

# Government by Torture

Lorrin Rosenbaum

I hate all violence, but most intensely I hate the violence inflicted by an all-powerful establishment on a helpless individual. The thought of a man or woman alone in a secret cell facing the fiendish horrors of ingenious and remorseless torture is utterly revolting. I can think of no evil to equal it. It should by now be a crime completely outlawed, but instead it spreads like an epidemic disease.

—Lord Caradon, former Permanent Representative of the United Kingdom to the United Nations

Thousands of prisoners throughout the world are subjected to the cruelest treatment human beings can devise for each other. Not criminals, not practitioners or even advocates of violence, the victims are “prisoners of conscience.” They are men, women, and children who are unjustly jailed and brutally abused because of their race, religion, or beliefs. The torture they suffer is not accidental. It is deliberate state policy, usually concealed by various euphemisms: protecting national security, preserving law and order, preventing terrorism.

The truth is that many governments systematically use torture to maintain power and to silence dissent. Although there are exceptions—Japan, Australia, Norway—torture has been *standard* administrative practice in more than thirty countries and has occurred in more than sixty. Consideration of specific cases in Brazil, the Soviet Union, Asia, and Africa, as well as discussion of programs and agencies in the United States, illustrates how torture has become an institution in countries of all political persuasions.

Torture involves the intentional infliction of acute

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pain on an individual in order to achieve the purpose of the torturer against the will of that individual. The process entails severe physical coercion or extreme psychological pressure, not merely random or unintentional acts of violence.

The usual assumptions about torture are now untenable. Torture is not an historical curiosity from a less “civilized” age. Nor is it a technique of inquiry and punishment used only during war or revolution. Torture does not happen only occasionally at the insistence of a particular head of state; a policeman, or a prison guard. It is not confined to “primitive” countries. Authorities today do not rely on it primarily to extract confessions from persons guilty of crime. Rather, torture has become inherent in the political systems of governments to subjugate and terrorize dissidents. It arises from the attitude recently expressed by one chief of police in the Dominican Republic: “Political prisoners are not only prisoners but hostages of the government.”

When governments wish to intimidate the entire population they punish anyone, not just opponents of the regime. Consequently, people who are completely apolitical are tortured. These “prisoners of circumstance” are jailed and tortured simply because they are friends or relatives of those who belong to an opposition party or because they were present when members of such a party were arrested.

The most reprehensible type of torture is inflicted on children. Unborn infants have been the victims of vile actions taken against their mothers. In Tho Duc Prison in South Vietnam a common torture has been “dunking,” a procedure frequently used on pregnant women. Water is poured down the woman’s nose. A policeman wearing heavy boots stamps on her stomach until the water flows out of her mouth. One commentator wrote: “In the history of imprisonment in our country, there has never been a regime which caused so many abortions . . . as this one.”

Revenge is often taken against children to extort confessions from or to punish their parents. An eleven-year-old boy, whose parents died during detention, has been held along with other children on Buru in Indonesia as a "B" prisoner, the category for Marxists and traitors. In Iran the secret police, SAVAK, allegedly engages in some of the worst atrocities anywhere. Recently a four-year-old was whipped and cut in the neck with scissors before the eyes of the mother. A former prisoner said that it was so unbearable to see his child being tortured that he wished he had had a knife to kill the child to end its suffering. These instances of victimizing children are not rare exceptions. They are cases indicating what has become routine.

Today, in a striking departure from the past, the use of torture is hidden. Once there was open debate between those who advocated legalization of torture and those who argued for its abolition. Now state officials just deny that they torture. Their evasions are, in a sense, confirmation of the abhorrent nature of their work. And, of course, their denials make it difficult to prove the existence of torture. The usual euphemisms for the poor condition or the death of prisoners are "sickness" or "injury" or "shot while trying to escape." Attempts to conceal torture often lead to pathological distortions and lies. High-ranking officers in Chile, it was recently reported, explained the evidence of the use of electric shocks, hot needles inserted under fingernails, and other tortures as the work of overzealous Marxist prisoners so fanatical that they literally tortured themselves to discredit the junta's regime.<sup>1</sup>

Officials intent upon hiding what they do frequently resort to torturing prisoners to force them to state that their government does not torture. Since the Paris Peace Accords an entire repertoire of deception has developed in South Vietnam to disguise the torture of prisoners. Political prisoners are reclassified as "special common prisoners" and thus remain eligible for continued abuse. Since the cease-fire hundreds of political prisoners have been moved around and dispersed to local provinces to conceal their imprisonment and treatment.

