TECHNOLOGY and REPRESSION

Computerized Big Brother Police Technologies
Psychiatry and Repression Violence Against Women in the Media
Riots recently erupted in Miami; unemployment is double digit; popular revolutions are mounting in Central America, the Philippines and other Third World countries; and peace and solidarity movements are wielding enormous popular support in the U.S. and Europe. With the dissipation of the post-war economic boom, U.S. world hegemony has been slowly dwindling as U.S. economic, political and military power is drawn into question. The entire capitalist world economy is similarly in crisis.

The state apparatus is one of the most important institutions of the controlling capitalist class. It serves as the primary instrument of force against domestic and foreign enemies by providing economic and police/military power for the exploitation of domestic workers, foreign resources, and markets. It is in this context that science and technology are pressed into the service of state repression. And it is in times such as these that the full power of scientific and technological repression becomes most apparent.

Para-military domestic forces are the most obvious examples of state repression. The 1960s saw working class ghetto rebellions suppressed only by the calling out of the National Guard, while civil rights and anti-war protesters filled the streets and even middle-class students rebelled on campuses. An enormous program of police force development was subsequently launched, with science and technology spearheading the charge (see "New Police Technologies"). Police budgets soared by several hundred percent in the subsequent decade, a new Law Enforcement Assistance Administration was created to centralize and fund police forces on a national level, and scientists previously working on technologies for the Indochina War were assigned the task of handling the new domestic housecleaning chores. As a result, a whole new level of technologically advanced police forces is now in place.

An entirely new dimension of social control is also underway with the vast computerization of all levels of government and police. (See "Computerized Big Brother" for the situation in Germany.) Computer storage of trillions of pieces of data and the development of massive computer networks create a centralized system that allows for the instant analysis of political activists or dissidents. Once established, these tools can potentially control everyone, at least on a behavioral level, and result in the standardized consciousness of an entire population. Either individuals will fit into "normal" behavior or they will be subjected to "correctional" treatment.

"Correctional" facilities today are the isolation and experimental halls of such a repressive society. Psychologists and psychiatrists have already elaborated and applied detention and brain-washing techniques to prisoners. (See the box on "Political Prisoners in Germany.") The importance of the repressive role of prisons in this country is demonstrated by reports that the U.S. has the third highest rate of imprisonment per capita worldwide, behind only South Africa and the USSR; if California is taken as a sovereign nation it would rank second in the world in terms of the percentage of its population incarcerated.

Other "correctional" facilities and methods are not so obvious. Millions of psychiatric inmates are annually administered electroshock, lobotomy, or drugs because they act "strange" in response to what is undoubtedly an unjust and hypocritical political-economic system. (See "Psychiatry as a Tool of Repression.") In fact, such people's "neuroses" could be viewed as a healthy response to an inherently sick society. Psychiatric history reveals repeated attempts to denigrate, experiment on, and even exterminate those who do not fit into the scheme of the ruling patriarchal capitalist class.

Another aspect of state repression is the perpetuation of an entire culture of violence against women. (See "A Culture of Violence Against Women.") Increasingly, scientific evidence links violent images of women in pornography and media to real violence against women. Through the objectification of women, direct profits can be made off women's bodies, while at the same time such images reinforce traditional male-female power relationships. Designated oppressed groups like women and minorities provide a reserve army of labor that helps keep wages low and poses as a threat to job security. They are further used as scapegoats to deflect anger away from the real ruling class enemy.

The science and technology of repression pose serious threat to the ability of people to rise up against the state in the struggle for true freedom and democracy. After we see through to the reality, we can then rise up against the perpetrators of this oppression and sweep them away.

UPCOMING ISSUE OF SFTP
The East Coast Editorial Committee is now soliciting articles for the July/August 1983 special issue on "Water Resources: Degradation and Recovery." Please send articles, outlines, graphics and other material to: Science for the People, 897 Main St., Cambridge, MA 02139.
COMPUTERIZED BIG BROTHER
by Marion Butner
Computers and control in West Germany.

PSYCHIATRY AS A TOOL OF REPRESSION
by Jenny Miller
Uses and abuses of the psychiatric profession.

A CULTURE OF VIOLENCE AGAINST WOMEN
by the Violence Against Women Study Group
An analysis of the connections between pornographic images and actual violence against women.

NEW POLICE TECHNOLOGIES
by Patty Hirota
A review of the new technologies used by the police.

TOWARDS A NUCLEAR PEARL HARBOR?
U.S. Bases in the Philippines
A report.

About this Issue 2
Newsnotes 4
Resources 36
news notes

TOXIC WASTES AND "RUSSIAN SPIES" IN SILICON VALLEY

Electronics is supposed to be a "clean" industry, much easier on the environment than older "smokestack" industry. However, recent discoveries of toxic chemical leaks in Silicon Valley (Santa Clara County, California) have shown that this is not the case.

After a leaky storage tank at a Fairchild Camera and Instrument plant contaminated ground water in a south San Jose neighborhood, people began to be concerned about the dangerous chemicals (mostly solvents used in making semiconductors) being stored underground at electronics plants throughout the area. As a result, the Santa Clara County Fire Chief's Association set up a task force which worked closely with business representatives to draft a model ordinance on the handling of hazardous chemicals. Progressive groups criticized the lack of input from labor and community groups in the drafting process, and successfully fought for changes such as the inclusion of a mechanism to protect employees reporting company violations.

When the Mountain View City Council held hearings on the proposed ordinance several months ago, industry spokespersons told the City Council that they would not give city fire marshals, who are to enforce the ordinance, any information the industry considers confidential. Frank Canario, manager of safety engineering at GTE Sylvania Systems Group, told the Council that if GTE were required to provide the fire department with information on their use of toxic chemicals, "we would be very vulnerable to sabotage, or, as you've seen in recent newspaper stories, Russian spies."

Canario also warned that important defense work at the company could be delayed by permit requirements for storage of toxic chemicals. GTE Sylvania Systems Group manufactures electronic warfare equipment for the defense department. As of this writing, the ordinance is still under consideration in the various cities in Silicon Valley.


PROFITS AND PARASITES

The most widespread diseases in the world today are caused by parasites. Two hundred million people or more suffer from malaria; as many as 300 million may have schistosomiasis; and some 400 million people are infected by filarial worms which cause such serious diseases as river blindness and elephantiasis.

Even though these and other parasitic diseases affect as much as one quarter of the world population, the medical community and those who fund medical research have neglected parasite research. Parasitic diseases occur in poor countries which do not have the resources to support research nor the funds to pay for the anti-parasite drugs or vaccines which could be developed. As a result, researchers in industrialized societies have put little effort into this area, and drug companies have avoided the diseases because cures would not be profitable.

In the last few years, however, research interest in these diseases has increased. Scientists seeking to do work that is more socially relevant have recognized the enormity of the parasite disease problem. Unfortunately, events surrounding the production of a vaccine for malaria once again bring into question whether the poorer people of the world will ever receive the benefits of such work.
Two researchers at New York University, Ruth and Victor Nussenzweig, have identified a protein on the surface of the malarial parasite. Antibodies to this protein offer partial resistance to the parasite in chimpanzees. Using recombinant DNA techniques, it should be possible to confer upon bacteria the ability to make this protein, thus allowing the production of large quantities for a vaccine. The Nussenzweigs arranged for a private genetic engineering firm, Genentech of California, to carry out the manufacture of the potential vaccine.

When the World Health Organization (WHO), which had provided partial support for this research, objected to Genentech’s demands for exclusive license to market the vaccine, negotiations for the development of the vaccine stalled. WHO officials appear to be concerned that issues of profitability would limit the distribution of the vaccine if Genentech were given such a license. Although the parties involved are still trying to work out their differences, it appears possible that this malaria vaccine may become, as Science magazine put it, an “orphan at birth.”

While wealthy countries like the United States are constantly eliminating diseases with the development of vaccines such as those for polio and measles, the poorer countries are not reaping the benefits of advances in medical research. As long as profitability is the determining factor in the improvement of health care, this will continue to be the case.


WOMEN’S STUDIES UNDER ATTACK (AGAIN)

The conservative right has now moved on campus to attack, at least in one case, a Women’s Studies department for a “lesbian bias” and a “Marxist revolutionary” slant.

This particular attack began in the spring of 1982 when a few non-student evangelists sat in on several Women’s Studies classes at the University of California at Long Beach. After gathering course materials, they then enlisted the aid of conservative state politicians, and held a closed-session meeting with university officials without the representation of the accused department. Simultaneously, biased information and editorials were leaked to the press, which uncritically sensationalized the charges. Even Phyllis Schlafly became involved, publicly condemning the department and editorializing against academic freedom.

After an initial interview, a disputed course, “Women and Their Bodies,” met university administration approval. Then the Women’s Studies department was quickly undermined by university actions when courses were eliminated just a few weeks before classes were scheduled to begin. The administration charged that faculty were “unqualified” to teach the courses, although some faculty had been teaching them in the department for several years.

Rightist intervention in the educational process has become increasingly sophisticated. Rightists have already been successful in banning books from some high school libraries and classes. This recent example at the university level, however, seems to pose new questions. Particularly troubling has been the effective enlistment of aid from conservative politicians, press, and university officials. The very process underscores the importance of organizing similarly sophisticated responses from the academic left, and highlights the frailty of “academic freedom” for those who seriously challenge patriarchy, homophobia, or capitalism. A major lawsuit about this case is now before the civil courts in California.

---

**SEND US A NOTE**

Send Science for the People news notes about science, or related areas of interest to our readers and we’ll extend your subscription by six months for those items we print! Please cite your sources and/or include clippings. Send them to: Newsnotes, Science for the People, 897 Main St., Cambridge, MA 02139.

---

**You’re not alone!**

You’re demonstrating against U.S. intervention in Central America. You’re organizing tenants to fight gentrification. You’re fighting for safe, legal abortion for all. You’re teaching students how to think freely. You’re marching for voting rights in the South. You’re struggling to change the system in your own way.

You’re not alone. All these battles are one. And only in one place do they all come together: the Guardian, North America’s largest independent radical newsmagazine. Twenty-four pages of non-sectarian coverage of the issues and the movement every week. Incisive analysis and unmatched international reportage: the information you need about your own fight and the common struggle.

Try a free four-week subscription to the Guardian, at absolutely no obligation. Simply cut out the coupon below and mail it in today.

---

**4 free**

Send me four free issues of the Guardian, at absolutely no obligation.

Mail to: The Guardian, Dept SP, 33 West 17th Street, New York, NY 10011

---

March/April 1983
From a German Perspective

COMPUTERIZED BIG BROTHER

by Marion Butner

Do it to Julia! Do it to Julia! Not me! Julia! I don’t care what you do to her. Tear her face off, strip her to the bones. Not me! Not me!
—George Orwell, 1984

Within the next decade, the computerized surveillance and control of individuals will rapidly approach the limits of Orwell’s 1984 nightmare. Your birth, your schooling, your financial records, every place you have lived and worked, as well as who your friends are and whether there is anything “unusual” in your character—all will be carefully recorded in massive, multi-accessible computer systems. In the United States such systems are only now being developed, justified by fears of protecting private property and the rise of crime generally.1

In West Germany, as with much of Europe, the battle-cry of “terrorism” is currently providing a convenient cover for the development of some of the most advanced computer-mediated societies ever seen. An extensive system of social control is in place, with leftists and radicals as a primary target.

Byte by Byte

West Germany is one of the most computerized countries in the world. Personal data of citizens at all levels of government, secret services, police and industry are stored with meticulous perfection in vast computer systems. Partly for historical reasons and partly as a result of advanced social services, the administration and bureaucracy in West Germany (and in most of Western Europe) is extraordinarily developed, far more than in the U.S.

From cradle to grave everyone is registered and controlled by the official “machinery”. Each birth, marriage and death, each change of residence, is carefully recorded and noted on a personal ID-card, which everyone older than sixteen must carry. Registration for the compulsory military service is not necessary: the authorities already know who is eligible and where one lives. The vast array of public institutions—such as, elementary schools, high schools, gymnasiuims, and universities—and public services—such as health, unemployment, and retirement insurance—provide an almost complete source of accumulated personal data. Every person’s history is permanently recorded. Behind harmless names like NADIS, DISPOL, INPOL, PIOS and BEFA, hide the programs and computer systems of the state police, the federal police (BKA) and the secret agencies: Verfassungsschutz (BfV), Bundesnachrichtendienst (BND), and the Militärischer Abschirmdienst (MAD), [see acronym box]. Conservatively, the information of some 8 to 9 million people is already stored on the magnetic tapes of NADIS, 4.7 million people in INPOL computers, and much more is maintained beyond this in secret.2

In Germany there is a constitutional separation of powers between the secret services and the police. In reality, their information systems have in part become mutually shared and increasingly cross-linked. Furthermore, by citing reasons of national security, the police and secret service can gain access to all data compiled in public or private data collections. For example, a “social data bank” on 55 million people includes such information as medical reports, income, job ability, and so on. Another data bank of 47 million citizens is stored in the magnetic files of the Association of German Annuity Insurances. In the context of “terrorist-searches”, however, even customer lists of electric and gas companies or private real estate agencies are electronically frisked. And of course the collaboration between German secret agencies and “Big Brother” (the German reference to the United States) is especially close.

