies not normally associated with equal distribution of wealth: Greece, Guyana, South Korea, and, once again, Taiwan, to name only a few.[12] The most surprising fact about urban-rural inequality is that it seems to have *increased* since the 1930s. During that era of greedy merchants and impoverished peasants, urban incomes were only double the rural average.[13]

Bringing Up the Bottom

Owing partly to urbanization, average income in China also varies widely from province to province. As always, the wealth of China is located along the heavily populated coastal rim extending from Guangzhou (Canton) up to Manchuria; as one moves inland the standard of living plummets. If we had comprehensive figures for all sources of income (private as well as collective) in all provinces, we might well find an interprovincial variance of 300 percent. By contrast, the difference in personal after-tax purchasing power between Connecticut and Mississippi, respectively the United States' richest and poorest states, is about 45 percentage points.

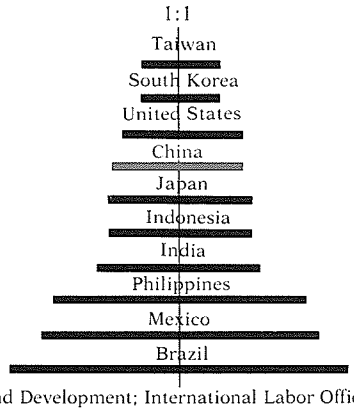
The truest test of economic equality is what happens *within* a given area, to people living and working side by side. Although information is spotty, it seems that redistribution of land, the confiscation of other property income, and the attempt to provide universal employment have diminished local differences. But even here the range remains formidably wide. A professor, for example, usually makes ¥350 a month (1 Yuan equals about U.S. $0.65) to the assistant professor's ¥100 — a gap greater than that found in most American universities. Similarly, a chief engineer can take home ¥230, while the wages of the lowliest apprentice in his team might be less than ¥30.

How wide are *overall* wage differences in the new China? I can only guess: At the time of Mao's death, the income ratio of the wealthiest fifth of the population to the poorest fifth might have been about 7 to 1 — that is, roughly the same as it was during the mid-1950s.

A 7-to-1 ratio makes China more egalitarian than any of the

HOW EGALITARIAN IS CHINA?

This chart compares 1975 household earnings for the top and bottom fifths of the population in 10 nations. The red center line would denote a ratio of 1:1—that is, an absolutely equal distribution of income. The longer the bar, the wider the income gap.



Source: International Bank for Reconstruction and Development; International Labor Office.

HOW CHINA COMPARES

	Population	GNP per capita (1977)	Life expectancy	Literacy	Calorie availability per capita	Cement production per capita	Steel production per capita
China	**949,000,000**	**$410**	**60–64**	**60–70%**	**1950–2100**	**25 kg**	**58 kg**
Taiwan	17,136,000	1,180	70–72	85–90	2750–2850	602 kg	155 kg
India	625,818,000	160	52–55	35–40	2000–2100	31 kg	16 kg
Bangladesh	82,713,000	80	45–49	20–25	2000–2100	4 kg	1 kg
Indonesia	143,282,000	320	48–50	60–65	2100–2200	20 kg	1 kg
Mexico	64,594,000	1,160	64–67	75–80	2600–2700	206 kg	86 kg
South Korea	34,697,000	980	65–67	90–95	2700–2800	409 kg	79 kg
USSR	258,932,000	3,330	67–69	95–98	3400–3500	490 kg	566 kg
U.S.A.	216,817,000	8,750	73–74	99	3400–3500	335 kg	524 kg

Note: 1 kilogram (kg) = 2.2046 pounds.

Source: Data on the United States (except on caloric availability): U.S. Department of Commerce; International Bank for Reconstruction and Development; *World Almanac*, 1980. Data on cement and steel production (except for Taiwan and Indonesia): United Nations *Statistical Yearbook*, 1978. All other data compiled by Nick Eberstadt with information from the United Nations; International Bank for Reconstruction and Development; People's Republic of China; Republic of China; Ruth Leger Sivard, *World Military and Social Expenditures*, Leesburg, Va.: World Priorities, 1979.

MAO'S ECONOMY: A SCORECARD

	Before Mao 1930s	Liberation 1949	Under Mao 1957	After Mao 1977
SOCIAL INDICATORS				
Life expectancy (in years)	<40	<40	40–50	60–64
Literacy rate	20–30%	20–30%	35–45%	60–70%
Urban unemployment	20%	N.A.	20%*	20%*
Grain availability (kg per capita)	300–340	206	293	293
Fraction of population in extreme poverty	>½	>⅔	>⅓	¼
INDUSTRIAL INDICATORS				
Steel production (kg per capita)	<1	<0.3	8	25
Cement production (kg per capita)	<3	1*	11	58
Electric power (kwh per capita)	6*	8*	30	242
Machine tool production units (per million population)	N.A.	3*	53	>200
Gross domestic capital formation (of GNP)	5–7%	N.A.	>20%	36%**

*estimate
**1978 estimate
> means "greater than";
< means "less than"

Source: Data compiled by Nick Eberstadt, adjusted from Central Intelligence Agency, Asia Society, and International Bank for Reconstruction and Development information.

According to Stalinist development doctrine, "bread is an intermediate product; steel is the final good." That maxim is aptly illustrated by the PRC's economic record. The lot of China's consumers has improved only modestly in the past 30 years, while heavy industry, nourished by the regime's allocation of resources, has prospered.

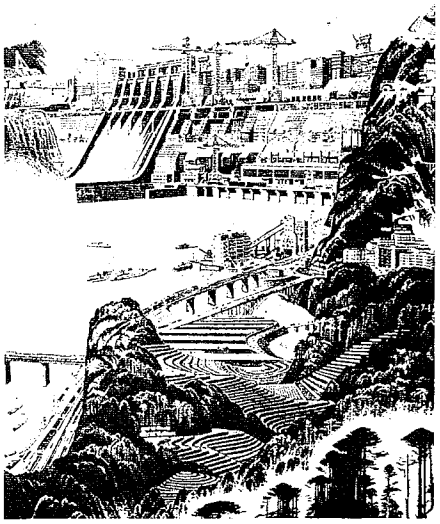
other large, poor countries, but not by as much as one might have thought. (See chart on page 127.) In any event, the surprise is that the People's Republic has shown no improvement here in two decades.

To those who had wished better for China — and I count myself among them—I can only offer the thought that the top-to-bottom measure may not be the best way of evaluating Mao's revolution. Such ratios only capture *relative* differences, and, in a desperately poor country, it is *absolute* differences that tell the most important story, that of survival. In the old China, the greatest differences were not between capitalists and workers, or landlords and peasants, but between families that ate and families that did not, between mothers who sold their babies and mothers who watched their children grow up healthy and strong. It is to Mao's credit that his redistribution strategy, whatever its costs, raised the bottom half of society from desperation to subsistence—at least when the harvest did not fail.

Can China Enlarge the Pie?

Perhaps the best way to judge China's 30-year struggle is to personalize the idea of poverty. If you had to be born poor in one of the world's poor countries, which would you choose? You would not want to be desperately poor, and China's attraction is that it has gone a long way toward eliminating that kind of desperation. In none of the countries would your odds of leading a minimally comfortable life be terribly good. I would suggest, however, that only a handful of poor countries — Singapore, Malaysia, Sri Lanka, South Korea, Taiwan, Cuba, Argentina, Costa Rica, and a few of the Arab emirates—offer chances distinctly better than China's. Remember, though, that the populations of those few nations add up to only 3 percent of the world's poor. From this perspective, giant China's epic struggle against poverty looks much better.

Unfortunately for China's poor, the strategy that has helped them over the past 30 years is now exhausted. Mao's tactics were essentially redistributive: land reform, confiscation and expropriation, make-work programs, rationing, and the like. That road only goes so far, and Mao had come to the end of it by the late 1950s. Try as he might with the Great Leap Forward and the Cultural Revolution, he could not push his people into a continual redistribution of income. The Chinese also hit some logistical limits: Given today's low average availability of food, for example, it is unlikely that hunger would be much further reduced by a more perfect division of the pie.



"Electricity is the Top Priority," by Feng Chung-tieh. Despite three decades of helter-skelter industrialization, China remains an overwhelmingly agricultural nation.

For two decades, essentially, underneath all the slogans and shouting, the welfare of Mao's people did not advance, and may even have declined slightly. The message is unmistakable: The People's Republic must move from redistribution to *production*, particularly in agriculture.

Reorienting China's economy will be a tremendous task. Few doubt that the Chinese people are equal to it. They clearly have the talent. The accomplishments of the Chinese in Hong Kong, Taiwan, Thailand, Singapore, and the United States testify to what they can do when given a chance. The question is whether Beijing will risk giving them that chance. The social, economic, and political liberalization that must accompany any transition to a more productive economy would inevitably threaten the regime. Deng Xiaoping has already run into internal criticism of the tentative steps he has taken toward "rationalizing" the post-Mao economy. Faced with the choice of perpetuating poverty or losing its grip on the people, the Politburo might not bow out gracefully. China has the potential to become (in the words of General Sir John Hackett) "a Swedish version of Japan," but it is within the capacity of the present regime to create instead a Soviet version of India, or worse.

There is a disturbing pattern to Chinese history. This great civilization has brought into the world no end of remarkable innovations: The printing press, the sailing ship, commercial banking, and civil administration are but a few that come to mind. Yet, when the Chinese put these things to use, it is con-

sistently in a fashion that fritters away their head start, as when they invented gunpowder only to use it primarily in fireworks; they did not develop a cannon. In 1949, the Chinese under Mao began once more to run up an early lead over the rest of the Third World — in this case, they pioneered the eradication of extreme poverty. If China's political leaders prove too inflexible to follow through, to move on toward productivity, they will be responsible for a tragedy of truly enormous proportions.

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REAPPRAISING THE CULTURAL REVOLUTION

by Harry Harding

The changes in Chinese politics in the four years since the death of Mao Zedong (Mao Tse-tung) have been breathtaking. But none has been more significant than China's repudiation of the Great Proletarian Cultural Revolution, the tumultuous movement that dominated Chinese life for a decade, and that Mao's associates once described as their country's greatest contribution to Marxist theory.

The Cultural Revolution, as one American scholar has described it, was "one of the most extraordinary and puzzling events of the twentieth century."[1] It was the attempt of an aging Mao to shake up the Chinese Communist Party, reshape its policies, and ensure that his vision of continuing revolution for China would survive his own death.

Mao's efforts met determined resistance from many of his colleagues on the 17-man Party Politburo, most notably the party's vice-chairman, Liu Shaoqi, and its secretary-general, Deng Xiaoping. Mao sought to bend the party to his will by inciting the youth of China's cities—the Red Guards—to protest against officials straying from the Maoist course. On August 5, 1966, Mao affixed a wall poster outside the offices of the Central Committee urging China's youth to "bombard the headquarters" of local party chiefs. The official press and radio picked up the Chairman's call and sent it throughout China.

Heeding Mao's summons, millions of young Chinese took to the streets of the country's major cities in the fall of 1966. They ripped down the old signs on shops and avenues, replacing them with such "revolutionary" names as "East Is Red Store" and "Anti-Revisionism Street." They proposed that traffic lights be reversed so that red would mean "go." They invaded the houses of "class enemies"—those who had been capitalists before 1949—and smashed all that smacked of the foreign, the "bourgeois," the old. They burned Western embassies, ransacked government offices, beat schoolteachers, and humiliated party officials at mass rallies. Chaos enveloped China's cities; in many places, the Army had to step in to prevent civil war.

"Destroy the Four Olds!" This poster was part of the campaign to eradicate "old ideas, old cultures, old customs, and old habits" that marked the start of the Cultural Revolution in August 1966.

After three years of "struggle and criticism" that saw large numbers of "revisionists" dismissed from the government and the party, the leaders of the Cultural Revolution set to overhauling China's social programs, economic policies, and political institutions to make them match Mao's egalitarian and populist ideals.

These efforts, led by the "Gang of Four," continued despite growing opposition until the Chairman's death in September 1976.* The ultraleftists had achieved some fundamental changes: the partial decentralization of the economy, the selection of college students on the basis of political purity rather than academic credentials, the training of "barefoot doctors" to tend the peasants of the vast Chinese countryside, the dispatching of millions of high school graduates and bureaucrats to rural

*The "Gang of Four"—Politburo radicals Wang Hongwen, Zhang Chunqiao, Yao Wenyuan, and Jiang Qing (Mao's wife)—were arrested on October 6, 1976, less than a month after Mao's death.

areas for physical labor and ideological indoctrination, the appointment of popular representatives to serve on "revolutionary committees" at almost all levels of government.

Mao and his associates characterized the Cultural Revolution as the way to "expose and smash the renegades, enemy agents, and capitalist roaders" holding positions in the party. It would, they maintained, prevent the kind of "capitalist restoration" with which Nikita Khrushchev had allegedly defiled the Soviet Union in the late 1950s.[2]

What is more, they described the Cultural Revolution as the first of many such episodes. As late as August 1977, Hua Guofeng, Mao's successor as Party Chairman, endorsed the Cultural Revolution as "a momentous innovation which will shine with increasing splendor with the passage of time," promising his countrymen that more such revolutions would take place "many times in the future."[3] Repeated turmoil, it was believed, would act as the purgatory required for China's ultimate entry into the socialist utopia.

Rose-Colored Glasses

What is so striking in retrospect is the degree to which the Chinese leadership's justification of the Cultural Revolution was accepted by academics in the West, and particularly in the United States. From Harvard to the University of Chicago to Berkeley, American scholars produced an enormous body of literature on the new movement in China. They never reached complete consensus, but the prevailing interpretation, at least after the first year or so, was highly favorable.

Three themes dominated their analyses.

The first was that the Cultural Revolution was a movement that deserved a fair hearing, even if it appeared to the casual observer to be irrational or even bizarre. A 1971 collection of scholarly essays on the Cultural Revolution, for example, concluded with the earnest admonition that "it is our present duty to try to understand what is occurring in the Chinese People's Republic. To do so, we must start by examining our own assumptions and perspectives."[4]

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Following this line of investigation, many analysts held that the Cultural Revolution was motivated not by fanaticism but by Mao's distinctive vision of a fair and just society. As one younger American China specialist then at Stanford put it, the Cultural Revolution was not a wrongheaded assault on the institutions and policies necessary for modernization but rather a reflection of Mao's belief that "bureaucracy and industrialization do not necessarily lead to an improved quality of life."[5] Or, in the words of a more senior scholar at the University of Chicago, "In making the Cultural Revolution, Mao has been motivated by a noble vision. It is a vision of society in which the division involving domination and subjection will be blurred, the leaders will be less distinguishable from the led in status and privileges, and the led will take part more directly in the policy-making process."[6]

A second theme was that the reforms adopted during the latter stages of the Cultural Revolution were both equitable and effective.* The innovations that Radio Beijing called "new born things" were variously praised in America as ways of "breaking down elitism," of "bridging the gap between the people and their leaders," and of preventing China from "ossifying in the morass of bureaucratism and statism."[7] One political scientist depicted the organizational changes of the Cultural Revolution as an attempt to fashion "flexible institutions which are responsive to popular interests, encourage direct mass participation, and are capable of controlling development on the basis of values meaningfully determined by the people."[8]

Third, most American scholars believed that the costs of the Cultural Revolution were tolerable, even necessary. One could not make an omelet without breaking eggs. They acknowledged the Cultural Revolution's violence but downplayed it, usually portraying the bloodshed as "sporadic" and "limited." Many analysts took pains to point out that the victims of the Cultural Revolution were seldom executed or imprisoned *en masse* as the victims of Stalin's great purges had been; they suggested that being sent to the countryside for "re-education" was not really so very unpleasant.