The final solution for political prisoners is, of course, death. Many have been summarily executed in South Africa, Rhodesia, Uganda, Morocco, Iran, Iraq, the Soviet Union, Indonesia. In other instances death is a protracted and harrowing ordeal. Amnesty International's files reveal a very high mortality rate for prisoners in Haiti, who were often clubbed or starved to death. Forms of torture include maiming of the ears and genitals and inserting a red-hot poker into the anus. In cells overrun with vermin many contract tuberculosis and malaria. Others die of dysentery. During the height of the Haitian government's campaign against suspected Communists scores of young persons were dragged from their cells to the place of execution and then were buried

in the courtyard of Fort Dimanche, Port-au-Prince. An Amnesty researcher reported that "a superficial search in the cemetery at Fort Dimanche would reveal the remains of thousands of political prisoners who had been shot."<sup>2</sup>

There are many ways to destroy human beings without their dying. The method may be direct—beating, burning, electric shock, rape. Or through a prolonged attempt to break a person's body and spirit. The victim is subjected to harsh conditions during detention—solitary confinement; shackling; sleep deprivation; denial of food, water, and medication; exposure to extreme heat, cold, noise, or light. Although human viciousness and ingenuity have always created ample means of causing pain, recent technology has turned torture into a science. What is particularly insidious about new methods is that they can wound severely without leaving external traces. Techniques of cruel mental stress have been learned from modern psychology. A woman now detained in Spain has recounted her experience. Mrs. Genoveva Forest de Sastre wrote in September, 1974:

They started to insult me. . . . "We'll force you to tell the truth and then we'll throw you out the window and say you committed suicide." . . . I tumbled down, they beat me in the back. . . . I remember feeling a strange agony and then someone gave me a terrible blow on the spine. . . . Of all the tortures, the worst came the last days, when they told me that my husband was there, injured, that in arresting him they had had to shoot at him and that if he did not speak up they would have to bring there my 12-year-old daughter. . . .<sup>3</sup>

Acknowledgment of the existence of psychological torture appeared in a statement by the Shah of Iran during a recent interview in Vienna:

We do not need to use physical torture. There are methods of psychological torture developed in the West which are well-known in my country.

In Buenos Aires torture sessions have been recorded on magnetic tape. The victim is later forced to reexperience his own agonies through head phones while "resting" between live ordeals.

Psychology and pharmacology have contributed drugs and techniques of sensory deprivation that produce considerable suffering. An entire ward of the Military Hospital in Montevideo, Uruguay, has been reserved for administering pharmacological torture. This hospital is notorious for its special "recipe" of taquiflexil, which causes painful muscular contractions, and sodium pentothal, given later to produce in the victim a total relaxation of which the interrogator takes advantage.

Another addition to the modern arsenal of tortures is electric shock. The *Amnesty International Report on Torture* of 1974 describes the experience in this way:

The tortured victim shouts with all his might, grasping for a footing . . . in the midst of that chaos of convulsions, shaking, and sparks. He cannot lose himself or turn his attention away from that desperate sensation. For him in that moment any other form of combined torture . . . would be a relief, for it would allow him to divert his attention, touch ground and his own body which feels like it is escaping his grasp.

Electric shock torture has a double advantage for the torturer. It produces pain without leaving signs, and it lessens guilt by allowing the perpetrator the illusion that it is not he who caused the pain but the wires.

can later attend trial without visible marks of his treatment. Once states have the apparatus, and once people cooperate in the procedure of torture, those who carry it out can do almost anything with impunity, no matter how diabolical. To read reports of torture is to discover maniacal state policy abetting unlimited sadism.