There is no law limiting the compilation of personal data, particularly by the secret services and the federal police. Border crossings into and out of East Germany

Marion Butner is the pseudonym of a German scientist who has written several articles on computerized repression.
are routinely registered by customs agency computers, and Western bloc country border-crossings are also often recorded. If leftist literature is seen by officials during a customs search this can be recorded as well. Already underway are on-line connections between BKA computers and the federal car license registration bureau as well as state agency address files. Even public libraries have delivered data to these information systems. Many companies, in order to protect against sabotage, electronically collaborate with police to check all employees for suspicious “anticonstitutional activities”.

Anyone who deviates from “standard behavior” will eventually appear in one of these electronic files. “Deviants” include political activists, members of communes, criminals and criminal suspects, alcoholics, drug abusers, homosexuals, or even people who have contact with any of these. Similar information and control systems on the individual exist in other Western countries, differing only in the extent of the information gathering and processing. In all of these countries the computerization of existing paper files is producing an entirely new dimension of government control and potential state repression.

Corporate Complicity and Control

There is often a close collaboration between many corporations—especially the most powerful ones—and the federal bureaucracy, and computerized information is no exception. Consider, for example, Volkswagen's Personnel Data Information System, PEDATIS. Volkswagen corporation has compiled extensive files on all of its employees and their families, a data pool of nearly 500,000 people. This PEDATIS system can include such information as: individual work-speed and its aberrations, length of breaks, number and duration of visits to the restroom, beverages consumed in the canteen, time spent talking with coworkers, and so on. Similarly, IBM Germany, near Stuttgart, has at least a thousand pieces of information on each of its employees. Based on initial psychological tests, IBM constructs individual personality profiles on its workers, and subsequent changes in habit or attitude are mechanistically entered into the computer. This information is used by management to computer-match workers to the work environment or to fire them.
Introduction of similar systems at Mercedes Benz and BASF plants has led to intense worker struggles. Computer-matching of individuals with selected physical and psychological traits to the workplace has under cut union and worker movements toward "Humanisierung der Arbeitswelt" (humanization of the workplace). The old brutal strategy is subtly reestablished. Technology is not adapted to human needs, rather workers are molded into the technological machine. Many union leaders did not foresee this new pitfall. In some cases (for example, Volkswagen) management coopted the unions in the work councils* by allowing them use of the computer files for their own internal purposes. As a result, union leadership can use the same PEDATIS system to control its rank and file members and to eliminate leftist activities.

A New Quality of Control

In Germany there has been an historical tendency—stronger than elsewhere—towards a perfectly controlled state. Earlier paper-file systems, however, were less dangerous to personal freedom, civil and human rights, since it was so tedious and time-consuming to riffle through all of the files. Complete police searches were only undertaken in those few cases of capital offense, and then scores of officials had to work for months. Development of electronic data processing has changed the situation completely.

Now, billions upon billions of data can be stored and retrieved in seconds. Advances in hardware enable even shorter access times for evermore data. Using these highly sophisticated data processing systems, institutional and administrative requests for information now occur far more often and responses are much more thorough. In fact much of the information in "classical" files was inaccessible and therefore not a part of the actual memory of institutions. Computer systems, however, do not know the mercy of forgetting. With electronic data processing it is possible to assemble highly complex fact-combinations, allowing for completely new dimensions of electronic control of entire populations.

One of the most obvious signs of the approaching electronic nightmare, as well as one of the proudest tools of the Federal Police (BKA), is the new system of "Raster-Search". In the first step of a raster-search a set of general attributes and behaviors are constructed for the suspect. For example, the person might be between 30 and 40 years of age, male, 180 to 185 centimeters tall, buys cars by paying in cash, rents several apartments, and so on. Next, electronic data files of central registry offices, companies and other institutions of interest, telecommunication services, and electric and gas companies are combed for relevant information. This results in a first computer run which turns up tens of thousands of "pre-suspects". Each source, however, can only supply names based on their own subset of stored characteristics. In the next computer run, all of the "pre-suspects" from the different sources are cross-

---

*Each enterprise with more than 50 employees has to have a "works council" by law in Germany. Work councils include representatives of the owners, the management, and the workers (mostly union functionaries). The future politics of the enterprise have to be discussed by this body and in some cases the worker representatives can block decisions. For example, firing of workers must be accepted by the works council and new machinery may not be ordered if it worsens the working conditions.
checked to turn up the few hundred or so individuals who meet all of the desired attributes. Also generated along with these names is a complete data information set on each person. Finally, any of these people can be detained by police, brought in for questioning, and even arrested based on this computer-generated list.

Programmed Repression

Ever since the founding of the Federal Republic of Germany in 1949, the state security apparatus has expanded faster than all other services. In the 1950s, the need to enforce the ban of the German Communist Party (KPD-Verbot) together with the growing Cold War provided sufficient reasons for strengthening the initially weak BGS, BKA, and BfV. Since the introduction of emergency security laws (Notstandsgesetze) in the late 1960s, constitutional rights are suspendable under certain conditions. As a consequence of the student rebellion in the sixties, an anti-radical decree (Radikalenerlass) was adopted in 1972, creating a witch hunt against radical state employees and candidates. Thousands of BfV officers sniffed out "suspicious" persons by asking neighbors about their lifestyle and extracting information from various files, in order to get political profiles of the "suspects". As all written school examinations and records are stored for at least a decade, even these are checked. The impact of the anti-radical decree (which included developing files on the political orientations of at least 3 million people) would never have been possible without the extensive use of government computer systems.

The terrorist activities of the Red Army Faction (RAF) and of PLO branches in the early 1970s were used as an argument for a further tremendous expansion of security forces and electronic control. Since that time, anyone suspected of having terrorist contacts—and that means basically everyone left of the Social Democrats—has to fear shadowing, raids, and wiretapping; and in fact living in a commune and reading critical or leftist literature is often sufficient cause for surveillance.

The zenith of this repression occurred during the so-called "German Fall of '77". It was in this and the preceding year that Attorney General Buback was murdered, industrial leader H.D. Schleyer was kidnapped and then killed, and a jet was hijacked to Mogadischu, Somalia, with demands for the release of Baader-Meinhof prisoners. Without any discussion, legislators passed a special law (Kontaktsperregesetz) which effectively enables the indefinite detention and isolation of suspected terrorists. A number of prominent RAF activists in isolation-detention were soon found dead in their cells. Liberal members of the parliament kept quiet in order not to be branded as terrorist-sympathizers, while those public critics of power abuse or of prison conditions were themselves labeled as terrorists or terrorist-sympathizers. For example, outspoken professors were suspended from their positions, such as Peter Bruckner, a social scientist, who spoke out for fair press on this issue, and Jens Scheer, a physics professor, who was an anti-nuclear activist and member of a Maoist communist party. Anyone who fully understands the extent of constitutional breakdown and the depth of anti-terrorist hysteria, realizes that an electronic dictatorship is looming on the horizon.

Rewiring Revolt

Ostensibly such systems as Raster-Search were developed to help the state combat assaults by so-called terrorists, in particular, the Baader-Meinhof gang. In reality there were strong political reasons to establish a powerful tool against leftists generally and to cut off the possibility of a future insurrection. And so it was in practice that many political activists were caught up in the spider web of Raster-Search. In most cases the result was not prison, but rather loss of job, privacy and/or housing. No employer or landlord would ever take in a person suspected of terrorist activities.
In a national address, Hans-Dietrich Genscher, former head of the Federal Administration, which includes all police administration, admitted that the restrictive-rights legislation and recent police expansion were not a result of these terrorist activities, but rather were indeed meant to deal with long-term plans for internal security. Former BKA President Horst Herold also elucidated the real reasons for the build-up of electronic control systems. His argumentation is typical of an intellectual German bureaucrat who sounds a bit far-fetched, but in reality presents a very sophisticated "philosophy" of how a modern state could prevent insurrections and revolutionary tendencies:

Never in history have terrorists gained enduring power. However, history does illustrate, with forceful examples, that terrorist phenomena have a signal effect, that they are precursors for other changes in society, which could include a much stronger base in the mass of society. An objective analysis uncovers the original forces behind the superficial and partial problem of terrorism: only by this analysis is it possible to develop strategies and tactics to prevent future dangers, because no matter how changes or revolutions are taking place, they are not irrevocable. Each change is subject to certain laws, but other laws can certainly be launched against them. All tendencies toward change can be conceptualized as small-scale war models. It would be extremely dangerous to assume that the process of a real social revolution in Europe could not be initiated.

So it is not surprising that constitutional rights get clandestinely eroded. While such tendencies are typical for all "Western democracies," only the degree of thoroughness is characteristically German. The increase of social tensions due to the world-wide economic crisis of the 1970s had an important role in the development of similar electronic control instruments in other European countries. The Securite in France, for example, has maintained a powerful central computer system since 1980.

**Herold-Ing Skinner**

This steady drive towards a computerized "Big Brother" society is no accident. On the contrary, it is a purposeful transformation of police institutions into the main "sanitizing institutions" of society in which all deviating behavior is eliminated—a computer-mediated reign over glassy-eyed people.

Former BKA head, Horst Herold, nicknamed Mr. Computer, is the leading strategist of this development. His plan is to remove constitutional constraints on the police and open up continuous monitoring of citizens through the development of computer technology:

The infinite possibilities of electronic data processing enable us to follow individuals through the complete course of their life—by delivering action shots, full-length portraits and profiles of their personality; by registering, observing and shadowing them in all situations of their lives; and by having all the data without the mercy of forgetting.

And elsewhere he has said, "The police have to change from their passive role of merely executing legislation to an active role of participating in legislative change and in the body politic... We must take advantage of [our new, stored] information, and aided with the tools of sociology, cybernetics, behaviorism, and computers utilize it for the therapy of society." Underlying this philosophy is the psychological and sociological theory of behaviorism. Some apologists of this theory, first developed in the U.S. by B.F. Skinner, maintain that they are able to accurately predict individual behavior from patterns of socializing and social group membership. For example, in 1958, some sociologists in the U.S. predicted which of 239 babies
would become criminals. Their prophecy, based on 280 separate pieces of data for each child (for example, data about parents, socio-economic level, living conditions) claimed to be accurate with a deviation of only 3.5\%. With this kind of thinking, together with a preventive social “sanitization program,” a newborn child could go to prison as a preventive measure, based solely on his or her computer profile.\textsuperscript{10}

In a true 1984 fashion, Herold envisions an electronically administered society controlled by the police and government. Sociological models, based on 1965 computer simulations first developed by the U.S. Army for counter-insurgency missions, are used to predict and then influence politically significant events.\textsuperscript{11} Also theoretically theocratically possible with the ever increasing data base and computer models is covert or overt interposing into potential domestic conflicts in order to diffuse them at the behavioral level. Yet the fundamental causes would go untreated. The Skinner conditioning techniques together with sensory deprivation and drugs, hypnosis, or environmental control, have been used in U.S. prisons as well as for the treatment of political prisoners in West Germany. [See the box “Political Prisoners in Germany.”]

Joblessness, powerlessness, alienation—these are some of the causes of internal social conflict. But solving the underlying problems is not the goal of computer models nor of behavioral stimulus-response theories;

---

**KEEPING COMPUTER SECRETS NOT SO SECRET**

With the coming of a new phase of the electronic data processing revolution—the knotting together of separate computer systems by cables and electromagnetic linkages—the tapping of data flow poses a perplexing problem for domestic “security” agencies. The National Security Agency (NSA) has an answer; but first the problem.

Protection against tapping can be achieved by encoding the data. In 1977, the National Bureau of Standards (NBS) established a “data encryption standard” (DES), to be required for all official storage and transmission of “sensitive” (but not classified) data. All companies were required to use it in their protected electronic communications with government agencies. DES is already used by many companies for internal data communications, and a number of computers come with it as a standard feature.

The committee that set the standard included representatives of NBS, IBM, and NSA. They came up with an algorithm for encoding 56 bit “words” (the other 8 bits of the standard 64 bit “word” are used for detection of errors), that can be carried out on an integrated circuit “chip” costing about $10 in mass production. The algorithm first scrambles up the information so as to eliminate any apparent patterns in the data, and then a secret key is used to determine which and when special substitutions are to be performed. To decode the data the process is reversed: first the special substitutes are undone using the key, and then what is left is unscrambled.

DES only gives a “statistical” protection. Given enough time it is possible to guess the key that would allow decoding of the data. But is DES good enough to protect, now and in the future, against decoding? The 56-bit key length of DES allows for 2 raised to the 56th power possible keys. Since a large computer is able to check about a million keys in a minute, it would take about a million days—or 3000 years—to check all possible keys.