As these scholars saw it, the chief shortcoming of the Cultural Revolution was that it had not fully achieved its original high purposes. Its "promise was aborted," one specialist com-

*Indeed, China's Cultural Revolution was considered so promising that the American Academy of Political Science held a three-day conference in New York in October 1972, attended by some of the country's leading Sinologists, to consider (among other things) whether the Chinese experience might help the United States and other Western societies solve some of their own economic and social problems.

CHINA'S FRIENDS

Like Vietnam, the Soviet Union, and other communist countries, China has posed special problems of intellectual integrity for visiting Western newsmen and scholars. As Sinologist Orville Schell noted recently in the New York Times, *let the reader beware:*

Just as the Chinese have analyzed their own society, dividing it into class categories (peasant, landlord, intellectual, etc.), they have also sought to categorize their [American] guests, to glean out the "friends of China" and give them special treatment and assistance.

Such "friends" have often had a long-standing relationship with the Peking government, first expressed in the early years of Senator McCarthy and John Foster Dulles, when pro-Chinese sentiments took a measure of courage. At the same time, they were often rewarded by being allowed to visit the People's Republic while others were barred. In later years, as tours became commonplace, these "friends" were rewarded with permission to stay longer and to visit parts of China (such as Tibet and Xinjiang) not normally open to visitors.

Needless to say, along with these perquisites came certain unspoken obligations. A "friend of China" felt constrained from disappointing his host by writing anything critical or unflattering. Indeed, there was something about the presumption of this "friendship" (which was repeatedly toasted and extolled) that tended to draw a writer into what can only be described as a Chinese magnetic field. The constant incantation of the word "friendship" had a numbing effect on one's ability to see clearly and think independently. All the special treatment and effort extended on one's behalf seemed to require repayment. And the only kind of repayment that the Chinese would accept in return for their hospitality was ideological agreement.

The "friends" felt some fear of endangering Chinese acquaintances.

But one fear above all predominated: the fear that if one uttered or wrote "incorrect" thoughts, one would never again be allowed back. And to one degree or another, I think most of us who have written about China did capitulate to this fear.

[The Chinese] particularly capitalized on the eagerness of people on the Left to believe in the healing powers of "the revolution." And when the wreckage of the Great Leap Forward, the Cultural Revolution, and the Gang of Four was finally cleared away [in 1977] many "friends of China" were left with a somewhat embarrassing bibliography of works supporting leaders who had been shed from the back of China like last year's skin from a reptile.

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plained in 1977, when its leaders were forced by rivals to compromise and retreat from principles.[9] But a sweeping indictment of the whole movement did not necessarily follow. As another analyst argued, "Mao's assault did not succeed in totally eliminating privatism, self-interest, and elitism from Chinese society. . . . But should Mao be condemned for trying?"[10]

Since the Chairman's death in 1976, however, the Chinese themselves have done precisely that, to the silent consternation of many academics in America and the West. The Chinese leaders now say that their country was never in danger of "capitalist restoration," that Mao's view of the situation in China at the time "ran counter to reality," and that the "new born things" of the Cultural Revolution were impractical and utopian. The Red Guards were led by "careerists, adventurists, opportunists, political degenerates, and the hooligan dregs of society." The fullest official account, issued in October 1979, concludes that the Cultural Revolution not only was unnecessary, but also was a "calamity" for China, an "appalling catastrophe suffered by all our people."[11]

Hearing from "Ghosts and Monsters"

The new Chinese leadership has also disclosed the startling human costs of the Cultural Revolution. In an interview with Yugoslav journalists early last July, Party Secretary-General Hu Yaobang estimated that 100 million Chinese — more than 10 percent of the country's population—suffered "unjustly" during the movement. The governor of Guangdong (Kwangtung) has charged that in his province alone, some 40,000 people died an "unnatural death" during the Cultural Revolution decade. The post-Mao leadership claims to have "rehabilitated" almost 3 million victims of the movement, but for many, such as former Party Vice Chairman Liu Shaoqi, who died in prison in 1969, rehabilitation has occurred posthumously.

China's official repudiation of the Cultural Revolution invites another look. This time, however, we should be skeptical. The Chinese who today preach a new gospel condemning the Cultural Revolution are its principal surviving victims, the "ghosts and monsters" so often beaten, duncecapped, and denounced by the Red Guards. If we simply translate the revised authorized version into English, we will be repeating the mistakes we made in the late 1960s, when we took the official rationale for the Cultural Revolution at face value.

A sober re-evaluation, following neither the old nor the new Chinese line, would probably include the following conclusions:

China was clearly not on the verge of a capitalist restoration in 1966, but Mao still had much to worry about. Across China, as memories of revolution faded, party cadres were becoming arrogant mandarins, state bureaucracies were ossified and inefficient, and economic inequalities were increasing.

But Mao exaggerated the problem. Although his motives were almost certainly sincere, his vision was clouded. Old, ill, and suspicious, he magnified the threat to "revolutionary" values and placed his faith in an unreliable, uncontrollable mass movement.

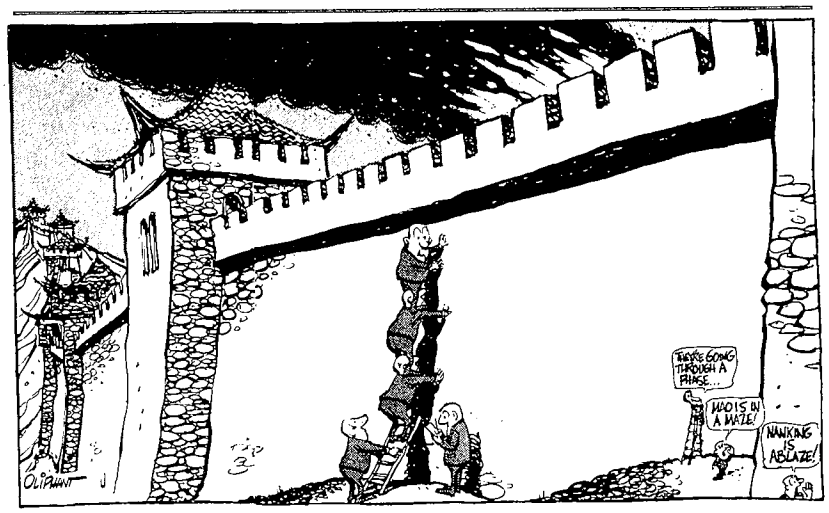
Once Mao launched the Cultural Revolution, different groups acted from different motives. Contrary to the 1980 official line, many Chinese did, in fact, respond enthusiastically to the movement's initial stages. But many city youths joined the Cultural Revolution mostly because it suddenly gave them a license to exercise power, an opportunity to stay out of school, and an invitation to barnstorm the major cities of the country at state expense. And, not surprisingly in a gerontocracy like China's, many younger officials seized the chance to purge older men who blocked the way to promotion. No image of the late 1960s in China is more erroneous than that of the spontaneous uprising of the masses, striking boldly and unselfishly to combat injustice and bureaucratic insensitivity.

Mobilizing Hatred

In some matters, especially science, technology, and the arts, the effect of the Cultural Revolution was devastating; and China lost nearly a decade because of the anti-intellectual obscurantism of the movement's leaders. In other areas, however, such as university admissions and public health, the Cultural Revolution clearly recorded some egalitarian gains. The economic policies of the Cultural Revolution—particularly the goal of a "small but complete" economic system in every province, and the disparagement of material incentives—certainly produced some inefficiencies. But it is difficult to argue, as the current leadership does, that the economy grew more slowly during most of the Cultural Revolution decade than it did during the years just preceding it.

In fact, the dramatic recent changes in socioeconomic policy are less a repudiation of the Cultural Revolution, as Deng and his colleagues would have us believe, than a re-evaluation of some of the basic assumptions underlying Chinese economic planning since the early 1950s.

Officials now emphasize, variously in word and deed, pro-



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"Well, I can tell you this—something's *burning!" was the caption of this 1967 cartoon by Pat Oliphant. China's Cultural Revolution baffled Western newspaper readers and fascinated scholars.*

ductivity bonuses, the role of the market, expansion of light industry, production of consumer goods, and the opportunity for China's manufacturing enterprises to deal directly with one another rather than via the state bureaucracy. All this marks a significant departure from Mao's 1950s proposition that socialist development, in China as in the Soviet Union, required a centralized planned economy, an emphasis on heavy industry, and austerity in consumer goods.

Above all, an assessment of the Cultural Revolution would have to emphasize the enormous human costs of the movement. The most tragic of these now lie in the past: the cases of torture, imprisonment, persecution, and death that number in the tens of millions. But other costs continue, particularly the cynicism and disillusionment of a generation of young people whose idealism was first fostered and then suppressed, and the demoralization of many rank-and-file party and government officials.

Even more important, these costs were the predictable result of the methods employed in the Cultural Revolution—the consequences of the deliberate mobilization of hatred against ill-defined "class enemies."

In sum, a fair re-evaluation of the Cultural Revolution boils down to two points: It was a movement whose ostensibly noble

purposes were distorted by the passions and personal ambitions of its activists; and its costs far outweighed the benefits of any of its reforms. As we have seen, this judgment sharply contrasts with the benign assessments offered by most Western academics and journalists during the late 1960s and early '70s. The remaining question, of course, is why this should be.

There are several explanations:

First, there was the assumption of many China specialists that there was a clear rationale behind the Maoist rhetoric that deserved sympathetic understanding. Yet sympathy often led American academics dangerously close to making apologies for the entire movement.

To complicate matters, Americans were barred from China during the Cultural Revolution's heyday. They got only limited glimpses of Chinese life, via strictly guided tours, once China began to open its doors to the West during the early 1970s. Thus, those who sought to understand the Cultural Revolution from afar had to rely on official Chinese information, Red Guard documents smuggled to Hong Kong, and wall posters translated by a few Japanese journalists in Beijing. All too often, American academics accepted the official line. Conversely, sources (such as refugee accounts) that exposed the darker side of the Cultural Revolution were usually dismissed as unreliable.

Rejecting Old Dreams

Last but not least, the Cultural Revolution in China coincided with another "cultural revolution," of sorts, in the United States. Those years brought the maturation of the post-war Baby Boom, the growth of the civil-rights movement, war in Vietnam, and considerable social upheaval and political turmoil. All this affected academic perceptions of China. The late 1960s saw the emergence of a contingent of young, often radical, Asia specialists in the universities who, like so many earlier generations of Americans, often projected their own dreams and aspirations onto China. It is difficult to forget the fervent (if somewhat hypocritical) applause with which one student audience at Stanford in the mid-1970s greeted the claim by a two-week visitor to China that there was no rape and little premarital sex in the PRC, supposedly because its young people "sublimated their sexual energies toward more exalted goals."

Today, we need a broad, sober reassessment of the Cultural Revolution by American academics, not only because the current Chinese leaders are revising official history, but because our earlier accounts were distorted and unrealistic. For China

scholars (as for other area specialists), the general lesson is plain: A sympathetic understanding of trends in foreign countries is no substitute for tough-minded analysis. As China embarks on its new course of "modernization," and as American contacts with Beijing multiply, our ability to see clearly the world's most populous nation in all its contradictions and complexity will become even more important.

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THE PEOPLE SPEAK

by B. Michael Frolic

In 1971, as part of a research project on the gap between the city and countryside in China, B. Michael Frolic, a Canadian political scientist and former diplomat, began to interview refugees living in the British colony of Hong Kong. Intrigued by the richness of their stories, he soon decided to collect firsthand accounts of daily life in China. Three themes emerged: the insistent grip of totalitarian politics; the humor of the Chinese; and the ways in which old customs have been adapted to the new ideology. Several hundred thousand former citizens of Mao's China live in Hong Kong; between 1972 and 1976, Frolic questioned 250 of them. To protect his subjects, Frolic kept their exact identities confidential. Here we present selections from six of his interviews.

The Backdoor

An intellectual from the southeastern coastal city of Fuzhou discusses the paradox of privilege in the People's Republic:

Chairman Mao tells us, "To know the taste of a pear, you must eat the pear." He means that you cannot understand life from the outside, by just sitting around thinking. Not all our pears are sweet to eat; some are rotten and others have never ripened, so the China I present to you will not be one-sided, but it is a fair picture, at least to one who has lived there. That means it is also a view of China that some people may not want to hear. There is not always glory in the everyday routine of ordinary men.

How is it that, despite Chairman Mao and despite the Cultural Revolution, the privileged few still manage to scoop away the extra rice from our bowls and take it for themselves? Those at the bottom seem destined to stay there, while those at the top

gorge themselves on the fruits of Revolution. I am not bitter, only puzzled at how this came about.

Everybody in China knows about the backdoor. It means using your personal connections to bribe people with money or material goods so you can get something you can't obtain through normal ways, through the "front door." Using the backdoor has been a common practice in China, but it really flourished during the chaos of the Cultural Revolution. Now it is a major part of our life. When you have scarcities and a privileged group, then you have a society full of backdoors. The backdoor can be found at the top, in government organs, in the Party, the Army, through the entire system right down to the very bottom. The general gets his marble bathtub through the backdoor, and the ordinary worker his "Flying Pigeon" bicycle the same way. People take the backdoor for granted and do not regard it as something disgraceful or "antisocialist." On the contrary, those who know how to use the backdoor are regarded as clever people, whereas those who don't are considered stupid.

A Borrowed Enemy

What to do when "class enemies" cannot be found for public criticism sessions? A Shanghai housewife describes how her neighborhood political committee solved a predicament reminiscent of Orwell's 1984:

At the start of the Cultural Revolution, we had a few genuine "landlord/Kuomintang" types, but they had either died, moved away, or were too sick. Efforts to find a genuine class enemy in our midst were not too successful. We had one fellow in mind—he wasn't really a class enemy, and as a matter of fact his father had been a worker and he himself had been a sailor. But he had become mentally unbalanced and used to go around talking about all the foreign places he'd visited in his younger days and how he'd like to go again. He used to sing "Sailing the Seas Depends on the Great Helmsman" all day long, and he'd change the verses around so that he and Chairman Mao were sailing around the world together, making revolution in all the foreign ports he'd once visited. At first the residents' committee decided to make him our choice to be struggled, but then we had second thoughts because he was too old and silly for something like that. What if he had a heart attack in the middle of the event? Or if he started singing and wouldn't stop?

We decided to find someone else but didn't have a suitable candidate. Finally, the chairman of our committee said, "Why

not borrow a class enemy from the adjoining neighborhood? It doesn't really matter if he lives here or not, just as long as he's a genuine class enemy. We can have a first-rate struggle session, everybody can participate, and the leadership will be pleased."

So we "borrowed" a class enemy from next door and had our struggle session. He was a veteran of such struggle sessions, about 50 years old, a known collaborator with the Kuomintang. We built a platform, assembled the masses, denounced him for his crimes, and shouted revolutionary slogans for most of a Sunday afternoon. Then we returned our borrowed class enemy, none the worse for the wear (we had promised we would avoid any physical violence and would return him unharmed), and everybody was satisfied.

The Study Session

A former Beijing (Peking) office worker describes a political study group:

Political study sessions took place on two afternoons and two evenings every week. They were presided over by my section leader, Old Zhou, at least until the Cultural Revolution.