Those who rationalize the acceptability of torture in certain instances would do well to consider the etiology of torture in Brazil. A realization of what happened there should dispel the fallacious and dangerous notion that torture is a controllable evil, that it can be applied selectively



Apart from supplying new methods, modern technology has allowed torture to spread more rapidly than it could in previous centuries. Countries now readily exchange information about torture. As a result of this sharing, apparently, an international network of torture has developed. It is supported not only by the odious complicity of nations but by privileged groups within societies. Physicians, scientists, judges, civil servants help perpetuate torture. Physicians are often present during interrogations to determine the limits of pain that a victim can endure. They also assist by preventing or eliminating blatant traces of physical abuses so that a detainee

in just a few cases to prevent further harm. Brazilian law allows torture, and quasi-legal groups have been formed to carry it out. Institutional Act No. 5 of the Brazilian Constitution is the basis for sweeping powers for the President of the Republic and for various agencies of repression. Autonomous units have been created which are exempt from all judicial control. OBAN in Sao Paulo and CODI in Rio de Janeiro operate through organized terror and secrecy. Duplicating the activities of the official political police (DOPS), these groups kidnap, torture, and kill suspects under the terms of the law of national security. What began as the violence of a few vigilante groups

against those suspected of crime has become a pervasive, nightmarish system menacing the lives of all.

The Death Squads appeared in October, 1964, when several policemen, colleagues of Milton LeCocq from Rio de Janeiro, created a society in his memory. He had been killed by a criminal, who was later assassinated. "He had to die," said one of LeCocq's friends. "It was a question of honor." Amnesty International's 1972 *Report on Allegations of Torture in Brazil* notes: "Throughout the years, the punishment and execution of *marginais* [deviants; petty criminals] has become more than a question of honor. Corpses, found abandoned in numerous districts, showed signs of sadism. . . ."

Groups similar to the LeCocq Society have been organized to eliminate supposed criminals. Protected by the government, these units have greatly increased the scope of murder by killing whoever they believe is a political adversary. Even the practitioners of torture and violence become victims, as in the recent case of a Brazilian policeman who was tortured by colleagues for several days by electric shock, beating, and burning with cigarettes. Having failed to obtain a confession, they released him.

Firsthand accounts disclose two forms of torture in Brazil: crude types of degradation and violence, and more "refined" psychological pressures. During interrogation the *pau de arara* is frequently used. The victim is suspended from an iron bar and beaten or given electric shocks to the face, ears, and genitals. In the "mad dentist" torture the mouth is kept open with an instrument while the victim is attached to a "dragon chair" which emits shocks. The torturers use a dentist's drill and hold the victim, head downwards, while his testicles are crushed. Near drowning and the "telephone torture" (blows to the ears with cupped hands) are common. Women are raped, sometimes in the presence of their husbands; children are tortured before their parents' eyes, and vice versa; victims are tortured to death, their bodies later found to be missing fingernails and toenails and with eyes gouged out.

Prisoners undergo psychological as well as physical torture. After interrogation, suspects are stripped, hooded, isolated in a small refrigerated room, given no food or water and no toilet facilities. The victim is then subjected to "sophisticated" treatment for several days: unbearable noises such as the sound of jet engines, screams of terror, deafening and nerve-shattering music, and flashing lights, combined with thirst, cold, and hunger to create delirium. Then a vision of water is offered and a feminine voice suggests that the victim's thirst will be satisfied if he confesses. The institutionalization of torture in Brazil includes a subculture with its own values and rites. In the *Operação Bandeirantes*, an advanced school of torture, the ritual of torture is known as the "spiritual seance."<sup>4</sup> And all this has grown, in Brazil, from the use of "selective torture."

No dearth of documentation exists about the enduring and massive machinery of repression in the USSR. Dissidents continue to be arrested for the "crimes" of defending human rights, demanding to practice the freedoms guaranteed by the Soviet Constitution, observing their religious beliefs, producing or distributing the *Chronicle of Current Events* and *samizdat* (privately printed).

The forms torture takes include incarceration of sane prisoners in psychiatric hospitals, administering injurious drugs, imposing lengthy sentences of hard labor in prison camps where a starvation diet, strenuous work, and lack of medical aid cause severe debilitation and death. Alexander Essenin-Volpin, a poet and mathematician forcibly confined to a mental hospital, observed that since the law sets no limit to a patient's confinement, "the threat of days, years, even a whole life passing in emptiness is a form of torture as keen as any." Vladimir Lvovich Gershuni, arrested for possession of *samizdat*, declared of unsound mind, and confined in Oryol prison hospital, described the effects on him in his already weakened condition of large doses of drugs:

. . . I have been given two tablets of haloperidol twice daily. . . . This medicine makes me feel more awful than anything I have experienced before; you no sooner lie down than you want to get up, you no sooner take a step than you're longing to sit down, and if you sit down, you want to walk again—and there's nowhere to walk. . . .<sup>5</sup>

A pattern of courage prevails among the scores of Soviet dissidents persecuted for their beliefs. Whether in jail or on the outside, they continue to speak out on behalf of each other. Members of the Baptist sect and of other religious groups are serving rigorous sentences in labor camps for their refusal to stop practicing their faith. The life of Valentyn Moroz shines with the same unquenchable spirit as those of his compatriots. A Ukrainian nationalist, journalist, and historian, Moroz has proclaimed the Soviet Union "an empire of cogs," where those in power seek to quell freedom and creativity. Imprisoned several times for his writings, Moroz was committed to solitary confinement for his book *A Report From the Beria Reserve*, a stirring critique of Soviet totalitarianism. In a closed trial in 1970 Moroz was sentenced to nine years' imprisonment and five years of exile from the Ukraine. Gravely wounded in 1972 by criminal inmates of Vladimir Prison, Moroz was transferred to a prison hospital in Kiev and then returned to Vladimir Prison. Although seriously ill, he went on a hunger strike on July 1, 1974, to gain transfer to a corrective labor camp. He ended his strike on November 22, 1974, seemingly after a promise that he would not be kept in solitary. At that time Moroz said he would "rather die of hunger than go insane" in solitary confinement. In the midst of his ordeals, Moroz voiced the conviction, shared by



Kaethe Kollwitz, "The Prisoners"  
(Courtesy, The Galerie St. Etienne, New York)

friends and supporters, that Soviet repression will fail. In his book *Boomerang* Moroz wrote:

You wanted to hide people in the forests of Mor-dovia, instead you placed them on a stage for all the world to see. . . . You hurled a stone at every spark on the Ukraine horizon, and every stone became a boomerang.

Torture is rampant throughout the world in sophisticated nations and in the newly developing countries. In many places there is no long-standing system of laws and safeguards against torture, which is not considered an outrageous offense. Even worse, the legislation of many governments encourages unjust detention, imprisonment incommunicado, closed trials, and barbarous methods of interrogation. A Rhodesian judge recently stated:

Detention is not regarded as punishment for what a detainee has done in the past, but as an administrative expedient designed to prevent him from doing anything in the future which would imperil the safety and order of the state.

This would seem to apply also to Tunisia, where a recent wave of arrests netted students, academics, and workers, and to Iran, where allegations of torture by SAVAK persist.

U.S. foreign policy and assistance programs have evidently facilitated the institutionalization of torture in many parts of the world. In order to protect American economic interests without visibly deploying combat troops, the CIA, the Pentagon, and State Department have chosen the strategy of supporting the police in regimes favorable to the United States. Speaking at a conference in 1973 devoted to the question of torture, Anthony Russo described this phenomenon as it occurs in South Vietnam. (He is a U.S. social scientist who spent two years interviewing prisoners there.)

Imprisonment and torture are greater now than in 1967 because American rulers want it that way. The shift from the more visible "B-52 war" to the present "tiger cage war" was part of a new plan to combat world opinion by making the whole operation covert, seemingly a battle only between Vietnamese.

Actually U.S. leaders have encouraged the use of prison as an offensive pacification technique both by policy recommendation and by financial support currently running at the rate of 19.1 million dollars devoted to the building of prisons in Vietnam in the current fiscal year.

U.S. connection to torture in other countries is slowly coming to light. Concerned about the torture of prisoners in Brazil, Senator Pell asked the U.S. Ambassador to Brazil, William Roundtree, what proportion of political prisoners were subject to torture to obtain information. Mr. Roundtree replied that he knew of the existence of torture but could not give valid statistical figures. Senator Holt asked General Beatty, Chairman of the U.S. Delegation to the Joint Brazil-U.S. Military Commission, about an Associated Press report that the U.S. Naval Mission is on the same floor in the Brazilian Naval Ministry as a room in which political prisoners claim to have been tortured. According to the report, American personnel had heard screams and groans for two years and had seen Brazilians dragged to and from the interrogation room. The A.P. statement was not denied by General Beatty. The Brazilian press has given detailed facts about *Operação Bandeirantes*. Asked by Senator Holt about it, Theodore Brown, who heads the Public Safety division of the USAID Mission in Brazil, replied: "I have heard the expression and it slips my mind right at the moment what it is."<sup>6</sup>