U.S. government agencies maintained that this protection would be sufficient. However, Stanford University professor Martin Hellman and several other cryptography experts disagree. They argue that by changing the hardware, that is, by building a computer specially designed for the task, decryption time may be reduced to about one day. The design and construction of a special computer would cost about $10 million; too much for most enterprises, but just right for NSA.

How could the ciphering be made surer? Very simply, by doubling the length of the key. This would increase the cost of encoding and decoding by only about 5\%, but would make the time necessary to check all possible keys pass the million day mark, even for specially computers. In fact IBM originally proposed a 128 bit key for the standard, but by request of NSA, it was shortened to 56. It seems that NSA wanted to set a standard for data encryption which it could break, if necessary.

The shortening of the keys was not the only intervention of NSA in this committee. While the final algorithm for DES was published, the criteria used to choose it were not. This led some to believe that the special substitutions used in DES may have some tricky property that will enable NSA to break the code without checking all possible keys, and recent reports support this view (a similar incident is described in Science Vol. 218, December 24, 1982, p. 1290).

Besides its intervention in DES, NSA has tried to suppress public discussion of cryptography by mathematicians and computer scientists. The former head of NSA and now CIA deputy director, Admiral Bobby Inman, lamented that unrestricted publication by “crypto-freaks” at universities endangered both the strength of the national defense and the realization of foreign policy goals. Clearly NSA does not want to go deaf from the publication of practical, secure encryption methods.

In the meantime, cryptography-related applications for grants to the National Science Foundation are referred to NSA for review: censorship made in USA.
Beyond 1984

Despite all of this, there remain three barriers to a complete electronic control system:

- Not all of the information already compiled in paper files has been transferred to electronic files;
- Software and hardware of the different government computer systems are not yet completely electronically compatible (the flow of information and the extraction of certain data are therefore sometimes very complicated); and
- Governmental separation of powers imposes some legal restrictions on the flow of information between agencies, although exceptions are made for terrorist investigations and radical witch hunts.

On the other hand, a build-up of compatible governmental computer networks is already in progress. A federal computer network is technically easy to manage and would be difficult to restrain. George Orwell's 1984 vision, of total government surveillance of "transparent" citizens, seems imminent, while the possibility that institutional and legal barriers will be strong enough to prevent this is small.

As the quote from Orwell's 1984 that started this article suggests, our success or failure in fighting back will be determined by our trust of one another and our ability to join together to combat the power of our common enemy.

REFERENCES

POLITICAL PRISONERS IN GERMANY

Isolation-detention has become a new twentieth century form of "clean" torture. In West Germany, as well as in the U.S., some prisoners are subjected to a combination of sensory deprivation and brainwashing techniques that effectively destroy the prisoner's personality, in many cases leading to his or her "suicide". From studies of psychiatric ward behaviors and the brainwashing experience of Korean War prisoners, the isolation method was developed and first applied during the Kennedy administration as a part of prison reform programs.1 U.S. maximum security prisons at Marion, Illinois, and Butner, North Carolina, already employ this inhuman practice.2 In West Germany it is increasingly used against "political" prisoners, such as the famed Baader-Meinhof gang.3

Since 1972, suspected "terrorists" in Germany have been detained for as many as five years while waiting for trial. During this time a series of scientifically developed techniques is systematically applied to detainees. Sound-absorbing, windowless, steel cells are hermetically sealed, while individual air control systems cause annoying changes in pressure and temperature. Neon lights are on day and night as electronically controlled video cameras and listening devices pick up every move, every sound—there is no privacy. Prisoners are kept without direct social contacts for years: no visits by friends are allowed, and the very few visits by relatives and attorneys are through thick security glass with microphones. Even communication with guards is only by microphone, and prisoners are kept from seeing or hearing other prisoners as well.4

Then the brainwashing techniques begin. Frequent nerve-racking "raiding squads" put the prisoners on edge and deprive them of sleep by abruptly searching through the cell and harassing them. Guards threaten and sometimes carry out violence against the prisoners, and indirectly challenge a prisoner to commit suicide, such as by leaving razor blades in the cell, or a coil of loose rope on the door. Guards also give prisoners false information about the death of friends or relatives, or threaten them with internment in psychiatric wards.5

The result of this treatment is a complete mental and physical disorientation: fear, panic, hallucination, loss of feeling for time and space, inability to concentrate, loss of language, uncontrollable hallucinations between depression and euphoria. Physical irritations include heart irregularities, sleeplessness, constant trembling, and feeling cold; the whole nervous system becomes disarranged and malfunctions.

These conditions were first brought to public attention in 1972 by a hunger strike of 128 "political" prisoners. Soon the whole concept of a "terrorist" was to grow rapidly broader. Not only were some hard-core Red Army Faction activists kept in isolation, but many other people who had only demonstrated against these methods were also considered terrorists, ending up in isolation-detention themselves. Prison hunger strikes continued for several years, but had little effect on prison methods. Instead, the brutality increased. Prisoners were force-fed sugar solutions by a tube through the nose—a cruel, and dangerous method, especially since it was against the prisoner's will. Some even died from this procedure. Prisoners were forced to abandon their hunger strike when their water supplies were cut off, which led to life threatening conditions within days. Public outcry finally resulted in prisoners being held together in small groups, but electronic control and sensory deprivation continued. This, however, led to self-destruction of the group as many of the same techniques were applied and the effects of personality decay remained.

Today, some ten years later, only a few Red Army Faction members remain alive, although nearer to death than life. In 1976, H. Baader, Ulrike Meinhof, and Gudrun Ensslin were found dead in their cells under mysterious circumstances, whether by murder or suicide it could not be determined. Others later died from forced feeding, or they committed suicide because of the inhuman conditions. The omnipotence of the state has succeeded in eliminating those who would try to attack it.

In the meantime, isolation-detention becomes more and more applied to "normal" prisoners if they become "riotous". The state is prepared to treat and extinguish individuals who do not fit into the scheme of normality. Scientific knowledge about human psychology produces a technically perfect murdering machine in which the institution, as an entity, kills—while no individual can be blamed.

REFERENCES


2. Only after riots and hunger strikes of prisoners did the inhuman prison conditions (brainwashing and "chemotherapy") in Marion come to public attention. Political resistance inside and outside of the prison finally forced the administration to close down Marion; "Behavior Modification Conference Set for March 6 in St. Louis—Decision on Closing Marion Prison Control Unit Expected in May," Liberation News Service, February 25, 1976.


Every year millions of people in the U.S. are incarcerated in psychiatric institutions and given brain-damaging psychiatric "treatments," usually without their consent. About one percent of the population will be inmates on a psychiatric ward in any given year, and about ten percent will be psychiatric inmates ("mental patients") at some time in their lives. This does not include the additional millions of inmates of nursing homes, children's detention centers, prisons, as well as out-patients who are forcibly treated with psychiatric drugs. Primarily affected are poor people, women, the elderly, Third World people, the differently-abled, lesbians and gay men, and other groups who lack power in this society. Most psychiatrists are white men with high incomes who are trained to perceive people's feelings of rage, rebellion, despair, and apathy as symptoms of psychiatric pathology, rather than seeing them as natural and valid responses to an extremely oppressive political-economic system.

Psychiatric inmates have historically been denigrated, experimented on, injured, and even exterminated in the name of healing. In this context it is important to examine the legal rights of psychiatric inmates today, and the most prevalent techniques used to control them: psychosurgery, electroshock, and neuroleptic drugs.

Power of Detention

Legal rights of "mental patients" are almost nonexistent. Even in California, which is considered to have some of the most progressive laws in the country, people may be locked up for an initial 72-hour period, before and during which time they do not have the right to a hearing. The police and certain designated mental health professionals have the power to commit individuals for this period if they think that such persons might

---

Jenny Miller is a former psychiatric inmate, has been an activist in the anti-psychiatry movement for nine years, and is on the editorial staff of Madness Network News.
be a danger to themselves or others or are unable to provide for their own needs. In practice, possible reasons for detention are: not having a place to live; fighting with or threatening a family member; talking about or attempting suicide; dressing, eating, or living in a way that a visiting social worker finds unacceptable. Children and teenagers are often committed for running away from home or experimenting with street drugs. Women trapped in the role of “housewife” have been committed for losing interest in housework.

During the initial 72-hour hold, persons so detained are almost always forcibly drugged with powerful “tranquilizers” which make it difficult to talk, concentrate, or read. If the hospital still wishes to hold them after three days, they have a right to a court hearing, but only on request. These hearings usually take place on the grounds of a psychiatric institution. The detained persons are frequently too drugged to read or understand their legal rights and often are inadequately represented by an overworked public defender. If the judge decides they are still a possible danger to themselves or others, or are unable to provide for food, clothing, and shelter, they may be involuntarily incarcerated for an additional 14 days. After that the detained persons may be placed on an additional hold, or subject to conservatorship proceedings, under which they may be repeatedly committed for one year at a time. Almost all of the “rights” officially listed for psychiatric inmates—such as the right to wear their own clothes, the right to make and receive phone calls, the right to receive visitors—can be denied for “good cause” by the doctor in charge or the doctor’s designee. During their detention inmates frequently have their hands and feet tied to a bed in leather restraints and may be confined to an isolation cell as punishment.

Even the right to refuse electroshock is not absolute. If individuals are judged by a court to be incapable of giving consent, they can be given shock against their will. Involuntary inmates (those on holds or conservatorship) do not have the right to refuse drugs. While inmates who have voluntarily admitted themselves to an institution technically have the right to sign themselves out and to refuse drugs, they can be quickly converted to involuntary status if the doctor does not agree with their decision.

Lobotomy Then and Now

The first modern lobotomy was performed in 1888 by the Swiss doctor Gustav Burckhardt who removed eighteen grams of healthy brain tissue from a woman in order to “quiet” her. Most of the interest in this century derives from experiments performed in the 1930s by Drs. John Fulton and Carlyle Jacobsen at the Yale Pri-
ness, insomnia, and depression. Additional symptoms were that she “bitched” at her husband, was overly scrupulous in her housecleaning, and was “unable to adjust to the idea of growing old.” He decided to operate the following day.

Six cores of tissue were removed from the connecting fibers of the left lobe and six from the right side. The next day the patient was unable to remember why she had been upset before coming to the hospital. Five days later she became completely disoriented and temporarily lost her ability to talk. Of the original 20 patients operated on, five were dead within five years.

A new “transorbital lobotomy” technique developed by Italian psychiatrist Amaro Fiamberti was adapted by Freeman in 1946 for use on a mass scale. His instrument was an ice pick that he found in his kitchen drawer. The victim was first rendered unconscious by the application of three electroshock treatments within two minutes. Freeman would insert the ice pick into the conjunctiva—through the orbital bone of the skull, between the eyeball and tear duct—and then swing it in a 30 degree arc. Freeman was not too concerned about sterilization, which he referred to as “that germ crap.”

After the introduction of ice pick lobotomy, operations accelerated dramatically in the U.S., from 100 per year to approximately 5000 per year. Between 1936 and 1955 about 50,000 lobotomies were performed in this country. The Veterans Administration’s wholehearted acceptance of the technique contributed to its popularity. Lobotomy also received a tremendous boost when Moniz was awarded a Nobel Prize in 1949. (A few years after he received this prize, Moniz was beaten to death by a disgruntled patient.)

It is doubtful, however, that the technique would have achieved wide acceptance if it had not been for Walter Freeman’s one-man campaign. Making countless trips to back wards throughout the U.S. he performed thousands of operations, sometimes as many as 25 in one day. (He referred to these as “head-hunting” expeditions and to his lobotomized patients as “trophies.”) In recognition of his activities, Freeman was appointed head of the Medical Society of the District of Columbia in 1948, and later that year was elected president of the American Board of Psychiatry and Neurology. It was not until the mid 1950s that the ice pick technique began to fall into disrepute, partly because of the irrefutable evidence of thousands of human vegetables living in back wards, and partly due to the introduction of phenothiazines for the treatment of psychiatric inmates, which were hailed by some as a form of chemical lobotomy.

The history of lobotomy does not end with the demise of the ice pick methodology. As recently as the late 1970s a number of psychosurgeons were still practicing in the U.S., each with his own method of destroying the brain. Psychosurgeons like to claim that these procedures have nothing in common with the older, more crude lobotomy, and it is true that the amount of destruction is less severe. Stereotaxis, the most common of the new methods, destroys brain tissue using thin electrical wires. From 1965 through 1968 approximately 4000 a year were performed for such conditions as: aggression, depression, fear and anxiety, drug addiction, alcoholism, epilepsy, overweight, homosexuality, and so-called hyperactivity in children. It has also been used on prisoners, children labeled retarded, and psychiatric inmates. Hundreds of these operations were performed on black children in Mississippi during the 1970s to “quiet” them down (the same rationale used by Gustav Burckhardt in 1888). In the late 1960s and early 1970s, professors Mark Ervin, and Sweet of Harvard University received over a million dollars in government grants to do research in psychosurgery. They had suggested in a letter to the New England Journal of Medicine that “ghetto violence” might be prevented by screening for potential rioters and then treating them with psychosurgery. Only a concerted public protest, led by Dr. Peter Breggin, prevented further funding of this project.
One psychosurgeon who is currently active is H. Thomas Ballantine of Massachusetts General Hospital. Psychologists at MIT, operating on government grants to evaluate Ballantine's work, are enthusiastic about psychosurgery as a treatment for depression. Their enthusiasm is echoed in an article in the December 1982 issue of The American Journal of Psychiatry in which the authors pay tribute to Moniz and go on to recommend psychosurgery as a "safe and effective treatment for obsessional neurosis."