It went like this. A bell would ring at 2:00, and after the bell had sounded you picked up your chair and tea cup and went to a larger office and sat down. Then, when everyone in the section was assembled, Old Zhou would begin the meeting. Let's say the meeting was called to discuss the New Year's editorial that had just appeared in *People's Daily*. He would say, "All right, today, as you know, we are going to discuss the New Year's editorial. Let's reread the editorial, and then we'll have a discussion. Now let's start reading." At this point, each of us volunteered to read the editorial out loud. The idea uppermost in everyone's minds was that if you read it out loud first, then you wouldn't be called on later to analyze it. One lucky person was chosen, and he read it out, loudly.

Then Zhou would proclaim, "Fine, now let's start the discussion!" The room suddenly became silent because nobody

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wanted to be the first to risk saying the wrong thing. Zhou glared at us, pleaded, and finally became angry. "Come, come, speak up. Don't hold back!" Finally, one who knew how to talk well under any circumstances, and had a good political sense, spoke a few carefully chosen words. He would start somewhat timorously, and then the rest of us relaxed our tensed muscles. He invariably went on for about half an hour, cautiously repeating and embellishing but never straying from the editorial's meaning. The tenseness went out of the room. It became routine. Five or six began to doze in their chairs. The rest of us picked out a few choice phrases to repeat out loud if called upon later. The room was too hot; the voices droned on; cigarette smoke hung heavy in the air.

Wu was a bachelor in his mid-thirties. He loved to play pranks and make jokes. Once I remember attending an important political meeting of our section. A girl in another office was there, and it was always easy to make her laugh. So, in the middle of the most serious political discussion on dialectical materialism, Wu deliberately caught her attention and then slowly opened his mouth to smile at her. He had wrapped his teeth in silver cigarette paper, and the effect was startling. He looked like one of those Soviet experts with their silver teeth. She started to giggle uncontrollably and quickly disrupted the whole meeting. Another time, he was sitting at a meeting and suddenly asked loudly, "Who is Feng Zixiu? I always hear comrades criticizing this person, but I have never heard of him."

(*Feng, zi,* and *xiu* are the Chinese characters that stand for feudalism, capitalism, and revisionism, not for anyone's name.) There was a stunned silence, and then the meeting burst into laughter. The section leader was trapped. He had to keep a straight face and could do nothing.

City Life

A former economist-planner describes his days in Beijing:

Living in Beijing is a privilege for most Chinese. We all try to get a permit to live in the city, because it's the center of everything.

When other parts of China had food shortages, we were better off in Beijing, probably because the Party wanted Beijing to be well stocked to show foreigners that all was well. Also, many high-level cadres live in the city, and they always demand special privileges. We had the best cultural events, and I went to any performance that was playing. I probably saw every film shown in Beijing. I remember seeing lots of foreign films, especially Soviet, but also English, French, and Japanese. Some of them I saw six or seven times just because they were different to see and do. On days off, I walked a lot, did some shopping, or rode my bicycle.

I never had a serious girlfriend. I was an outsider, a southerner, with a broken career and a bad class background.

Arranging a Marriage

Despite a half-century of Communist Party calls for the emancipation of women, the custom of arranging marriages lives on in the Chinese countryside. The story told by this woman of Guangdong province suggests that the hierarchy of status has been turned upside-down, but class background remains a paramount consideration.

The matchmaker found a family of good class background with a strong, healthy, and attractive daughter. Both parents agreed upon the bride price, dowry, and wedding arrangements, and Little Brother seemed to like her when they met. But the daughter was aloof and resisted the marriage. It turned out that she fancied another young man and wanted to marry him, but he had a bad class background and her parents objected. When Little Brother found out that she had a boyfriend, he didn't want to marry her.

The matchmaker was on the spot because she had failed and

our family had lost face. It was rare to find an eligible bride who openly resisted a match because she had someone else in mind.

Drawing on all the resources she had at her disposal, the matchmaker combed the surrounding area, visited teahouses, and finally came up with a candidate, the daughter of a peasant family in a neighboring commune. The bride's family wasn't rich, but their political status was excellent. Her eldest brother was a brigade cadre, her father a respected peasant. Because they were classified as "lower-middle peasants," the bride's family wouldn't demand too high a bride price. On the other hand, because our class status was inferior to theirs—we were "middle peasants"—they used that to their advantage in bargaining over the arrangements, saying, "Once our daughter enters your household, she will have suffered a loss in status. These days you know how valuable it is to be lower-middle peasant; middle isn't bad, but lower-middle is better."

Life on the Re-Education Farm

In 1968, the Chinese government set up "May 7 Cadres Schools" across the countryside. Their purpose: "re-education" of the bureaucracy through farm work. As is revealed in this tale narrated by a former Beijing bureaucrat, the "schools," which were at first symbols of the Cultural Revolution's antielitism, soon took on the atmosphere of summer camps.

We decided to buy the pig after the head of the military control commission visited our school and was appalled by the condition of our pigs. He had heard the local gossip: "Those city slickers at the May 7 Cadres School are so dumb they can't even raise pigs." We were a local embarrassment. Surrounded by sleek, fat, pink peasant pigs, our scrawny pigs had lost face.

We had an emergency meeting to discuss the situation. Director Lin said, "We have poorly applied Chairman Mao's Thought to our work. Skinny pigs are proof of that." The Party secretary then asked the question, "How do we apply Chairman Mao's Thought to get fat pigs?"

Squad Leader Ho (who knew the most about pigs) replied that, according to Chairman Mao, one must investigate the problem fully from all sides and then integrate practice and theory. Ho concluded that the reason for our skinny pigs had to be found in one of three areas: the relationship between the pigs and their natural environment; the relationship between the cadres and the pigs; and the relationship among the pigs themselves. He went on to say: "I've investigated each of these three relationships. The principal contradiction is the relationship

among the animals themselves. Our pigs are skinny because their ancestors were skinny pigs. In the case of our present pigs, the internal factor (the pig itself) is the main contradiction, and external factors (the food they eat, the way we care for them) are only a secondary aspect."

After Ho sat down, both the party secretary and Director Lin congratulated him for his brilliant application of Chairman Mao's theory of contradictions to the concrete problem of pigs. "In taking Chairman Mao's teaching to heart," said Director Lin, "you have clarified the problem for us. We need better pigs in order to produce better pigs. How many do we need?" Squad Leader Ho replied that in his opinion only one would be necessary but that it must be outstanding.

A pig is then purchased at more than three times the usual price.

The Thousand-Dollar Pig arrived six weeks later, in a wooden crate on the back of a truck. Sitting beside him was the expert. Neither pig nor expert impressed us at first glance. The Thousand-Dollar Pig didn't look much different than any of the fatter local varieties. His piggish red eyes peered sullenly out at the cadres who came to look at him. He lay around weakly flicking at the flies crawling all over him. The expert stuttered and had a difficult accent. Half the time, we couldn't understand what he was saying.

Like all long stories, there isn't much of an ending to this one. I guess the Thousand-Dollar Pig was a success. But was it worth the overall cost? The pig did upgrade the quality of our pork production, although nowhere the grandiose level we had originally envisaged. We could never repay the investment. Eventually, the peasants came out of curiosity to see the great pig. Of course, they knew the whole story—all the details—and they used to laugh uproariously at Beijing's folly in bringing a pig so many kilometers for so much money.

The pig became a celebrity at our school because he outlived several sets of cadres over a number of years. Eventually, back in Beijing, when we were assigning cadres on rotation to go to Henan, we didn't say they were going to the Henan May 7 Cadres School, but that they were being assigned "to the Land of the Thousand-Dollar Pig."

BACKGROUND BOOKS

MAO'S CHINA

Mao and his colleagues were not the first to feel the weight of the 4,000 years of recorded Chinese history. Every leader since Sun Yat-sen (1866–1925) has sought to restore China to its 11th-century imperial eminence, when it was, according to historian Charles Hucker, "the most populous, prosperous, and cultured nation on earth."

In **China's Imperial Past: An Introduction to Chinese History and Culture** (Stanford, 1975), Hucker sees the 11th century as marking the end of China's adolescence. It was followed, he notes, by nine centuries of "chastened, sober, often grim and drab maturity."

The causes of that languid decline are set forth by Mark Elvin, an Oxford economic historian, in **The Pattern of the Chinese Past** (Stanford, 1973). Like the United States at the end of the 19th century, China began to "fill up" with people. But rather than look to foreign outlets for its expanded economy as the Americans did, the xenophobic Chinese turned inward, reducing their overseas trade and contacts.

Ironically, China's economy was revived by European and Japanese imperialism. Opening the country to the world market in the middle of the 19th century, according to Elvin, led to rapid commercial and industrial growth.

Seeing little of value in European civilization and dismayed by Western encroachments on Chinese sovereignty, the Chinese government tried to contain the movement and influence of Westerners. Their efforts, observes Berkeley historian Frederic Wakeman, Jr. in **The Fall of Imperial China** (Free Press, 1975, cloth; 1977, paper), culminated in 1900 with the "Boxer Rebellion," the doomed attempt of a dying empire to expel all foreigners. Hostilities ended when the troops of Britain, the United States, France, Austria, Russia, and Japan occupied Beijing (Peking). The weakened Ching dynasty was then battered by a string of revolts and fell in 1911.

The infant Republic of China, founded in 1912, was as shaky as the dynasty it replaced. For two decades, hundreds of "warlords" — commanders of small personal armies controlling at most a province or two — divided up a beleaguered China. The dozen years after 1916 saw the formation and dissolution of 25 governments, notes Northwestern historian James E. Sheridan in **China in Disintegration: The Republican Era in Chinese History, 1912–1949** (Free Press, 1977, cloth & paper).

The "warlord era" ended in 1928 when Chiang Kai-shek unified China and established his capital in Nanjing (Nanking). Yet Chiang, says Sheridan, was never more than the nominal ruler of a fragmented nation.

Though hit by natural disasters (in 1931, flooding of the Chang, or Yangtze, River displaced 25 million people) and plagued by the warlords, the Communists, and the Japanese, the Nationalist government was hurt most by its own corruption. In 1931–32, barely half of the taxes assessed by the government actually arrived at the national treasury, according to Lloyd Eastman, a Univer-

sity of Illinois historian.

Yet, Eastman argues in **The Abortive Revolution: China under Nationalist Rule, 1927–1937** (Harvard, 1974), under Chiang, China became a modern nation: Law codes were promulgated; the old exploitative treaties with foreign powers were abrogated; school enrollment nearly doubled.

The 1937 Japanese invasion changed all that. Chiang retreated to Chongqing (Chungking) in southwestern China, leaving most cities to the invaders and much of the northern countryside to the Communists.

The invasion also brought American war correspondents. Fresh out of Harvard, Theodore White was counted among the best of them. Written with Annalee Jacoby, White's **Thunder Out of China** (William Sloane, 1946; Da Capo reprint, 1975) provides a vivid account of a famine in Henan province. After watching the starving citizens of Zhengzhou literally eat dirt, White was served "one of the finest and most sickening banquets I ever ate" by the city fathers.

While White covered the Nationalists, his fellow journalist Edgar Snow followed the Communists into the countryside. In 1936, Snow caught up with them in Yanan (Yenan). His glowing observations are preserved in **Red Star Over China** (Random, 1938; Grove, rev. ed., 1968, cloth & paper; Bantam, 1978, paper). Snow found the then 43-year-old Mao Zedong "rather Lincolnesque," a "plain-speaking and plain-living" man who had a potential for greatness. Mao reciprocated by telling Snow the story of his life.

Four years after World War II, Chiang fled to Taiwan and Mao ruled the mainland. In **Civil War in China: The Political Struggle, 1945–1949** (Univ. of Calif., 1978), Suzanne Pepper argues that Mao's popular appeal resulted from his success in bringing about land reform and from Chiang's failure to stop hyperinflation (prices increased by 2,000 percent between 1937 and 1945).

In **China: Tradition and Transformation** (Houghton, 1978), John King Fairbank and Edwin O. Reischauer, two of America's most distinguished Asia scholars, describe China's traditional dynastic cycle: "a heroic founding, a period of great power, then a long decline, and finally total collapse."

From the day he proclaimed the People's Republic in 1949, Mao tried to postpone that cyclical decline by constantly re-creating the Communist revolution. Maurice Meisner, a University of Wisconsin historian, observes in **Mao's China: A History of the People's Republic** (Free Press, 1977, cloth & paper) that Mao began his efforts with broad land reform and agricultural collectivization. The late 1950s brought the Hundred Flowers movement and the Great Leap Forward. Finally, in 1966, Mao launched the Cultural Revolution.

The emblem of China in the 1960s remains **Quotations from Chairman Mao Tse-tung** (China Books, 1967), the "little red book." More complete is **The Selected Works of Mao Tse-tung** (Foreign Languages Press, Beijing, 1960–77; Pergamon, 1977, cloth & paper). These five volumes contain the official, sanitized version of Mao's pre-1958 work.

During the Cultural Revolution, China became "a nation of spies," avers the narrator of one of the entries in Chen Jo-hsi's **The Execution of Mayor Yin and Other Stories from the Great Proletarian Cultural Revolution** (Ind. Univ., 1978). Chen's fiction makes it clear that the revolu-

tion touched every aspect of life: Parents worry about their kindergarten-age child's political record; a political pariah who commits suicide is said to have "terminated his ties with the Party and the people."

The height of the Cultural Revolution also saw the nadir of the PRC's image abroad. So notes newsman turned academic A. Doak Barnett in his lucid **China and the Major Powers in East Asia** (Brookings, 1977, cloth & paper). Since 1949, Beijing has tried to balance its dealings with Moscow, Tokyo, and Washington, observes Barnett. Always at odds with one or another of those powers, the PRC was, during the whirlwind era of the Cultural Revolution, on unusually bad terms with all three. For a time, it had only one foreign ambassador, stationed in Cairo.

China's relations with the United States have been especially volatile. Within a year of the establishment of the People's Republic, Mao sent 200,000 "volunteers" to fight the Americans and their allies in neighboring Korea. In 1971, however, diplomatic reconciliation began even as the United States battled the Communist North Vietnamese on China's southeastern border. The history of Sino-American difficulties is recounted in detail in *Congressional Quarterly*'s **China: U.S. Policy Since 1945** (Congressional Quarterly, 1980, paper only).

Some Americans assume that Beijing's renewal of diplomatic ties with Washington somehow implied the liberalization of China's economy, politics, and art. The thaw that came in the wake of Mao's death in 1976 seemed at first to support that belief. For a time, a few Chinese felt free to speak their minds. It did not last. The fiction, poetry, and essays in **Literature of the People's Republic of China** (Ind. Univ., 1980), edited by Kai-yu Hsu, a scholar at San Francisco State University, offer few surprises. "Steel is refined in the struggle of production," writes a People's Liberation Army poet, "and poetry should also be refined and honed in class struggle."

Such orthodoxy provoked Belgian Sinologist Pierre Ryckmans to write **Chinese Shadows** (Viking, 1977, cloth; Penguin, 1978, paper) under the pseudonym "Simon Leys." Ryckmans details 20 years of Maoist mayhem, scholars' suicides, and cultural destruction.

When the original French edition was published in 1974, the People's Republic was commonly portrayed in the Western press as a nation with few noticeable blemishes. Today, however, Ryckman's criticisms seem an eerie anticipation of the downgrading of Mao and Maoism by China's present rulers. Ryckman's conclusion might give those men pause: The Chinese people, he asserts, "have buried 20 dynasties, they will also bury this one."