Aid to the police forces of foreign dictatorships has taken three main forms:

*Training in the U.S.:* The International Police Academy, located in an old streetcar garage in Georgetown in Washington, D.C., was founded in 1962 under the Office of Public Safety. Currently recommended for termination in a bill by Senator James Abourezk, the IPA has in the past eleven years graduated more than five thousand police from seventy-seven countries. Sixty per cent of the students came from Latin America. Senator Abourezk's office and newspaper columnist Jack Anderson's staff have spent many months studying the IPA. Both men sent investigators who interviewed academy officials and read theses written by the students about interrogation. Instructors denied that torture is taught, and the theses criticized the use of torture. But what the investigators did note in talking with students and reviewing their papers was an absence of concern for the human rights of detainees:

LAM VAN HUU OF SOUTH VIETNAM: "What do we mean by 'force' and 'threat'? Physical force—beating, slapping, electrocuting."

BEMONATU MPANGA OF ZAIRE: "The use of force or threats during an investigation can be seen as one of our police tactics to be used for the expedition of an investigation. . . . Above all, the press should not have the slightest information about our methods of procedure."

Exploring the connections of the CIA to police training in an article in *Harper's Weekly* dated January 24, 1975, Taylor Branch and John Marks discuss INPOLSE (International Police Services, Inc.), formerly located in a brownstone on R Street in

Washington. The reporters learned that INPOLSE had operated for nearly twenty-three years as an arm of the CIA under cover as a private firm. A kind of graduate school of IPA, it provided specialized training in police techniques to thousands of policemen from eighty-seven countries. INPOLSE's other business was exporting police wares to foreign police forces.

Investigations by Senator Abourezk have revealed other kinds of police training offered by the United States Government. At a CIA-operated school in Los Fresnos, Texas, foreign policemen are taught the design, manufacture, and potential use of homemade bombs. Although AID officials stress the defensive nature of this course—to control terrorists—the policemen so trained and equipped are themselves engaged in terrorist activities. Some of them have used their U.S. schooling in the work of assassination as members of vigilante teams like *La Mano Blanco* and *Ojo por Ojo* in Guatemala, *La Banda* in the Dominican Republic, and the Death Squads of off-duty policemen in Brazil and Uruguay. These groups kidnap, torture, and bomb. Their victims included students, academicians, political activists. Nelson Bardsio, a police photographer and former Death Squad member in Uruguay, testified that the Department of Information and Intelligence, a Uruguayan government agency which provided a cover for the Death Squad, was established with the advice and financial assistance of USAID Public Safety advisor William Cantrell. Training has also occurred at a "psychological operations school" in Maryland and at the Army's Special Warfare School in Fort Bragg, North Carolina.

*Advisors:* Hundreds of U.S. Public Safety Advisors work in Third World countries to train and advise top officials at national police agencies. Government documents show that the U.S. has trained more than a million foreign policemen, a hundred thousand of these in Brazil alone. Jean-Pierre Debris, a teacher who went to Vietnam to fulfill his military obligation, was arrested in 1970. He has described the treatment of students on hunger strike at Chi Hoa Prison protesting their deportation to Con Son:

. . . the thump of exploding tear gas grenades, the sounds of blackjacks striking human flesh . . . the American advisor, dressed in bullet-proof vest and helmet, his gun in a shoulder holster, advising the guards to pour caustic lime into the airholes to cause the prisoners to faint. . . .

*Equipment:* The tear gas canisters used in this situation and against other students, Buddhists, and veterans who have demonstrated against the Saigon government were made by Federal Laboratories, Inc., Saltsburg, Pennsylvania. After the initial international furor created when two visiting United States Congressmen saw the "tiger cages" of Con Son in 1970, the South Vietnamese government an-

nounced that they would be dismantled. Two months later the political prisoners who were not paralyzed from previous shackling were ordered to build new ones as a "self help" project. When they refused they were put into shackles, and the U.S. Navy Department gave a \$400,000 contract to Raymond, Morrison, Knudson-Brown, Root and Jones to build 384 new "isolation cells" to replace the tiger cages. Worse than the old ones, these were two square feet *smaller*. The handcuffs used to shackle prisoners to beds at Quang Ngai Hospital were made by Smith and Wesson of Springfield, Massachusetts.