Electroshock

The use of electroshock was originated by Ugo Cerletti and Lucio Bini in Italy in 1938, when Mussolini was in power. According to Cerletti's journals, he had observed that in slaughterhouses hogs who had been given an electric shock through the temples did not resist having their throats slit. Cerletti's first human victim was a vagrant arrested for riding a train without a ticket. After the first 80 volt shock, the vagrant, who until then had been incoherent, said clearly, "Not another one! It's deadly!" Although Cerletti's colleagues urged him to discontinue his experiment, he ignored them, applying 13 treatments in all to this original victim, at even higher voltages. Even Cerletti himself came to regret his practice of this treatment.

It was not long after that I witnessed electrically produced convulsions in man... that I came to the conclusion that we must get away from the use of electroshock. When subjecting unconscious patients to such an extremely violent reaction as these convulsions, I had a sense of illicitness and felt as though I had somehow betrayed these patients.\(^1\)

The followers of Cerletti have no such compunctions. Today, a typical shock treatment ranges from 70 to 200 volts, with a current of 500 to 900 milliamperes, about the power consumed by a 100-watt light bulb. The result is a grand mal convolution similar to an epileptic fit. The number of treatments in a series ranges from 6 to 25 and many people have more than one series performed on them. At least 100,000 people annually receive shock treatment in the United States, and in California, two-thirds of shock recipients are over 45 and two-thirds are women. A survey taken in 1978 by the American Psychiatric Association indicated that 22% of its members used electroshock.\(^1\)

Most psychiatrists now use a sleep-inducing barbiturate and a muscle-paralyzing agent such as Anectine to suppress the outward symptoms of the convolution. As noted by Berkeley neurologist John Friedberg, however, these "improvements" are like the flowers planted at Buchenwald... The muscle paralyzer can cause prolonged failure to breathe and cardiac shock. The paralysis may also intensify the horror of the patient's experience... While barbiturates make for a smoother trip into unconsciousness, they also increase the chances of death by choking. Although they do produce sleep, they do not bring a complete loss of feeling... One man reported, "All you are aware of is this jolting pain going through your mind like a crowbar."\(^1\)

Testimony before the Berkeley Human Relations and Welfare Commission in April 1982 indicates that the majority of shock recipients are devastated by the experience. Dozens of shock patients came forward to describe how their memories and lives had been severely damaged; none of the recipients testified that they had been helped by the procedure. All three people who testified in favor of electroshock were psychiatrists.

\(^{13}\) Anti-electroshock demonstrators on march through downtown Berkeley, CA, 1982.

The early practitioners of electroshock in this country did not attempt to hide the fact that brain damage was the desired goal. For example, Dr. Abraham Myerson wrote: "I think it may be true that these people have, for the time being at any rate, more intelligence than they can handle and that the reduction of intelligence is an important factor in the curative process... The fact is that some of the very best cures that one gets are in those individuals whom one reduces almost to amentia [feeble-mindedness]."\(^{14}\) In the 1940s there were numerous published reports indicating extensive brain (continued on p. 30)
A CULTURE OF VIOLENCE AGAINST WOMEN

by the Violence Against Women Study Group

The FBI reports that a woman is raped in this country every six minutes, and yet rape still remains one of the most underreported crimes. One out of every three women will be raped sometime in her life, and the rate is increasing—by 30 percent in the last five years. Wife battery is the most frequently committed crime in the U.S. today, every year 3 to 4 million women are battered in their homes. One out of every five girls in the U.S. is sexually abused before she reaches 18. At the same time there continues to be increasing portrayals of violence against women in pornography and other media. A causal relationship between these crimes and the proliferation of pornography and violent acts against women in the media, long asserted by many feminists, is now being corroborated by scientific evidence.

Violence against women occurs in a broader context of hardship and danger for women. Society consistently undervalues women's work, permitting even greater economic exploitation of women than men. For every dollar earned by men, women earn only 59 cents. More and more women support their children alone; the majority of those living below the poverty level are women and children. Women's ability to survive has been even further eroded during the Reagan administration through loss of day care facilities, attacks on abortion rights, failure of the Equal Rights Amendment, and severe cuts in those social services whose major clients are women and children.

Low economic and social status makes women easier targets of male exploitation and aggression. It is in this context that media images of women, which both reflect and reproduce the dominant social values, must be examined.

From Snuff to the Maidenform Woman

From "hard-core" pornography to simple commercial ads, women are depicted as vulnerable, accepting of abuse, and victims of torture and murder. From the most subtle to the most obvious, all of these images are a part of an entire culture of violence against women.

In the film Snuff, appearing in the U.S. in 1975, a woman is kidnapped, sexually assaulted, and then slowly dismembered. All indications are that the film actually shows the butchering of a woman. A 1978 Hustler magazine cover featured a woman being fed into a meat grinder head-first. A pair of "sexy", high-heeled legs extended out the top as ground meat poured from the blades.

Rape, bondage, mutilation, and murder appear in pornographic films, literature, peep shows, and even "X-rated" video games. Of twenty-six porn films viewed over a three-month period by Women Against Violence in Pornography and Media (WAVPM) in San Francisco, twenty-one depicted rape scenes, sixteen portrayed bondage and torture, two contained child molestation, and two featured the killing of women for sexual stimulation. Clearly these scenes are not incidental to the films. Consider some common pornography film titles: Cry Rape, Black and Chained, Love Gestapo Style, Oriental Pleasure Slaves, Angels in Pain. Rape is also the object of a new X-rated video game, "Custer's Revenge", in which a naked Native American woman tied to a post is repeatedly raped by a male soldier, unless he is hit by an arrow or punctured by a cactus.

Explicit pornography is a pervasive source of abusive and violent images of women. Less blatant, far more prevalent, and just as powerful, are the violent images of women rampant in advertising. Sleepwear ads in Seventeen magazine show women in nightgowns tied to railroad tracks in the path of an approaching train. A designer jeans ad shows a woman wearing jeans bent

The Violence Against Women Study Group is composed of women and men in Berkeley, California, who have met to discuss and analyze the culture of violence against women.
over an ironing board with an iron descending onto her crotch. A beautifully coiffed woman in a hair dryer ad has the silver barrel of what looks like a gun (but what has to be the hair dryer) pointed at her temple. The cover photo on an issue of Super Rock shows the Dead Boys group beating and raping a woman.

Even more subtle are the myriad images of women as both vulnerable and voluptuous, inviting sexual assault. The "Maidenform Woman" has been around for years. She stands in a boxing arena, on a cold street corner, or in a crowded cafe, and opens her long mink coat to reveal to the viewer that she has nothing on but underwear and high-heeled shoes. A Bloomingdale's full-page ad in the New York Times shows a silhouetted nude woman lying on her back, alone, face covered by a sun-hat with her bathing suit lying nearby. Such "soft-core" images condition in the viewer attitudes toward women which have a powerful impact on behavior.

Below: Album cover for "Pleasure" record, by funk group Ohio Players. Bondage images are commonly used to market albums.

March/April 1983
abusive images of women in pornography and media lead to actual violence and abuse of women. The entire male culture of misogyny and desensitization to violence serves to lower the barriers of social control, allowing for more attacks on women.

Capitalist managers pay over $55 billion a year for a wide variety of media advertising. They do so because scientific studies have demonstrated that visual images and word cues result in changes or reinforcement of human behavior. The images can persuade people to buy a product, to vote for a candidate, to give to a cause. Indeed, factual data and logical reasoning are often entirely absent—the multi-billion dollar wager is that the images themselves are sufficient.

Scientific evidence increasingly supports the view that violent images of women reinforce violent behavior toward women. In early May of 1982, the National Institute of Mental Health (NIMH) issued an authoritative review of over 2500 studies conducted in the last ten years that dealt with the relationship between television violence and aggressive-violent behavior. The review committee unanimously concluded that there is "overwhelming" scientific evidence for a causal relationship between television violence and later aggressive behavior. This dramatic assessment "significantly strengthened" a similar but weaker conclusion of an earlier review conducted by the U.S. Surgeon General in 1972. Other independent reviews have also come to the same conclusion, strengthening the connection between television violence and aggressive behavior.

Further scientific studies extend this analysis. Research increasingly demonstrates that "aggressive-erotic" pornography is responsible for attitudinal and behavioral changes which result in increased aggression by men against women. At the 1980 American Psychological Association (APA) annual meeting, Edward Donnerstein of the University of Wisconsin in Madison reported on one such study. One hundred and twenty male college students were either initially angered or treated neutrally by a male or female confederate of the experimenter, and then shown what the researchers called either a neutral, erotic, or aggressive-erotic film. They were subsequently given the opportunity to deliver electric shocks to the fingertips of the original test confederate. The results demonstrated that exposure to an aggressive-erotic film increased aggressive behavior (giving shocks) more than that for the erotic film. Furthermore, when they were angered first, the subjects who viewed an aggressive-erotic film showed significant aggression only when the victim was a woman. Considering all of the data linking sexually violent images with aggressive behavior, Donnerstein concluded, "Every-one finds the same results, no matter what measures they use... There are no discrepant data here at all."11

At the same APA meeting, Neil Malamuth and James Check of the University of Manitoba in Winnipeg reported on a field study with similar results. Hundreds of students were sent to the movies—some to see currently running, non-pornographic but sexually violent films, others to more romantic and non-explicit sex films. A week later an attitudinal survey was administered to evaluate interpersonal violence; included were questions on the "rape myth" (that women enjoy being raped) and other adversarial sexual beliefs. The results indicated that exposure to the sexually violent films increased male (but not female) subjects' acceptance of interpersonal violence against women.12

In a study conducted by Diana Russell, out of a random selection of 933 women in San Francisco, 10% were upset over having been asked to perform a sexual act which their male partners had seen in pornography. The pornographically inspired acts included bondage, bestiality and forced anal intercourse.13

Others are prepared to go further and directly link media images to actual violence. Thomas Radecki,
Chairperson of the National Coalition on Television Violence (NCTV), testified before Congress last year, "I can comfortably estimate that 25-50% of the violence in our society is coming from the culture of violence being taught by our entertainment media; most strongly by the television and movie industries." Radecki further calls attention to 33 recent studies which demonstrate that "nonviolent erotic films and material do not increase the incidence of rape but that frequent sexual violence and violence found in both hard-core and soft-core pornography, definitely increase the acceptance of and interest in committing sexual violence for the typical American and Canadian adult male." 14

Violence against women takes place in the general male culture of increasing misogyny and desensitization. Rape, for example, comes to be viewed as something that many men do, that is easy to get away with, and that perhaps is covertly enjoyed by women anyway. A content analysis of 428 "adult only" paperbacks published between 1968 and 1974 showed a continual increase in the portrayals of rape, rape which repeatedly focused on "the victim’s fear and terror which [however] became transformed by the rape into sexual passion (over 97% of the rapes resulted in orgasm for victims, 3/4 of these instances it was multiple orgasm)." 15 Not only was the violence of rape transformed by the male mind into pleasure for victim, but also rarely were there any negative consequences for the attacker (less than 3% of the time). In fact, many rapists were rewarded. In another study, two male researchers documented the increase of visual violence in Playboy and Penthouse from 1973 to 1977, and concluded that "the information conveyed in much of the sexually violent material is that women are basically masochistic and in need of male domination." 16 In these various ways violent images of women encourage men to accept their own violence as unpunishable, deserved, and natural.

Erotica, Not Pornography

Pornography is defended by some as a form of sex education, or as an outlet for sexual or even violent behavior which otherwise might be vented against others, or simply it is sexually stimulating, pleasurable, even a source of sexual rejuvenation. These arguments arise from a misunderstanding of the distinction between "pornography" and "erotica."

"Pornography" is about power, a power imbalance with sexual overtones. It is normally dominated by male sexuality with implied or overt violence and sex-as-a-weapon. Interestingly, the word "pornography" has a common derivation with "prostitute," meaning "female captive" and is closely associated with monetary transactions. "Erotica," on the other hand, is about arousal of sexual desire, pleasure, or love, by sensuous or voluptuous depiction. The word is derived from eros, meaning sexual love. "A mutually pleasurable, sexual expression between people who have enough power to be there by positive choice," is a description offered by Gloria Steinem. 17

Some feminists have begun to doubt whether violence in pornography should be condemned in itself, even when as horrifying as in mutilation "snuff" films. As feminist Deirdre English, writing in the April 1980 Mother Jones puts it: "The fact remains that, no matter how disturbing violent fantasies are, as long as they stay within the world of pornography they are still only fantasies. The man masturbating in the theater showing a snuff film is still only watching a movie, not actually raping and murdering." 18 Yet with such logic we might also wonder: what is wrong with white-hooded men burning crosses and hanging a black effigy? What is wrong with it is that it has been clearly shown that such practices lead to actual violence—pornography is a ticking time bomb.
These kinds of issues have resulted in a split in the feminist community in recent years, with some women saying they enjoy pornography, even sadomasochism. But pornography is a statement of power, of male domination over women. Morality is not the issue (whatever consenting adults do in private is their business). Pornography is a political and economic issue, and a part of the general oppression of women under patriarchy and capitalism.