EDITOR'S NOTE: *Harry Harding and Ingrid Larsen, an administrative assistant of the Wilson Center's East Asia Program, suggested some of the titles mentioned in this essay.*

CURRENT BOOKS

FELLOWS' CHOICE

Recent titles selected and reviewed by Fellows of the Wilson Center

GERMANY AND THE UNITED STATES: A "Special Relationship?"
by Hans W. Gatzke
Harvard, 1980
314 pp. $17.50

During the last two centuries, peacetime relations between the United States and Germany have vacillated between cordiality and mistrust. The present-day alliance is no exception—with its frictions over energy policy (Americans consume twice as many BTU's per capita as the West Germans), over anti-inflation measures (Bonn has resisted U.S. promptings to stimulate its economy and increase the German market for U.S. goods), as well as the much-publicized Carter–Schmidt personality conflict. After World War II, the *Wirtschsftswunder* (economic "miracle"), nurtured by the U.S. Marshall Plan, turned West Germany into the strongest economic power in Western Europe. Under Chancellors Willy Brandt (1969–74) and Helmut Schmidt, the Federal Republic has since begun to make clear its own stance on such key matters as Western relations with the Soviet bloc. (German *Ostpolitik* differs procedurally with some U.S. policy, advocating, for example, that arms-control talks with Russia precede significant military strengthening of NATO.) Ranging back in time to the first great influx of German immigrants to America during the 1850s, Yale historian Gatzke tends to view the U.S. side more kindly than he does Germany's. Unlike the Anglo-American bond, he contends, ties between Germany and the United States cannot be termed "special." But shared democratic ideals and growing anti-Communist feelings in West Germany make the occasionally testy Bonn–Washington friendship one of increasing "steadiness and reasonableness."

—Konrad H. Jarausch ('80)

THE BEGINNINGS OF NATIONAL POLITICS: An Interpretive History of the Continental Congress
by Jack N. Rakove
Knopf, 1979
484 pp. $15.95

The first Continental Congress met in Philadelphia in 1774, in anticipation of a "collision of British flint and American steel," as John Adams put it. After the costly eight-year War for Independence came disillusionment, inflation, and recession. The patriotic fervor of the 1770s dissipated in the mid-'80s, as did respect for Congress—among the French and Spanish abroad as well as among many of its own members—because Congress was unable to conduct even minor business without approval from at least seven states. Why were Americans so reluctant to entrust power to the government devised by the colonies? According to Colgate historian Rakove, the Continental Congress fell victim to the very ideology that forged the Revolution. To grant taxation privileges to a governing body whose members were appointed by state legislatures seemed to open the way to an "aristocratical power" as dangerous to liberty as the British crown. The Constitutional Convention of 1787 set Congress on firmer ground. By making the House of Representatives (but in a spirit of caution, not the Senate) a popularly elected body, the Convention vested Congress with its legitimacy. Congressmen could henceforth be trusted with the nation's purse.

—James Lang ('78)

JAPAN: The Intellectual Foundations of Modern Japanese Politics
by Tetsuo Najita
Univ. of Chicago, 1980
152 pp. $4.95 (paper only)

Most books on 19th- and 20th-century Japan focus on economic "miracles" or military exploits. Najita's brief but ambitious essay surveys Japanese political thinkers. From the mid-19th century to the 1930s, political theory emanated from two groups: conservatives who pursued national unity and social harmony within a narrow and legalistic system of constitutional government that they themselves helped to design in the 1880s; and idealists who found that system increasingly repressive and proposed more or less radical alternatives to it. Najita tells more about the idealists than the conservatives, perhaps because the latter wrote less and were busier running the country or advising those who

did; and he skimps on the social moorings of political alliances. But this is an almost unique attempt in English to lay out the modern evolution of Japanese ideas about politics and the individual. Najita has a wide reach: His scrutiny of *samurai* activists in the 17th through early 19th centuries, of popular rights agitators in the late 19th century, and of fanatical superpatriots in the 1930s and '40s lays bare a continuity of intellectual turmoil little understood in the West. Najita's specialized study will be most profitably read along with such general works as Edwin O. Reischauer's *Japan, the Story of a Nation* (1970).

—Lawrence Olson ('80)

THE CHESAPEAKE IN THE SEVENTEENTH CENTURY: Essays on Anglo-American Society
edited by Thad W. Tate & David L. Ammerman
Univ. of N.C., 1979
310 pp. $26

Courtesy of the Arents Collection, The New York Public Library.

During the 1600s, between 130,000 and 150,000 English immigrants fled economic hardships in the mother country for Virginia and Maryland. These nine demographic essays make clear just how harsh life was in the fragile society of the 17th-century Chesapeake Bay region. Virginia's mortality rate is estimated to have been between 27 and 45 percent, partly due to the Virginia Company's fixation on the settlement of swampy Jamestown, where "burning fever" (typhoid) and "bloudie Flixe" (dysentery) raged. Traditional English family life—late marriages, large numbers of offspring, firm parental control of children—degenerated into chaos. The fact that most immigrants were male made the establishment of a native population difficult. Yet, many of the newcomers were indentured servants who "achieved considerable property" and "were fully integrated into the community as small [tobacco] planters . . . and participants in local government," report historians Lois Green Carr and Russell R. Menard. After 1660, the death rate fell as the coastal settlers moved inland to high ground. Male immigration decreased with the decline of the tobacco industry in the 1680s, and a balanced sex ratio resulted. A local elite began to form. The more prosperous early settlers looked down on the new

immigrants, fewer of whom were from the English middle class. Local officeholding became tied to the ownership of land. Chesapeake society was now striving for self-sufficiency and stability, although its members were still tied, psychologically as well as economically, to Great Britain.

—Rosemary O'Day ('79)

NIM
by Herbert S. Terrace
Knopf, 1979
303 pp. $15

A number of research psychologists have endeavored to teach American Sign Language (for the deaf) to chimpanzees. The chimps have come to recognize several hundred signs and to use more than 100 different signs themselves. Many have learned to make sentence-like combinations, e.g., "Come give me sweet." But do these chimps really communicate as people do? What are the limits of their linguistic abilities? To answer these questions, Terrace, a Columbia psychologist, arranged for Nim, a two-week-old male chimpanzee, to be taught and tested under more rigorous scientific controls than any yet applied. Despite disruptive turnover among the chimp's teachers, Nim, by age 5, had learned to express 125 signs and was picking up two new signs a week when the experiment ended in 1978. His vocabulary included verbs and nouns, but not adverbs, adjectives, and prepositions. He had used more than 5,000 different combinations of two or more signs ("Tickle me Nim"). Terrace cautions against exaggerating Nim's accomplishments. The young chimp's utterances were less spontaneous and original than a child's, more dependent on the signals of a teacher than a child's are on the words of its parents. It is too soon to say that a chimpanzee is capable of elevated conversation—of using language "for purposes other than the immediate gratification of basic needs." But then Nim's achievements, Terrace concludes, will not be the last word in chimpanzee language-learning.

—Peter Singer ('79)

NEW TITLES

History

HISTORY OF THE IDEA OF PROGRESS
by Robert Nisbet
Basic, 1980
370 pp. $16.95

The idea of progress—intellectual, moral, and material—was an overriding concern of pagan antiquity. "Through work," advised the late 8th-century B.C. philosopher Hesiod, "men grow rich in flocks and substance." Later, in the 2nd and 3rd centuries, early Christian Church fathers were not so obsessed with other-worldly concerns that they failed to take note that *this* world had grown "more cultivated and populated" since the Fall. Challenging much accepted scholarly opinion, Nisbet, a Columbia historian, takes a fresh look at the thinkers who fostered—or debunked—belief in man's steady improvement. Renaissance intellectuals, he maintains, gave up on the idea of progress. They scorned what (they thought) was their immediate predecessors' preoccupation with the hereafter, became fascinated with the occult, and espoused cyclical theories of history distinguished by alternating epochs of ignorance and enlightenment. Nisbet also retells the familiar story of how the Industrial Revolution restored faith in progress during the 18th and 19th centuries for scholars and the general public alike. Yet, even as society became secularized, the concept of progress remained anchored to religious beliefs—in the oneness of mankind, in a guiding providence, and in the victory of good over evil. Nisbet likens the West after World War II to Europe during the Renaissance; he cites a lack of faith in traditional Western values, the notion that the past is "irrelevant," the rampant narcissism and fascination with cults. He calls for an appreciation of the past and for a renewal of religious belief. "Only," he speculates, "in the context of a true culture in which the core is a deep and wide sense of the *sacred* are we likely to regain the vital conditions of progress and of faith in progress—past, present, and future."

SMALL TOWN AMERICA: A Narrative History, 1620–the Present
by Richard Lingeman
Putnam's, 1980
547 pp. $15.95

"Shaping public sentiment and giving character to American culture," the small town, wrote sociologist Thorstein Veblen in 1923, is "perhaps the greatest" of U.S. institutions. Puritans' dreams of religious utopia materialized as the familiar New England hamlets with white churches, public greens, democratic town meetings, and names like Concord and Providence. On the Midwestern frontier, New Englanders quickly became secularized, as the urgencies of food, defense, and shelter in such backwaters as Chillicothe, Ohio, and Cairo, Ill., overshadowed the yearning for a community based on lofty ideals. Americans pushed farther west, and journalist Lingeman follows the birth (and, often, quick death) of boom towns, mining camps, and cow towns. Lingeman seeks out the similarities among all kinds of small settlements, analyzing in detail dozens of fictional and factual accounts—Sinclair Lewis's *Main Street,* Sherwood Anderson's *Winesburg, Ohio,* Robert S. and Helen M. Lynd's *Middletown,* Michael Lesy's *Wisconsin Death Trip.* He finds small towns at once protective and judgmental—kindly, tranquil hotbeds of gossip. Lingeman concludes that small-town folk lead lives of continual tension—ever striving for the "diversity necessary to individualism" and the homogeneity essential to community.

HENRY ADAMS
by R. P. Blackmur
Harcourt, 1980
354 pp. $19.95

Henry Adams (1838–1918), grandson of John Quincy Adams, great-grandson of John Adams, thought of himself as a rebellious child of the 17th and 18th centuries caught unprepared in the 20th. In these posthumous essays, noted literary critic Blackmur depicts Adams as an aesthete seeking to understand himself and his times, searching for unity and continuity in the symbols provided by art and history. Reacting against his Puritan heritage, Adams became fascinated with the medieval world. In the Middle Ages, he believed, a shared religious faith provided man with ideological unity, symbolized by the icons of the epoch's cathedrals. In contrast, Adams saw his own era swept up in the anar-

chic energies of new science and technology, typified by industry's giant engines. Adams felt his attempts, in *Mont-Saint Michel and Chartres* (1913) and in *The Education of Henry Adams* (1918), to discover a continuity between the 13th and the 20th centuries—to reconcile the images of the Virgin and the dynamo—had failed. "All he could prove," Adams wrote of himself, "was change." Yet, Blackmur insists that Adams was unsuccessful only in the sense "that we cannot consciously react to more than a minor fraction" of life. Adams's education was "pushed to the point of failure as contrasted with ordinary education which stops at the formula of success."

CIVILITIES AND CIVIL RIGHTS: Greensboro, North Carolina, and the Black Struggle for Freedom
by William H. Chafe
Oxford, 1980
436 pp. $13.95

In February 1960, four black students sat down at a "for whites only" Woolworth's lunch counter in Greensboro, North Carolina. Within two months, the sit-in movement had spread to 54 cities in nine Southern states. Within a year, some 200 cities had engaged in at least some desegregation of public facilities in response to black-led demonstrations. By focusing on events in one city in the 1950s and '60s, Duke historian Chafe conveys an unromantic sense of the realities often lacking in broadbrush accounts of the Movement; he describes the failures of white paternalism and of uneven efforts by blacks. In 1954, Greensboro was the first Southern community to agree to comply with the Supreme Court's ruling to desegregate schools. Yet, Chafe argues, Greensboro's enlightened approach was shaped by white leaders who intended to alter "only minimally" the racial status quo. After each racial outburst, the old subtle patterns of prejudice re-emerged. Worse, adds Chafe, "North Carolina's image of progressivism acted as a camouflage, obscuring [to black activists and well-intentioned whites alike] the extent to which underlying social and economic realities remained reactionary." Only after riots in 1969 brought 600 National Guardsmen to Greensboro and threatened the town's prized reputation, did influential local white busi-

ness leaders join with blacks to bring about real change. In 1971, the school system of Greensboro was finally integrated—17 years after the famous *Brown* decision.

Contemporary Affairs

THE STATE OF THE PRESIDENCY
by Thomas E. Cronin
Little, Brown, 2nd ed., 1980
417 pp. $14.95

Americans want a President who is just and decent *and* tough and forceful. We admire humility, but most great leaders have been exceedingly vain, and the public equates being "too nice" with being "too soft." Americans themselves are, to a large extent, to blame for their disillusionment with politicians, contends Cronin, a political scientist at the University of Delaware. (Forty-seven percent of eligible voters stayed away from the polls in 1976.) Cronin reflects that "the presidency was not designed to perform the countless leadership functions that we have come to demand of it." Under the Constitution, he notes, in almost every instance (save, perhaps, the pardon) presidential powers are "shared powers." The President is not free to monopolize policymaking. Yet, today, the chief executive is expected to assume roles—international peacemaker, moral leader, economic manager—not spelled out with any clarity by the nation's founders. This edition of Cronin's 1975 study of the political pressures that have shaped contemporary Presidents' performances includes data from interviews with private citizens, White House aides, Cabinet officials, and Oval Office advisers, from the Kennedy through the Carter administrations.

UNLOVING CARE: The Nursing Home Tragedy
by Bruce C. Vladeck
Basic, 1980
305 pp. $13.95

More than one and a quarter million elderly Americans reside in nursing homes. The cost of their care exceeds $12 billion a year. Tax dollars, paid out to public and private facilities alike, cover 80 percent of the bill. (Three-fourths of the country's nursing homes are operated for a profit.) This mishmash of state and federal buyers in absentia and cost-

conscious entrepreneurs has failed to ensure adequate care, claims Vladeck, a former Columbia political scientist and now a commissioner with the New Jersey Department of Health. Too many elderly patients are treated with indifference, in substandard living conditions, without adequate medical attention. Vladeck assesses the prospects for closer public controls as meager, partly because of Americans' dwindling confidence in government's ability to regulate or administer social programs. His recommendation: reduce the number of nursing-home beds (via cutbacks in government financing) by 50 percent. Substitute state and federally funded "sheltered housing," whereby the elderly maintain their own dwellings, and health care is provided for them at home or in hospitals (which now often have a surplus of beds). Community agencies should be charged with running the programs; local volunteers should monitor the quality of care, as well as conditions in the remaining nursing homes. There are no easy alternatives, Vladeck reminds us. By the year 2000, 5 million Americans will be over 75.

SEX AND FANTASY: Patterns of Male and Female Development
by Robert May
Norton, 1980
226 pp. $12.95

Picture two trapese artists, male and female, in mid-air; invent a story to accompany the image. If you are a woman, your narrative will probably involve a trial (husband and wife "have been unable to perform on the [trapeze] because of certain marital conflicts") leading to happy ending ("by clasping hands [they] become man and wife again"). Male scenarios typically move in the opposite direction, from promising beginnings ("He just caught her and both feel the thrill of excitement") to deprivation ("She falls to her death. . . . He loses his confidence and the ability to fly"). Through tests such as these, and numerous case histories of extreme behavior, May, an Amherst clinical psychologist, outlines what he believes to be innate male and female personality differences. Men tend to be outward-oriented—proud, aggressive, and restless; women are more inward-looking, adaptable, and caring. Risking the wrath of radical

feminists, he dismisses the "New Androgeny," with its dream of personal freedom from sex roles. Its lure, he suggests, stems from a narcissistic "fantasy of liberation from our physical being" and its limitations.