The CIA-sponsored "Operation Phoenix," an elaborate program of surveillance developed to "neutralize" the underground political apparatus of the National Liberation Front, recruited, organized, supplied, and directly paid teams for assassination, abuses, kidnappings, and intimidation against the Viet Cong leadership.<sup>7</sup> Computer Science Corporation of Falls Church, Virginia, received Department of Defense contracts worth \$2,947,000 to design and implement a computerized system of files for the Saigon police. Information has been gathered about millions of Vietnamese. (Theodore Jacquenay, a former AID official in Danang, told Congress that Phoenix was "largely used to arrest and detain non-Communist dissidents." As a result of this program at least 200,000 political prisoners have been detained.)

William Colby, former Ambassador to South Vietnam, admitted: "I have never been highly satisfied with the accuracies of our intelligence effort on the Vietcong infrastructure." Far from being an orderly system of intelligence gathering, this program of counterterror has inflicted torture upon and taken the lives of thousands of Vietnamese in the most ruthless and corrupt ways. Those who carry out the interrogations and assassinations of supposed Viet Cong are not necessarily well-trained personnel, despite all the money and equipment that have been expended. They are often former criminals or Communists paid by the CIA; Nationalist Chinese or Thai mercenaries; those who wish to settle a vendetta or obtain a cash reward by meeting the quotas for detainees or corpses, according to Chomsky and Herman.<sup>8</sup>

Contradicting any notions of humanitarian training in interrogation, K. Barton Osborn, who served in a covert program of intelligence, testified to a wide variety of torture used by U.S. and Saigon personnel and said that in his experience "I never knew an individual to be detained as a VC suspect who ever lived through an interrogation in a year and a half, and that included quite a number of individuals." If morality cannot militate against barbarity, then the much vaunted pragmatism of the theorists and practitioners should. A participant in the RAND Corporation's "Vietcong Motivation and Morale Project"

has pointed out that the relatively high quality of the intelligence information it gathered was due to the simple fact that RAND interviewers did not torture but treated prisoners as human beings.

The people who allow torture to become entrenched are the "pragmatists" who wish to appear "tough" and the "realists" who will do anything to get the job done; the officials who pretend such horrors do not take place; the racists who insist that nonwhite peoples do not value human life; those who know what is being done but do nothing to stop it, who recoil at the mention of torture, who will not take the time to do anything. Civilization is redeemed only when enough people are willing to speak out and act against the needless suffering of other human beings. Fortunately, there are Congressmen, journalists, and individual members of organizations like Clergy and Laity Concerned, Amnesty International, SANE, the American Friends Service Committee, the International Commission of Jurists who work to keep alive humane values. And there are individuals, such as the Ukrainian poets Iryna Stasiv-Kalynets and Ihor Kalynets, whose brave words in defense of Valentyn Moroz should speak to all of us.

History knows quite a few inhuman verdicts meted out to the best representatives of their epoch. But if today we are indignant at the ignorance of a world which could have sentenced Campanella to 25 years, which banished Dante beyond the borders of his native land, which drove Shevchenko to Siberia, then what right do we have—in our humanitarian 20th century—to remain silent, observing indifferently as medieval tortures again make their appearance?

#### NOTES

1. Hearings before the Subcommittee to Investigate Problems Connected with Refugees and Escapees of the Committee on the Judiciary, United States Senate, 93rd Congress, second session, July 23, 1974.

2. *Bulletin*, Amnesty International Canada (January, 1975).

3. Amnesty International library, London Secretariat.

4. *Report on Allegations of Torture in Brazil*, Amnesty International (1972).

5. *Report on Torture*, Amnesty International (1974).

6. Hearings of the Subcommittee on Western Hemispheric Affairs, Committee on Foreign Relations, United States Senate, May, 1971. Cited in *Report on Allegations of Torture in Brazil*.

7. *Hostages of War*, by Holmes Brown and Don Luce (1973).

8. *Counter-Revolutionary Violence: Bloodbaths in Fact and Propaganda*, by Noam Chomsky and Edward Herman (1973).