Patriarchy and Capitalism

The ideology that men have a natural right to dominate women has been maintained by Western sciences and religions at least since the time of Aristotle. Pornography and media of today can in part be seen as extensions and reinforcements of these pervasive systems of belief.

Some ancient human creation myths treated men and women on an equal footing, but by the time of the fables in the Old Testament, men were finally in control: "And I will put enmity between thee and thy women, and between thy seed and her seed... Unto the woman he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee." (And all this because the women challenged the authority of God, sought after knowledge, and shared that knowledge with man.) Scientific theories have often served the same purposes. From Aristotle to Darwin to Freud to some modern-day sociobiologists, science has been mustered to prove that men are, in fact, biologically superior to women. Even in the fourth century B.C., Aristotle, who was to remain the ultimate scientific authority for many centuries, could conclude, "the courage of a man is shown in commanding, of a woman in obeying."19 These are still the dominant Western beliefs that fit in well with ruling political-economic systems, so it is not surprising that many men and women today readily accept male dominance and control over women.

The oppression and domination of women has a deep ideological base that cuts across economic systems. The United Nations estimates that women perform nearly 70% of the world's productive work, receive 10% of the world's wages and 1% of the world's property.20 Under capitalism, however, that oppression takes on particular characteristics and causes. Women function as unpaid and underpaid producers and reproducers, in addition to their function as a reserve army of laborers in the capitalist system. Pornography and violence against women thus serve to maintain women as an oppressed group in the interest of capitalist exploitation.

At the same time, this image of male domination is a product in itself. The stakes are high. Of all magazines sold at newsstands, it is Penthouse and Playboy that bring in the greatest profits for the retailer—in 1980 these two magazines alone claimed over $2.5 million in profits per issue! All together the so-called men's entertainment magazines, with an average circulation of 16 million, brought in over $570 million in total revenue for 1980.21 The adult movie industry grossed $365 million in 1978 while X-rated home video cassettes grossed several hundred million dollars in 1980.22

Under capitalism, the most frightening aspect of oppression is its naturalness. Consider Ron Martin, owner of one of the largest adult entertainment centers in the country, when asked in a Mother Jones article whether he degraded women for profit:

I know I do. So does The New York Times... I think anyone who comes to my show is pathetic... Look, we live in a society that is totally perverse. Only one thing is pure: all things are divisible by the Almighty Dollar. Especially people.

HERdles »

There's a new computer game "Custer's Revenge." The player is directed to rape a bound Indian woman. I'm developing a new computer game... It's called... Zap a porn profiteer!!

Science for the People
That’s why I’m into porn. It’s an infant industry. It’s wide open, exciting. It’s pure. I can apply economic theory and it works. This is where it’s at. I’ve always been where it’s at: gold, politics, civil rights. Porno is the Last Frontier. I run a business. I collect money. I make things work.23

**Fighting Back**

The battle against patriarchy and capitalism begins with women organizing to fight back. Rather than relying on traditional instruments like the Republican and Democratic parties, women are forming vast networks to mobilize economic and political power on their own behalf.

Yet because of the powerful interests served, fighting back goes up against tremendous obstacles. As Adrienne Rich notes in *Take Back the Night*,

When we face the implications of the studies on pornography and media, pornography and social science, pornography and family life, pornography and the traffic in women, pornography and economic power, pornography and racism, we become aware that the glorification of violence against women is not a surface growth which can be deftly excised, leaving the anatomy around it untouched, it is systemic, and to question it is to question the entire society by which it thrives.24

In its selection of tactics, the movement against violence in pornography and media faces difficult, complicated choices. For example, the question of whether to seek a ban on pornography has actually split the movement. Many feminists, such as those in San Francisco-based Women Against Violence in Pornography and Media (WA VPM), believe that a formal abridgment of First Amendment Rights to disallow pornography would actually be used against women to ban material on sex education, feminism, and lesbianism. Historical basis for this fear is provided by the use of anti-obscenity laws early in this century to prevent Margaret Sanger from distributing "obscene" literature on birth control.

Susan Brownmiller, author of *Against Our Will*, voices the opposite view. She believes that pornography should be legally banned and that First Amendment Rights can be distinguished from the commercial exploitation of women’s and children’s bodies.

These images have nothing to do with the hallowed right of political dissent. They have everything to do with the creation of a cultural climate in which a rapist feels he is merely giving in to a normal urge and a woman is encouraged to believe that sexual masochism is healthy, liberated fun . . . We live quite compatibly with a host of free-speech abridgments ... Restrictions on the public display of pornography belong in this category.25

The mobilization of women’s consumer power has been a less controversial tactic in fighting violence against women in media. WAVPM, for example, targets particular companies which use abusive imagery in their advertising campaigns. Letters of protest written to company officials and boycotts of their products have resulted in the cancellation of some offensive advertisements. The Los Angeles Chapter of Women Against Violence Against Women was successful in getting Warner Communications to sign a policy statement opposing violence against women on album covers. Other effective tactics include the publicized boycott of stores which sell pornographic magazines along with general use items.

A culture of violence against women is maintained and perpetrated by abusive images of women in pornography and media. Such images serve to keep men in power (both publicly and in the home), to keep women out of the paid labor force, or when they are paid, to keep them underpaid and marginalized. Men who are frustrated and oppressed by the capitalist system turn their oppression toward other, more oppressed peoples, and violent images and acts against women are one form of this. Thus attacking pornography and violence against women is only one aspect of fighting back. The images must be shattered. But patriarchy and capitalism are the main targets, and until they are crushed there will be no freedom.

**REFERENCES**


March/April 1983


12. Ibid.


19. See Rosemary Agonito, History of Ideas on Women, New York: Putnam’s Sons, 1977. It is also interesting to note that Plato in The Republic argued that the then contemporary denigration of women was a perversion of nature; that only women are treated equally with men, given comparable training, and relieved of domestic chores, could society then be fully developed.


On the Home Front

NEW POLICE TECHNOLOGIES

by Patty Hirota

The modern-day police, like any other social institution, reflects the needs and development of the society of which it is a part. While the basic function of the police has not changed, the growth of science and technology has had a powerful impact on the forms and content of police work. The police today are equipped with an arsenal of sophisticated technologies: computerized surveillance and intelligence equipment, military helicopters, attacking robots, electric taser guns, and hollow-point bullets, to name a few.

Alongside this buildup in the range and quality of arms has gone the relaxing of legal constraints on the police. As part of the mounting "law and order" campaign, the police are being given greater powers to utilize these arsenals against the people. The Supreme Court, for example, has given the police the right to stop, search and seize cars without a warrant; and in California, new legislation strengthens the rights of police to sue citizens who make "false complaints" against the police, and to use illegally obtained evidence in court.

Science in the service of the police, and U.S. capitalism generally, has produced a domestic military force which permits the monitoring, intimidating and terrorizing of the people to a degree never before achieved.

Origins of the Modern Police

The roots of the modern U.S. police go back quite far. Colonialists appointed constables to walk the streets, and as early as 1636 a "night watch" was established in Boston. By the 1700s nearly every major urban town had a night watch, a person who often also served to call out the time or take care of street lamps. There were also organized slave patrols in the South, while in the North and West, farming settlements armed themselves into militias to protect "their" land from Native Americans. In larger cities, local merchants recruited night watchmen to guard their properties.

By the mid-1800s, these early police were replaced as a result of profound historical changes. Rapid development of large-scale industry had brought about the growth of urban areas, creating a large urban working class. Wretched working conditions resulted in attempts at unionization; food shortages and racial and ethnic tensions produced an Irish riot in Boston (1837), Black riots in Philadelphia (1838 and 1842) and Native American riots (1844).

The modern police developed in response to this growth of capitalism. In 1844 the city of New York passed a law creating a unified day-and-night police force of 800 with para-military organization and uniforms. Within a few years, Boston, Chicago, New Orleans, Cincinnati and Philadelphia had done away with the 200 year-old watch system and established centralized, coordinated police forces. By the end of the nineteenth century, virtually every major U.S. city had done the same.

The growth and centralization of police forces paralleled the growth of labor strikes in the late 1800s. Anti-labor legislation of 1886-1887 led to more savage attacks by police on strikers. Five strikers were killed in 1886 by Milwaukee police, nine were killed in East St. Louis, and police fired into crowds of strikers in Chicago. Meanwhile, businessmen contributed money directly to local police departments, and in some cities, became police commissioners.

Police forces grew rapidly by the turn of the century. In 1900 there were 116,000 police personnel nationally, with twice that number by 1920. Police protection cost $50 million in 1902, nearly doubled by 1913, and doubled again to $204 million by 1922. By the early 1900s liberal business, government and professional

Patty Hirota is a founding member of the Charles Briscoe Committee for Justice, an anti-police-brutality community organization in Oakland, California.
people became concerned over the corruption in social institutions. This resulted in the so-called Progressive Movement, in which police were criticized for their reliance on brute force against workers, as well as for police corruption. Members of the Progressive Movement saw police methods as inadequate for protecting big business from crimes against their property as well as from organized resistance from the working class. Consequently, local and national commissions, such as the Chicago Crime Commission of 1919, were created to discuss police problems and social control. Many establishment Progressives were afraid that a “lawless” police would permit “the delinquent classes to understand that our institutions are hypocritical, that there is no law or real justice in the land,” and that as a result there would be a “vengeful reprisal against the police, the law, and society itself.”

The Progressive proposed a series of “reforms,” including: centralizing the police (the FBI was founded in 1908); professionalizing the police such as through training in police science (the first specialized police school was founded in Berkeley in 1908); greater use of technology, such as police laboratories, scientific equipment, and chemical and biological technology; and the establishment of social strategies in police-community relations, such as a pre-delinquency crime prevention unit in Berkeley (1925).

While these methods did not become the dominant theme in police work, many of the scientific methods over time became part of the mainstream police work. But it was not until the 1960s that they became fully developed, as part of a major drive to militarize the police.

Militarizing the Police

When old police methods could not successfully suppress or contain the civil rights, anti-war, and ghetto rebellions of the 1960s—and in fact served to widen class conflicts—government and corporate leaders took decisive action to reestablish control. Blue ribbon panels of high-level business executives were chartered by both large corporations and the federal government to upgrade police effectiveness. These commissions pushed Progressive Movement innovations—centralization, professionalization and standardization—much further than before, patterning their recommendations on business and military models. Corporate planners drew direct parallels between the “enemy” in Vietnam and the “criminal” in the U.S. As one contemporary author stated, “The Law Enforcement official is required to detect and identify his enemy—the criminal; the military

man must detect and identify his enemy—on the battlefield.” Consequently the same weapons and techniques developed for Vietnam—gas, helicopters, infrared detection, armored transports—were also used in U.S. ghettos and on campuses.

Just as scientists were brought in to think of “creative” ways to handle the war in Indochina (as with the “electronic battlefield”), so they were called to apply their talents to domestic control. The Institute for Defense Analyses—originally a consortium of universities working for the Defense Department—observed in a special Science and Technology Report issued in 1967 that although 20,000 scientists were then involved in military work, only a handful were working on domestic police activities. This was soon to change. On June 19, 1968, a new arm of the Justice Department, the Law Enforcement Assistance Administration (LEAA), was

Steven Karian

Science for the People
founded by Congress. LEAA put billions of dollars into creating in U.S. police agencies "a repressive capacity unparalleled in history." Its budget of $63 million in 1969 jumped to $1.75 billion in 1973. Vietnam defense contractors started selling similar equipment to U.S. police departments. [See chart.]

A major objective of LEAA was to foster greater coordination among police departments in order to develop a framework around which a national police force could easily be built. The federal government, through LEAA, began to standardize police operations from recruitment, training and intelligence, to equipment and weapons. The intent of this, backed up with computers, the National Guard and the Army, has been to produce a flexible response strategy for police operations in urban disturbances, and a more professional cop.

New Police Technologies

Currently, new technologies employed by police forces throughout the country cover a wide variety of categories: information/communication, surveillance, identification, weapons and SWAT teams.

Information/Communication. Computer technology has had widespread impact on police work. Only 10 states had automated information systems in 1968; today several national computer networks integrate local, state, and federal policing capabilities. The National Law Enforcement Telecommunications System (NLETs) links local police in each state to federal terminals: the Department of Justice, the Drug Enforcement Agency, the Postal Inspection Service, the Treasury Enforcement Computer System, and the State Department. This storage and retrieval system allows local police departments to transmit file information to NLETs, destroy their papers, and claim that they have destroyed their files.