WITHOUT FEAR OR FAVOR: The New York Times and Its Times
by Harrison E. Salisbury
Times Books, 1980
630 pp. $17.50

Unlike most *Times* men, Salisbury, an old Moscow hand and former senior editor, is a man of passionate views. Here, he makes clear whom he sees as the Good Guys (most journalists) and the Bad Guys (the CIA, the military, Lyndon Johnson, Nixon & Co.). Like most newsmen, he is better at anecdotes than at analysis. Yet, his book yields new insights into the often contradictory workings of newspapers and the men who ran them during the Cold War, Vietnam, and Watergate. He focuses, more or less, on the 1971 exposure by the *Times* of the Pentagon Papers, the Defense Department's own secret history of U.S. Vietnam involvement. A major First Amendment battle ensued, climaxed by the Supreme Court's refusal to grant the Nixon administration's request for a ban on continued publication of the Papers. The *Times* triumphed. Yet, Salisbury notes, after all the fuss, neither the *Times* nor other newspapers, characteristically, paid much heed to the history that the Papers disclosed.

Arts & Letters

PABLO PICASSO: A Retrospective
edited by William Rubin
New York Graphic Society/
Little, Brown, 1980, 463 pp.
$45 to Dec. 31, 1980
$50 thereafter

Last summer's much-publicized museum-wide Picasso show at New York's Museum of Modern Art assembled paintings, drawings, engravings, and sculpture that will probably never be exhibited again together—except, commemoratively, in this volume. Picasso's works will henceforth be scattered. When the artist died in 1973 at the age of 91, the French government, in lieu of death taxes, selected the best of his extensive private collection for the country's Musée Picasso, scheduled to

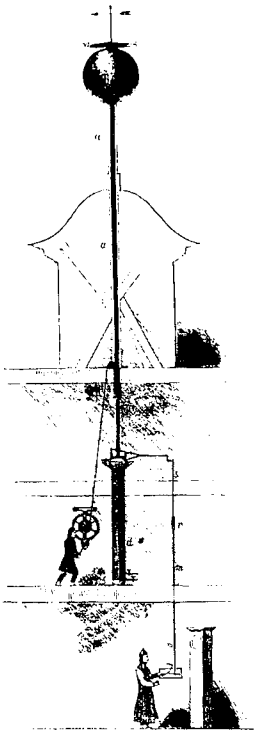
open in Paris next year. Conforming to Picasso's wishes, his most famous painting, *Guernica* (1937)—memorializing the bombing of a small city during the Spanish Civil War—on loan in New York, goes to Spain with the rebirth of democracy there. Several of Picasso's important 1908 cubist paintings are in the Soviet Union; originally scheduled for display, they were withdrawn suddenly from the MOMA exhibit to protest the U.S. Olympic boycott—but not before they were photographed for inclusion in this book. *Retrospective* is "art history without words" (for the reader, there is only a brief outline of events in Picasso's life). But the chronological arrangement of 208 color and 750 black-and-white illustrations speaks volumes about the shifts and continuities in the career of the most influential artist of the century.

ROUGH STRIFE
by Lynne Sharon Schwartz
Harper, 1980
200 pp. $9.95

The wedded state, at least as portrayed in much contemporary fiction, is dismal. Not so in this witty first novel, whose protagonists, Ivan, an architecture critic and art historian, and Caroline, a mathematician, stay partners for 20 years of marital strife and pleasure. The sore point is explained from Caroline's perspective: "She had looked forward to a future of large and unimaginable changes, twists and turns, and now the future was mundanely imaginable and linear: professional advancement, a larger apartment, vacations." Yet Ivan, too, is fondly, fully drawn—temperamental, urbane, kind, and perspicacious, much admired by Caroline. Schwartz avoids the trendy self-consciousness and straining for pathos that afflict many current novels about marriage. Caroline and Ivan vigorously argue and compete even after they come to appreciate that marriage is an "unconditional acceptance" of one's partner. Changes in responsibility that accompany new jobs and children are met and gracefully survived. "Hammer and chisel to each other," Caroline and Ivan provide a view of love and marriage that is both realistic and refreshing.

Science & Technology

GREENWICH TIME AND THE DISCOVERY OF THE LONGITUDE
by Derek Howse
Oxford, 1980
254 pp. $24.95



National Maritime Museum.

During the 16th and 17th centuries, Spain, Holland, Portugal, and Venice offered handsome prizes to anyone who could devise a practical method of determining longitude. The problem, really, was a matter of time, as Howse, of England's National Maritime Museum, explains. As far back as the 2nd century A.D., mariners could determine local time by checking the positions of the stars or sun. They could also ascertain latitude and direction. But even in the 17th century, a sailor had no means of knowing *precisely and quickly* where he was, because he could not be sure on a voyage of any distance how long it had taken him to get there. Needed was a highly accurate clock (to keep track of the time back at port) that would enable a seaman to convert the difference between port time and local time at any moment from hours into longitudinal degrees. Yet, as late as 1792, navigators had to rely on crude timepieces, and many found their ships bumping aground at night, in longitudinal error by as much as several hundred miles. That year, Englishman John Harrison perfected a portable clock able to withstand changes in temperature and the motion of a ship. As sea trade accelerated and as commercial railroads expanded, the push for an orderly system of time zones became intense. (In the 1870s, a cross-country U.S. rail passenger, for example, had to change his watch 20 times to make connections.) To provide a standard time for departing vessels, the Greenwich Observatory (established in 1676 for longitude research) had begun in 1833 lowering a ball from its roof every day at 1:00 P.M. Despite a few dire warnings that imposing a standard time was "usurping the power of the Almighty," Greenwich Mean Time (transmitted via telegraph) was, by 1850, adopted by 95 percent of the British people. In 1884, the International Meridian Conference fixed the Greenwich Observatory as the "common zero of longitude and standard of time-reckoning" throughout the world.

SPLENDID ISOLATION: The Curious History of South American Mammals
by George Gaylord Simpson
Yale, 1980
255 pp. $17.50

The animals that interest Simpson, a University of Arizona paleontologist, would win few beauty contests: the capybara, a rodent four-and-a-half feet long, weighing 110 pounds; saber-toothed marsupials; sloths the size of rhinoceros with the ability to walk erect. These odd, highly specialized creatures (represented in this polished technical account by precise line drawings) flourished as recently as 7 million years ago in South America. Their ancestors began evolving 63 million years ago—no one knows exactly how or why—when South America was still unconnected to northern regions. Within the short span of 15 to 20 million years, the continent became home to at least 20 mammalian families and hundreds of genera. In relative isolation and freedom from competition, fragile mutant strains—nature's genetic "experiments"—survived. Then, 7 or 8 million years ago, came the "Great American Interchange" when animals were able to travel between North and South America via the newly formed Isthmus of Panama. Rabbits, squirrels, dogs, bears, raccoons, skunks, and deer went south; porcupines and armadillos went north. Small humpless camels from North America evolved into llamas and alpacas in South America. Some mammals (guinea pigs, howler monkeys) that had developed in the period of insularity survived; but many of the stranger ones, less adaptable and fewer in number, became extinct.

THE TREE
by John Fowles and Frank Horvat
Little, Brown, 1980
unpaged $24.95

Modern man distrusts disorder. We see forests and yearn for orchards; we see wild flowers and picture formal gardens, observes Fowles, a British novelist, in this elegant essay on nature, science, and art. Worse, with an acrobatic, wish-fulfilling turn of mind, we have begun to *believe* that scientific evidence corresponds to natural fact. Our tendency to label, classify, and analyze—our insistence, since the Victorian age, that our relationship with nature be "purposive, industrious, always seeking greater knowledge"—casts nature as a "kind of opponent." Fowles would

have us see nature through scientific and artistic bifocals, through technical knowledge *and* our imaginations. "If I cherish trees beyond all personal need and liking of them it is because of . . . their natural correspondence to the greener and more mysterious processes of the mind"—a mind that not only records the created but creates. In the end, Fowles concedes, nature often defies artistic expression, which itself has sometimes compartmentalized reality (for example, in classical art, which emphasizes simplicity, harmony, and form). Yet, his is a splendid attempt, and Horvat's 56 color photographs collect the beauty of nature's disorder.

IVAN PAVLOV
by Jeffrey A. Gray
Viking, 1980
153 pp. $12.95

In 1904, Russia's Ivan Pavlov won a Nobel Prize for the discovery that the nervous system controls the secretion of digestive juices in the stomach and pancreas. Five years later, he demonstrated the "conditioned reflex" in a now famous experiment in which a dinner bell stimulated salivation in laboratory dogs. Pavlov (1849–1937) took the puzzling tangle of behavior, mind, and brain out of the philosophers' hands and brought it into the laboratory, says Gray, an Oxford experimental psychologist, in this survey of the experimenter's ideas. Yet, at a time when scientists increasingly called for specialization, the Russian physiologist studied his subjects whole. (Rather than anesthetize his dogs to investigate blood pressure, for example, he trained them to lie perfectly still so he could connect an artery to a pressure gauge.) Followers of Pavlov, notably in the Soviet Union, have long stressed the broad applicability of his findings in animal psychology. Indeed, Pavlov-style conditioning has proved highly effective in treating human phobias. But Pavlov's works were not translated into English on a large scale until the late 1920s. In the West, Gray maintains, many scientists drew sharp distinctions between animal-behavior research and human-personality study, allowing "Freudian and other strange ideas to flourish profusely."

PAPERBOUNDS

VENICE: A Portable Reader. Edited by Toby Cole. Lawrence Hill, 1980. 242 pp. $6.95 (cloth, $12.95)

With its 28 miles of canals, Venice—which still holds the record for the world's longest-lived republic (727–1797)—has always captured travelers' imaginations. Abundant cause is found in this collection of 28 writings by historians, artists, novelists, and critics, including Edward Gibbon, John Ruskin, Charles Dickens, and Bernard Berenson. Driven onto 118 tiny islands in an Adriatic lagoon by invading Lombards in the 6th century, mainland natives became Venetians in "fits and starts," notes historian James Morris. After evolving "an amphibious society peculiar to herself," Venice began brisk trade with the Orient; for more than 1,000 years, the city-republic stood alone, "one foot in Europe, the other paddling in the pearls of Asia." A sizeable fleet provided protection from both Eastern and Western rivals. But there was little defense at home against tyrannical doges, patricians who ruled with a ruthlessness that won praise from Niccolò Machiavelli. Today, pollution and floods, caused in part by over-dredged canals, corrode the city's buildings, unchecked. Once "somewhere between a freak and fairy tale—the worldliest of all cities"—Venice is an artifact whose history outshines its prospects.

THE JAMES FAMILY. By F. O. Matthiessen. Vintage reprint, 1980. 706 pp. $7.95

Transcendentalist, master of rhetoric, Henry James, Sr. (1811–82) made "humanity seem more erect," Henry Thoreau observed. Concerned with the spiritual fate of the common man, the elder James—father of novelist Henry Jr., philosopher William, and journalist Alice—led lively family debates on religion, philosophy, science, society, and literature. Henry Jr. (1854–1916) agreed with his father that no experience was wasted "so long as it stirred the mind to reflection." William (1842–1910), the eldest, deplored his father's "unsystematic" approach to facts. A Harvard physiologist "during the era . . . when both psychology and philosophy had close connections with biology," William faulted his brother's fiction for its "thinness," its tendency to "give a certain impression of the author clinging to his gentlemanliness though all else be lost." Critic Matthiessen (1902–50) lets these tireless observers of American and European life emerge largely through their own letters and essays. Although he ranks the Jameses among America's major thinkers, he shuns labeling any one of them as representative of a particular 19th-century American (or European) school of thought. Each was, as William said of brother Henry, "a native of the James family."

SEEING THROUGH CLOTHES. By Anne Hollander. Avon reprint, 1980. 504 pp. $8.95

"Clothes make, not the man but the image of man." Art historian Hollander argues that, throughout Western history, people have gotten their notions about what is stylish, or "natural," from pictorial representations and not from one another. Early Christian, medieval, and Renaissance artists, for example, influenced by classical sculpture, depicted Jesus and his apostles in the tunics of ancient statesmen and sages. Classical clothing thus became "suitable dress for holy persons." Hollander concedes that some clothes were invented with a useful pur-

Costume Institute of the Metropolitan Museum of Art.

pose in mind, but often style won out. For example, lapels on military jackets were designed to keep the chest warm, but they "speedily atrophied into decorative flaps." Thanks to art, tight-laced waists, necks collared in millstone ruffs, and blue-jeaned legs have all seemed "comfortable, beautiful, and natural in their time."

AMOSKEAG: Life and Work in an American Factory-City. By Tamara K. Hareven and Randolph Langenbach. Pantheon reprint, 1980. 394 pp. $5.95

The Amoskeag Manufacturing Company, which during the early 1900s was the world's largest textile plant, *made* the city of Manchester, N.H. At its peak, Amoskeag employed some 17,000 people, two-thirds of Manchester's workers. The company's absentee Boston owners modeled Manchester on the factory town of Lowell, Mass. In 1860, Manchester's labor-force was 27 percent foreign (mostly Irish), and by 1910, 35 percent of the workers were French Canadians. Hareven, a historian, and Langenbach, an architectural historian and photographer, spent four years researching the company's records and talking with more than 300 aging Amoskeag factory hands and managers. Some 35 interviews have been assembled here, together with photos. The "self-contained world" of Amoskeag lasted for a century (1838–1936). Company welfare programs effectively discouraged unionization until after World War I. Even those most affected by Amoskeag's gradual decline (due to Southern competition, outdated machinery, management inefficiency, and—after unionization in the 1920s—high wages) look back on their days at the factory with great fondness. Ernest Anderson began working at Amoskeag in 1917 at age 14. "A lot of [the millyard] is torn down today," he says, "but . . . I can see those mills, how they flourished at one time, and I don't feel as old as I am—it's as if I was just walking through . . . ready to go to work again."

THE GOOD WORD AND OTHER WORDS. By Wilfrid Sheed. Penguin reprint, 1980. 300 pp. $3.95

Novelist Sheed has chided literary critics who pounce on a book's "deep flaws" and show little patience with experimenters. His own appraisals are informed by an author's empathy with fellow craftsmen and a discerning eye. George Orwell, he reflects, "wrote best about the things he hated. When he tried to write lyrically, it came out stilted and anonymous." Others whose prose Sheed examines are Edmund Wilson ("forthright to the point of gullibility"), Walker Percy (he typifies "the old case against symbols: if you get them, they seem obvious and artificial, and if you don't, you miss the whole point"), Ernest Hemingway and F. Scott Fitzgerald ("together, they make one hell of a writer"). Sheed skewers the literary ratings game: "When a reviewer says that Malamud is second only to Bellow, it means he isn't really thinking about either of them. When he's reading Malamud, he's thinking about Bellow, and when he's reading Bellow he's thinking about Roth."