The FBI's National Crime Information Center (NCIC) connects local data banks to state and regional computer terminals, complete in themselves. Federal agencies such as the Internal Revenue Service, the Secret Service, the Immigration and Naturalization Service, courts and prisons, receive information from the NCIC. These overlapping computer networks not only provide an extensive storage and transmission capacity, but heighten the danger that inaccurate or political information may be transmitted throughout this nationwide network. Any police department can—in seconds—get information on political activists in any part of the country. These systems constitute a major threat to our right to privacy and our right to organize together.

Surveillance. LEAA has also played a major role in the development of new surveillance techniques, which now permit the police to watch people almost anywhere. Hidden cameras are being used in schools, for traffic control, as well as for "crime surveillance" on the streets. Two-way cable TV systems have already been test marketed in some cities by police departments for "protecting your home while you're away." The potential of two-way TV as a means of spying inside people's private homes is great, given the dependency of American people on TV.

In 1965 the Los Angeles County Sheriffs used helicopter units extensively in the Watts riot. LEAA subsequently funded aerial patrols heavily, as a way to improve police response time, improve day and night surveillance, increase officer security, and reduce crime. Police helicopters carry high intensity "night sun" lights that can illuminate the area of a baseball field at 300-600 feet, infrared filters for covert observations, and powerful loudspeaker systems.

Identification Systems. The police are using research from the military, aerospace and physical sciences to identify suspects. For example, NASA developed a fiber optics profilometer for the Chicago Police Department which deciphers impressions on a writing pad after the page of writing is removed.

Fingerprint and voice identification systems have been highly developed. The FBI has an enormous fingerprint collection of about 16 million sets of criminal prints, in addition to 62 million prints from civil service
and military files. This system requires 10 fingerprints to be able to retrieve the card from the file. Recently, under an LEAA grant, the California Crime Technological Research Foundation tested a space satellite to transmit fingerprint card facsimiles, and new computerized fingerprint systems are in place or on the way for most major police forces.

Voice print identification was first developed by Bell Telephone Laboratories through "voice spectrography." The most scientific form of voice identification uses a digital computer to match separate phonemes (the smallest recognizable unit of sound) from voice patterns. LEAA has funded Rockwell International and the Aerospace Corporation to develop methods of voice identification which could be admissible in criminal trials.

**Weapons.** Technology is also used to deploy direct force against people. In their choice of weapons, as well as of information and surveillance systems, the police have borrowed heavily from technologies developed by the military for use in Vietnam. After 1972 the major corporate arms suppliers merely switched from selling to the military to selling to domestic police.

The police classify weapons as "lethal" and "non-lethal." Most common of the lethal weapons are the dum-dum or hollow-tipped bullets which expand as they enter the body, causing wide wounds, heavy bleeding, and death. Although the 1909 Hague Convention declared these bullets a war crime because they cause unnecessary suffering, close to 900 police departments used them in 1972. The Oakland, California city council voted last year to condone the use of these bullets on recommendation of the police chief. Ironically, these bullets have been approved by the city council and police department on the grounds that they are more humane, since police only have to fire once in order to stop a suspect.

Most police arsenals include 12-gauge shotguns, machine guns, and sniper rifles. The Philadelphia police maintains armories on wheels known as Stakeout Cars which carry: two 30/06 caliber M-70 Winchester rifles, two 12-gauge M-12 Winchester shotguns, one .45 caliber Thompson machine gun, and one .30 caliber M-1 carbine. The 12-gauge shotgun is the most popular anti-riot gun with its nine ball bearings that fan out over a large area. Another favorite weapon is the High Standard Model 10 semi-automatic rifle that can be fired with one hand like a pistol and has a searchlight on top. Anything in the light path will be shot, facilitating night actions. A new Stoner rifle fires a high velocity bullet that can penetrate a brick wall. Last year, the Oakland police in response to a man barricaded in his own store, unveiled "Snoopy," a remote control robot with photo surveil-

lance, that can knock down doors, and fire shotgun pellets and gas.

"Non-lethal" weapons include gas, smoke, noise, drugs, and electrical weapons. The most common of gases in use are chemical MACE, CN (chloroacetophenone), CS (orthochlorobenzalmononitrile), and DM ("blister gas"). CN is the mildest and is the original "tear gas" developed by the Army during World War I. CS, also called "pepper gas," is more violent and the effects last longer. It has a burning and nauseating agent, and can produce diarrhea, rectal bleeding and vomiting. DM causes vomiting and will poison water and open food in the area. Gases can be either visible or invisible; invisible gas cannot be photographed by the press and is thus often preferred for 'public relations' reasons. Since there are no clear guidelines on the use of chemical "non-lethal" weapons, political criticisms are more easily avoided.

The major sound weapon is the "Curdler." It can be used as an ordinary speech amplifier but can also deliver 350 watts of shrieks and screams, producing 120 decibels at 30 feet (the sound intensity next to a jet engine during take-off), causing severe ear pain, disori-
Other non-lethal weapons include the stun gun, rubber bullets, electrified batons, tasers and water cannon. The stun gun shoots four-inch diameter bean bags loaded with about 3 to 8 ounces of shot. The bags have the effect of a hard hit baseball, and within 20 feet can cause serious internal injuries or even death. The taser guns, 400 of which were recently purchased by the Los Angeles Police Department, fire small barbed electrical contacters with up to 500 feet of trailing wire which snag victims' clothing, paralyzing victims until the electrical contacts are removed.

**SWAT.** Since 1967, SWAT (Special Weapons and Tactics) units have been initiated within local police departments as elite para-military groups often directly trained by the military. SWAT developed in response to increasing threats of urban political warfare (snipers, political assassinations, hostage taking) and other civil disturbances.

SWAT members receive training in guerrilla warfare, scouting and patrolling, camouflage, chemical agents, first aid and ambushes, high ground and perimeter security, hostage retrieval, and neutralizing terrorist activity. While liberal police “experts” claim that the original concept of SWAT was to “discipline police restraint” and obtain objectives without use of gunfire, these experts admit that many departments use the SWAT model as a means to arm themselves to the teeth, and have the attitude that “we are gonna give the gun­man one chance to surrender, but if he shoots back, boy are we gonna let him have it.”

Many departments see SWAT not so much as a response to civilian emergency, but as a counter-insurgency unit against revolutionaries and minorities. In Belmont, California, a small 20,000 “bedroom” community of San Francisco, SWAT police have Israeli-built submachine guns, silencers on their revolvers, and large knives strapped to their chests. Since 1971 the FBI has been training hundreds of police agencies in SWAT techniques at its Quantico, Virginia, Marine Corps academy in response to civil disturbances and increased use of firearms against the police.

**On the Home Front**

The increasing use of technology by the police provides the modern capitalist society with the means of protecting the interests and property of the ruling economic class. From the last 1960s to the present, police have become increasingly armed with the latest technological innovations at their disposal. At the same time, recent legislation allows the CIA and FBI to act as local police, and the limited restraints that had been placed on the police in the past, won through democratic struggle, are being taken away. Examples are the exclusionary laws that prohibit information illegally procured by the police from being submitted into courts as evidence, attempts to limit or do away with the Freedom of Information Act, and “preventative detention”—placing people in jail without bail based on their potential to commit crimes.

There is today a growing threat to our democratic rights. As the country goes into crisis, and “democratic” methods prove ineffective, the danger of a fascist state grows. Both the growth of power in the executive branch of the government, and of the military and police, are part of this danger. As progressive and peace-loving people, we must, just as we fight against the buildup of the military machine, also fight to ban SWAT, para-military equipment and weapons, and “red squads” form our local police departments. We must opposed the buildup of arms technology for repression and police power, and demand disclosure of all weapons which police departments have for their use. We should consider calling for the disarming of the police. While this will not eliminate police violence, or its source, it will place limits on the extent and use of the violence. Finally, opposition to wars abroad must be connected to the opposition of the war at home.

---

**REFERENCES**


4. August Vollmer, who founded the first police school in Berkeley and was the Chief of Police there, wrote in an article on “Predelinquency”: “Among the children in our schools today are to be found the gangsters, thugs and murderers [sic] of tomorrow, and, inasmuch as we have had pointed out to us by scientific studies and our own observations that the majority of our professional crooks were troublesome children long before they became criminals, it behooves the policeman to concentrate his attention upon the problem child during the pre­delinquent period.” Journal of the American Institute of Criminal Law and Criminology, Vol. 14 (August 1923) p. 281.


PSYCHIATRY AND REPRESS
(continued from p. 17)

damage from electroshock. In recent years the psychiatric profession has attempted to cover itself by ignoring those studies which exist, and by ostracizing any professional who calls for further investigations. John Friedman, author of Shock Treatment is Not Good for Your Brain, was dismissed from his residency at Pacific Medical Center in San Francisco because of his research in this area. 15

Although shock promoters like to claim that the hazards of brain damage and memory loss which have always been associated with shock are no longer a problem, another Berkeley doctor, psychiatrist Lee Coleman, points out, "Since neither the brain nor electricity has changed since the 1930s, the result is still the same—brain damage." In fact, a greater amount of current is required to produce a convulsion when the person is sedated. 16

As with the practice of lobotomy, many victims of electroshock die as a result of the treatment. The psychiatric profession has avoided any systematic study of shock deaths, and many of these deaths are officially attributed to other causes. In one 1957 study, Dr. David Impastato, himself an advocate of the treatment, estimated that the rate of immediate death for shock recipients of all age groups was 1 in 1000, while for recipients 60 or older, it was 1 in 200. 17 (One third of the people who received shock in California in 1979 were over 65.)

Electroshock’s popularity may be due in part to the fact that it is extremely lucrative. In 1975, when psychiatrists in California were billing $40 to $50 for each treatment, those who relied heavily on shock were earning $100,000 to $200,000 each year, as contrasted with less than $60,000 for psychiatrists who did not use shock. When the price of electroshock was lowered to less than $10 in Quebec, the use of the technique dropped dramatically (the current California rate is about $110 per treatment). 18 Medical insurance companies and government agencies prefer to cover the cost of electroshock over that of verbal therapies, prompting Boston psychiatrist David Viscott to note that finding that the patient has insurance seems to be the most common indication for electroshock. 19

Psychiatric Drugs

Thorazine, the first of the "major tranquilizers," was introduced in 1954. Within a year it was being administered to an estimated 2 million patients in the U.S. Sales for the manufacturer, Smith, Kline and French (SKF), increased from $53 million in 1953 to $347 million in 1970, largely attributable to the marketing of Thorazine. 20

Today, neuroleptic drugs such as Thorazine are given to virtually all inmates of psychiatric institutions, as well as to a large percentage of inmates in other institutions and to millions of outpatients as well. The long list of unpleasant effects of neuroleptics includes: painful and uncontrollable muscle cramps, constant writhing and jiggling, drooling, impaire vision, dizziness, lethargy, vomiting, increased depression, hallucinations, epileptic seizures, muscle rigidity, facial impactions, extreme sensitivity to sunlight, and cerebral edema. 21

A form of permanent brain damage from the use of neuroleptics, termed tardive dyskinesia, began to be reported in 1957. Tardive dyskinesia (TD) produces grotesque rhythmic and involuntary movements of the face and limbs; cheek-puffing; lip-smacking; chomping of the jaws; repeated tongue thrusts, difficulty speaking and swallowing; jerking of the wrists, fingers and feet. 22 For many years psychiatrists and the drug industry denied the existence of TD, until a 1972 lawsuit forced SKF and other manufacturers to release information on it.