Mark Twain Becomes a Writer

While still in his twenties, between spates of digging for gold and silver in the California and Nevada hills, Samuel Clemens (already better known as Mark Twain) sharpened his skills as a humorous writer. Much of what he published in newspapers like the *Virginia City Territorial Enterprise* and the *San Francisco Examiner* has been scattered in various obscure archives, inaccessible to both the general reader and the specialist. Scholars at the University of California, Berkeley, have been working to change this. As part of the Mark Twain Project, they have begun publication of Clemens's complete writings—including unpublished fragments, letters, notebooks, journals, and newspaper articles (in all, 70 volumes are planned). We present here samples of Clemens's early efforts at humor with an introduction by Robert H. Hirst.

by Robert H. Hirst

"I never had but two *powerful* ambitions in my life," Samuel Clemens wrote, in the autumn of 1865. "One was to be a pilot, & the other a preacher of the gospel. I accomplished the one & failed in the other, *because* I could not supply myself with the necessary stock in trade—*i.e.* religion."

In this letter to his older brother Orion, Clemens did not add that, when it came to careers, he was, at age 29, something of an expert—having earned his livelihood (as he would later recall in *Roughing It*) as grocery clerk, blacksmith's apprentice, drugstore clerk, bookseller's clerk ("the customers bothered me so much I could not read with any comfort," he complained), printer, riverboat pilot, private secretary, silver miner, silver mill worker, and newspaper reporter.

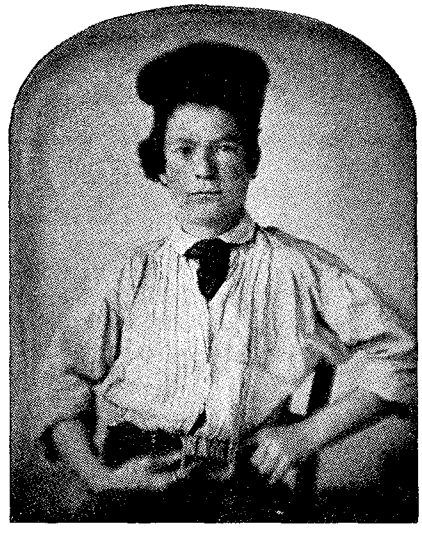
Yet, he told Orion, "I *have* had a 'call' to literature, of a low order—*i.e.* humorous. It is nothing to be

proud of, but it is my strongest suit." He continued: "If I were to listen to that maxim of stern *duty* which says that to do right you *must* multiply the one or the two or the three talents which the Almighty entrusts to your keeping, I would long ago have ceased to meddle with things for which I was by nature unfitted & turned my attention to seriously scribbling to excite the *laughter* of God's creatures."

When Clemens dispatched this letter from San Francisco, he had been publicly known as Mark Twain for almost three years, and had penned thousands of humorous newspaper and magazine pieces.

He was, in Nevada and California, at least, a household name. And his humor had delighted some of the best-known writers of the day. No less a luminary than Artemus Ward had invited Clemens, the previous year, to "leave sage-brush obscurity" and put his skills to work in New York City. Clemens had demurred, preferring, so he said, "not to burst upon the New York public too suddenly & brilliantly." More likely, the young humorist, who had seen fortunes made in the silver mines of Humboldt County, Nevada, and on the stock exchange in San Francisco, was unwilling to entrust his future to literature.

Now, however, in October 1865, Clemens found himself pressured by mounting debts, the result of a reporter's low income and bad luck with stock investments. He was approaching 30, when a man should have begun to settle down. With growing determination, he resolved to take up his vocation as a humorist, to "drop all trifling, & sighing after vain impossibilities, & strive for a fame—unworthy & evanescent though it must of necessity be."



Courtesy of the Mark Twain Project, The Bancroft Library.

Samuel Clemens at age 15. In his hand are blocks of newspaper type that the daguerreotype reversed.

Within weeks, he would publish "Jim Smiley and His Jumping Frog" in the *New York Saturday Press*, and within months he would produce such minor masterpieces as "Captain Montgomery" and "Explanation of a Mysterious Sentence." (See pages 176 and 179.) In a little more than a year, he would finally take Ward's advice, go East, and try his luck with New York publishers. By 1869, he would be basking in national and international acclaim for his first major book, a rambunctious account of Americans traveling in Europe and the Holy Land, *The Innocents Abroad*.

Clemens later liked to pretend that he only gradually perceived his enormous talent as a humorist. The historical record shows that his reluctance to embrace his fate came

not from ignorance of his vocation, but from his low opinion of it.

In 19th-century America, humorists ranked low on the social ladder, about on a par with actors. Clemens craved both affluence and high social status for himself ("I am not married yet, and I never *will* marry until I can afford to have servants enough," he vowed at age 26). Five years after his purposeful letter to brother Orion, in 1870, he had achieved both, thanks to his writing, and had taken a wife besides, Olivia Langdon, the genteel daughter of a wealthy New York State businessman.

Childhood Traumas

Samuel Clemens was born in Florida, Missouri, in 1835, the sixth of seven children. "The Clemenses came from very fine stock, but were very poor," recalled Clemens's first sweetheart. As a child, Clemens was profoundly affected by the declining fortunes of his family, and deeply frightened by the humiliation of debt.

His parents, John Marshall and Jane Lampton Clemens, could trace their ancestry to the earliest settlers of Virginia and Kentucky. (The Lamptons even claimed kinship with the earls of Durham.) The year Sam was born, they owned a slave or two, although they had once owned six.

Judge Clemens was an unsuccessful shopkeeper in Florida and, after 1839, in Hannibal, Missouri. The family placed its hopes for a return to prosperity (never realized) on several thousand acres of undeveloped "Tennessee land" that the Judge had bought on the chance that it might sit atop coal or iron reserves (it did not).

"The Curse of It"

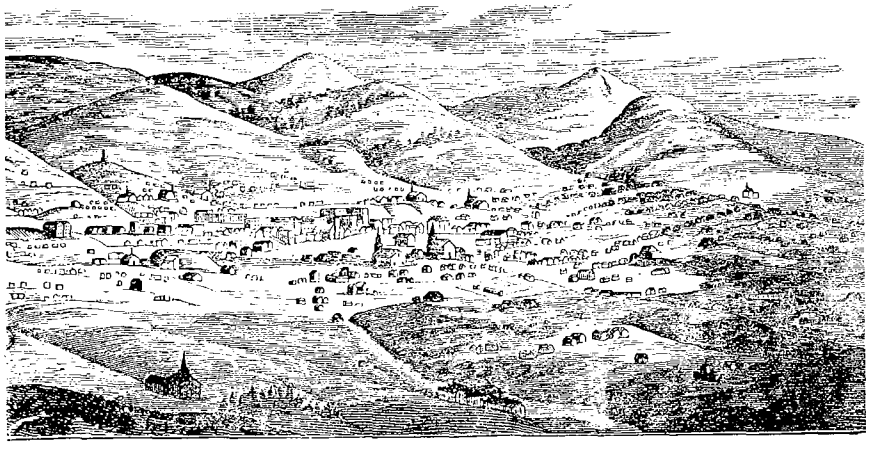
Of his family's high expectations, Samuel Clemens later wrote: "It is good to begin life poor; it is good to begin life rich . . . but to begin it poor and *prospectively* rich! The man who has not experienced it cannot imagine the curse of it."

In later life, Clemens himself became a tireless investor in money-making schemes—taking out patents on designs for a suspender and a scrapbook, and sinking his book earnings into products such as an automatic rug weaver, an automatic typesetter, and Plasmon, a protein additive.

Young Sam Clemens's formal education, in Hannibal and Florida, where he spent summers, was cut short by the death of his father when the boy was 11. (Clemens would remain sensitive about his lack of schooling the rest of his life.) He became a printer's devil at the *Hannibal Gazette* and, in 1851, began working for his brother Orion, who had acquired the *Hannibal Western Union*. He went on to set type as a journeyman printer in half a dozen cities, from New York to St. Louis.

"One isn't a printer ten years," he remarked in 1909, "without setting up acres of good and bad literature, and learning—unconsciously at first,

Robert H. Hirst, 39, is editor of the Mark Twain Papers at the Bancroft Library, University of California, Berkeley. Born in New York City, he holds a B.A. from Harvard (1963) and an M.A. (1965) and Ph.D. (1976) from Berkeley. He is co-editor (with Edgar Marquess Branch) of The Works of Mark Twain: Early Tales & Sketches, Vol. 1, 1851–1854 *(1979) and author of* The Making of "The Innocents Abroad" *(forthcoming).*



Clemens recalled that in silver-rich Virginia City, Nevada, "money was as plenty as dust" and "high hope . . . held sway in every heart."

consciously later—to discriminate between the two."

Clemens gleaned much of his early knowledge of the world and of literature from setting newspaper stories and from helping Orion look for reprintable articles in magazines that ranged from the humorous New York *Spirit of the Times* to San Francisco's new, literary *Golden Era*.

In the print shops of Hannibal, he also took a fancy to "scribbling" on his own. His first published work, a brief, humorous account of a fire in the offices of the *Western Union*, appeared when he was 15. When he was 16, he placed two sketches in the Eastern press, a clumsy yarn entitled "The Dandy Frightening the Squatter" in the Boston *Carpet-Bag* and a brief tour of Hannibal in the *American Courier* of Philadelphia.

"Seeing them in print was a joy which rather exceeded anything in that line I have ever experienced since," Clemens remembered much later. But he gave no thought to writing as a route to wealth and prestige.

In April 1857, he set off down the Mississippi for South America, with a scheme to begin trading in coca (the plant source of cocaine, which, Clemens had heard, was a "vegetable product of miraculous powers"). Instead, he became a cub-pilot on the Mississippi River and a fully licensed riverboat pilot in 1859.

The brotherhood of steamboat pilots for a time satisfied Clemens's craving for both money and status. "The Senator," he mused in 1866, "must hob-nob with *canaille* whom he despises, & banker, priest & statesman trim their actions by the breeze of the world's will & the world's opinion. . . . The only real, independent & genuine *gentlemen* in the world go quietly up & down the Mississippi river."

The Civil War forced Clemens off the river in 1861, closing down commercial traffic and turning those willing to pilot Yankee gunboats into easy targets for Confederate snipers. Union forces invaded Missouri, and Clemens and a motley crew of 14 lads

from Hannibal banded together to repel them. As Clemens later described his experiences, he learned "more about retreating than the man that invented retreating."

Fortunately, that year Orion Clemens was appointed by Abraham Lincoln to help organize the new Territory of Nevada. Sam accompanied him as his private secretary. Once in Nevada, he was "smitten with the silver fever" and spent the better part of 1862 in the region around Carson City trying to strike it rich—with no luck.

$25 a Week

Clemens's failure to make the fortune he envisioned was a bitter experience, but it forced him to accept a position as a $25-a-week local reporter on the feisty *Virginia City Territorial Enterprise*—his first professional job as a writer.

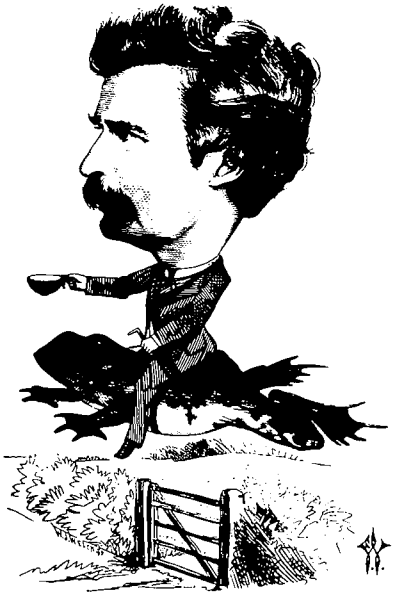
The *Enterprise* was run by Joseph T. Goodman, who, at 24, was two years younger than his newest reporter.

"Original, forcible, confident, mocking and alive with the impulses of an abounding and generous youth, the *Enterprise* was to Goodman a safety valve for his ideas rather than a daily burden of responsibility," according to Arthur McEwen, a newspaper colleague. "There never has been a paper . . . so entirely human, so completely the reflex of a splendid personality and a mining camp's buoyant life."

Clemens had caught Goodman's eye in the spring of 1862, when he started submitting entertaining letters to the *Enterprise* over the pen name "Josh." When the paper's star writer-reporter, Dan De Quille (real name: William Wright), decided to take a trip back East, Goodman tapped Clemens to fill the vacancy.

The paper's local section under De Quille and Twain was, remembered McEwen, "noble" in its "indifference to 'news.'" Clemens put it slightly differently: "Stirring news . . . was what a paper needed, and I felt that I was peculiarly endowed with the ability to furnish it."

Clemens had practiced the art of storytelling all his life. Inheriting his mother's manner of relating an episode "with the perfect air of not knowing it to be humorous," he had a knack for impersonation and a capacity for ridiculing the follies and pretensions of human beings. But the little work that survives from his pre-Nevada years shows how easily he could misjudge the power of his ridicule—for instance, his unpar-



Courtesy of the Mark Twain Project, The Bancroft Library.

This cartoon (circa 1872) shows Clemens riding the "Jumping Frog" to fame and fortune.

donable lampoon of a reporter at a rival Hannibal paper who, jilted by love, had botched his own suicide attempt; and his mimicry of the river reports of a respected Mississippi captain, which was so vicious that the man never ventured to write them again.

There were mean excesses of this kind in Nevada as well: "A Bloody Massacre near Carson" was a hoax that made no one laugh*; a fake report that charity money raised for recuperating Union soldiers was being diverted to a Miscegenation Society back East earned him several challenges to duel and inspired Clemens's purchase of a one-way ticket to California.

For the most part, Clemens stayed away from political issues while writing in Nevada. He especially neglected the topics of slavery and the War, with good reason. Virginia City, during the first half of the '60s, was a hotbed of Irish pro-Unionists, Northern copperheads, and Southerners (as the town's name attests) sitting out the war. For the son of slaveholders from a border state, who had avoided the draft by traveling West with a Lincoln appointee, prudence was in order.

One subject on which he did speak out, however, was the brutality of the police (who were mainly Irish) against the immigrant Chinese, both in Nevada and in San Francisco. After leaving Virginia City, Clemens had landed a job as a reporter (at $40 a week) with the *San Francisco Morning Call.* He stayed with the paper for all of four months. Much later, he criticized the *Call*'s editors venomously for refusing to print his attacks on anti-Chinese activities.

Between 1851, when he first took up his pen in Hannibal to excite the laughter of God's creatures, and 1865, when he wrote his declaration of literary intent to brother Orion, Clemens wrote much in a comedic vein that would not endure (and rightly not). Often he turned out sketches of varying wit and charm but little point. Sometimes his humor could be strident or heavy handed.

With practice, he refined his satiric art. Through his humorous sketches, he gradually articulated an ethos of tolerance, loyalty to one's friends, freedom from pretension, and Christianity without hell-and-damnation, set against the rigid respectability of the established culture.

Leading to Huck Finn

The hoax, the mock feud, the sly apology that only makes matters worse, the officious report, and the mock biography—these were among the dozens of forms with which he experimented on the *Enterprise,* the *Call,* and other Western publications.

He was also preoccupied with developing a form that was not necessarily satirical—the "humorous story," which, as he said in 1895, "is told gravely" by someone who "does his best to conceal the fact that he even dimly suspects that there is anything funny about it." Clemens himself played this individual—who, in his own freedom from pretension, mocks the dignified characters of "high society" — in dozens of sketches, including "The Sanitary

*This "news story" appeared in the *Territorial Enterprise* in October 1863 and was picked up by, among other papers, the *Sacramento Union* and the *San Francisco Evening Bulletin.* It related the grisly mass murder of a woman and her seven children by the father of the family. The man had supposedly been ruined by the Spring Valley Water Company's scheme to inflate company dividends. Clemens later explained that he had made up the story to fool the San Francisco newspapers.

Ball" (see page 175). Clemens's discovery of varying comic poses naturally led to his invention of humorous characters distinct from the author himself: Simon Wheeler, who tells the "Jumping Frog" story, and, eventually, Huck Finn, who tells his own story.

But Clemens's most important discovery was still to come: the revelation that one could use the humorous story for a satirical, and basically ethical, purpose. Humorous monologues in which the speaker wanders on in utter pointlessness (with only the cleverness of his invention to justify the performance) gradually gave way, in Clemens's California writings of 1865 and 1866, to monologues that disarm the reader just as effectively, but make a point.

Clemens left San Francisco for the East in the fall of 1866, to pursue the business of writing books that would make people laugh. It was clear to him, following the roaring success of "Jim Smiley and His Jumping Frog," that there was a chance he could make a lot of money at it. But he was not quite reconciled to what he thought would be the low status and uncertain finances of a professional humorist.

He had not tried to compose anything that approximated the complex shadings of wit and seriousness in *Adventures of Huckleberry Finn* (1885) or *A Connecticut Yankee in King Arthur's Court* (1889). But he had begun to equip himself—both in the techniques of his craft and in the more profound matter of developing humor to illuminate the ethical problems of racial prejudice and social conformity.

It was chiefly in the second endeavor that Clemens most needed to progress if he was to fully resolve his ambivalence about his vocation, because the second of his two "powerful ambitions"—to become a minister—was not a simple joke.

"Humor must not professedly teach and it must not professedly preach, but it must do both if it would live forever," he said in 1906—adding that by "forever" he meant "thirty years." "I have always preached. That is the reason that I have lasted thirty years."

By 1866, at the age of 30, Mark Twain had begun to learn both how and what to preach without appearing to do so. This was perhaps the most important result of his early years of experimentation—his discovery of how to use a powerful wit to high ethical purpose, the first step toward genuine acceptance of his calling.

PETRIFIED MAN

Printed October 4, 1862, this is one of the first sketches Clemens wrote for the Virginia City Territorial Enterprise. *"It is an unmitigated lie," he later confessed. "I got it up to worry Sewall," the local coroner. Only those who figure out what the petrified man is doing with his hands will* get *the joke:*

A petrified man was found some time ago in the mountains south of Gravelly Ford. Every limb and feature of the stony mummy was perfect, not even excepting the left leg, which has evidently been a wooden one during

the lifetime of the owner—which lifetime, by the way, came to a close about a century ago, in the opinion of a savan who has examined the defunct.

The body was in a sitting posture, and leaning against a huge mass of croppings; the attitude was pensive, the right thumb resting against the side of the nose; the left thumb partially supported the chin, the forefinger pressing the inner corner of the left eye and drawing it partly open; the right eye was closed, and the fingers of the right hand spread apart.

This . . . freak of nature created a profound sensation in the vicinity, and our informant states that by request, Justice Sewell or Sowell, of Humboldt City, at once proceeded to the spot and held an inquest on the body. The verdict of the jury was that "deceased came to his death from protracted exposure," etc.

The people of the neighborhood volunteered to bury the poor unfortunate, and were even anxious to do so; but it was discovered, when they attempted to remove him, that the water which had dripped upon him for ages from the crag above, had coursed down his back and deposited a limestone sediment under him which had glued him to the bed rock upon which he sat. . . .

Judge S. refused to allow the charitable citizens to blast him from his position. The opinion expressed by his Honor that such a course would be little less than sacrilege, was eminently just and proper.

Everybody goes to see the stone man, as many as three hundred having visited the hardened creature during the past five or six weeks.

THE SANITARY BALL

The United States Sanitary Commission raised money to help wounded Union soldiers. Clemens, in high form, covered its ball, held in January 1863 in Virginia City, as the local reporter for the Enterprise:

The Sanitary Ball at La Plata Hall on Thursday night was a very marked success, and proved beyond the shadow of a doubt, the correctness of our theory, that ladies never fail in undertakings of this kind. If there had been about two dozen more people there, the house would have been crowded—as it was, there was room enough on the floor for the dancers, without trespassing on their neighbors' corns. Several of those long, trailing dresses, even, were under fire in the thickest of the fight for six hours, and came out as free from rips and rents as they were when they went in. Not all of them, though. . . .

We were feeling comfortable, and we had assumed an attitude — we have a sort of talent for posturing—a pensive attitude, copied from the Colossus of Rhodes—when the ladies were ordered to the centre. Two of them got there, and the other two moved off gallantly, but they failed to make the connection. They suddenly broached to under full headway, and there was a sound of parting canvas. Their dresses were anchored under our boots, you know. It was unfortunate, but it could not be helped. Those two beautiful pink dresses let go amidships, and re-

mained in a ripped and damaged condition to the end of the ball.

We did not apologize, because our presence of mind happened to be absent at the very moment that we had the greatest need of it. But we beg permission to do so now. . . .

We engaged a good many young ladies last Tuesday to go with us, thinking that out of the lot we should certainly be able to secure one, at the appointed time, but they all seemed to have got a little angry about something—nobody knows what, for the ways of women are past finding out. They told us we had better go and invite a thousand girls to go to the ball. A thousand. Why, it was absurd. We had no use for a thousand girls. A thou—but those girls were as crazy as loons. In every instance, after they had uttered that pointless suggestion, they marched magnificently out of their parlors—and if you will believe us, not one of them ever recollected to come back again. . . . We never enjoyed so much solitude in so many different places, in one evening, before.

But patience has its limits; we finally got tired of that arrangement—and at the risk of offending some of those girls, we stalked off to the Sanitary Ball alone—without a virgin, out of that whole litter. We may have done wrong—we probably did do wrong to disappoint those fellows in that kind of style—but how could we help it? We couldn't stand the temperature of those parlors more than an hour at a time.

CAPTAIN MONTGOMERY

Clemens sent this sketch to the Territorial Enterprise *in January 1866. Mother Utterback's racy monologue foreshadows the vernacular speeches in Twain's major books, particularly* Adventures of Huckleberry Finn. *More important, however, is Twain's ethical purpose—his attention to the quaint hospitality of the old crone and the kindnesses of the captain, and his icy silence on the matter of the lady visitors and* their *manners:*

Whenever he commenced helping anybody, Captain Ed. Montgomery never relaxed his good offices as long as help was needed.

As soon as he found that no steamboat ever stopped to wood with old Mother Utterback in the bend below Grand Gulf, Mississippi, and that she was poor and needed assistance, he began to stop there every trip and

take her little pile of wood and smile grimly, when the engineers protested that it wouldn't burn any more than so many icicles — and stop there again the very next trip.

He used to go ashore and talk to the old woman, and it flattered her to the last degree to be on such sociable terms with the high chief officer of a splendid passenger steamer. She would welcome him to her shabby little floorless log cabin with a royal flourish, and make her six gawky "gals" fly around and make him comfortable. He used to bring his lady passengers ashore to be entertained with Mother Utterback's quaint conversation.

I do not know that this incident is worth recording, but still, as it may let in the light of instruction to some darkened mind, I will just set down the circumstances of one of Captain Montgomery's visits to Mother Utterback and her daughters. . . .

"Good morning, Captain Montgomery!" said she with many a bustling bow and flourish; "Good morning, Captain Montgomery; good morning, ladies all; how de do, Captain Montgomery—how de do—how de do? Sakes alive, it 'pears to me it's ben years sense I seed you. Fly around gals, fly around! You Bets, you slut, highst yoself off'n that candle-box and give it to the lady. How *have* you ben, Captain Montgomery? — make yoself at home, ladies all—you 'Liza Jane, stan' out of the way—move yoself! Thar's the jug, help yoself, Captain Montgomery; take that cob out and make yoself free, Captain Montgomery—and ladies all. You Sal, you hussy, git up f'm thar this minit, and take some exercise! for the land's sake, ain't you got no sense at all?—settin' thar on that cold rock and you jes' ben married last night, and your pores all open!"

The ladies wanted to go aboard the boat, they bade the kind, hospitable old woman good by, and went away. But Captain Montgomery staid behind, because he knew how badly the old lady wanted to talk, and he was a good soul and loved to please her. . . .

You can rest assured I am not sorry old Captain Ed. Montgomery is alive and well yet.

THE CHINA TRIAL

Unlike other 19th-century American writers who protested racial prejudice (e.g., Harriet Beecher Stowe), Clemens seldom resorted to sentimentality. In this unsigned item from the Enterprise *of February 25, 1864, he pokes fun at Chinese immigrants as freely as he taunts their oppressors:*

We were there, yesterday, not because we were obliged to go, but just because we wanted to. The more we see of this aggravated trial, the more profound does our admiration for it become. It has more phases than the moon has in a chapter of the almanac.

It commenced as an assassination; the assassinated man neglected to die, and they turned it into assault and battery; after this the victim *did* die, whereupon his murderers were arrested and tried yesterday for perjury; they convicted one Chinaman, but when they found out it was the wrong one, they let him go—and why they should have been so almighty

particular is beyond our comprehension; then, in the afternoon, the officers went down and arrested Chinatown again for the same old offense, and put it in jail — but what shape the charge will take this time, no man can foresee; the chances are that it will be about a stand-off between arson and robbing the mail.

Capt. White hopes to get the murderers of the Chinaman hung one of these days, and so do we, for that matter, but we do not expect anything of the kind. You see, these Chinamen are all alike, and they cannot identify each other. They mean well enough, and they really show a disinterested anxiety to get some of their friends and relatives hung, but the same misfortune overtakes them every time: they make mistakes and get the wrong man, with unvarying accuracy.

With a zeal in behalf of justice which cannot be too highly praised, the whole Chinese population have accused each other of this murder, each in his regular turn. . . .

There is only one way to manage this thing with strict equity: hang the gentle Chinamen promiscuously, until justice is satisfied.

"MANY CITIZENS"

The King in Adventures of Huckleberry Finn, *Merlin in* A Connecticut Yankee in King Arthur's Court, *Colonel Sellers in* The Gilded Age *all were adept at the kind of verbal acrobatics that Clemens displays here. Clemens's* orneriness *in this local column from the* Territorial Enterprise *of February 25, 1863, was part of a comic feud with his "chief editor" and good friend, Joe Goodman:*

In another column of this paper will be found a card signed by "Many Citizens of Carson," stating that the County Commissioners of Ormsby county have removed the Sheriff from office and appointed some one else in his stead. They also ask whether the Commissioners really possess the power to remove the Sheriff, or the Governor of the Territory, or the President of the United States, at pleasure.

This is all well enough, except that in the face of our well known ability in the treatment of ponderous questions of unwritten law, these citizens have addressed their inquiries to the chief editor of this paper—a man who knows no more about legal questions than he does about religion —and so saturated with self-conceit is he, that he has even attempted, in his feeble way, to answer the propositions set forth in that note.

We ignore his reply entirely, and notwithstanding the disrespect which has been shown us, we shall sink private pique for the good of our fellow men, and proceed to set their minds at rest on this question of power.

We declare that the County Commissioners do possess the power to remove the officers mentioned in that note, at pleasure. The Organic Act says so in so many words . . . : "The executive power and authority in and over said Territory of Nevada shall be vested in a Governor and other officers, who shall hold their offices for four years, and until their successors shall be appointed and

qualified, unless sooner removed by the County Commissioners."

That is explicit enough, we take it. "Other officers" means any or *all* other officers, of course, else such dignitaries as it was intended to refer to would have been specifically mentioned; consequently, the President of the United States, and the Governor and Sheriff being "officers," come within the provisions of the law, and may be shoved out of the way by the Commissioners. . . .

We have been actuated solely by a love of the godlike principles of right and justice, and a desire to show the public what an unmitigated ass the chief editor of this paper is. Having succeeded to our entire satisfaction, we transfer our pen to matters of local interest, although we could prove, if we wanted to, that the County Commissioners not only possess the power to depose the officers above referred to but to hang them also, if they feel like it.

EXPLANATION OF A MYSTERIOUS SENTENCE

Martin J. Burke was Chief of Police in San Francisco and a frequent target (partly for his bullying of the Chinese) of Clemens's satire, as this piece from the San Francisco Examiner *of February 7, 1866, makes plain:*

Editor Examiner:—You published the following paragraph the other day and stated that it was an "extract from a letter to the Virginia Enterprise, from the San Francisco correspondent of that paper." Please publish it again, and put in the parentheses where I have marked them, so that people who read with wretched carelessness may know to a dead moral certainty when I am referring to Chief Burke, and also know to an equally dead moral certainty when I am referring to the dog:

I want to compliment Chief Burke—I do honestly. But I can't find anything to compliment him about. He is always rushing furiously around, like a dog after his own tail—and with the same general result, it seems to me; if he (the dog, not the Chief,) catches it, it don't amount to anything, after all the fuss; and if he (the dog, not the Chief,) don't catch it it don't make any difference, because he (the dog, not the Chief,) didn't want it anyhow; he (the dog, not the Chief,) only wanted the exercise, and the happiness of "showing off" before his (the dog's, not the Chief's,) mistress and the other young ladies. But if the Chief (not the dog,) would only do something praiseworthy, I would be the first and the most earnest and cordial to give him (the Chief, not the dog,) the credit due. I would sling him (the Chief, not the dog,) a compliment that would knock him (the Chief, not the dog,) down. . . .

I think that even the pupils of the Asylum at Stockton can understand that paragraph now. But in its original state, and minus the explanatory parentheses, there were people with sufficiently gorgeous imaginations to gather from it that it contained an intimation that Chief Burke kept a mistress! — and not only that, but they also imagined that Chief Burke was in the habit of amusing that mistress with an entertainment of the most extraordinary character! . . .

I am a little at loggerheads with M. J. Burke, Chief of Police, and I must beg leave to stir that officer up some in the papers from time to

time; but M. J. Burke, in his capacity as a private citizen, is a bosom friend of mine, and is safe from my attacks. I would even drink with him, if asked to do so. But Chief Burke don't keep a mistress. . . . I only wish he did. I would call it malfeasance in office and publish it in a minute!

REFLECTIONS ON THE SABBATH

Hell-fire-and-brimstone Christianity endured the ingenious attacks of a professed "sinner" in the Territorial Enterprise *in early March 1866:*

The day of rest comes but once a week, and sorry I am that it does not come oftener. Man is so constituted that he can stand more rest than this. I often think regretfully that it would have been so easy to have two Sundays in a week, and yet it was not so ordained. The omnipotent Creator could have made the world in three days just as easily as he made it in six, and this would have doubled the Sundays. [But] it ill becomes us to hunt up flaws in matters which are so far out of our jurisdiction.

I hold that no man can meddle with the exclusive affairs of Providence and offer suggestions for their improvement, without making himself in a manner conspicuous. Let us take things as we find them—though, I am free to confess, it goes against the grain to do it, sometimes.

What put me into this religious train of mind, was attending church at Dr. Wadsworth's this morning. I had not been to church before for many months, because I never could get a pew, and therefore had to sit in the gallery, among the sinners. . . . I was sprinkled in infancy, and look upon that as conferring the rank of Brevet Presbyterian. It affords none of the emoluments of the Regular Church—simply confers honorable rank upon the recipient and the right to be punished as a Presbyterian hereafter; that is, the substantial Presbyterian punishment of fire and brimstone instead of this heterodox hell of remorse of conscience of these blamed wildcat religions. . . .