In one study of a New York clinic, outpatients were found to have been taking neuroleptic drugs for an average of four and a half years. Forty-three percent of those studied had TD; 14% of them had been taking the drugs for less than a year. 23 Indicative of staff attitudes toward this disease, the director of one institution stated (under oath at a trial) that while a quarter to one-half of the patients at his hospital might have TD, no patient charts showed this diagnosis. Another psychiatrist testified that most patients who have TD are not aware of it and "there not troubled by it." He also testified that refusal to take these drugs is an expression of the patients' illness. 24

It is common psychiatric practice to prescribe dosages much higher than the accepted "safe" maximum dose. A case in point is that of Lynette Miller, a 17 year old Black woman who died in 1976 after receiving massive doses of phenothiazines (a subcategory of neuroleptics). Her mother was recently awarded up to $7.8 million in a wrongful death suit; a doctor testified that Lynette had been receiving about four times the maximum recommended dose of drugs, and that in his opinion her death was caused by the combination of electroshock treatment and phenothiazines. 25

"Sudden death" is, in fact, a listed "side-effect" of neuroleptics. There are a variety of ways in which these drugs can be fatal: bone marrow poisoning, disturbance of the body's temperature-regulating mechanism, paralysis of the intestines, asphyxiation caused by
interference with the gag reflex, and cardiac arrest. Several years ago a New York medical examiner revealed that 30% of the deaths of psychiatric inmates in Rockland County were directly attributable to the use of psychiatric drugs which caused them to aspirate their own food and vomit. He noted that the death rate for psychiatric inmates from aspiration was twenty times higher than that of non-institutionalized patients, and emphasized: "This is not unique to Rockland County. This is going on in every institution in the state of New York and everywhere in the country. These deaths are not from overdoses. The deaths are occurring at the therapeutic dosage level." 26

Psychiatrists continue to prescribe these deadly chemicals for several reasons. One is that the use of drugs justifies the psychiatrist's professional existence. Social workers, psychologists, and counselors of all kinds can provide "talk therapy"; only a psychiatrist (with a medical degree) is authorized to provide the somatic (body) therapies: drugs, shock, and psycho-surgery. Of these therapies, drugs are the most readily available and can be used to treat an ever-expanding number of people. Secondly, the harmful effects of neuroleptics are not "side-effects" as the psychiatric profession maintains. The incapacitating and addictive qualities of neuroleptics ensures a constant supply of patients for the $15 billion "mental illness" industry. Often the bizarre effects of the drugs are interpreted by both patients and psychiatric workers as "symptoms" of emotional disorder. They are designed to maintain staff control over a large number of potentially rebellious institutionalized people, and in that respect they are extremely effective. So effective in fact that almost the same degree of control can be exerted once the patient is released: she or he can be required to come in every two weeks for a shot of a long-acting phenothiazine such as Prolixin in order to receive a welfare check. (Since the stigma of being an ex-mental patient prevents many former inmates from finding work, especially if they are exhibiting weird drug reactions, they have no choice but to comply.)

Finally, the reason most psychiatrists continue to prescribe neuroleptics is that almost all of their information about them comes from the drug companies. Drug companies spend an estimated $1.5 billion a year in advertising and promotion for prescription drugs, or about $7500 a year for each prescribing doctor. In 1976 drug companies spent $800 million to employ 20,000 "detail men" to convince doctors, hospitals, and pharmacists to buy their product. That same year the drug industry spent $125 million on advertising in medical journals (which accounts for most of these journals' income) and $39 million in direct mail promotion of prescription drugs. 27 In recent years the drug industry has become a major force in a movement to supply "continuing education" to doctors. In addition to sponsoring classes, seminars, and conferences, drug companies pay for free trips to conference sites and provide luxury hotel accommodations.

Drug companies also fund most of the research on psychiatric drugs (as well as funding the journals where research is reported and the conferences where the research is discussed). Peter Schrag, author of Mind Control, sums it up this way:

It's a cozy relationship. Most of the major figures in drug research serve as consultants to drug firms and, at the same time, to NIMH [National Institute of Mental Health] and the Food and Drug Administration, which licenses the drugs. They review each other's grant proposals, sit on the same committees, work on the same studies, write for each other's journals, attend the same meetings, and go to the same parties. 28

With an estimated 35 million North Americans who are regular users of some form of psychotropic drug, the industry's profits show no signs of diminishing.

A still from the film "Hurry Tomorrow." Richard Cohen and Kevin Rafferty, Hound Dog Films dist.

Eugenics, Mental Hygiene, and the Killing of Mental Patients

The eugenics movement, which advocated the purification of the human race through sterilization of people considered to be inferior, was founded by English psychologist Francis Galton in the late 1800s. Backed by a number of industrialists, the eugenics movement gained strong support in the U.S., and by 1928 the study of eugenics was standard in most U.S. colleges. Interra-
cial marriage was banned in 30 states, most states passed legislation for the sterilization of "misfits," and immigration from Eastern Europe and Mediterranean countries was limited. Between 1909 and 1934 over 15,000 psychiatric inmates were sterilized in California alone. The American Neurological Association formed a committee in 1934 which, operating on a grant from the Carnegie Institute, concluded that the U.S. should follow the example of Germany which had passed the "Law for the Prevention of Offspring with Hereditary Diseases," setting up over 200 eugenics courts to determine who should be sterilized. Approximately 400,000 people considered to be insane, feeble-minded, or epileptic were sterilized in Germany between 1933 and 1938.

The eugenicists in Germany did not stop with sterilization. In 1920 psychiatrist Alfred Hoche co-authored The Destruction of Life Devoid of Value, advocating the "mercy killing" (or euthanasia) of people labeled mentally ill. The mass extermination of German mental patients began in the summer of 1939. Leading psychiatrists such as Max de Crinis, professor of psychiatry at the University of Berlin, and Werner Heyde, professor of psychiatry at the University of Wurzburg, administered the extermination programs. At least 270,000 mental patients were killed according to the Czech War Crimes Commission. The psychiatrists invented techniques for mass killing, and later introduced them into the concentration camps set up to destroy other kinds of "undesirables": Jews, gypsies, homosexuals, political prisoners, etc. A number of psychiatrists involved in the mass murder of mental patients continued with their medical practices after the war.

Support for the elimination of "useless eaters" was expressed by leading physicians in the U.S. as well. Dr. Alexis Carrell, a French-American Nobel Prize winner at the Rockefeller Institute, published his book Man the Unknown in 1935, in which he recommended that so-called criminals and mentally ill be "humanely and economically disposed of in small euthanasia institutions supplied with proper gases." And in 1941, Foster Kennedy, chief of neurology at Bellevue Hospital and President of the American Neurological Association, advocated the killing of "unfit and feeble-minded children of at least five years of age" whom he described as "useless and foolish and entirely undesirable." This position was first presented at the annual meeting of the American Psychiatric Association, and later published in the Journal of the American Psychiatric Association in July 1942. The Journal printed an editorial guardedly endorsing Kennedy's views by pointing out that the only objection to his idea is the "fondness" (quotation marks theirs) of the parents for these children, and suggesting that perhaps the parents' attitudes could be overcome with exposure to the principles of mental hygiene.

Resistance

In May of 1982, sixteen people calling themselves the Psychiatric Inmates Liberation Lobby were arrested while holding a silent vigil in the lobby of the Sheraton Hotel in Toronto where they were protesting the annual meeting of the American Psychiatric Association (APA). During the protest demonstrators sat in a circle on the floor, holding signs assailing such
psychiatric crimes as forced treatment of inmates with brain-damaging drugs, electroshock, and psychosurgery. A large crowd of supporters, police, hotel security, reporters, and smirking psychiatrists gathered around the silent group. After an hour and a half, supporters were forced to leave the lobby, and the members of the vigil were dragged and carried to waiting police vans. The demonstrators came from all parts of North America to attend the 10th International Conference on Human Rights and Psychiatric Oppression being held simultaneously with the APA convention in Toronto.

Each year during the International Conference the anti-psychiatry movement holds a demonstration at an appropriate location. In 1978 hundreds of conference participants and friends demonstrated at Smith, Kline and French headquarters in Philadelphia to protest the vast profits made from the promotion of dangerous chemicals such as Thorazine and Stelazine. Also at that conference, a national boycott was organized of all SKF products. In 1977 the Conference called for a national day of protest against psychosurgery and demonstrations were later held in eight cities.

One of the most dramatic events in the history of the movement was the month-long sit-in, organized by the Network Against Psychiatric Assault (NAPA) and Women Against Psychiatric Assault, in California Governor Jerry Brown's office in 1976 to protest forced labor without pay and forced treatment and incarceration in psychiatric institutions. During the sit-in, several demonstrators met with Brown and showed him the documentary film *Hurry Tomorrow* which depicts life on a locked psychiatric ward in Los Angeles. Not satisfied with his response to their demands, the demonstrators continued the sit-in and held a Tribunal on Psychiatric Crimes in his office, which was attended by 150 people and covered by many radio and TV stations. The immediate effect of the sit-in was to spark an investigation into inmate deaths in the California state hospital system, with a tremendous amount of publicity.

Last November's successful ballot initiative to ban electroshock in Berkeley gained national media coverage for the anti-psychiatry movement. Although NAPA had been publicizing the issue in Berkeley since 1974, and had succeeded in somewhat limiting the power of shock doctors through state legislation, it was not until the Coalition to Stop Electroshock was formed in early 1982 that shock treatment became a major issue in city politics. With 61% of the vote, electroshock became a crime in Berkeley, punishable with six months imprisonment, a fine of not more than $500, or both. The shock doctors are now trying to get a permanent injunction to overturn the ordinance.

**Books and Publications by the Psychiatric Inmates' Liberation Movement**

- *Madness Network News*, 2054 University Ave., Room 405, Berkeley, CA 94704. Subs are $6 for 6 issues for individuals. Sample copy is $1.
- *Inmates' Voice*, published by the Alliance for the Liberation of Mental Patients, 1427 Walnut, Philadelphia, PA 19102. $5 for 4 issues.
- *Phoenix Rising*, Box 7251, Station 'A', Toronto, Ontario, Canada, M5W 1X9. Subs are $8 in the U.S. Sample copy is $2.50.
- *Big Mama Rag* (feminist newsmail with strong anti-psychiatry perspective), 1724 Gaylord, Denver, Colorado 80206. Subs are $7. Sample is $1.25.

*Available from Network Against Psychiatric Assault (NAPA), 2054 University Ave., Room 405, Berkeley, CA 94704:*

- “Psychiatry as Social Control,” 13-page annotated bibliography, $1.50.
- “Psychiatric Drugs,” by Dr. Caligari, $3.50.

*March/April 1983*
Although former psychiatric inmates have rightfully taken the lead in the anti-psychiatry movement, the existence of institutions and policies which deny all human rights to those involved, profoundly affects everyone in our society. The problems faced by current and former inmates—denial of housing and jobs, social isolation, invasion of privacy, overcrowding, bad food, exposure to harmful substances, vulnerability to rape and brutality—all are problems faced by millions of people in this country. The “mental health” system encourages us to see these problems as personal, rather than looking to the source: the multi-billion dollar corporations which create an environment and culture where profitability is the only measure of worth. The solution to “emotional problems” cannot be found by turning to experts trained in the arts of power and control. The solutions must be found by trusting ourselves and each other in fighting back against the forces which are daily mystifying, robbing and damaging us. Or as the slogan of the Mental Patients Liberation Front says: “We’d rather by mad with the truth than sane with lies!”

REFERENCES


2. For the early history of lobotomy see David Shotts, Lobotomy, Resort to the Knife, New York: Van Nostrand Reinhold, 1982.


11. Shotts, Lobotomy, p. 95.


21. Dr Caligari, Psychiatric Drugs, Berkeley: Network Against Psychiatric Assault, 1978; for a complete list for each drug see the Physician’s Desk Reference.


TOWARDS A NUCLEAR PEARL HARBOR?

A report on U.S. military bases in the Philippines

Saddled with two huge military bases, the Philippines, which lies just 600 miles from the Asian mainland, has been described as a giant U.S. aircraft carrier.

Clark Air Force Base, home of the 13th Air Force, is the largest U.S. overseas base. Subic Naval Base is a forward station for the Seventh Fleet and a key naval repair facility. Both make up what the State Department describes as the “logistical hub” of U.S. military deployment in the Indian Ocean 5000 miles away. Both constitute what some U.S. defense analysts regard as the “most important basing complex in the world.” And both make the Philippines a likely target for nuclear attack, according to a recent Brookings Institution study.

Aside from being a logistical center for U.S. deployment in the Indian Ocean, the bases serve to project U.S. power onto the Southeast Asian mainland, provide back-up support for U.S. forces in South Korea, and are designated as a logistical center for deployment of U.S. forces to East Africa and even Palestine in the event of American involvement in those areas.

Aside from Clark and Subic, there are about 21 other U.S. installations. Most of these are key communications and surveillance facilities, with some, like the San Miguel Communications Center, playing a key role in U.S. nuclear strategic planning.

The U.S. bases in the Philippines constitute a state within a state. Approximately two-thirds of air routes in the Philippines flight formation are reserved for U.S. military use; a large proportion of the Philippines’ internationally assigned radio frequencies are used by the U.S. military; and the Philippine Government allows the operation of an internal U.S. military airline. According to the U.S. Senate Foreign Relations Committee, “U.S. authorities note that nowhere else in the world are we able to use our military bases with less [sic] restrictions than in the Philippines.”

In January 1979, the Carter administration sealed an Executive Agreement with the repressive dictatorship of Ferdinand Marcos which extended U.S. base rights until 1984 in exchange for $500 million in military aid. The Reagan administration and Marcos have recently begun negotiations to extend the life of the bases beyond 1984, with Marcos reportedly asking for a *quid pro quo* of $2 billion in military assistance.

A strong opposition against the presence of the bases now exists in the Philippines, a phenomenon triggered partly by a desire to regain Philippine sovereignty, partly by the fear that the country would get incinerated in the event of a nuclear war. Opposition is also now emerging in the U.S. A “Working Group” has been set up to expose the bases negotiation and demand the withdrawal of the bases from the Philippines. Among the members of the Working Group are Clergy and Laity Concerned, Southeast Asia Resource Center, Philippine Support Committee, Coalition Against the Marcos Dictatorship, Friends of the Filipino People, and other groups. For more information, write to the Southeast Asia Resource Center, P.O. Box 4000D, Berkeley, California 94704 (415) 548-2546.

OUR ISSUES NEVER GROW OLD!

Science for the People is more than a bi-monthly magazine. It is a resource of useful material. Order your back issues today!

JAN/FEB 1982 VOL. 14 NO. 1
15TH ANNIVERSARY ISSUE
Academia Incorporated
Teaching Radical Math
Fighting Pesticides on Long Island
Alternatives in Agriculture
New Directions in Science Education
Meeting of Radical Science Journals

NOV/DEC 1982 VOL. 14 NO. 6
SPECIAL ISSUE ON THE MEDICAL ESTABLISHMENT
DES Sons and Daughters
Radical Therapy
Racism in the Medical Profession
Feminist Health Activism

SEPT/OCT 1982 VOL. 14 NO. 5
Economics of the MX Missile
Women and the Scientific Establishment
Asbestos in the Classroom
Agricultural Research and Capital

JULY/AUGUST 1982 VOL. 14 NO. 4
SPECIAL ISSUE ON WOMEN AND SCIENCE
Critique of Scientific Objectivity
A Women's Health Collective
Women Scientists in Russia
Pink-Collar Technocrats
Women Fight Cancer

MAY/JUNE 1982 VOL. 14 NO. 3
War on the Wards
Making Science Socialist
New Biological Weapons
Health Care in El Salvador

MARCH/APRIL 1982 VOL. 14 NO. 2
SPECIAL ISSUE ON RACISM IN SCIENCE
History of Racism
Genetics and Race
Nazi Science

JAN/FEB 1982 VOL. 14 NO. 1
CIA Psychological Warfare
Agricultural Research and Capital
Occupational Health in Quebec

NOV/DEC 1981 VOL. 13 NO. 6
SPECIAL ISSUE ON COMPUTERS AND WORKPLACE AUTOMATION
Robots at G.E.
Computers for Left Magazines
The Terminal Secretary
The Pentagon's Computer Game

JULY/AUGUST 1981 VOL. 13 NO. 4
SPECIAL ISSUE ON MILITARISM AND SCIENCE
Resurgent Militarism in Academia
Biological Weapons and Third World Targets

MAY/JUNE 1981 VOL. 13 NO. 3
Workers Face Office Automation
The Politics of Alternative Technology
Update from Grenada
If the Swedes Can Do It...
Livermore Labs
Back to Coathangers

MARCH/APRIL 1981 VOL. 13 NO. 2
SPECIAL ISSUE ON SCIENCE AND TECHNOLOGY IN THE THIRD WORLD
Philippines: Medical Industry
Nicaragua: Taking Back the Land
Cuba: Meeting the People's Needs
India: Western vs. Indigenous Science

JAN/FEB 1981 VOL. 13 NO. 1
Agricultural Research and Social Conflict
Technology and Productivity
Bottle Babies and Managed Mothers

NOV/DEC 1980 VOL. 12 NO. 6
Black Hills Survival Gathering
Politics of Female Genital Mutilation
Is a Fetus a Person?
Star Wars: Mirror of Reality

SEPT/OCT 1980 VOL. 12 NO. 5
Toxic Waste Exports to Third World
Agent Orange: Vietnam War Legacy
Perspectives on Biotechnology
Epoxy Boycott in Denmark
Biotechnology Becomes Big Business

JULY/AUGUST 1980 VOL. 12 NO. 4
Your Body or Your Job
The Pesticide Connection
Organizing for Job Safety
The Anti-Nuclear Movement
From Eugenics to Population Control

MAY/JUNE 1980 VOL. 12 NO. 3
SPECIAL ISSUE ON CANCER
Cancer: Some Notes for Activists
The Risk of Cost/Benefit Analysis
Coke Oven Cancer
The Politics of Cancer Research
Why There is No Cancer Prevention

MARCH/APRIL 1980 VOL. 12 NO. 2
SPECIAL ISSUE ON OCCUPATIONAL SAFETY AND HEALTH
Danger: Women's Work
Dying For a Job
Mass Psychogenic Illness
Molly Coye, Health Activist for OCAW'
Black Workers and Occupational Hazards
Nonionizing Radiation

JAN/FEB 1980 VOL. 12 NO. 1
Reclaiming Reproductive Control
Is There a Gay Gene?
Textbook Sexism
Nukes in the Philippines
Mailing Lists and Technophobia

NOV/DEC 1979 VOL. 11 NO. 6
SPECIAL ISSUE ON SCIENCE AND EDUCATION
Education and Capitalism
Testing: The Competency Controversy
Teaching Children to Read
Sharing Science in the Classroom
How to Challenge the School System
Discovering History of Women in Science

SEPT/OCT 1979 VOL. 11 NO. 5
Political Gynecology
Doing Science for the People
Factory Workers of ZhuZhou
Changing the Face of Health Care in Mozambique
Organizing Miners in Mexico

JULY/AUGUST 1979 VOL. 11 NO. 4
Love Canal: Chemical Wastes Back Up
Three Mile Island and Nuclear Power
Scientific Research and Education in Vietnam
Food and Agriculture in China
FOOD AND HUNGER

Food First Comic is for a teenage audience, in youth groups or high school classes. Based on the book Food First: Beyond the Myth of Scarcity (Lappe, Collins, Fowler, 1977). Available from Institute for Food and Development Policy, 1885 Mission Street, San Francisco, CA 94103, for $1.00 plus 15% postage (bulk discounts). Makes global problems manageable; encourages activism. Food First Curriculum—Now being classroom tested for grades 4-6. Will be available in 1983 from the Institute for Food and Development Policy (see above). Helps children connect their own daily lives to the causes of hunger and its solutions.

CREATIONISM


RACISM IN SCIENCE


ENVIRONMENT

The Asbestos Hazard, Paul Brodeur, New York Academy of Sciences (2 East 63rd St., New York, NY 10021), 1980, $4.00.
Persistent Poisons, Mary-Jane Schneider, New York Academy of Sciences (2 East 63rd St., New York, NY 10021), 1979.
Alternatives to the Land Disposal of Hazardous Wastes, prepared by the Toxic Waste Assessment Group (Office of Appropriate Technology, 1322 O Street, Sacramento, CA 95814).

CORRECTIONS

In the Jan/Feb 1983, vol. 15, no. 1 SftP, Marilyn Frankensteins article "Teaching Radical Math" was pasted up incorrectly. The section on pg. 15 that begins: "Analyzing error patterns..." should be switched with the section on pg. 15 which begins: "B. Based on the information given, create and solve a math problem..." through the sentence: "Also, the following methods are intended to encourage students to share what they know with others and to work together to accomplish the task at hand."

Also, the box on pg. 52 should read "Albert Meyerhoff...", not "Albert Meyer."
CHAPTERS AND CONTACTS

Science for the People is an organization of people involved or interested in science and technology-related issues, whose activities are directed at: 1) exposing the class control of science and technology, 2) organizing campaigns which criticize, challenge and propose alternatives to the present uses of science and technology, and 3) developing a political strategy by which people in the technical strata can ally with other progressive forces in society. SfP opposes the ideologies of sexism, racism, elitism and their practice, and holds an anti-imperialist world-view. Membership in SfP is defined as subscribing to the magazine and/or actively participating in local SfP activities.

NATIONAL OFFICE: Science for the People, 897 Main St., Cambridge, MA 02139. (617) 547-0370.

MIDWEST OFFICE: 4318 Michigan Union, Ann Arbor, MI 48109. (313) 761-7960.

ALABAMA: Bryson Breslin, 2349 Center Ways, Birmingham, AL 35206. (205) 323-1274.
ARKANASAS: Dotty Oliver, 3211 Fair Park Blvd., Little Rock, AR 72204.
ARIZONA: Sedley Josserand, 2925 E. Adams, Tuscon, AZ 85716. (602) 323-0792.
CALIFORNIA: East Bay Chapter: Science for the People, P.O. Box 4161, Berkeley, CA 94704. (415) 526-4013. Allan Stewart-Oaten, Biology Dept., USCS, Santa Barbara, CA 93110. (805) 961-3696.
COLORADO: Ann Wolley, Dept. of Anthropology, University of Northern Colorado, Greeley, CO 80639.
CONNECTICUT: David Adams, Psych. Lab., Wesleyan Univ., Middletown, CT 06457. (203) 347-9411 x286.


FLORIDA: Progressive Technology, P.O. Box 20049, Tallahassee FL 32304.

ILLINOIS: Chicago Chapter: c/o Ivan Handler, 2531 N. Washtenaw, Chicago, IL 60647. (312) 342-6975.


LOUISIANA: Marie Ho, 4671 Venos St., New Orleans, LA 70122. (504) 283-8413.

MARYLAND: Baltimore Chapter: Pat Loy, 3553 Chesterfield Ave., Baltimore, MD 21213.

MASSACHUSETTS: Boston Chapter: Science for the People, 897 Main St., Cambridge, MA 02139. (617) 547-0370.


MISSOURI: Peter Downs, 4127 Shanendoah, St. Louis, MO 63110.

NEW HAMPSHIRE: Val Dusek, Box 133, Durham, NH 03824. (603) 886-5153.


NORTH CAROLINA: Marc Miller, 51 Davis Circle, Chapel Hill, NC 27514. (919) 929-9332; (919) 688-8167.

OHIO: Nick Ihnacik, Rt. 1, Albany, OH 45710.

 PENNSYLVANIA: Merle Wallace, 1227 Tasker St., Philadelphia, PA 19147.

RHODE ISLAND: Carolyn Accola, 245 President Ave., Providence, RI 02906. (401) 272-6959.

SOUTH CAROLINA: Keith Friet, 522 Savannah Hwy. Apt. #5, Charleston, SC 29407.

TEXAS: Ed Cervenka, 911 Blanco St., No. 104, Austin, TX 78703. (512) 477-3203.

VERMONT: Steve Cavrak, Academic Computing Center, University of Vermont, Burlington, VT 05405. (802) 658-2387; (802) 656-3190.


WISCONSIN: Rick Cote, 1525 Linden Drive, Madison, WI 53706. (608) 262-4581.

OUTSIDE U.S.

AUSTRALIA: Leslea Rogers, Pharmacology Dept., Monash University, Clayton, Victoria 3168, Australia. Janna Thompson, Philosophy Dept., La Trobe University, Bendora, Victoria, Australia. Brian Martin, Applied Mathematics, Faculty of Science, ANU, P.O. Box 4, Canberra, ACT 2600, Australia. Tony Dolk, 17 Hampden St., Ashfield, NSW, Australia.

BELGIUM: Gerard Valenduc, Cahiers Galilee, Place Galilee 6-7, B-1348 Louvain-la-Nuede, Belgium.


CANADA: Ontario: Science for the People, P.O. Box 25, Station "A," Scarborough, Ontario, Canada M1K 5B9.
QUEBEC: Doug Boucher, Dept. of Biology, McGill University, Montreal, Quebec, (514) 392-5906. Bob Cede­ gren, Dept. of Biochemistry, Univ. of Montreal, Montreal 101, Quebec, Canada. British Columbia: Jim Fraser, 848 East 11th Ave., Vancouver, British Columbia V5T 2S8, Canada.

DENMARK: Sussex Georg and Jorgen Biansler, Stigardsvej 2, DK-2000, Copenhagen, Denmark 01-629945.


INDIA: M.P. Parameswaran, Parishad Bhavan, Trivandum 695-001 Kerala, India.


ITALY: Michelangelo DeMaria, Via Gian­ nutri, 2, 00141, Rome, Italy.


NICARAGUA: Peter Rosset, Investigacion Regional, DGTA-MIDINRA, Apartado 592, KM 12 C. Notre, Managua, Nicaragua.

WEST INDIES: Noel Thomas, Mt. Moritz, Grenada.

WEST GERMANY: Forum fur Medizin Und Gesundheitspolitik, Genezissen­ ouster, 2 (Mehnighof), 100 Berlin 61, West Germany. Wechsel Wirkung, Genezensaunstr, D-1000 Berlin 61, West Germany.
IS TECHNOLOGY TAKING YOU FOR A RIDE?

They told us science would pave the way to a better future.

But they didn’t tell us how much it would cost. People are only now realizing the human and economic costs of irrational technological development.

- Only SCIENCE FOR THE PEOPLE reveals the social and political impacts of technology issue after issue.
- SCIENCE FOR THE PEOPLE presents technical information in a way that’s easy to read and understand.
- Unlike the “popular science” magazine fad of the last few years, SCIENCE FOR THE PEOPLE started 15 years ago providing a critical look at science and technology. We think you need us now more than ever...

SUBSCRIBE NOW!!!

SCIENCE FOR THE PEOPLE

Please send me information about Science for the People

☐ Regular Subscription (U.S. only) — $12
☐ Member Subscription — $25 Science for the People members receive a one year subscription to the magazine and a bimonthly newsletter, ($15 for people with low incomes.)

Name __________________________
Address _________________________ Zip ________

Send with payment to:
Science for the People, 897 Main St., Cambridge, MA 02139