The Presbyterian hell is all misery; the heaven all happiness—nothing to do. But when a man dies on a wildcat basis, he will never rightly know hereafter which department he is in—but he will think he is in hell anyhow, no matter which place he goes to; because in the good place they progress, pro-gress, pro-gress—study, study, study, all the time—and if this isn't hell I don't know what is. . . .

Dr. Wadsworth never fails to preach an able sermon; but every now and then, with an admirable assumption of not being aware of it, he will get off a firstrate joke and then frown severely at any one who is surprised into smiling at it. This is not fair. . . .

Several people there on Sunday suddenly laughed and as suddenly stopped again, when he gravely gave the Sunday school books a blast and spoke of "the good little boys in them who always went to Heaven, and the bad little boys who infallibly got drowned on Sunday," and then swept a savage frown around the house and blighted every smile in the congregation.

A VOICE FOR SETCHELL

Clemens's defense of the comic actor Dan Setchell was published anonymously in the San Francisco Californian, *May 27, 1865. In standing up for the comedian, he also spoke for himself:*

My voice is for Setchell. What with a long season of sensational, snuffling dramatic bosh, and tragedy bosh, and electioneering bosh, and a painful depression in stocks that was anything but bosh, the people were settling down into a fatal melancholy, and growing prematurely old—succumbing to imaginary miseries and learning to wear the habit of unhappiness like a garment—when Captain Cuttle Setchell appeared in the midst of the gloom, and broke the deadly charm with a wave of his enchanted hook and the spell of his talismanic words, *"Awahst! awahst! awahst!"* And since that night all the powers of dreariness combined have not been able to expel the spirit of cheerfulness he invoked.

Therefore, my voice is still for Setchell. I have experienced more real pleasure, and more physical benefit, from laughing naturally and unconfinedly at his funny personations and extempore speeches than I have from all the operas and tragedies I have endured, and all the blue mass pills I have swallowed in six months. . . .

True, I have heard one man say he was not as good as Burton in "Captain Cuttle," and another that he had seen better actors in *A Regular Fix*, but then I attached no great importance to the opinions of these critics . . . because every time Mr. Setchell plays, crowds flock to hear him, and no matter what he plays those crowds invariably laugh and applaud extravagantly. That kind of criticism can always be relied upon as sound, and not only sound but honest.

Courtesy of the Mark Twain Project, The Bancroft Library.

EDITOR'S NOTE: *In addition to the Mark Twain Project's* Early Tales & Sketches, Vol. 1, 1851–1854 *(1979), from which some of the excerpts above were chosen, readers may wish to consult Henry Nash Smith's* Mark Twain: The Development of a Writer *(1962), Justin Kaplan's* Mr. Clemens and Mark Twain: A Biography *(1966), and Mark Twain's own* Roughing It *(1872).*

COMMENTARY

We welcome timely letters from readers, especially those who wish to amplify or correct information published in the Quarterly and/or react to the views expressed in our essays. The writer's telephone number and address should be included. For reasons of space, letters are usually edited for publication. Some of those printed below were received in response to the editor's requests for comment.

California: Aquí No Se Habla Inglés?

Ted K. Bradshaw's splendid article on California ["Trying Out the Future," *WQ*, Summer 1980] notes that California is one of the most ethnically diverse states in the Union. The 1980 census will indicate the power of these facts and will also illuminate the single most important facet of this phenomenon: the impact of the rapidly increasing Hispanic population.

Currently, 25 percent of all births in California involve parents of Mexican heritage. (Total births in the state from all groups are at a record high.) One-third of all children in kindergarten are Hispanic, contrasted with but 15 percent in 12th grade.

In recent years, a battle has taken place in local school boards and state legislative halls over the approach that should be taken best to equip Spanish-speaking children to enter an English-dominant society: over the extent to which programs should stress English proficiency or a more bicultural focus; over the kind of testing to be conducted, the number of bilingual teachers to be required, and alternative formats and their cost.

In August, U.S. Secretary of Education Shirley M. Hufstedler proposed federal regulations designed to show local school districts how to comply with civil rights law prohibiting discrimination against students who do not speak English. Under these regulations, schools would have to provide bilingual education to non-English speaking students while they are taught English. Hearings on the regulations will be held across the country in coming months.

But already in California the issue has been largely resolved with the passage of legislation clarifying the purpose of the state program: getting foreign-language youngsters to speak English as quickly as possible.

Hispanic youth drop out of high school in alarmingly large numbers and at a higher rate than do blacks and Anglo whites. Among those who graduate, less than 5 percent are eligible to attend the University of California, as contrasted with 17 percent of the Anglo-white population. Lack of proficiency in the English language is a fundamental cause of this critical development. Even if prompt remedial steps are taken, the state faces the prospect of a large, poorly educated underclass.

The problem differs from similar developments involving older European ethnic groups or current Asian immigrants, coming to a "New World" many thousands of miles away from their home. In sharp contrast, California is a key part of one of the most remarkable international borders in the world.

Nowhere is there a more dramatic social, economic, and cultural division than between Tijuana and San Diego, which combined form one of the largest metropolitan regions of North America. The difference may be suggested by contrasting $5-per-day pay with a $5-per-hour wage. It is no wonder that thousands of workers cross the border each day from Mexico to find daily employment in San Diego and nearby Calexico.

Thus, along with all of the other problems of being the nation's most populous state, California is attempting to take the lead in confronting the challenge of a

Spanish-speaking citizenry soon to reach one-quarter of the total state population. By 1990, we will know whether the result will be tragic social fragmentation or the development of an exciting multicultural society in which all Californians—and all Americans—may rejoice.

Eugene Lee
Institute of Governmental Studies
University of California, Berkeley

Independence for California?

James Rawls's excellent article on California ["Visions and Revisions," *WQ*, Summer 1980] is marred by his failure to include any mention of the free and independent nation of Alta California. In its claim that, by the Treaty of Guadalupe Hidalgo, Mexico ceded California to the United States, the U.S. government is perpetuating a deliberate falsehood. At the time of the U.S.–Mexican War, California was not Mexico's to cede! The following is the true history of what happened:

Ten years before the Bear Flag was raised at Sonoma, the Mexican governor of Alta California, "El Tuerto" Gutierrez, surrendered to José Castro and the California insurgents at Monterey on November 3, 1836. On November 7, the deputation issued a declaration of independence from Mexico and decreed the existence of the free and sovereign state of Alta California.

Mexico, of course, attempted several times to reassert its authority. Finally, it sent the bandit Micheltorena and his army of convicts to subjugate this new nation. But Castro and Pío Pico led the brave Californians to victory. After 1844, Mexico never again tried to exert its power over the free people.

When war broke out between the United States and Mexico in 1846, President Polk ordered the conquest of California, as well. Gillespie captured Los Angeles, the capital of this tiny country. But the Californians quickly raised a small army and forced Gillespie to surrender. Gillespie, and the remnants of his army, were allowed to go to San Pedro and board a ship, ostensibly to leave California waters. This, of course, after signing documents that the naive and peace-loving Californians took as the complete capitulation of the United States. The war was over. The Californians disbanded their army and returned to their farms.

But the deceitful Gillespie did not leave. With the support of Frémont and Stockton invading from the north, Gillespie retook Los Angeles.

When a peaceful nation of hardly 40,000 inhabitants disbands its citizen army, it is almost impossible to assemble it again. With an army that never exceeded 200 men, armed with ancient cannons and homemade powder, the Californians never had a chance. They finally had to capitulate; ever since, the jackboots of a foreign army have occupied our nation.

The United States did not take California from Mexico. Rather, it invaded without provocation a tiny nation of peace-loving farmers. Even so biased a historian as [Hubert Howe] Bancroft (1832–1918) writes that it was the Californian, not Mexican, army that engaged the Americans. Yes, California is an occupied country. We will never submit.

Viva la libertad!
Viva el estado libre de Alta California!

George Noonan (y de Valdez)
San Diego, Calif.

Daniel Bell on His "Postindustrial Society"

I appreciate Ted K. Bradshaw's effort to use, and test, my notion of "postindustrial society" against the reality of California ["Trying Out the Future," *WQ*, Summer 1980], but I have to correct a grievous misconception.

He writes: Bell "unambiguously proclaims the United States to be the first [postindustrial] society."

I did no such thing. For one, I have rarely written "unambiguously" about anything; that may be a failing, but it is my temperament and caution. "Pro-

claim." No, I do not proclaim or declaim, or even herald or announce. I try to identify newly emerging social frameworks and then put them forth as logical constructions in order to see what would be at stake, *if* they came to fruition. I have written on this methodological problem in my introduction to *The Coming of Post-Industrial Society:* "I am dealing here with tendencies. [But] social tensions and social conflicts may modify a society considerably; wars and recriminations can destroy it; the tendencies may provoke a set of reactions that inhibit change. Thus I am writing what Hans Vaihinger called an 'as if,' a fiction, a logical construction of what *could* be, against which future social reality can be compared in order to see what intervened."

I do not believe (though I am called a "futurist") that one can predict the future; one cannot. What one can do is identify new "axial" principles, such as the "codification of theoretical knowledge," and emerging axial structures, such as postindustrial dimensions of society, and explore the logical implications of these changes, even though one knows (or especially because one knows) that history may not proceed in those directions. Yet through such exercises, we can gain a better understanding of how social processes work.

Daniel Bell
Professor of Sociology
Harvard University

Relocated

Just a short note to correct a minor error in Sally B. Woodbridge's article ["The California House," *WQ*, Summer 1980]. On page 91, reference is made to "the Sea Ranch condominium complex on the Mendocino County coast." No part of the Sea Ranch is located in Mendocino County—it is located entirely in Sonoma County at its northernmost tip.

My address amply explains my interest in the subject.

James L. Cockburn Jr.
The Sea Ranch, Calif.

The Future of Hospitals

I'd like to call attention to the point made in "The Ailing Hospital" [*WQ*, Spring 1980] that "hospitals as we know them are probably on the way out" and are likely to be taken over by health maintenance organizations (HMOs).

I guess nothing that exists today will continue as we know it, as the one certainty is that time brings change. Nevertheless, I cannot agree that the hospital is in such dire straits that it will be replaced by some form of HMO. The two organizations are different. HMOs are designed to provide a broad range of health services to a defined population at a defined premium. Most of these are ambulatory services. Hospitals give care to those patients requiring inpatient attention. For that reason, hospitals will never be replaced by HMOs, nor anything like HMOs. They may, however, be increasingly involved with HMO activities.

Hospital construction programs may indeed wind up as parts of larger developments with community clinics, housing for the elderly, or maybe some large commercial enterprises. It is my bet that it will be the hospitals that will be the nucleus around which all of that revolves and not the other way around. Hospitals are the major health care institutions in our society. Even though there are significant problems in the industry (i.e. capital financing), the hospitals are not about to go away, nor to be subsumed under some HMO type of development.

John R. McIntire, President
Samaritan Health Center
Detroit, Mich.

Of Leaders and Followers

James Billington gives an inaccurate impression in "Fire in the Minds of Men" [*WQ*, Summer 1980] that there are but two views as respects the source and direction of revolutionary history: "from above" down or "from below" up. He argues for the former, claiming that it has

been passionate intellectuals who have *created* and *developed* the revolutionary faith.

But doctrine, program, and theory can hardly be developed and certainly can have no significant social meaning—much less create revolutionary faith and revolutions—unless they have their source in the socioeconomic and spiritual problems, as well as aspirations, of the day. Revolutions, far from being the product of an elite group creating them "from above" or the outcome of economic pressures "from below," are the offspring of the dynamic interplay between both. Revolutionary leaders do not *create* revolutions but are at once representatives, instruments, and managers of revolutionary sentiments and faith.

Winston E. Langley
Professor of Political Science
Boston State College

J. D. Salinger's Unliberated Hero

In "J. D. Salinger: Writing As Religion" [*WQ*, Spring 1980], Dennis L. O'Connor indicates that religion is the key to unlocking the mysteries of Salinger. O'Connor also suggests that Salinger's character Seymour Glass kills himself because, like the bananafish, he does not "fit in"—and that somehow society is responsible for his death. I agree that he does not fit in, but not because he is a "round" poet in a "square" society.

If Seymour is truly a great seer, then why does he marry Muriel Fedder, so obviously shallow and "unspiritual"? If, as O'Connor says, Seymour is a "*mukta* (one who, in Advaita Vedantic Hinduism, has achieved spiritual liberation)," why can he not rise above all of these mundane circumstances and be at peace? The answer to both questions has to do with the fact that he is *not* spiritually liberated but that he thought he was until just before his death.

Wayne M. Harris
Texarkana Community College
Texarkana, Texas

Corrections

Several readers noted two errors in the Summer 1980 *WQ*'s "Periodicals" section: Warren G. Harding, not Woodrow Wilson, was elected President in 1920 (page 13) and the hand-carried weapon pictured on page 19 is a Dragon missile-launcher, not a TOW missile-launcher.

William J. Baroody, Sr., 64, former board chairman of the Wilson Center, died July 28, after long illness. Son of a Lebanese immigrant stonecutter, he was born in Manchester, New Hampshire, was graduated from St. Anselm's College (1936), and, after Navy service during World War II, moved to Washington. For 16 years, he headed the American Enterprise Institute, a nonprofit "think tank" on public policy matters. A moderate conservative, he gained the respect and friendship of people of all political persuasions in Washington. Succeeding Hubert H. Humphrey as chairman of the Wilson Center (1972–79), he presided over the young institution's development during difficult times. He preserved and strengthened the Center's dedication to serious long-term scholarship, the integrity of its Fellow selection process, and its hospitality to diversity of viewpoint and talent. He encouraged the creation of The Wilson Quarterly. *We shall miss him.*

WILSON QUARTERLY BIENNIAL INDEX

Volumes III and IV (Winter 1979 through Autumn 1980)

In alphabetical order below is a guide to separate articles (in boldface), clusters of essays on given topics (set out by capital letters), and all authors appearing in the Quarterly *in 1979–80, followed by a separate list of Background Books essays.*

BACKGROUND BOOKS

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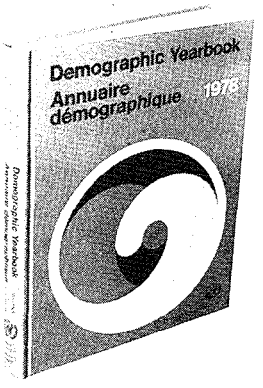

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In 1968, the Congress established the Woodrow Wilson International Center for Scholars as an international institute for advanced study and the nation's official "living memorial" to the 28th President, "symbolizing and strengthening the fruitful relation between the world of learning and the world of public affairs."

The Center opened in October 1970 and was placed in the Smithsonian Institution under its own presidentially appointed board of trustees. Its chairmen of the board have been Hubert H. Humphrey, William J. Baroody, Sr., and, currently, Max M. Kampelman.

Open annual competitions have brought more than 300 Fellows to the Center since 1970. All Fellows carry out advanced research, write books, and join in seminars and dialogues with other scholars, public officials, members of Congress, newsmen, business and labor leaders. The Center is housed in the original Smithsonian "castle" on the Mall in the nation's capital. Financing comes from both private sources and an annual congressional appropriation. The Center—and *The Wilson Quarterly*—seek diversity of scholarly enterprise and of points of view.